

S. 296

Norfolk Bird & Mammal Report 1998



Norfolk Bird Report – 1998

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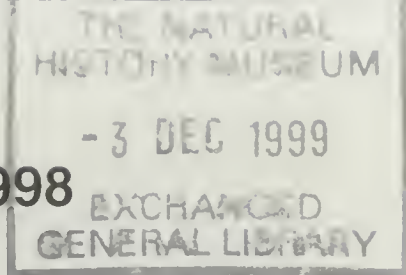
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Back cover photograph: Harvest Mouse (M R Perrow)



Norfolk Bird Report – 1998

Editorial

The Council of the Norfolk & Norwich Naturalists Society presents the annual report on the birds of Norfolk. An introduction to those involved in the current report is given below. The close liaison with the Norfolk Bird Club and Birdline East Anglia has continued. Many readers will be aware that the 1997 Norfolk Bird Report was again successful in the prestigious 'British Birds' Bird Report of the Year competition having been awarded second place, after being joint winners in 1994 and 1995.

The majority of readers will already know of the sad death of Michael Seago in July 1999. Michael was unique both locally and nationally on the ornithological scene and to many it was a pleasure to have known him. Two of his close friends, Don Dorling and Peter Allard, who both knew him for over 40 years and helped him with the Report, have expressed their thoughts and memories on the following pages. Don served alongside Michael on Society Committees over many years as well as being a work colleague; Peter met Michael when he first started birdwatching and regarded him as his mentor.

It is also of great regret that Michael passed away only a matter of weeks before the publication of the new '*The Birds of Norfolk*'. For many years he had been contemplating updating his previous '*Birds of Norfolk*' (1967 and 1977) and fortunately he was able to make a major contribution to the new volume, much before his illness. The new definitive work will undoubtedly serve as a lasting memory to him.

Editor: Giles Dunmore. Responsible, on behalf of the Society as publishers, for editing the Report as a whole.

Editors of the Systematic List and County Recorders: Giles Dunmore and Neil Lawton. Responsible for assembling teams of compilers and authors and producing the final edited List.

Record Card Compilers: Dave and Jacquie Bridges, Giles Dunmore, Vince Hanlon, Justin Lansdell, Neil Lawton, Mick Saunt and John Williamson.

Systematic List Authors: Peter Allard, Dave Appleton, Julian Bhalerao, Andrew Bloomfield, Dave and Jacquie Bridges, Andy Brown, Peter Clement, Giles Dunmore, Keith Dye, Mark Eldridge, Vernon Eve, Paul Fisher, Mick Fiszer, Vince Hanlon, Phil Heath, Gary Hibberd, Ian Johnson, John Kemp, Chris Lansdell, Justin Lansdell, Neil Lawton, Mick Saunt, John Williamson and Mike Young-Powell.

Review of the Year: Mick Saunt and Steve Wakeham

Recording: All Systematic List records, including those relating to national and county rarities, should be sent on a monthly basis to Giles Dunmore at 49 Nelson Road, Sheringham, Norfolk NR26 8DA. In the case of national rarities details (*in duplicate please*) should be sent as soon as possible and not left until the year-end. Observations will not normally be acknowledged but names of all contributors will be published. All records should be listed in the order of species appearing in this Report. To obtain as complete coverage as possible

records 'phoned-in' to Birdline East Anglia have been frequently used in the compilation of the List. However, records of national and local rarities have only been included where considered and accepted by the appropriate committee. Receipt of late records causes a major problem in drafting the Systematic List *and observations received after February of the following year cannot be guaranteed for inclusion in the Report.*

Editorial Material: Articles for consideration, artwork, photographs and transparencies should continue to be submitted to the Editor, Giles Dunmore at 49 Nelson Road, Sheringham, Norfolk NR26 8DA.

County Records Committee: Steve Gantlett, Phil Heath, John Kemp, Andy Stoddart and John Williamson with Giles Dunmore as Secretary.

A total of 126 records were considered in the year: 18 of these were rejected, mostly as a result of insufficient detail and not owing to an incorrect identification. The Committee also reviewed the list of species needing submission of a written description or photographic evidence (and subject to acceptance) prior to publication and decided to make two additions to that published in the 1997 Report; ie Greenland White-fronted Goose and 'small race' Canada Goose as from 1 January 2000. Two species have also been deleted as they became national rarities as from 1 January 1999; ie Ferruginous Duck and Savi's Warbler. The list is as follows:

Black-necked Grebe (at sea)	Lesser Black-backed Gull (<i>fuscus</i> race)
Cory's Shearwater	Ring-necked Parakeet
Great Shearwater	Bee-eater
Balearic Shearwater	Short-toed Lark
Storm Petrel	Tawny Pipit
Purple Heron	Flava Wagtail (Continental races except
White Stork	Blue-headed and Grey-headed)
Greenland White-fronted Goose	Bluethroat (White-spotted only)
'small race' Canada Goose	Aquatic Warbler
Green-winged Teal	Marsh Warbler
Ring-necked Duck	Melodious Warbler
Surf Scoter	Dartford Warbler
Spotted Crake	Pallas's Warbler
Corncrake	Chiffchaff (<i>tristis</i> race)
Buff-breasted Sandpiper	Woodchat Shrike
Grey Phalarope (in flight at sea)	Raven
Sabine's Gull	Serin
Ring-billed Gull	Common Rosefinch
Yellow-legged Gull (<i>cachinnans</i> race ie	Ortolan Bunting
Caspian Gull)	Little Bunting

Information regarding submission of descriptions was published in the 1995 Report. It should be noted that on occasions observers may be asked for further details of species not contained in the above list - if records relate to unusual dates, localities etc.

Acknowledgements

Thanks are due to the following artists and photographers: N Arlott, P Beeson, J Bhalerao, A Bloomfield, N Bowman, S Cale, R Chittenden, R Gillmor, V Hanlon, T Howes, P Jones, C R Knights, C Lansdell, I Leach, B Macfarlane, R Millington, D Nye, M Preston, M Rawlings, G Smith, A Tate, and S Young. Special thanks are due to the artists who produced work at short notice due to the late change in editorship.

Acknowledgements are also due to the team of compilers of the recording cards (especially Neil Lawton); the authors of the Systematic List; Dave Appleton for analysing/summarising the Breeding Birds Survey information; Andy Stoddart for advice on races/sub-species; Pat Bonham for his diligent proof reading of the draft Systematic List and advice on the use of English; Enid Stanford for proof reading the draft articles; Julian Bhalerao for his assistance and advice on the selection of photographs and sketches; John Williamson for liaising with the printers; and Judy Dunmore for her continued forbearance during the preparation of the Report.

Thanks are also due to the observers and particularly organisers of the Great Crested Grebe and Heron surveys as well as Birdline East Anglia, BTO (for making available the Breeding Birds Survey information), Cley Bird Club, Eastern Counties Newspapers (for providing the county map), English Nature, Gt Yarmouth Bird Club, Nar Valley Ornithological Society, National Trust, Norfolk Bird Club, Norfolk Ornithological Association, Norfolk Wildlife Trust, RSPB, Stanford Training Area Bird Club, Wildfowl & Wetlands Trust, and all other contributors.

THE NORFOLK & NORWICH NATURALISTS' SOCIETY

(Reg Charity No 291604)

Patron: Her Majesty the Queen

The county's senior natural history society. It has for its principal objectives the practical study of natural science, the conservation of wildlife, the publication of papers on natural history, especially those relating to the county of Norfolk, arranging lectures and meetings and the promotion of active field work. Specialist groups cover most aspects of the county's flora and fauna.

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Secretary:

Dr A R Leach

3 Eccles Road

Holt

NR25 6HJ

Membership Secretary:

S M Livermore

6 Terence Avenue

Sprowston

Norwich NR7 8EH

Michael J Seago

1926-1999

The Norfolk Bird Report published in 1954 covering the events of 1953, contained an obituary of Bernard Riviere. That first issue of the annual Report was produced under the editorship of Michael Seago, and it is with great sadness that this first issue under a new Editor should have to report his death on 9 July 1999 at the age of 73.

Michael who was born in Norwich in 1926 and educated at Norwich High School for Boys (now Langley School), soon developed a passion for bird watching. He joined the Norfolk & Norwich Naturalists' Society in 1943 and in the following year the first of many articles appeared in the Society's *Transactions*; it dealt with records of rare birds that had occurred in the county between 1934 and 1943. On leaving school he was called up for military service which involved a posting to India via East Africa. On the same troopship was H G Alexander, one of the great names of post-war British ornithology, whose interest and encouragement greatly enhanced Michael's commitment to the hobby. On return to civilian life he joined the staff of The Norwich Union Life Insurance Society where he spent the rest of his working life until retirement in 1986.

He began writing articles for the local newspapers soon after his return to civilian life; a practice he was to continue until the time of this death. For the last 12 years or so, he was a regular contributor to the 'In the Country' column in the *Eastern Daily Press*.

In 1953 it was felt that Norfolk should have a dedicated annual Bird Report and Michael was persuaded by Bernard Riviere, Ted Ellis, Dick Bagnall-Oakeley and others to take on the duties of Editor. He continued in this role for the next 45 issues, a unique record in British ornithological recording. From the beginning the Reports were illustrated by black and white photographs and from the 1955 Report the pages of text were enhanced by the liberal use of Richard Richardson's line drawings. Later the work of many other artists was included.

The first use of colour was in the Report for 1956 when a painting by Richard Richardson of Collared Doves appeared as a frontispiece to mark the successful breeding of this new British species. The issue covering the events of 1986 saw the introduction of a coloured cover and the inclusion of coloured photographs for the first time. These innovations and a much more detailed Classified List, have received national recognition in the 'Best Annual Bird Report' competition organised by *British Birds*; a joint first placing for the 1995 issue and a second place for 1997.

In addition to his work on the bird reports, Michael prepared 2 editions of his *Birds of Norfolk* published in full colour by Jarrolds in 1967 and 1977. More recently, he has made a major contribution to the new *Birds of Norfolk* which will have been published by Pica Press by the time this issue of the Bird Report is distributed. It has been a great sorrow to all involved in this major work that Michael did not survive his illness long enough to see his efforts in print. Norfolk ornithology has lost a dedicated servant and very many local birdwatchers a generous friend.

Throughout all this period Michael was fully supported and encouraged by his wife, Sylvia, and it is to her and her family we extend our deepest sympathy.

Don Dorling

I knew Michael as a good and close friend for virtually 40 years. He was a real gentleman and had a charming personality. He had a great passion for birdlife and its conservation in Norfolk and was an excellent birdwatcher. His greatest delight was watching flights of summer plumaged red Bar-tailed Godwits at Breydon Water in May or the antics of breeding Black-tailed Godwits in full red attire at Cley. Black Terns were always eagerly looked for in spring, and Rockland Broad was visited whenever the wind turned easterly. In summer the breeding fortunes of the Little Terns on Yarmouth North Beach were followed with great interest. Autumn was spent searching various wetlands for wading birds and good finds included Black-winged Stilt, Pectoral Sandpipers and a selection of Temminck's Stints. In winter, it was the turn of the wild geese to attract him. He was especially interested in the gaggles of Bean Geese patrolling the Yare Valley and fought hard for their protection. I can well recall the expressions on his face in December 1961 when four of us found two adult Lesser White-fronted Geese with the Bean Goose gaggle after a four hour wait. Michael to his great credit has probably found more Lesser White-fronts than anybody else in this country. He also regularly visited the Halvergate marshes in search of battalions of White-fronted Geese. In more recent years, the increasing population of Pink-footed Geese in north Norfolk appealed to him and his write-up on this species in the new book is a lasting tribute to him.

Michael added Little Ringed Plover to the county list in June 1943 when he observed two at Breydon and was instrumental in adding Collared Dove to the British list in 1955 when birds appeared at Cromer. Other good finds included Alpine Swift, Glossy Ibis and several of the earlier records of Mediterranean Gull for the county.

Michael had a special affection for Breydon Water and its surrounding marshland, an area where he began his long birdwatching career in 1941. He was deeply involved in the establishment of a nature reserve there in 1969 and visited the estuary regularly. Godwits were looked for in spring, Spoonbills in summer, waders in the autumn and ducks and geese in winter. He was especially pleased to see the increasing numbers of wading birds particularly Avocets and Lapwing using his favourite site. Hickling Broad (especially Rush Hills) and Cley Marsh were also visited very regularly along with Welney Washes. His local patches included Rockland Broad, Hardley Floods and Cantley Beet Factory Pools where wading birds and wildfowl were enthusiastically looked for.

His other interests were varied, but included the old Broadland landscape especially the drainage windmills and sailing wherries. Ships, butterflies, dovecotes and horse carriages also attracted him, but it was always birds which delighted him most. His death is a sad loss to Norfolk ornithology, but he will long be remembered for his great contribution to the county for many years to come.

Peter Allard

Review of the Year 1998

by Mick Saunt and Steve Wakeham

The stormy conditions which marked the end of 1997 continued into **January** with vigorous Atlantic depressions bringing spells of rain and mild, but strong to gale-force west to south-westerly winds. An amazing array of rarities remained from 1997 including Great White Egret, American Wigeon, Canvasback, Black Brant, the long-staying Black-winged Stilt, Rose-coloured Starling and Penduline Tit. In addition, the supporting cast included Great



Penduline Tit (*N Arlott*)

Northern Diver inland at Lynford Gravel Pit, up to 4 Little Egrets, 35 Shorelarks and Rough-legged Buzzard at Titchwell, 8 Cranes in the Horsey area, 2 Red Kites at Hoveton, 1200 Bramblings at Quarles, a Serin at Martham, up to 10 Mediterranean Gulls at Yarmouth and 500+ Black-tailed Godwits at nearby Breydon. More unusual were the 2 juvenile Great Crested Grebes at Barton Turf, while in central Norwich a Blackbird was nestbuilding in the Christmas tree on the steps of City Hall, although sadly the breeding attempt subsequently failed. Close by, the city centre Pied Wagtail roost peaked at 580 birds on the 9th. A Ferruginous Duck was found at Stiffkey Fen on the 4th while on the same day the flock of Taiga Bean Geese at Cantley peaked at 250. Very few white-winged gulls were reported with just a single Iceland and 2 Glaucous Gulls noted. Waxwings were very scarce with just 2 at Beeston on the 6th and a further single in Holkham Park on the 27th, while at the latter site a Black-necked Grebe began a prolonged stay on the 10th. Impressive numbers of swans gathered at Welney mid-month with 1000 Whooper and 3198 Bewicks Swans present. With mild conditions continuing, sawbill numbers were well down on the same period in 1997, the only notable count being 20 Goosander at UEA Broad. A depression moving east across northern England on the 18th and out into the North Sea the next day brought a brief spell of strong to gale-force northerly winds and provided ideal conditions for sea watching, resulting in 5 Pomarine Skuas, 84 Great Skuas and 5 Puffins past Sheringham. The cold air that arrived with the northerlies remained over Norfolk as a ridge built from the Continent on the 19th-23rd, and a large anticyclone built to the north of Britain. Mostly cool and settled conditions prevailed until the end of the month with the only new arrival being a Green-winged Teal at Titchwell on the 24th. A highly unusual record was a Stone Curlew at Hilborough on the 26th while the Brecks also hosted a flock of 16 Woodlarks at West Stow.

February continued with largely anticyclonic conditions. After a brief spell of north-westerly winds on the 1st/2nd, high pressure transferred to the south of Britain and very

mild west to south-westerlies ensued. It proved to be an uneventful month with few birds of note, although a White Wagtail at Sheringham on the 13th and Turtle Dove at Welney on the 18th were unusual. However, wildfowl counts continued to impress with 1123 Whooper Swans at Welney, and White-fronted Geese numbers peaked at several sites with 400 Holkham, 475 Hickling/Heigham Holmes and 200 Buckenham/Cantley. Up to 3 Red Kites were present mid-month at Winterton and a Green-winged Teal made a further appearance on the north coast at Kelling Water Meadows, while an early exodus of Bewicks Swans was noted at a number of inland sites in the second half of the month. On the 26th/27th a series of cold fronts brought a change to colder north-westerlies, which resulted in a small influx of sawbills with a peak count of 23 Goosander on the Relief Channel between Saddlebow and Denver Sluice.

Rather more cyclonic conditions then continued in the first half of **March**, but with winds returning to mainly west or south-west it became mild once again. The first few days produced Great Grey Shrike at Beachamwell and the second Great White Egret of the year at West Somerton. A male Penduline Tit was found at Hickling on the 8th, and a pair of Garganey at Cley on the same day was evidence that spring migration was underway. What was probably the Sheringham Rose-coloured Starling was relocated at Diss on the 10th, while strong southerly winds were followed by the first Little Ringed Plover at Whitlingham on the 11th. A Richard's Pipit at Waxham on the 14th heralded a movement of small numbers of Wheatears, Chiffchaffs and Black Redstarts with an early Yellow Wagtail at Horsey on the 17th. Atlantic depressions brought a temporary unsettled spell during 24th-27th with the first Sandwich Terns arriving on the 24th. The 28th and 29th saw a push of very warm but cloudy south-easterlies, with a White-spotted Bluethroat being found along East Bank at Cley on the 28th, and several Ring Ouzels along the coast on the same date. The month ended with the first of the spring's 35 Ospreys over Lyng-Easthaugh Gravel Pit on the 30th.

After such a mild February and March, which saw an early start to spring across the county, the weather in **April** took a turn for the worse and will be remembered by many for the torrential rain and flooding over Easter. A deep depression pushed in from the Atlantic on the 2nd, only to take up residence as it filled over the UK in the ensuing week. The unsettled conditions persisted and it became progressively colder, with the winds shifting around to the north/north-east on the 8th/9th as a further area of low pressure moved slowly up the English Channel over the Easter weekend. As a result, the first arrival dates of many summer migrants were much later than normal and numbers well down on previous years. During the second half of the month the winds got back towards a southerly direction and it started to become warmer again, but it remained rather unsettled. The 18th provided 2 Serins over Winterton Dunes, while a Hoopoe at Burnham Overy Dunes provided a splash of Mediterranean colour on the 19th; the only Dartford Warbler of the year was at Brandon the following day. South to south-easterlies on the 21st/22nd, as pressure built over Scandinavia, saw a Purple Heron east over Holme and Burnham Norton, the first Quail of the year and a large movement of Northern Wheatears. These winds were probably instrumental in the arrival of the Black-Throated Thrush which was found in the company of a major movement of Ring Ouzels at Snettisham on the 25th. However, the bird of the spring for many was a stunning summer-plumaged Squacco Heron at Pensthorpe from the 26th which continued to delight observers into early May. The month ended with an area of low pressure moving east over France giving east then later north to north-easterly winds over the county, resulting in few new arrivals although a Kentish Plover was at Cley on the 29th.

May started with high pressure building to the west of Britain, maintaining north to north-easterly winds over Norfolk. As a result there was an exceptional passage of Arctic

Terns throughout the county, including 1046 passing through Welney in the first 4 days. From the 3rd westerly winds extended right across the Atlantic, pushing fronts across the country on the 5th. During this period there was little evidence of passerine movement, although a superb male Siberian Stonechat at Mundesley on the 4th attracted many admirers. The long spell of westerlies in the preceding days may have been responsible for the arrival of a Laughing Gull at Titchwell on the 9th, and incredibly, a Franklin's Gull there the following day. During the 8th/9th an area of low pressure was moving slowly north-east over western Britain, bringing warm humid southerlies and an Ortolan to Sheringham on the 9th, after which high pressure became established over Scandinavia and easterlies predominated for the next 9 days. The first Honey Buzzard was noted over Weybourne on the 12th, the same day as a Great Snipe was present at Holkham. The easterlies were no doubt responsible for Red-throated Pipits at Brancaster/Scolt Head on the 14th, Bluethroats on Scolt Head on the 17th and Hickling 21st, Ortolan Bunting at Sheringham on the 20th, and Icterine Warbler on Scolt Head and Broad-billed Sandpiper at Cley, both the next day. However, in the same period there was also a good selection of southern overshoots including a Short-toed Lark on Blakeney Point on the 13th, a Tawny Pipit at Happisburgh next day, Black Kites over Norwich on the 17th and over Sheringham next day, whilst also on the 18th a Cattle Egret was seen at Holkham, a Savi's Warbler appeared at Hickling, and the Collared Pratincole returned for its 5th year. The high pressure transferred across the country on the 18th and cooler, cloudier, north to north-easterlies took over and may have been responsible for an elusive Two-barred Crossbill at Sandringham on the 23rd/24th. After a brief lull, with just a Pectoral Sandpiper at Cley, 2 Great Reed Warblers were located at Berney Marshes on the 26th, although neither were present the following day. As the low drifted south, warmer east to south-easterlies saw the arrival of a Woodchat Shrike at Holme on the 28th/29th and a Greenish Warbler in song on Blakeney Point the next day. The 30th also produced an Icterine Warbler at Salhouse together with a Chestnut Bunting in a village garden, the origin of which was the subject of much debate. The month ended with singing Common Rosefinches on Blakeney Point and at Stiffkey Fen. Additionally, the month saw 3 White Storks, up to 4 Honey Buzzards at the traditional site, record numbers of breeding Avocets, 5 pairs of Mediterranean Gulls, 309 singing Woodlarks and 14 Red-backed Shrikes.

June began with south-easterlies as rain moved north from France. The 1st produced a group of 4 Purple Herons over Salhouse, a very late Rough-legged Buzzard at Waxham and



Purple Herons with a Grey Heron (*R Millington*)

a singing Greenish Warbler well inland at South Lopham. The excellent spring for Red-backed Shrikes continued with a further 7 being seen and up to 5 Marsh Warblers were located. Evidence of continued movement came in the shape of a Serin at Cley on the 3rd and a Common Rosefinch at Holkham Meals on the 7th. Strong north-westerlies on the 11th produced 86 Manx Shearwaters past Sheringham but little else. The remainder of the month was uneventful, although attempted breeding by Roseate Terns was unsuccessful for the 3rd successive year.

With an uncanny resemblance to the synoptic situation in early May, **July** also started with high pressure to the west of Britain and a broad run of westerlies over the North Atlantic. There were several unusual records of birds over-summering with 2 Ospreys seen at several locations in the Yare valley, a Peregrine in the Wells/Warham area and a Hooded Crow at Winterton all month. The Collared Pratincole re-appeared at Holme and was last seen at Snettisham on the 8th. There was further excitement for wader enthusiasts on the 5th when a Pacific Golden Plover was discovered at Buekenham Marshes, followed by a White-rumped Sandpiper at Breydon the next day. Red-backed Shrikes grazed Kelling Water Meadows on the 9th and Winterton on the 13th but there was little evidence of other passerine movement. Seawatching on the 12th provided a Storm Petrel at Sheringham for one lucky observer and a single Balearic Shearwater at the same site on the 18th. The month ended with a large area of low pressure over Scandinavia, feeding showery west to north-westerlies across the county. Despite the apparently unfavourable conditions, an adult White-winged Black Tern was at Cley on the 30th/31st before departing westwards to Titchwell.

August started with cool northerlies, but during the 2nd/3rd Atlantic fronts pushed east bringing a return to westerlies. High pressure then built to the south-west and it remained fine, very warm, and settled for the following week. During this time a Caspian Tern toured sites to the east of the county and a Pectoral Sandpiper arrived at Salthouse on the 6th, followed by a White-rumped Sandpiper at Cley on the 11th. From the 12th-22nd it became rather more changeable, with west to north-westerly winds bringing frontal systems in from the Atlantic, but there was little in the way of substantial rain and it remained rather warm. A very early Shore Lark on Blakeney Point on the 15th was followed the next day by the first of the autumn's 4 Spotted Crakes at Holme. On the 23rd a more active frontal system brought blustery winds and heavy rain as low pressure moved across northern England. Sea movements were generally unimpressive with the exception of 24th when a fresh north-westerly produced a Storm Petrel, 40 juvenile Long-tailed Skuas passed Cley and a Cory's Shearwater at Mundesley. By the 27th an area of high pressure was building from the west and north to north-westerly breezes slowly faded, before a strengthening south-easterly became established on the 31st as fronts gathered to the west. The month ended with the first Barred Warbler of the autumn at Weybourne on the 29th, and Red-backed Shrikes at Sheringham and Winterton on the 31st.

Warm south-easterlies at the start of **September** slowly gave way as fronts made inroads from the west. The 1st produced a Red-breasted Flycatcher on Blakeney Point, the start of an excellent autumn for this species, and there were good numbers of Little Stints at many sites, with 115 at Titchwell and 105 at Cantley BF. The next few days saw a small influx of Oortolan Buntings and 8 Red-backed Shrikes at various sites. The remnants of Hurricane Charley brought heavy rain overnight on the 3rd/4th, then an unsettled spell followed, and the remnants of Hurricane Danielle developed into a vigorous depression to the west of Scotland by the 9th. As the low pressure west of Scotland on the 9th slowly moved north-east, a long run of cool north-westerly winds pushed across the country. A Lesser Yellowlegs was at Welney on the 12th, the same day as the first party of Pink-footed Geese arrived at Holkham. As low pressure deepened in the North Sea on the 13th/14th the strengthening

north to north-westerly winds proved excellent for seawatching along the north coast with 16 Leach's Petrels and 6 Sabine's Gulls at various sites, 55 Sooty Shearwaters passed Sheringham, 41 Puffins passed Cley and 2 very early Little Auks off Scolt Head. Winds continued from the north-west until a ridge of high pressure built from the south-west on the 17th. As high pressure moved into the North Sea, by the 20th east to south-easterly winds developed, and as the high transferred towards the north of Scandinavia these continued for much of the rest of the month. The first of the autumn's 25 Richard's Pipits was at Sheringham on the 21st, closely followed by a Black Brant at Wells and Little Bunting at Weybourne the following day. The 23rd provided 3 Pectoral Sandpipers at Berney, a Siberian Stonechat at Cley, another Little Bunting at Holme/Thornham and a well-watched Hoopoe at Cromer. The first of the month's 10 Yellow-browed Warblers were at Sheringham and Holkham on the 23rd, with a late Marsh Warbler at Winterton on the 26th. The autumn total of Ospreys exceeded 50 with at least 9 birds present in the county on the 27th, the same day as the first Great Grey Shrike arrived at Mundesley. During the 29th/30th a developing area of low pressure moving into Biscay drew strengthening easterlies across central Europe and these may have been responsible for an Arctic Warbler at Sea Palling on the 29th.

As **October** dawned, and after a night of cloud and rain coupled with easterly winds, the 1st saw a massive fall of Song Thrushes and Robins along the coast. Easterlies continued for another week as pressure remained low over Central Europe and high over Scandinavia and these provided classic 'fall' conditions with an exciting mix of common migrants and a Little Bunting at Weybourne, Rustic Bunting at Stiffkey Fen, several Bluethroats, a Siberian Stonechat and the first Pallas's Warbler of the autumn. A major influx of Great Grey Shrikes was in full swing and 23 birds were reported at various sites during the first 12 days. By the 8th a ridge was building to the south-west of Britain, and this then toppled south on the 9th as westerly winds brought in Atlantic fronts and milder temperatures. Arriving just as the winds were changing was an exceptionally large influx of Shore Larks with 177 present at various sites on the 10th, the same day as a Red-throated Pipit at Sheringham and a Long-billed Dowitcher at Welney, while on the 11th a Dusky Warbler was found at Holkham. Further Atlantic frontal systems then maintained a changeable pattern for the following week; a deep depression crossing northern Britain on the 16th was followed by strong, cold, northerlies on the 17th, and it remained cool until the 20th. Thereafter the weather became very disturbed, with a series of deep depressions and active fronts sweeping across from the west, bringing strong to gale force winds for the remainder of the month. On 25th seawatching produced a Cory's Shearwater at Cley, a Storm Petrel at Titchwell, 27 Pomarine Skuas past Eccles, and 3 Grey Phalaropes along the north coast on the 30th. The month was also outstanding for Red-breasted Flycatchers, with 11 seen at various coastal sites and there were 2 late Red-backed Shrikes on the 6th and 10th.

In **November** the moderating winds on the 1st were short-lived as another deepening depression moved across the Midlands on the 2nd/3rd, bringing a strengthening east to south-easterly wind before backing to a strong, cold, northerly by the 4th with another depression moving in from the north-west on the 5th. The first Waxwing came in off the sea at Holme on the 1st but the main feature over the next few days was a huge movement of Starlings, Blackbirds, Fieldfares and Redwings at many coastal and inland sites throughout the county. A brief spell of milder south-westerlies from the 6th-8th preceded the remnants of Hurricane Mitch, which passed to the west of Scotland on the 9th. The next area of low pressure then moved in from the west on the 12th, moving out into the North Sea on the 14th, and into Eastern Europe by the 17th, with a ridge of high pressure building in its wake. North-easterly winds over Central and Northern Europe at this time helped bring about an arrival of at least 6 Pallas's Warblers between Stiffkey and Holkham from the 16th-20th,

along with a Dusky Warbler at Stiffkey on the 17th/18th. In Norwich, the Pied Wagtail roost peaked at 540 birds on the 20th with similar numbers remaining to the year end. The ridge of high pressure persisted through to the 26th, with the winds slowly veering towards the south, although it remained very cold. Shorelark numbers continued to increase and the flock in Holkham Bay peaked at an incredible 240 on the 22nd. An American Wigeon was discovered at Berney on the 25th and in the same area Short-eared Owls reached a peak of around 20. A brief change to milder more changeable conditions occurred from the 26th-29th, but a ridge of high pressure brought a return of cold weather from the east on the 30th.

The ridge of high pressure and easterly winds from western Russia brought a cold start to **December**, but by the 3rd a new ridge was building to the west of Britain, and winds swung around to the north from the 4th. At Cantley the Bean Geese flock peaked at 315, while on the 5th a coordinated count of Shorelarks in the county totalled 591. The cold conditions continued until the 7th, before south-westerly winds pushed fronts and milder air in from the Atlantic. A Great Grey Shrike at Martham on the 7th/8th and 9 Smew at Tottenhill on the 11th were not unexpected, but 3 Penduline Tits at Hickling were an unseasonal bonus. A coordinated count of Pink-footed Geese produced a new county record of 76,350, with Welney also producing a record count for the reserve of 1313 Whooper Swans. On the 19th a cold front swept down from the north, bringing a brief colder interlude although thoughts of a white Christmas were soon dispelled as moist, mild air spread back in from the south-west on the 23rd. This heralded a change to very unsettled conditions, culminating in severe gales to many parts on Boxing Day. The mild, disturbed weather pattern continued to see the year out with little of note although a Pied Wagtail roost at Lopham Little Fen held 400+ birds on the last day of the year.

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Wetland Bird Survey 1998

The Complete Wash: *Paul Fisher*

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Little Grebe	26	16	26	1	3	-	-	6	4	15	32	29
Great Crested Grebe	18	21	12	9	15	18	41	11	6	19	49	-
Cormorant	140	191	56	84	75	75	261	225	166	279	249	197
Grey Heron	23	18	23	21	22	19	41	42	39	39	24	23
Mute Swan	33	37	15	14	9	2	1	12	7	12	32	4
Brent Goose	17078	14746	12265	10484	10105	7	5	3	3	13269	17736	13947
Shelduck	11249	7172	4561	2129	1475	1009	1007	352	1085	6400	11430	8342
Wigeon	860	833	12	5	3	5	1	1	137	497	603	1006
Gadwall	70	100	19	14	19	6	2	-	2	10	9	38
Teal	1379	200	67	8	1	18	19	265	65	867	437	457
Mallard	3105	1259	384	196	214	272	140	148	693	986	1193	1851
Pintail	62	24	-	-	1	-	-	-	1	49	13	30
Shoveler	45	4	22	14	29	-	-	4	77	2	13	6
Pochard	65	52	10	-	-	1	1	-	-	14	34	45
Tufted Duck	78	56	52	58	28	17	3	12	22	87	78	79
Scaup	-	-	-	-	-	-	-	-	-	-	23	7
Eider	638	559	130	152	307	110	266	159	12	34	35	11
Common Scoter	201	-	2	-	-	-	102	-	-	-	37	1
Goldeneye	129	65	34	2	1	-	-	-	-	1	42	61
R B Merganser	118	70	39	7	4	5	-	2	-	10	75	26
Moorhen	7	10	25	10	5	1	6	4	17	9	13	20
Coot	172	124	56	36	21	16	50	38	52	20	45	30
Oystercatcher	13558	15225	5001	4744	2993	2813	5284	9088	8308	13921	7473	11286
Avocet	-	196	49	73	62	41	326	362	-	6	-	-
Ringed Plover	311	285	241	228	370	74	215	1192	1078	527	39	2
Golden Plover	9582	13413	936	140	7	-	577	5521	632	9333	20467	2351
Grey Plover	9251	7813	7018	11055	16100	457	1175	4357	1802	8203	5767	3826
Lapwing	12320	17664	88	11	62	91	436	708	537	6543	12645	11003
Knot	34749	52485	22918	28804	2025	993	18552	37888	29588	72785	23968	58913
Sanderling	182	295	205	447	117	47	3022	2980	590	556	294	220
Purple Sandpiper	5	6	5	-	-	-	-	-	-	-	-	-
Dunlin	29197	30167	29599	28812	22246	38	24481	26888	12544	27880	24365	31466
Ruff	3	5	-	4	400	-	-	-	16	5	8	527
Snipe	24	4	7	1	-	-	2	11	11	8	13	17
Black-tailed Godwit	930	1160	1696	455	14	40	663	7449	11	2135	734	1104
Bar-tailed Godwit	16745	13728	6186	1094	778	414	1927	4712	2773	6346	3299	9103
Whimbrel	-	-	3	98	51	9	460	207	51	3	-	-
Curlew	3951	3884	2427	493	383	845	3827	6738	1632	2729	1359	2750
Spotted Redshank	1	75	-	85	2	17	12	22	93	-	-	1
Redshank	2263	2879	3379	2285	556	321	4447	5844	1598	3152	2987	1789
Greenshank	-	-	-	17	14	2	379	303	183	32	7	-
Common Sandpiper	-	-	17	1	9	1	60	64	23	-	-	-
Turnstone	484	411	319	294	237	48	932	735	706	450	277	296
Black-headed Gull	2609	1955	2317	1366	645	1271	4239	8190	6062	5579	1202	2833
Common Gull	721	179	51	52	174	56	374	274	105	32	332	483
L B B Gull	42	2	20	83	1506	757	82	681	10	28	45	2
Herring Gull	12649	1730	566	416	1192	3167	929	3256	777	4380	1405	1922
G B B Gull	177	24	43	33	52	76	156	288	205	746	397	242
Sandwich Tern	-	-	-	4	9	11	674	266	219	10	-	-
Common Tern	-	-	-	13	38	22	280	300	121	1	-	-
Little Tern	-	-	-	-	9	10	114	25	3	-	-	-

Wetland Bird Survey 1998

North Norfolk Coast: *Michael Rooney*

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Red-throated Diver	6	4	3	-	-	-	-	-	4	22	28	12
Little Grebe	54	51	79	83	62	53	38	71	105	50	88	78
Great Crested Grebe	9	15	15	2	4	9	8	4	16	9	53	13
Red-necked Grebe	3	17	-	-	-	-	-	-	-	2	8	2
Slavonian Grebe	6	9	-	1	-	-	-	-	1	2	11	1
Cormorant	52	45	49	46	50	40	117	155	316	125	131	96
Grey Heron	10	10	15	19	26	21	21	25	26	35	23	22
Mute Swan	92	76	103	95	75	80	75	82	88	88	74	56
Pink-footed Goose	16000	21006	2005	1351	3	1	1	2	1	1931	41213	19050
White-fronted Goose	238	290	72	-	-	-	-	-	4	-	1	88
Greylag Goose	1179	842	741	696	445	869	1142	1736	1892	1535	1840	1590
Canada Goose	164	58	125	76	63	249	304	252	327	156	177	122
Brent Goose	9265	7056	5165	1711	1555	9	4	4	5	5428	5014	6902
Egyptian Goose	16	20	39	33	95	170	156	157	124	26	19	34
Shelduck	943	899	790	544	423	281	121	138	126	368	480	1310
Wigeon	10794	9763	9974	98	12	12	2	15	890	6375	7470	16398
Gadwall	188	116	152	189	160	154	85	107	255	196	118	162
Teal	1199	1071	818	103	43	56	38	167	1106	2441	2763	3721
Mallard	913	827	676	467	506	404	272	588	1031	958	1114	1496
Pintail	733	325	253	2	1	-	-	-	13	347	1075	783
Shoveler	73	96	89	94	107	73	45	83	129	93	106	114
Poehard	61	31	60	31	38	28	9	4	13	18	41	53
Tufted Duck	98	93	142	118	123	76	60	46	34	63	54	84
Eider	119	196	93	212	254	186	124	165	272	216	159	146
Long-tailed Duck	34	25	13	-	-	-	-	-	-	-	6	6
Common Scoter	66	442	61	306	8	74	200	2	1	11	1240	564
Goldeneye	118	92	50	1	-	-	1	-	-	-	36	168
R B Merganser	87	98	67	5	7	2	2	1	5	42	78	100
Coot	800	654	467	386	358	383	362	502	438	469	648	760
Moorhen	186	240	271	250	227	204	56	113	132	171	281	291
Oystereatcher	1583	2366	2696	1328	1338	1257	1357	2470	3559	3331	2525	3825
Avocet	7	43	318	401	430	351	153	56	26	11	6	8
Ringed Plover	238	347	412	259	808	298	240	861	1559	910	266	318
Golden Plover	2724	1871	1176	11	2	1	1	175	388	1331	1731	1446
Grey Plover	1213	1079	1245	915	673	37	40	311	1671	1450	774	1270
Lapwing	6874	3296	1031	639	619	549	213	407	397	729	1545	2711
Knot	1033	386	528	66	36	3	6	226	25259	13059	1273	5391
Sanderling	422	311	483	463	1046	173	113	1292	1238	970	309	632
Dunlin	3872	3313	3017	1191	995	66	212	1327	3414	3648	1554	4874
Ruff	27	15	19	20	11	3	16	20	67	51	22	16
Snipe	86	29	97	23	6	7	-	37	43	75	43	86
Black-tailed Godwit	-	1	44	316	157	307	281	154	99	137	119	16
Bar-tailed Godwit	1748	1381	917	85	26	22	63	113	2820	2106	766	2400
Whimbrel	-	-	-	108	53	1	28	143	36	3	-	-
Curlew	1295	855	956	159	137	100	1470	2288	1740	958	1119	1332
Spotted Redshank	4	1	-	5	-	1	6	1	7	6	9	5
Redshank	1341	1143	1128	798	758	632	480	1592	1543	1481	1241	1639
Greenshank	1	-	1	3	15	2	45	88	163	11	2	3
Green Sandpiper	-	-	-	-	-	2	21	28	5	3	-	-
Common Sandpiper	-	-	-	7	20	-	10	54	30	-	-	-
Turnstone	252	323	585	355	388	70	110	520	606	549	331	588

Wetland Bird Survey 1998

Breydon and Berney: *Peter Allard*

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Little Grebe	3	10	16	20	20	8	6	25	15	12	9	2
Great Crested Grebe	2	3	7	5	13	13	15	19	15	12	10	3
Cormorant	63	68	69	53	38	53	94	127	88	69	67	71
Spoonbill	-	-	-	-	3	2	-	1	-	1	-	1
Mute Swan	102	128	99	128	77	82	75	65	48	42	96	94
Bewick's Swan	140	231	3	-	-	-	-	-	-	5	80	28
Bean Goose	4	-	-	-	-	-	-	-	-	-	-	10
Pink-footed Goose	1150	5500	1900	-	1	1	-	-	-	-	2040	1650
White-fronted Goose	90	10	-	1	-	-	-	-	-	-	180	91
Greylag Goose	62	65	27	11	43	45	68	69	140	150	110	212
Canada Goose	41	52	19	25	19	65	54	35	48	63	77	76
Brent Goose	14	6	-	5	-	-	-	-	30	6	2	2
Egyptian Goose	6	2	-	2	10	17	6	7	3	2	25	11
Shelduck	451	289	306	233	262	232	181	25	105	197	218	163
Wigeon	7300	5450	1750	73	19	6	3	7	125	1000	4850	7100
Gadwall	48	161	122	31	14	23	2	7	2	4	44	16
Teal	224	303	779	302	10	29	2	62	271	200	275	510
Mallard	234	288	37	29	120	87	70	150	265	116	203	260
Pintail	192	166	52	7	2	-	-	2	10	45	137	163
Garganey	-	-	-	2	6	5	1	2	1	-	-	-
Shoveler	167	183	162	39	19	34	31	20	10	98	96	76
Pochard	33	35	8	9	13	10	9	5	3	6	8	8
Tufted Duck	15	31	25	20	10	9	13	13	13	10	10	13
Goldeneye	7	-	-	-	-	-	-	-	-	-	3	-
Oystercatcher	77	189	252	205	109	93	192	193	54	39	50	53
Avocet	63	157	88	87	43	65	264	224	243	3	52	32
Little Ringed Plover	-	-	-	1	2	1	2	1	-	-	-	-
Ringed Plover	113	98	46	32	301	93	62	219	301	177	126	91
Golden Plover	4100	4950	2400	236	2	-	120	1130	1450	1360	3200	7700
Grey Plover	87	58	37	15	28	3	2	7	35	47	42	51
Lapwing	17100	5240	370	184	156	200	200	300	400	1400	6100	27300
Knot	290	206	64	24	32	7	7	12	25	19	135	140
Sanderling	3	8	12	8	4	-	4	3	2	5	23	13
Little Stint	-	-	-	-	2	-	4	1	80	3	-	-
Curlew Sandpiper	-	-	-	-	3	-	12	18	54	17	-	-
Dunlin	4800	4300	1720	1480	1390	26	529	692	1615	1710	3150	3850
Ruff	28	8	13	13	5	3	15	11	75	16	7	11
Snipe	33	13	53	10	7	3	10	40	25	31	72	32
Black-tailed Godwit	503	332	221	293	79	73	420	1103	841	211	283	461
Bar-tailed Godwit	76	74	46	7	7	-	5	8	13	10	24	36
Whimbrel	-	-	-	85	61	1	9	26	4	-	-	-
Curlew	708	603	697	410	42	159	704	742	1149	703	714	642
Spotted Redshank	3	3	3	9	7	3	1	2	3	6	7	3
Redshank	618	611	1056	717	66	157	461	763	724	758	647	649
Greenshank	-	-	-	6	16	3	14	7	9	11	1	-
Green Sandpiper	-	-	-	1	-	2	6	12	3	1	1	-
Wood Sandpiper	-	-	-	1	4	1	2	6	4	-	-	-
Common Sandpiper	-	-	-	4	25	2	15	12	6	2	-	-
Turnstone	13	10	13	15	8	2	7	19	17	10	5	8
Little Gull	-	-	-	-	1	3	1	-	-	-	-	-
Black Tern	-	-	-	1	12	-	1	-	-	-	-	-

Systematic List

Introduction

The order used follows the sixth edition of the *Checklist of Birds of Britain and Ireland* published by the BOU in 1992, as amended 1998. The English names that are most familiar have been retained. Unless otherwise stated, all observations are of single birds and refer to 1998. The following abbreviations are used in the species accounts:

BBRC	=	British Birds Rarities Committee
BBS	=	Breeding Birds Survey (details from BTO)
BF	=	Sugarbeet Factory
BO	=	Bird Observatory
BOU	=	British Ornithologists' Union
BTO	=	British Trust for Ornithology
CBC	=	Common Birds Census
CP	=	Country/Coastal Park
ESA	=	Environmentally Sensitive Area
FM	=	Fresh Marsh
GC	=	Golf Course
GM	=	Grazing Marsh
GP	=	Gravel Pit
NBC	=	Norfolk Bird Club
NBR	=	Norfolk Bird Report
NNR	=	National Nature Reserve
NR	=	Nature Reserve
RSPB	=	Royal Society for the Protection of Birds
STW	=	Sewage Treatment Works
TA	=	Training Area
WeBS	=	monthly Wetland Bird Survey counts
WM	=	Water Meadows
WWT	=	Wildfowl & Wetlands Trust

Where tables are used in the species accounts these refer to monthly maximum counts for main sites unless otherwise stated. A dash indicates that no count details have been received or none present. For wildfowl and waders, the data used derives generally from the monthly WeBS counts although if higher totals are available these are used instead; readers are also referred to the tables giving composite counts for the Wash, North Coast and Breydon/Berney which should be read in conjunction with the individual species accounts in the Systematic List. WeBS thresholds for International/National importance have been inserted for all relevant species. Whilst many records to the west of Sheringham town are in the Sheringham Bird Observatory recording area, for the sake of simplicity most records are referred to as 'Sheringham' only. The area referred to as 'Lakenheath Washes' is that part of the new RSPB reserve situated within Norfolk. Where details of breeding birds are given at Holkham NNR these refer, unless otherwise stated, to the grazing marshes at Burnham Norton, Burnham Overy and Holkham. All the counts at Hunstanton Cliffs in the autumn commenced at dawn. Observers' initials are given for all national and county rarities and for a few other exceptional records. Normally the initials of the finder(s) are given (where known), and if applicable initials of observers who have also submitted detailed descriptions.

Red-throated Diver*Gavia stellata****Common passage migrant and winter visitor; rare in summer***

As last year, recorded in all months. Monthly max (including birds in flight and on sea - see *NBR 1993* for discussion of movements) for coastal waters again illustrate relative importance of north-east and east coasts for this species and the very small numbers in Wash and Burnham Overy-Blakeney Hbr area:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Terrington-												
Hunstanton	1	1	1	-	-	-	-	-	-	-	-	2
Holme-Scolt Head	12	23	2	1	-	1	-	1	4	21	12	10
Burnham Overy-												
Blakeney Hbr	-	-	-	-	1	1	-	-	-	-	7	16
Blakeney Point-												
Happisburgh	300	250	400	1	2	-	-	8	15	25	102	203
Eccles-Hopton	80	168	6	-	-	-	1	1	3	20	34	5

National importance (winter): 50

The large movements noted late 1997 continued into early 1998, with several involving in excess of 100 birds: *Jan* 231 east Overstrand 10th, 175 east 30 west Sheringham 11th and off Mundesley 218 east 12th and 142 west 30th; *Feb* 155 west Overstrand (1330-1500 hrs) 5th and 168 north Horsey in 70 minutes 28th. Wintering numbers fell rapidly from peak of 400 March 9th (Overstrand) and no double-figure counts were made after March 14th. Just 2 April records: Scolt Head 13th and Cley 18th. In May a summer plumaged bird Cley on R Glaven 20th moved to Blakeney Hbr next day, with others Overstrand 3rd and 9th and Sheringham 28th. Singles in June Wells 10/11th and Holme 19th, and in July Eccles-Sea Palling 2nd and 5th. In Aug Horsey Gap 1st, Holme 10th and, following 8 Sheringham 23rd, were regularly reported in coastal waters until year end. First double-figure count of autumn 15 west Sheringham (0600-1400 hrs) Sept 14th but numbers remained relatively low until 102 Overstrand Nov 23rd. 100-200 then regularly Sheringham-Overstrand until year end. Movements smaller than in first winter period with just 2 counts exceeding 100 birds: 101 east 7 west Sheringham (in 2 hrs 40 mins) Nov 29th and 230 east Overstrand Dec 1st.

Inland: Gunton Park Lake (with damaged bill) Jan 4th-27th, Filby Broad Jan 20th-23rd, Broome GP March 15th-29th and Watlington Relief Channel Dec 10th. A freshly dead bird Burgh Castle Jan 28th.

Black-throated Diver*Gavia arctica****Uncommon passage migrant and winter visitor; exceptional in summer***

Recorded until March 28th (Scolt Head), with one Blakeney Hbr May 4th, and from Aug 24th (west at Sheringham). Less numerous than in 1997 though, as usual, most reports from north coast. In first winter period all but 2 records were in Jan/Feb: Hunstanton Jan 11th and Feb 19th; Holme Feb 17th; Titchwell intermittently throughout Jan and until Feb 25th; Scolt Head Jan 7th, 18th and Feb 15th, with 4 Jan 11th and 2 Feb 17th; Burnham Overy March 1st; Cley Jan 6th; Salthouse Feb 18th and 26th; Weybourne Feb 2nd; Sheringham east Feb 14th and 16th; Cromer Jan 16th; 2 Overstrand Jan 6th and one 13th; Horsey Gap Feb 28th and Winterton Feb 21st.

Distribution and numbers similar in second winter period: Hunstanton Sept 14th (2), Oct 21st, Nov 25th and 29th; Holme Oct 18th (2) and Dec 1st; Titchwell east Oct 29th then



Michael Seago
1926 - 1999
(ECN Photo Library)



Whooper Swans – a regular feature of a Norfolk winter (*C R Knights*).

Water Rail – an elusive resident, more often seen in the winter months (*C R Knights*).





Great Northern Diver – present inland at Lynford Gravel Pits throughout January (*R Chittenden*);

Great White Egret – frequented Stiffkey Saltings during the first three months of the year (*D Nye*).

Grey Heron – fishing on the River Bure (*B Macfarlane*).





Pied Wagtails – this city centre roost in Norwich provided a fascinating distraction for many Christmas shoppers (*C R Knights*).

1-2 intermittently Titchwell-Brancaster Nov 5th-Dec 16th; Scolt Head Oct 6th and 2 Dec 6th; Blakeney Point Oct 24th; Cley Oct 2nd, 19th (2) and 25th, Nov 1st and 4th; Salhouse Nov 12th; Weybourne Oct 13th; Sheringham Sept 13th, and in Oct east 7th, west 17th and 3 west one east 30th; West Runton east Oct 6th, 28th and 31st; Overstrand west Nov 23rd; Mundesley Sept 21st and Oct 14th; Eccles Nov 1st and 3rd; Waxham Nov 28th and Horsey Gap Nov 17th.

Great Northern Diver

Gavia immer

Winter visitor and passage migrant in small numbers; exceptional in summer

Scarce in first winter period with singles Hunstanton-Scolt Head Jan 11th, 19th and 30th, and Feb 15th, with 2 Titchwell Jan 27th and March 31st. Elsewhere east Cley Jan 11th and offshore there Feb 6th, and north Winterton March 21st. A late bird west Weybourne May 11th (MPT).

Following a very early bird Paston Aug 5th (SJS) and 3 Holme Sept 27th (MAW) much more numerous in second winter period, especially in favoured nearshore waters along north coast: Hunstanton-Scolt Head recorded to year end, where singles Oct 6th and 18th, 1-2 on 11 dates in Nov, singles on 5 dates Dec but with 4 Titchwell Dec 1st and 7 Scolt Head Dec 6th; Holkham Bay 5 dates Nov 19th-Dec 18th with 2 Nov 23rd; Cley-Overstrand from Oct 18th to year end with 1-2 on 8 dates Oct, with 4 Cley 25th and 3 west Sheringham 30th, 1-2 on 9 dates Nov with 3 Cley 4th and 3 Sheringham 15th, and singles on 6 dates in Dec. Further east reported Mundesley Nov 3rd and 4th; Walcott Oct 31st and Nov 5th, 14th and 18th; Eccles Oct 31st (2 north), Nov 1st (2 north), 3rd and 16th, and Dec 5th; Horsey Gap north Oct 31st.

Inland: Lynford GP Jan 1st-31st (from Dec 25th 1997).

Little Grebe

Tachybaptus ruficollis

Resident, passage migrant and winter visitor

Monthly peak counts of non-breeding birds at selected sites as follows:

	Jan	Feb	Mar	Apr	Aug	Sep	Oct	Nov	Dec
Snettisham	28	16	17	8	-	7	26	21	20
Holme	15	13	9	9	10	10	12	13	13
Thornham-Titchwell-Brancaster	5	10	16	3	-	-	8	16	13
Burnham Norton-Holkham	14	6	16	10	-	-	6	-	5
Wells	10	8	12	-	-	-	9	12	16
Blakeney Hbr	5	7	7	-	-	-	6	-	17
Holkham Park Lake	14	13	12	44	39	48	-	-	-
Breydon/Berney	3	10	16	20	25	15	12	9	2

Additional counts of 10 or more birds: Hickling Broad 29 Jan 18th, 14 March 1st, 28 Nov 29th, 12 Dec 6th; Rockland Broad 10 Oct 21st; Whitlingham Lane GP 10 March 21st, 11 March 27th and 11 Sept 16th; Tottenhill GP 12 Jan 10th and Little Ouse at Santon Downham 12 Nov 28th.

Breeding confirmed (numbers of prs in brackets) at Holme (9), Brancaster (4), Holkham Park (15), Holkham NNR (34), Cley (3), Kelling WM, Sheringham, Strumpshaw (2), Mannington Hall Lake, Cockley Cley (2), Hedenham, Lynford Arboretum, West Mere (4), Saham Toney (2), East Wretham (3), Lopham Fen (3), Wolterton Hall Lake (2), Tattersett (2), Hempstead, Baconsthorpe (2), Bawsey CP (4), Sparham GP (2), Warren House Marsh (Stanford TA), Lakenheath Washes and Welney (3). 20 prs were reported in Breydon-Berney

area, including 8 Berney, and a further 37 prs were reported from 25 additional sites (including 3 at Bure Valley Lakes near Oulton and 5 Whitlingham Lane GP) giving a county total of possible and confirmed breeders of 161 prs - half as many again as were reported in 1997.

Great Crested Grebe

Podiceps cristatus

Resident breeder, passage migrant and winter visitor

Monthly peak counts of non-breeding birds at selected sites as follows:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Snettisham-Heacham	6	2	14	19	202	8	-	-	-
Holme	3	12	7	0	3	2	20	5	7
Thornham-Titchwell-Brancaster	13	4	3	6	7	8	6	26	6
Breydon-Berney	2	3	7	5	19	15	12	10	3
Rockland Broad	-	13	20	-	21	14	8	-	-
Strumpshaw	-	3	14	3	-	-	4	1	-
Ranworth	9	8	13	14	-	30	-	-	-
Tottenhill GP	5	13	4	2	-	5	6	8	-
Pentney GP	8	11	10	11	11	10	-	11	-

All other counts of 10 or more birds outside April-June main breeding period: 26 Hunstanton Jan 11th; 10 Hunstanton Feb 26th; *March* 12 Wroxham Broad 12th, 15 Hunstanton 15th, 26 Welney 16th and 30th; *July* 55 Snettisham 9th, 12 Breydon 28th, 12 Sennowe Park 31st; 12 Ouse Relief Channel Aug 2nd; *Oct* 18 Barton Broad 9th; *Nov* 22 Hickling Broad 17th, with 15 25th and 20 29th, 14 Sennowe Park 22nd; *Dec* 44 Hickling Broad 7th and 24 Ouse Relief Channel 23rd.

The only double-figure coastal movements reported were 24 west 2 east Holme Sept 13th, 42 Hunstanton (mostly south), 25 Cley and 3 west 8 east Sheringham Oct 25th, and 12 west Cley Nov 1st.

A pair which nested Barton Turf in Nov 1987 had 2 juvs in Jan. A spring survey organised by Michael Seago produced a county total of 705 adults: 422 in Broads, 25 in Brecks, 121 in Fens and 137 at other lakes and gravel pits, confirming suggestions that only about one quarter of the county's breeding birds had been reported in previous years. Details appear below:

Broads

Yare: Wensum above New Mills 2, Carrow Bridge (including Wensum to New Mills) to Cantley 58, Surlingham and Wheatfen Broads 15, Strumpshaw RSPB Reserve 10, Rockland Broad 14, Buckenham Broad 4, Hardley Flood and R Chet 15.

Waveney: Beccles to Oulton Broad (no grebes above Beccles) 18, Fritton Lake 19, Lound Waterworks 4.

Thurne: Martham to Thurne Mouth 15, Horsey Merc (Meadow Dyke none) 6, Martham Broad 2, Hickling Broad, Whiteslea, Hcigham Sound 39, Womack Water 2.

Ant: Tonnage Bridge (Wayford) to South Walsham Broad via Fleet Dyke 47, Burnt Fen Broad 4, Alderfen Broad 2, Barton Broad 18, Reedham Water (How Hill) 2.

Bure: Coltishall to Acle 57, Bridge Broad (Wroxham) 2, Wroxham Broad 8, Sallhouse Broad 5, Hoveton Great Broad 4, Hoveton (Black Horse) Little Broad 2, Cockshoot Broad 2, Ranworth (Malthouse) Broad 6, Ranworth Inner Broad 14, South Walsham Inner and Outer Broads 12, Upton Broad 4, Ormesby Broad 6, Filby Broad 2, Lady Broad 2.

Brecks

Cockley Cley 1, Cranwich GP 4, Lynford GP 4, Lynford Lake 2, Narford Lake 2, Thetford Nunnery Lakes 4, Saham Hall Flood 1.

Fens

Welney Washes-Old Bedford River 32, Great Ouse (Ship Inn, Brandon Creek to Denver Sluice) 22, Relief Channel (Denver to Saddlebow) 23, Cut-off Channel (Denver to Aquaduct) 21, Hilgay Pit 2, Wissey (Wissington BF) 7, Little Ouse (Brandon Creek to Botany Bay) 6, Stradsett Lake 2, Stow bridge-Runcton Holme 2, Middleton GP (Wormegay) 2, Tottenhill GP 2.

Lakes and Gravel Pits

Blackborough End GP 2, Blicking Lake 2, Broome GP 6, Bure Valley Oulton 6, Colney GP 6, Old Costessey Corporation Pit 2, Ditchingham GP 4, Earsham GP 8, Felbrigg Park 2, Fustyweed GP 2, Gunton Park Millpond 2, Haveringland Lake 2, Hoe 4, Holkham Park Lake 3, Lenwade GP 4, Lenwade Common 4, Lyng GP 6, Lyng-Easthaugh GP 4, Mileham-Bittering 2, Narborough GP 4, Pensthorpe 4, Pentney GP 1, Pentney Leisure Park 6, Raynham Park 2, Seamer (Hingham) 6, Selbrigg Pond 1, Sennowe Park 6, Snetterton GP 1, Snettisham GP 2, Sparham New Pit 2, Sparham Pools 6, Swanton Morley GP 8, UEA Broad 4, Woodton GP 2, Worthing Lake 4, Wortwell GP 6.

The greatest decline in number has taken place on the Flegg Broads. In 1961 the total for Filby, Rollesby, Lady and Ormesby was 125 adults compared with 8 in 1998. Also disappointing was the absence of grebes on the extensive Bawsey Country Park lakes. The following localities were all deserted: East Wretham Park, Fowl Mere, Melton Constable and Stanford Water.

Red-necked Grebe

Podiceps grisegena

Passage migrant and winter visitor

Recorded in all months of year except June. At start of year, most records from nearshore waters between Hunstanton and Scolt Head. There were 9-12 here in Jan, with max 5 Titchwell 1st and 12th and 9 Scolt Head 11th; an increase to 14-16 in Feb with max 5 Holme 2nd and a high count of 14 Scolt Head 15th. Numbers decreased to 6+ in March, with 6 Scolt Head 28th. Up to 2 were present in April until last Scolt Head 11th.

Elsewhere in Jan singles Holkham Bay 16th-18th, west Sheringham and 2 Cley 24th, where one R Glaven Jan 28th- Feb 4th, and Heacham 9th-10th. A summer-plumaged bird Blakeney Hbr April 30th-May 4th was latest in spring.

First of autumn Scolt Head July 3rd. At least one remained here Aug 11th to month end. There were up to 4 in Hunstanton-Scolt Head area Sept, 2 Oct, 5 Nov and 2-3 throughout Dec, with max 4 Scolt Head Sept 14th, 5 there Nov 11th and 3 Holme Dec 7th. At Holkham Bay one Nov 17th, 4 19th, 2 23rd, with singles Dec 1st, 18th and 30th. One Salthouse July 27th was followed by 1-2 in Cley-Sheringham area Aug 21st-27th, where up to 8 Sept (when high count 4 Cley and 5 west 3 east Sheringham both 14th Sept), 2 Oct/Nov and 1-2 Dec. Nearby in Sept, singles Cley borrow pit 8th-19th and off Blakeney Point 6th, 22nd and 24th. Further east, West Runton Sept 3rd, west Oct 25th and east Nov 1st, whilst at Overstrand east Oct 25th, Nov 9th, 10th and offshore Dec 1st. Elsewhere west Paston Sept 6th, Mundesley Nov 22nd with 2 Nov 28th, Happisburgh Oct 25th, Eccles/Sea Palling Nov 1st and 4th, Breydon Nov 19th and 2 at Snettisham Nov 1st.

Inland: Hickling Broad Jan 1st-6th and Sept 8th, Tottenhill GP Jan 14th-Feb 14th, with 2 Jan 28th, and one again April 7th, and Pentney GP April 7th.

Slavonian Grebe

Podiceps auritus

Winter visitor and passage migrant, mainly during autumn

As last year, majority of birds in nearshore waters Hunstanton-Scolt Head with at least 9 Jan, 8 Feb, 3 March and one to April 26th. High counts included 7 Titchwell Jan 12th, with 5 there Feb 2nd, and 3 Scolt Head March 28th. 1-2 were on Titchwell lagoons Jan 4th-Feb 1st. Other records in first winter period: Snettisham Pits Jan 7th-24th, Heacham Jan 9th with 2 there Jan 11th, and Blakeney Point Jan 10th/11th, 17th and 29th.

One intermittently off Titchwell from Aug 9th may also account for Sept records at Holme 8th and 24th. Just 2 Oct records in Hunstanton-Scolt Head area at Brancaster 5th and Holme 27th; more numerous to year end with up to 8 in Nov, with max 5 Scolt Head 11th and 6 Titchwell 28th, and at least 4 in Dec, when max 4 Titchwell 12th and 19th. At Holkham Bay 4 Nov 22nd-25th with one to year end. One Blakeney Point Oct 19th and others west Cley Sept 14th and Oct 26th, and offshore Dec 3rd and 30th. Further east, singles Overstrand Oct 25th, Mundesley Oct 30th with 3 Walcott Nov 25th. One on R Ouse at Lynn Point Nov 8th.

Inland: Hickling Broad Jan 14th-March 1st, Welney Feb 2nd, Martham Broad May 2nd-9th, Burgh St Peter Oct 18th, Pentney GP Dec 11th and Hickling Broad Dec 18th/19th.

Black-necked Grebe

Podiceps nigricollis

Scarce passage migrant and winter visitor

Many more records than last year, including one particularly well-watched and long-staying individual Holkham Park Lake Jan 10th-April 11th by when in full summer plumage. Others in first winter period Tottenhill GP Jan 14th and on sea Holme Feb 2nd (DJ PM). In spring, up to 3 Welney March 16th-31st, increasing to max 5 April 15th (though possibly 8 different individuals present during April), but dropping to 3 by May 9th with 2 12th; also Cantley BF April 5th-8th and 2 Lakenheath Washes May 24th.

Another long-stayer Wells Quay July 27th-Sept 18th, and on sea Cley Aug 22nd (RGM). In Sept Pentney GP 1st-8th, Sennowe Park 6th, and 5 juvs Cantley BF 4th-10th with up to 3, including an adult, remaining until 22nd; 2 Cley Oct 3rd (RES); in Nov west at West Runton 1st (MDC), Hickling Broad 16th, Holkham Bay 23rd (IGJ *et al*) and last Brancaster Dec 1st (NML).

Fulmar

Fulmarus glacialis

Breeder, some remaining all year; regular coasting and storm movements

In first winter period max counts 25 east 4 west Holme, 80 east Brancaster, 75 east Scolt Head and 30+ Sheringham Jan 19th, and 312 east Sheringham in 2.5 hrs Feb 8th. Highest counts in spring 455 east Scolt Head April 9th, and 135 east Scolt Head, 250 Cley and 250 Sheringham June 11th.

During breeding season 172 occupied ledges Hunstanton Cliffs fledging 41 young, last leaving Sept 18th. Elsewhere 4 prs on cliffs Sheringham May 4th but no further details. At Scratby 4 prs fledged one young; this is the first time breeding has taken place in east Norfolk at a site first occupied in 1995. All breeding details required, especially from north-east of county.

In autumn max 135 east Scolt Head Aug 21st, and 500 Hunstanton, 186 east 27 west Holme, 600 east 200 west Scolt Head and 500 Sheringham Sept 13th. Recent autumn counts suggest most leave coastal waters during Oct and Nov when relatively few recorded.

No inland records but singles Breydon April 20th and south inland Lynn Point Aug 26th.

Fewer blue phase birds this year, as usual most Sheringham where 2 east Jan 19th, singles Feb 8th and March 11th, and 2 east Oct 8th. Elsewhere singles Blakeney Point March 8th and east Scolt Head April 9th.

Cory's Shearwater

Calonectris diomedea

Annual vagrant from Mediterranean/North Atlantic; most during autumn

A poor year with only 2 records: west Mundesley at 0910 hrs Aug 24th (MDF) and east Cley 1555 hrs Oct 25th (RS-S).

Sooty Shearwater

Puffinus griseus

Autumn passage migrant, most during northerly gales; rare at other times

For the third consecutive year small numbers recorded in spring with singles Sheringham April 11th and June 12th.

Autumn passage from Aug 21st when one Cley and 2 west Sheringham. Also during the month Cley 22nd and 23rd; 3 west Scolt Head, Cley, 3 Sheringham, east Overstrand 24th; and east Scolt Head, east Cley and 2 Sheringham 26th. No further records until Sept 13th when best day of autumn with one Lynn Point, 15 north Hunstanton, 43 east 2 west Holme, 35 west 16 east Scolt Head, 5+ Cley, 55 east Sheringham, 2 east West Runton, 2 east Overstrand, 9 west Mundesley, west Paston, north Sea Palling, Winterton and 4 north Scraby. Only other records during month 3 Sheringham and west Overstrand 14th, 2 Cley and west Sheringham 17th, and east West Runton 28th. In Oct most 12th when 6 west Holme, one Cley and 32 west 6 east Sheringham. During rest of month only records singles Sheringham 6th, Sheringham and Winterton 7th, Sheringham and Mundesley 8th, 6 Cley, 6 east 2 west Sheringham and south Eccles 25th, east West Runton 28th, and last of year west Sheringham 29th.

Manx Shearwater

Puffinus puffinus

Passage migrant with majority during autumn movements

One west Sheringham Jan 24th was unusual for time of year. Few in spring when one east Mundesley March 11th, 2 east one west Scolt Head April 9th, 2 south Walcott May 1st, east Overstrand June 5th where 2 east June 9th. First large movement of year June 11th when 57 east Scolt Head, 62 Cley, 86 east Sheringham, 3 east Overstrand and 4 west Mundesley. Only other June records 17 Titchwell and 8 Cley 16th.

During July recorded on 11 dates with max 18th when 12 Hunstanton, 20 west Titchwell, 6 west Scolt Head, 8 west Sheringham and 6 south Horsey. Few in Aug until late in month when 5 Hunstanton, 12 west 4 east Scolt Head, 5 Cley and 11 east 2 west Sheringham 21st, 8 west Weybourne 22nd, and 2 Titchwell, 17 west one east Scolt Head, 23 Cley, 8 Sheringham and 4 east Overstrand 24th. Numbers remained low in Sept except on 13th when 11 Lynn Point, 55 north-east Hunstanton, 79 east 73 west Holme, 68 east 15 west Scolt Head, 110 east 20 west Sheringham, 2 east Overstrand and 5 west Paston. Only records in Oct Sheringham 7th, 3 east Sheringham 8th, 4 Cley and one Sheringham 12th, north Eccles 25th and last of year Sheringham 26th.

Balearic Shearwater

Puffinus yelkouan

Annual in small numbers during autumn

Another good year for the *mauretanicus* form, most Sheringham where singles July 18th (PEB), Aug 26th (PEB), 4 west Sept 13th (GED *et al*). 3 east Sept 14th (GED, AJLS *et al*), west Sept 16th (JRW), Sept 17th (PEB), Sept 19th (MY-P), Sept 26th (PEB TWR) and east

Oct 1st (DPA). Elsewhere singles Holme Sept 13th (ORM), east Scolt Head Aug 21st and Sept 13th (NML NW), 2 west Mundesley Sept 14th (MDF), and at Overstrand east Sept 13th and west 14th (BJM).

Storm Petrel

Hydrobates pelagicus

Almost annual late autumn visitor, often in stormy weather

An average year with singles west Sheringham July 12th (DHR), east Cley Aug 24th (MAG RGM), north Eccles Oct 12th (NBB) and Titchwell Oct 25th (MLH DW *et al*).

Leach's Petrel

Oceanodroma leucorhoa

Gale-blown visitor mostly during autumn

A poor year with none until Sept 13th when 2 west 2 east Holme, 5 Cley, one Weybourne, 2 Sheringham, 3 West Runton and one Yarmouth. Only other records during rest of year: singles west Scolt Head, east Sheringham and east West Runton Sept 14th, east Sheringham Oct 6th and west there Oct 8th, and north-east Salthouse Dec 12th.

1997 Addition: Lynn Point Oct 13th.



Leach's Petrel (*S. Cale*)

Gannet

Morus bassanus

Passage migrant, most during autumn gales

In first winter period max 60 east Overstrand Jan 19th. Numbers only slightly higher in spring with 108 east Scolt Head April 9th, 50 east Mundesley May 10th, 53 east Overstrand May 27th, and 65 east 4 west Scolt Head, 100 Cley and 50 Sheringham June 11th.

Main autumn passage from end of third week Aug through until mid-Nov. In Aug max 320 west 85 east Scolt Head and 200 Cley 23rd; 141 east 85 west Scolt Head, 115 Cley, 140 west Weybourne and 141 Sheringham 24th; 130 west 40 east Scolt Head, 100 Cley and 132 Sheringham 26th. Highest counts of year during Sept when on 13th 500+ Hunstanton, 280 east 70 west Holme, 850 east 220 west Scolt Head and 300 east 60 west Sheringham. Good numbers continued to be reported during Oct when 600 east 40 west Sheringham 1st, 426 east West Runton 2nd, 250 east 50 west Sheringham 12th, and 290 east Sheringham, 149

east West Runton, 343 Eccles and 180 south Horsey 25th. In Nov max 15th when 315 east Sheringham and 82 south Eccles. Numbers much reduced during Dec when best count 65 Sheringham 4th.

Cormorant

Phalacrocorax carbo

Increasing winter visitor and passage migrant; has bred

Monthly counts from roost sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Snettisham	7	65	58	20	63	58	141	160	118	33	8	-
Titchwell	-	2	8	13	3	2	-	25	22	43	24	24
Ranworth Broad	304	283	137	38	20	23	42	53	-	192	179	226
Sennowe Park	12	18	21	9	13	12	8	14	32	41	37	51
Welney	230	188	216	96	46	33	111	53	104	175	175	210

National importance (winter): 130

Additional counts from other roosts: 2-300 Holkham GM July and Aug, up to 6 Holkham Park Lake Jan and Feb, up to 300 during year Fritton, 16 Whitlingham Lane GP Dec, 12 Raynham Lake late July, 33 Lynford GP Nov and 18 Santon Downham Dec. All these counts apparently referred to roosting birds; at Welney many spent the daytime loafing on the washes, returning to their traditional electric-wire roost each evening. More consistent counting would lead to a better understanding of the county population, which may be nationally significant.

For first time since 1990 confirmation of breeding in county with 2 nests in Scots Pines Narford Lake May 22nd (AEV). In 1990 this colony held 14 nests having been first colonised in 1988 when 4 nests were constructed.

A number of interesting observations from Rockland Broad where one seen to catch and eat 14 fish in just 30 mins and another watched taking an 'astonishingly large' pike which was swallowed whole.

After comments in last year's report that most Norfolk birds probably belong to the race *sinensis*, one at Cley July 11th was of the *carbo* race, having been ringed at St Margaret's Island, Wales.

Shag

Phalacrocorax aristotelis

Autumn and winter visitor with occasional birds wrecked inland

In first half of year only records from Titchwell Jan 13th and April 16th, Hunstanton Jan 5th, 26th and Feb 1st-3rd, Scolt Head April 24th, 2 Wells Jan 6th, Mundesley May 5th and 13th, and 5 Yarmouth Jan 20th.

Autumn passage much better than in recent years with first Cley Aug 22nd but none then until Sept when recorded daily from 12th. Highest numbers Sept 13th when during strong northerly winds 2 west Scolt Head, 3 west Cley, 5 west one on sea Sheringham, 5 Mundesley and one Overstrand. Recorded daily during Oct with max 25th when 4 Cley, 14 west 3 east Sheringham, 8 west Beeston Bump, 9 west 2 east West Runton, 2 west Overstrand, 9 Eccles and 4 Mundesley. Max counts during rest of month: 4 Scolt Head/Brancaster Hbr 11th, 3 Blakeney Point 4th, 8 west Cley 26th, 4 Sheringham 24th, 8 West Runton 21st and 8 west there 31st.

During rest of year up to 3 until year end Brancaster Hbr and 1-2 at 8 other sites.

Only inland record an impressive flock of 10 imms Lynford GP Nov 5th (AMW).

Bittern

Botaurus stellaris

Rare resident breeder; also winter visitor in variable numbers

Recorded at 16 localities in first winter period, mainly singly, but 2 Strumpshaw, 2 Hickling Broad and max 3 Rollesby Broad, including a wing-tagged bird. At Hickling, the radio-tagged bird from Minsmere remained to early April and an injured bird Cley mid-Jan. Singles Glandford Jan 12th and Feb 22nd, Thorpe Woodlands (R Thet, Harling) Feb 3rd, West Acre all Feb and East Runton April 1st were only records away from regular locations.

It is pleasing to report an increase in booming males at both national and county levels. A min of 13 males were booming in the country, a slight increase on the 11 recorded last year. In Norfolk, booming noted at 6 sites and breeding took place at 3 of these. In Broad, one pr fledged one young and another pair were thought to have failed due to nest flooding. At a north coast locality, one male was paired with 2 females, one nest producing 2 young (one of which subsequently died), the other fledging one young. All surviving young were fitted with radio transmitters. It is also encouraging to note that the first completed *Bittern Project Area* in the county held a booming male, thought to be unmated, and another bird was present at a further suitable north coast locality during June.

Singles Damgate (Acle) Sept 9th, Holkham Oct 5th, Titchwell Oct 13th and Fritton Oct 22nd were the only autumn records away from more regularly used sites.

During second winter period, noted at 14 mainly Broadland sites, including at least 4 Hickling Broad, 3 Strumpshaw and 2 Rollesby/Ormesby Broad. A radio-tagged bird at Cantley and Buckenham Marshes was later relocated at Surlingham Church Marsh.

Night Heron

Nycticorax nycticorax

Vagrant from the Continent; free-flying colony at Great Witchingham causes confusion

An adult at Holkham FM and Holkham Park Lake May 17th-July 28th (AIB, JRMc, EMPS *et al*). Following the events of the previous year at same locality it is tempting to suggest this was a returning individual.

A sub-adult Lyng-Easthaugh GP June, plus other singles in Wensum valley, undoubtedly escapes from Great Witchingham Wildlife Park.

1997 Addition: Broad Fen, Dilham Aug 14th (per AMS).

Squacco Heron

Ardeola ralloides

Vagrant from southern Enrope

A splendid summer-plumaged adult graced Pensthorpe April 26th-May 7th (WMM *et al*). This constituted the 10th county record but the first since 1966.

The occurrence was long-awaited but not totally unexpected as recently, after many lean years, there has been an increase in records nationally with prolonged stays not altogether infrequent. The wooded gravel pits adjacent to the River Wensum proved as attractive to this species as to that above.



Squacco Heron (S Cale)

Cattle Egret

Bubulcus ibis

Vagrant from southern Europe

A winter-plumaged adult was seen by just one fortunate observer at Holkham FM May 18th (DJN).

Little Egret

Egretta garzetta

Increasing annual visitor, now recorded most months; a few over-winter

At start of year 3 in Titchwell area, increasing to 4 Jan 27th with 3 again Feb 1st-15th, then 1-2 to March 15th. One flying east Stiffkey Feb 17th was presumably a departing bird from Titchwell. None were recorded in April.

Overshooting spring migrants noted from May 5th when one over Salthouse, Cley and Blakeney. Subsequent May records at Horsey 6th, Snettisham 13th, Breydon and 2 Titchwell/Thornham 19th, Hickling Broad 20th (heard calling on several occasions), 2 Welney 21st with 1-2 intermittently there to 29th, Brundall and Surlingham 25th, Hunstanton beach and 3 Titchwell 31st. Fewer during June when singles Berney 1st, west Holkham and Burnham Overy 3rd, 2 Titchwell 4th, 7th and 28th, and one east Sheringham 11th.

The now annual late summer increase, probably a result of post breeding dispersal on near Continent, commenced when single Titchwell July 6th-8th and 22nd/23rd increasing to 3 late in month, 2 Cley/Salthouse area July 17th-Aug 8th with one intermittently there to Aug 13th at least, and Scolt Head July 19th. Singles Kelling WM July 27th and Blakeney Point Aug 7th presumably originated from Cley/Salthouse. Numbers in Titchwell area increased to 4 Aug 23rd, 5 Aug 25th, 8 Aug 31st, 11 Sept 29th/30th, then slowly decreased with 10 Oct 6th, still 9 Oct 9th, up to 6 during Nov and 7 at year end. One wandered widely between Ousemouth and Snettisham Aug 26th-Sept 23rd and may have been different from the Titchwell birds, as was one Stanford TA Nov 29th. Three which visited Welney Dec 10th may have originated from Titchwell as this date coincided with a temporary reduction in numbers at that site.

Great White Egret

Egretta alba

Vagrant from the Continent

The bird frequenting Stiffkey/Warham saltings since Dec 1997 remained to March 29th. Another was present at West Somerton March 3rd (PHo *et al*) and subsequently at Martham Broad and Horsey Mere to March 14th. Also Sennowe Park March 22nd (GF&SJS), presumably one of above 2 birds. With over-wintering an increasing phenomenon on the near Continent, this elegant heron may become more regular in winter in subsequent years.

Grey Heron

Ardea cinerea

Resident and passage migrant/winter visitor

Only small numbers noted in first winter period, max 10 Quidenham Feb 21st and 9 Welney March 30th.

Little evidence of spring movement noted, singles west at Scolt Head March 28th and April 9th and 2 west there April 25th.

Following an appeal in the NBC Bulletin and the local press, a full survey of the county's heronries was undertaken, resulting in a total of 315 nests, the highest total since 1971 when 345 nests were located. This total is still well short of the record 430 nests in 1961. Subsequently, the comments in last year's report regarding a slight decline in the county appear to be unfounded as numbers seem relatively stable at present, if still vulnerable to short-term fluctuations following harsh winters. There has been a decline in Broads in

recent years but this is currently balanced by improving fortunes in the mid- and west Norfolk populations (*see NBC Bulletin no 33*).

The Holkham population suffered disturbance from over-zealous wildfowl scaring on nearby land, resulting in their relocating in Holkham Park. A pair nested in a small hawthorn bush in a reedbed at Burnham Overy, a mere 2 feet above the ground. Nesting sites as follows:

North Norfolk (15 nests)

Burnham Overy 1, Cley 1, Holkham Decoy Wood 2, Holkham Park 7, Wiveton Hall 4.

East Norfolk and Broads (71 nests)

Barton Broad 8, Buckenham Carrs 3, Burgh Castle 12, Burgh St Peter 2, Burgh Common 1, Catfield Dyke 1, Calthorpe Broad 1, Cockshoot 2, Fritton 2, Heckingham 8, Heigham Sound 8, Hickling 4, How Hill 1, Ranworth 1, Reedham 4, Surlingham 3, Upton 3, Wheatfen 6, Woodbastwick 1.

Mid-Norfolk (121 nests)

Earsham 23, Colney Hall 12, Great Witchingham 48, Sennowe Park 1, North Elmham 6, Quidenham 5, Sturston Carr 12, Wolterton 14.

West Norfolk (108 nests)

Feltwell 2, Hilgay 34, Islington 50, Narford 3, Old Hunstanton 2, Snettisham 8, Wimbotsham 9.

Summer flooding at Welney produced impressive numbers there: 20 May 31st, 25+ throughout June, 94 July 24th, 59 Aug 12th before numbers returned to more normal levels with max 7 in Sept.

Much more evidence of movement in summer and autumn, presumably following some post breeding dispersal, when birds noted at following coastal sites: Holme 11 west Aug 10th, 7 west Sept 19th and 4 in off sea Oct 1st plus 9 on 6 other dates; Scolt Head 3 south July 3rd, 4 west Aug 10th plus 7 on 6 other dates; Wells 3 in from sea May 17th; Blakeney Point 3 south-west June 21st plus 2 on 2 other dates; Sheringham 3 west Aug 24th, 5 east Sept 24th, 3 in from sea Oct 1st, 3 east one west Oct 3rd and 8 others on 6 dates; West Runton 5 in from sea Sept 27th, 2 west Oct 3rd and 2 west Oct 9th; Overstrand 5 in from sea Sept 27th plus 6 on 4 other dates; Sidestrand 5 overhead Oct 5th; Winterton 4 south-west Oct 7th. Also noted at 4 other coastal sites during this period.

No large groups noted in second winter period.

Purple Heron

Ardea purpurea

Almost annual spring and autumn vagrant from the Continent

One Holme (GFH *et al*) and subsequently east Burnham Norton (DD *et al*) April 22nd. A remarkable event at Salthouse June 1st when 4, accompanied by a single Grey Heron, flew in from the north-east at 0810 hrs, circled the village, then headed back north before returning over the village and departing south-east at 0815 hrs (MDF MPT *et al*). The only larger group recorded in the British Isles was 5 at Minsmere, Suffolk on May 23rd 1968. Also an imm Hickling Broad July 10th (INS).

White Stork

Ciconia ciconia

Vagrant from the Continent appearing most years; status clouded by free-flying collection birds

One at Filby March 31st is presumed (though not proven) to be the bird from Thrigby Wildlife Park. Another at Thetford Nunnery Meadows April 19th/20th (AJM *et al*), flying north at 0930 hrs on latter date. One, with metal ring on left leg, passed over Cromer,

Sheringham, Cley, Wiveton and Holt April 26th (FJLF *et al*) and presumably the same was over Overstrand April 27th (BJMAE). In May singles over Sisland 4th (MJW), West Runton and Salthouse 8th (AJLS) and at Halvergate Marshes 9th (PJH *et al*), the latter joined by a second bird 10th (AFB AD JSH *et al*). The second bird was presumably (again not proven) that seen at Filby 9th and Thrigby 11th.

One soaring over Lakenhath area June 6th (D&JB) crossed the county border into Suffolk several times, another flew over Whitlingham STW (PWh), Thorpe St Andrew (DJH) and north along the eastern edge of Norwich (JRW) before drifting west June 26th, and one was over Strumpshaw (TS) and Whitlingham Lane GP (PE) July 7th.

Spoonbill

Platalea leucorodia

Scarce non-breeding summer visitor and passage migrant; rare in winter

First spring overshoot over coastal sites between Snettisham and Thornham Hbr April 21st and Titchwell/Brancaster next day, when 5 arrived at Cley, remaining there to April 26th, with another cast 25th. Further April singles at Holme 24th, Holkham and Brancaster 26th, well inland south-east over Helleston 27th, when 2 over Hickling Broad, and south-east Winterton 28th. A party of 5 west Sheringham April 26th were presumably those from Cley.

Fewer than usual in May when singles Holkham 2nd-9th, 13th and 15th, 2 there 16th and 4 on 31st, with presumably the same 4 over Blakeney Point and Burnham Overy 30th. At Berney 9th-12th, 3 on 19th-21st and one again 23rd/24th. Six were at Horsey on 21st.

A less than impressive spring was completed by records in June of 2 Titchwell 6th/7th, 2 Holkham 6th-9th with one there 11th, one Breydon 10th, 2 Hickling Broad 12th-14th and 2 Berney 15th.

By contrast, an above average autumn arrival commenced with 3 over Scolt Head/Brancaster Hbr and later at Cley on evening of July 25th, followed in Aug by 2 over Hickling Broad 2nd, 2 Titchwell 3rd, 5 there 7th, 4 on 8th, singles 9th, 15th, 21st/22nd and 2 23rd-31st. At Cley, an imm 6th followed by single over Breydon 7th, 2 south Yarmouth 8th and 10th, and singles Holme 19th and Burnham Norton 22nd. During Sept 2 remained in Titchwell area 1st-3rd with one remaining to end of year. Singles Scolt Head Sept 6th and Dec 1st, and Holme Sept 12th may have been one or other of Titchwell birds, but singles Breydon/Berney marshes Oct 2nd-10th and Dec 5th, and Cley Oct 18th, 21st and 31st were likely to be different individuals.

Mute Swan

Cygnus olor

Resident; the Ouse Washes attract the most important winter concentrations

Monthly max at main sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Welney	168	210	97	219	213	319	284	-	35	67	234	152
Breydon/Berney	102	128	99	128	77	82	75	65	48	42	96	94
Hickling Broad	-	-	-	-	-	88	118	135	130	146	-	148
Rockland Broad	-	37	-	-	33	94	96	95	77	-	-	-
Lakenheath Washes	61	67	44	40	43	-	19	8	32	62	-	77

The June count at Welney was a site record due to extensive flooding.

Other notable counts in Broad: Claxton Marshes 64 Feb, 76 March; Reedham 50 March; Wheatfen 58 June; Hardley Flood 77 and Ormesby Broad 61 July. Elsewhere: Blackborough End GP 51 May; Saddlebow-Stowbridge Relief Channel 53 July, 58 Aug; Lyng 65 Oct, 65 Nov, 100 Dec.

Breeding: total of 79 prs at 33 sites, a notable increase on 1997. At Welney 23 nests in May after 9 nests flooded out in April. Other high totals at Holkham NNR 10 (9 in 1997) and 7 Cantley area. ‘Polish’ type juvs reported from Cley and Caistor St Edmund (R Tas).

Bewick’s Swan
Cygnus columbianus

Passage migrant and winter visitor in internationally important numbers

Largest wintering flocks in Fens, based on Ouse Washes at Welney and surrounding areas - see table below. Most birds flight out to feed on farmland each day firstly utilising waste sugarbeet tops but later moving onto cereal fields as winter progresses. Substantial numbers were feeding on the washes for a period in Nov before water levels became too deep. The main food source at that time was Marsh Yellowcress *Rorippa palustris* which was abundant after the prolonged springtime flooding of the washes.

Jan 25th	Feb 2nd	Mar 1st	Oct 20th	Nov 29th	Dec 20th
3198	3728	350	94	2257	3453
(3868)	(4223)	-	-	-	(4117)

(Total Norfolk/Cambridgeshire figure in brackets)
International importance (winter): 170

At Welney the birds departed rather quickly in spring with just 69 remaining March 13th and 6 by March 26th. Up to 4 injured birds over-summered while a flying juv was also seen up until July.

An early autumn arrival when 21 (2 juvs) appeared Oct 7th (unusually before first Whooper Swans) though a very slow build-up afterwards with no large numbers until early Nov. when 474 on 8th. Breeding success was slightly better than normal with 12.7% cygnets in the flocks by end of year.

A total of 76 colour-ringed birds seen during the 1997/98 winter, these having been ringed in Russia 45, The Netherlands 5, Martin Mere 13 and Slimbridge 9. Only one power line casualty was recorded during this period.

Widespread in Broad s where there was some movement between sites. Peak counts Brumstead/East Ruston with 385 Jan 6th; Catfield 233 Jan 21st and 120 Dec 13th; St Benet’s Level/Ludham 236 Jan 24th, 257 Feb 6th, 126 Nov 24th and 168 Dec 14th; the Horsey roost held 300 birds Jan 10th. Highest monthly counts in Breydon/Berney area 140 Jan, 231 Feb, 80 Nov and 28 Dec. South of R Yare up to 150 Chedgrave Marshes Feb 2nd.

The easterly/north-easterly spring migration of Fenland birds was observed widely across the county. Records came from Barnham Broom between Feb 14th-March 5th with peaks of 150 Feb 23rd and 90 March 5th, 60 Hunstanton Feb 17th, 65 Yarmouth Feb 18th, 2-300 over Thompson Common Feb 22nd, 105 Brundall March 1st and 35 5th, 54 UEA March 17th and 34 Sheringham March 28th. An unusual record of 2 North Wootton May 17th.

Autumn arrivals also widely recorded moving westward from Oct 13th when 10 passed over Hellesdon. Numbers mostly small though 60 in off sea Winterton, and 56 over Shimpling Nov 1st, and 44 over Tivetshall St Mary Nov 4th.

Whooper Swan
Cygnus cygnus

Winter visitor, mainly from Iceland, in internationally important numbers

The Ouse Washes flock based mainly at Welney continued to grow with record counts achieved in Feb and again in Dec with the entire Norfolk/Cambridgeshire washes holding 1526 Whooper Swans on Dec 6th. A substantial core of birds was, as usual, attracted to

artificial feeding at the Welney Reserve but many others flew out each day to join the Bewick's Swans foraging on farmland. A slight temporary lowering of water levels during Nov enabled large numbers of swans to feed naturally on submerged vegetation for a period.

<i>Jan 21st</i>	<i>Feb 15th</i>	<i>Mar 16th</i>	<i>Apr 2nd</i>	<i>Oct 31st</i>	<i>Nov 29th</i>	<i>Dec 20th</i>
1000	1123	756	130	861	1086	1313
-	(1299)	-	-	-	(1276)	(1511)

(Total Ouse Washes figure in brackets)
International importance (winter): 160

The last flock of 25 was seen April 20th though 2 injured birds remained during the summer.

Autumn birds were initially late in arriving, the first single not appearing until Oct 10th though the immigration soon gathered pace during rest of month with counts of 66 15th, 154 17th, 314 19th and 558 on 26th.

A total of 103 colour-ringed birds during the 1997/98 winter, these having been ringed in Iceland 84, Caerlaverock 7, Martin Mere 4, Welney 4 and Finland 4. Autumn/early winter flocks held 18% young, slightly up on last year's 15%. No birds were recorded flying into power lines during the 1997/98 winter.

Recorded in Broads until April 5th (2 Somerton Holmes) and from Oct 15th (16 Waxham), though numbers lower than in other recent years. The most favoured sites were Catfield/Wood Street with 80 Jan 18th and 41 Feb 1st; Ludham/St Benet's Level 78 Feb 2nd and 20 Oct 31st; Potter Heigham/Stalham Green/Hickling/Somerton 20 Feb 9th, 27 March 8th and 70 Dec 28th; East Ruston/Happisburgh 16 Jan 25th and 71 Dec 29th/30th; Waxham 17 Feb 14th, 26 Oct 31st and 40 Nov 28th. Additionally the Horsey roost held 50 Jan 10th.

Although small numbers of migrants were observed on both passages at numerous sites throughout the county it remains rather scarce along north coast. Records here included 22 Snettisham Feb 23rd, a late bird Cley April 27th, one on a pond at Beeston Oct 20th, and subsequently undoubtedly same bird, with an injured left foot, on a pond at Weybourne Oct 21st-31st. Also a series of records on arable at Holme with 6 Oct 26th, 4 Oct 29th and 14 Nov 18th.

Confusion still occurs on occasions regarding the identification of migrating flocks particularly in the autumn. The bulk of the county's wintering swans originate from Iceland and will not normally be moving west along the north coast during Oct/Nov.

Bean Goose

Anser fabalis

Taiga Bean Goose *A (f) fabalis*

Winter visitor to the Yare Valley

Peak counts of the regular flock:

<i>Jan</i>		<i>Nov</i>		<i>Dec</i>	
<i>1st-15th</i>	<i>16th-31st</i>	<i>1st-15th</i>	<i>16th-30th</i>	<i>1st-15th</i>	<i>16th-31st</i>
250	29	160	184	315	250

Another mild winter resulted in the whole flock departing early and no reports after 11 Buckenham Jan 27th. The first returning birds were noted, again at Buckenham, Nov 9th. There were no reports from south side of R Yare in either winter period (cf White-fronted Goose).

As expected for a rare species records elsewhere were unusual: Holkham FM Feb 25th, 2 Stiffkey Nov 21st-23rd and again Dec 21st, and one in off sea and then west Cley Nov 28th.

A feral/escaped bird with Greylag Geese Welney Sept 11th-Dec 16th.

Tundra Bean Goose *A (f) rossicus*
Small numbers increasingly recorded in winter

All records of this increasingly identified and reported race are listed.

First winter period: 3 Holme Feb 13th, Egmere Feb 10th/11th, 4 Summerfield (Docking) Jan 25th, Burnham Overy Staithe Jan 31st, 3 Holkham mid-Feb with 2 until at least 25th, up to 8 East Ruston Jan 5th-10th, 2 Catfield Jan 10th-23rd, 2 north Hickling (Stubb Mill) Feb 22nd, 5 Horsey/West Somerton March 8th and at Welney 4 Jan 1st and 7 Feb 1st-11th with 8 Feb 12th-March 2nd.

An injured bird at Holkham (presumably the individual which summered in 1997) was again present throughout Feb and May at least.

Fewer records in second winter period: 24 west East Ruston Dec 17th, 28 Hickling Broad Dec 15th and 19 Dec 16th, 4 Ludham Nov 12th with 13 Dec 24th and 28th, 35 Halvergate Dec 10th decreasing to 10 by Dec 13th, and 2 Welney Dec 21st.

Inevitably the above records contain considerable overlap particularly with wandering birds attached to nomadic Pink-footed Geese flocks in north-west Norfolk. Indeed those records late in year may refer to a single small flock continually splintering and reforming.

The following records refer to Bean Geese not racially identified with certainty: 12 Ludham Feb 6th, Heigham Holmes Feb 9th and 2 Langham/Saxlingham Dec 16th.

Pink-footed Goose *Anser brachyrhynchus*
Winter visitor in international important numbers from Iceland and East Greenland

Three important wintering populations are located in the county.

In north-west Norfolk many counts of flocks reaching four-figures over extensive area centred on Docking, as birds disperse to feed on arable farmland. Coordinated dawn counts of geese leaving three traditional roost sites continue to provide the only accurate means of judging the population size.

First winter period:

	<i>Jan 5th</i>	<i>Jan 12th</i>	<i>Jan 26th</i>	<i>Feb 2nd</i>	<i>Feb 16th</i>	<i>Feb 23rd</i>
Snettisham	29400	10690	23525	15640	1000	540
Scolt Head	10900	2970	8150	-	-	-
Holkham	20800	13000	11000	21000	3000	2000
<i>Total</i>	61100	26660	42675	36640	4000	2540

Second winter period:

	<i>Oct 19th</i>	<i>Oct 26th</i>	<i>Nov 10th</i>	<i>Nov 16th</i>	<i>Nov 23rd</i>	<i>Dec 14th</i>	<i>Dec 21st</i>
Snettisham	1770	4525	7250	8380	25335	35555	31470
Scolt Head	300	3700	28510	15100	15950	13500	10800
Holkham	-	985	12700	24600	34100	27300	28620
<i>Total</i>	2070	9210	48460	48080	75385	76355	70890

Monthly max are shown in *bold*; Dec 14th count was an all time record.

Although most birds had departed the county by mid-Feb, 1000 remained at Holkham until at least April 23rd with 300 May 8th and the last 5 May 25th. Elsewhere last significant

count was 140 Snettisham April 21st although many locations noted single-figure numbers until mid-May. A single at Titchwell Sept 4th was first returning bird followed by 32 Holkham Sept 12th building to 300 by Sept 19th, around which date other sites in north-west Norfolk received first arrivals.

In east Norfolk the Horsey/Heigham Holmes wintering population continues to steadily increase with monthly max:

<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
2000	5500	3000	1500	5000	6000

Swift dispersal during first half of March resulted in very few records after 1000 Hickling (Stubb Mill), March 7th of which only 50 Martham Broad March 15th reached double figures. The first returning birds 120 Heigham Holmes Sept 20th with steady increase thereafter.

Following records in 1996 and 1997 the welcome re-establishment of Breydon/Halvergate Marshes as a regular wintering location for significant numbers continued. Although ranging widely, during both winter periods, favoured marshes included those adjacent to A47 Acle Straight allowing many observers to enjoy one of the highlights of the year.

Monthly max are given:

<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
1150	3500	1900	-	2040	1650

Mid-Feb saw the departure of many birds; however, 1300 remained until March 17th with the last 9 March 21st. Compared to other populations slow to return, the first individuals noted Nov 2nd.

Numerous records of small flocks flying over locations in north-east Norfolk, presumably relating to birds moving between populations, with four-figure counts 1000 south Baconsthorpe Nov 7th, 1000 east Paston Nov 12th, 1650 west North Walsham Nov 28th, 1500-2000 west Sheringham Dec 22nd.

Elsewhere single-figure counts from many localities throughout year, many doubtless involving feral/escaped and injured birds.

White-fronted Goose

Anser albifrons

European White-fronted Goose *A (a) albifrons*
Winter visitor and passage migrant from Siberian tundra
Peak counts at traditional wintering localities:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Nov</i>	<i>Dec</i>
Holkham	340	400	250	37	180
Hickling/Heigham Holmes	308	475	80	5	120
Buckenham/Cantley	200	200	25	50	80
Breydon/Berney	46	1	1	-	-
Welney	90	10	-	180	91

As usual in first winter period, birds departed early with most gone by early March and no reports after 13 Martham Broad/West Somerton March 15th. Early in year, unusually, the

Yare Valley flock remained on north side of R Yare with 25 Claxton Marsh March 5th the only report from marshes on south side of valley.

Away from localities above, records were few: 3 Terrington Marsh Feb 1st, 2 Ken Hill Marsh Feb 2nd, 5 Cley Jan 1st building to 15 Jan 9th and 10 still present Jan 16th, 12 east Paston Jan 11th, 2 East Ruston Jan 5th and 11 Gt Ryburgh Feb 1st, with 6 still there Feb 28th. 73 west at Filby Jan 7th presumably involved wandering birds from Heigham Holmes nearby.

A few feral/escaped birds seen through summer months including 2 breeding records. At Baconsthorpe 2 prs bred, one rearing 2 young, and at Ludham a single pr raised 4 young.

In second winter period early singles Waxham Oct 17th and Holkham Oct 23rd preceded 5 Cantley Oct 31st. Perhaps surprisingly these forerunners were not joined by larger numbers until mid-Nov after which numbers at regular wintering sites rose steadily. There were no reports of wild birds away from these localities during period Oct-Dec.

Greenland White-fronted Goose *A (a) flavirostris*
Vagrant from Western Greenland

An immature at Holkham Dec 30th (DJH). The first Norfolk record of this distinctive race since 1996.

Greylag Goose *Anser anser*
Long-established and increasing feral population complicates identity of genuine wild arrivals

Highest counts at most regularly counted important sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Snettisham	250	50	181	131	24	165	227	251	511	683	250	-
Holme	200	158	7	10	9	20	5	195	415	34	65	185
Burnham Norton	-	172	109	79	76	107	-	-	249	293	153	68
Holkham NNR	143	188	235	242	40	-	215	950	260	800	-	964
Holkham Park	750	288	268	208	206	600	538	-	-	368	700	780
Stiffkey Fen	-	266	26	30	77	-	145	285	555	245	505	466
Cley	65	54	50	62	67	29	73	237	290	213	88	300
Martham/ Heigham Holmes	350	190	165	-	-	-	-	-	240	200	180	-
Breydon/Berney	62	65	27	11	43	45	68	69	140	150	550	212
Sennowe Park	250	-	174	42	58	400	325	165	275	220	205	-

Many other counts of 200 or more: *Jan* 290 Wroxham Broad, 250 Pentney GP, 200 Cockley Cley, 221 Swangey GP; *Feb* 270 Rockland/Buckenham/Cantley, 200 Claxton Marshes, 209 Raynham Lake, 200 Thetford Nunnery Lakes; *July* 258 Raynham Lake; *Aug* 405 Titchwell, 220 Horning, 200 Tottenhill GP; *Sept* 229 Lynn Point, 700 Titchwell, 520 Ludham, 265 Welney, 229 Raynham Lake, 274 Cranwich GP; *Oct* 650 Titchwell, 405 Brancaster FM, 315 Ranworth Broad, 250 Cockshoot Broad, 295 Pensthorpe, 214 Welney; *Nov* 310 Pensthorpe, 355 Raynham Lake, 260 Cranwich GP, 492 Thetford Nunnery Meadows; *Dec* 1300 Hickling Broad, 350 Pentney GP.

Breeding pairs surely under-recorded with records of 1-5 prs/broods from Holme, Holkham Park, Stiffkey Fen, Kelling WM, Strumpshaw, Sennowe Park, Flitcham, Cockley Cley, Westmere, West Tofts Mere, Buckenham Tofts, Swangey GP, Cranwich GP and Wissington BF. Larger concentrations at Brancaster FM (9 prs, 8 broods), Holkham NNR

(45 broods), Baconsthorpe (7 broods), Buckenham/Cantley (8 broods) and Pentney GP (15 broods totalling 115 goslings).

One observer commented at Holkham NNR that the number of birds is having a significant impact on small reedbeds in the area through grazing of early season growth and trampling; they are also affecting livestock grazing in spring and summer, depleting the biomass available to cattle in summer and wild geese and duck in winter. These then graze significant amounts of cereals and adjacent arable long into spring, causing further problems locally.

At Scolt Head/Brancaster Hbr a series of westerly movements during summer: 25 May 31st, 27 June 1st, 70 Aug 31st and 85 Sept 4th.

At Sheringham 36 birds which arrived in formation high from sea Dec 22nd flew east and then north out to sea again are likely to have been genuine wild birds. On the same date 350 Pink-footed Geese also arrived from the north at same locality.

Canada Goose

Branta canadensis

Introduced resident

Highest counts at most regularly counted important sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Snettisham	60	35	25	-	13	95	118	64	56	60	8	88
Burnham Norton	63	75	63	20	-	41	36	123	119	131	123	106
Breydon/Berney	41	52	19	25	19	65	54	35	48	63	77	76
Thetford												
Nunnery Lakes	96	-	-	-	-	167	360	153	260	-	315	-

From limited counts received this species appears to be maintaining its population size and this is evidenced not least in number of three-figure counts elsewhere: *Jan* 140 Titchwell, 156 Snetterton GP; *Feb* 120 Holme, 100 Little London, Northwold; *June* 159 Titchwell, 180 Gunton Park; *July* 246 Titchwell, 115 Lynford GP; *Aug* 220 Titchwell, 116 Blickling Park, 300 Wormegay; *Sept* 104 Salthouse, 188 Pentney GP, 132 Cranwich GP, 200+ Lopham Little Fen; *Nov* 110 Heigham Holmes, 101 Whitlingham Lane GP, 100 Ditchingham; *Dec* 310 Blickling Park.

A welcome increase in reports of breeding records: 1-3 breeding prs/broods at Blackborough End GP, Blickling Park, Boughton Fen, Broome GP, Buckenham Tofts, Cockley Cley, Ditchingham GP, Earsham GP, Holme, Lynford GP, Sparham Pools, Strumpshaw, Swangey GP, Tottenhill GP, R Little Ouse, Thetford and Westmere. Larger concentrations of 5 prs/broods at County Hole (Brettenham), Lynford Lake, Pentney GP, Wissington BF, with 6 prs Holkham NNR.

Late summer movement again noted, with 33 west Brancaster/Scolt Head Aug 26th.

Barnacle Goose

Branta leucopsis

Scarce passage migrant and winter visitor in small numbers with feral/escaped birds often in large groups causing confusion

Sightings in every month make analysis of records extremely difficult. Although a number of records suggest wild origin it is possible that all refer to escaped birds or wandering birds from feral populations in neighbouring Suffolk.

In first winter period most regularly seen at Heigham Holmes where 20 Jan 8th and still 11 Jan 24th and 27th, a single during Feb. with 2 21st and finally 3 March 29th. This site, favoured by other wild and feral geese, has become reliable for this species in recent years.

Other records, possibly relating to wild birds: Terrington Marsh single intermittently March 1st-21st, Ongar Hill Jan 31st and 3 April 26th, Lynn Point single occasionally Jan 1st-Feb 15th with 2 Feb 19th, Flitcham Jan 19th and 24th, Burnham Overy Feb 17th, Holkham Feb 9th, 30 west Wells March 13th and 6 Cley/Kelling WM also March 13th. The spring finished with a late easterly movement May 9th when 3 Hunstanton, 3 Cley and 14 Weybourne/Sheringham.

Fewer records late in year with one Martham Dec 13th the only report from Heigham Holmes area. In north-west Norfolk 1-5 seen periodically amongst large flocks of Pink-footed Geese during Dec. Larger counts of 10 Old Hunstanton Dec 15th and 17th, 12 over Castle Rising Dec 27th and 7 Great Bircham and 6 Docking simultaneously Dec 28th. Elsewhere one west Sheringham Nov 4th and 2 Halvergate Dec 13th the only records received.

Presumed feral/escaped birds widespread across county with sightings of 1-10 at 21 sites and larger counts at Fritton Decoy, Buckenham and Hethersett (all 60), Strumpshaw (45), Colney GP and UEA Broad (12) and Lyng GP (18). The Fritton Decoy flock is known to relate to the long-standing feral population in that area of the Norfolk/Suffolk border. A Swedish ringed male (present since 1993) paired with a feral female at Fritton Decoy and raised 5 young but the only other breeding attempt, 2 prs at Hethersett both failed.

Brent Goose

Branta bernicla

Dark-bellied Brent Goose *B (b) bernicla*

Abundant passage migrant and winter visitor

Monthly peak counts at selected important sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Terrington Marsh	3812	3500	3600	1500	595	4111	2250	2884
Ousemouth/Lynn Point	5000	5000	2505	-	450	700	-	3400
Holme	660	600	280	130	106	450	580	430
Thornham	723	439	137	102	123	286	125	430
Scolt Head/Brancaster Hbr	2300	1373	1116	850	480	1442	1750	1900
Wells	840	640	997	194	21	690	1000	1200
Warham Greens	460	125	282	151	-	220	-	-
Stiffkey	220	838	571	512	644	704	-	615
Blakeney FM/Hbr	1979	2000	1449	-	1000	1363	1277	2378

See also monthly counts in Wash and North Coast WeBS tables. Clearly much overlap between adjacent localities, as mobile flocks wander coastal intertidal areas.

The first half of May saw large numbers remaining in county; later in month small flocks still widespread with max: 130 Burnham Norton 18th, 158 Morston 20th and 200 Ongar Hill 25th.

Midsummer records of 1-4 birds during June-Aug from Terrington Marsh, Snettisham, Holme, Thornham Hbr, Titchwell, Brancaster, Scolt Head, Burnham Norton, Burnham Overy, Wells, Stiffkey, Sheringham and Yarmouth.

First returning birds of autumn 3 Titchwell Sept 5th preceding two early westerly movements of arriving birds 79 Holme Sept 18th and 56 Cley Sept 19th. Numbers gradually increased thereafter, boosted by series of coastal movements including 720 west 180 east Scolt Head Sept 30th, 853 west Cley and 1200 west Sheringham Oct 2nd, 1060 west Sheringham and 963 west West Runton Nov 1st, and 1000+ west Sheringham Nov 11th.

Inland records continue to be scarce: Flitcham Jan 19th and Nov 10th, Pentney GP Oct 11th and 24th, Cantley BF Nov 12th and Thetford Nunnery Meadows Nov 17th-Dec 3rd.

At Burnham Norton the leucistic bird noted in previous years again Feb 8th and 18th and in second winter period at Brancaster and Burnham Norton. A white-headed bird Ongar Hill Jan 31st may have been same bird seen there in 1997.

From the limited data received, breeding success seemed to be poor. Five juvs in flock of 300 Wells Nov 19th (1.6% young birds) was highest ratio, all other counts indicating success rate of less than 1%.

Pale-bellied Brent Goose *B (b) hrota*

Scarce winter visitor

The increase in number of records continues, invariably among flocks of Dark-bellied Brent Geese; whether this is due to greater observer awareness/interest or a genuine increase is unclear. Perhaps for last time all records are listed.

In first winter period: 1-3 intermittently Terrington Marsh until April 19th with 5 Jan 24th, 2 Ongar Hill March 14th, singles Lynn Point 3 dates Jan 1st-Feb 20th with 2 Feb 8th, Hunstanton Jan 11th, Scolt Head/Brancaster Hbr several dates April 20th-May 6th, Titchwell March 12th, 14th and 28th, 2 Holkham throughout Jan and until at least Feb 21st with peak 4 Jan 10th, Stiffkey Jan 10th, 3 Morston/Blakeney Jan 3rd, single Cley/Salthouse occasionally Jan 17th-March 21st and Sheringham Feb 1st.

Fewer records late in year: 3 Ongar Hill Dec 5th, Burnham Overy Staithe Dec 17th, Wells Hbr Nov 8th until year end, Sheringham Dec 13th and Eccles Nov 16th.

Black Brant *B (b) nigricans*

Almost annual vagrant from North America/East Asia

The well-watched bird from 1997 remained in Holme/Thornham/Titchwell area until March 29th. Another Lynn Point Feb 8th (ADC) just 3 days later than a one-day bird at same site in 1997.

An unprecedented early Nov influx was preceded by an early bird Wells Hbr Sept 22nd-24th (JRMc). Later: Lynn Point Nov 29th (ADC), and Holme/Titchwell Dec 4th (AJC SPS *et al*) until end of year with presumed same bird Burnham Norton Dec 6th (VE). Wells Hbr in addition to Sept individual one Nov 6th-8th with a second bird Nov 8th (JRMc). Also 1-3 Morston/Salthouse regularly Nov 7th-Dec 22nd (AMS *et al*), most often at Cley, and Weybourne Dec 6th-26th then 2 until year end (TWr *et al*).

Very difficult to ascertain how many individuals involved in second winter period, with clear overlap between sites, but it was likely that at least 5 birds present.

Egyptian Goose

Alopochen aegyptiacus

Long-established resident feral population

Highest counts at most regularly counted important sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Holkham Park	10	18	27	22	82	161	148	103	74	4	-	-
Sennowe Park	8	12	-	-	23	-	67	46	61	74	65	60
Cantley/Buckenham	52	55	24	65	44	-	-	66	66	-	-	-

All other counts of 20 or more: *Jan* 47 Horning Hall, 28 Narford; *Feb* 52 Ludham, 30 Narford; *March* 24 Ludham, 23 Narford; *June* 107 Pentney GP, 39 Lynford GP; *July* 31 Swangey GP; *Aug* 40 Holkham NNR, 21 Blickling Park, 86 Sparham Pools, 24 West Acre, 62 Pentney GP, 26 Cranwich GP, 20 Thetford Nunnery Lakes; *Sept* 20 Holkham NNR, 31 West Acre, 91 Pentney GP, 23 Wormegay; *Oct* 50 Strumpshaw, 20 Felbrigg Park, 80+ Blickling

Park, 82 Pensthorpe, 67 Didlington Lake, 38 Thetford Nunnery Lakes; *Nov* 56 Ludham, 25 Breydon/Berney, 60 Great Ryburgh; *Dec* 28 Holkham NNR, 28 Hunworth, 24 Muck Fleet, 31 West Acre.

During breeding season records involving 1-2 breeding prs/broods received from 22 widely scattered localities with 3 prs at Kelling WM, Buckenham and Cranwich GP and the same number of broods at Blickling Park. Larger breeding populations of 8+ prs Sennowe Park and 15 prs Holkham Lake where first brood of year noted March 4th.

Highly unusual and intriguing evidence of coastal movement provided by 12 apparently arriving from sea at Eccles Sept 8th and a further 15 in off sea there Oct 19th.

Shelduck

Tadorna tadorna

Widespread breeder, passage migrant and winter visitor

Monthly peak counts at selected sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Welney	26	34	105	40	164	50	-	12	4	8	1	2
Ongar Hill/ Terrington	3239	2160	1375	1088	882	1230	723	164	167	3245	4472	1909
Ousemouth	-	1740	1784	-	-	-	-	-	-	-	777	597
Sncttisham	715	767	600	233	169	503	189	180	681	1130	394	496
Holme	98	83	39	17	15	16	8	7	8	13	39	51
Titchwell	101	41	67	52	41	31	-	13	1	4	51	-
Scolt Head/ Brancaster Hbr	283	237	178	93	53	71	53	28	3	55	235	521
Warham Greens	149	47	23	29	22	-	-	-	30	107	-	167
Blakeney Hbr/Cley	119	232	235	94	45	31	20	42	83	82	365	388
Breydon/Berney	451	289	306	233	262	232	181	26	105	194	218	163
Wissington BF	79	66	40	-	42	60	-	30	13	-	10	37

International importance (winter): 3000; National importance (winter): 750

Only other notable counts elsewhere: 161 Wells Jan; 80 Holkham May; 86 Wells Oct.

Seemingly a good breeding year, with records from Blakeney Point (7-8 prs, fair success), Brancaster GM (2 prs), Breydon/Berney (6+ broods), Burnham Norton (21 young), Docking (brood), East Wretham Heath (10 young from 2 broods), Flitcham Abbey Farm (4 prs hatched 29 from 3 broods), Gooderstone/Hilborough (12+ prs), Hardley Flood (40+ prs but low success rate - up from c12 prs in 1992), Holkham NNR (17 broods with good recruitment of young), Holkham Park (16 young from 3 broods), Holme (6 broods), Houghton (2 broods), Kelling WM (2 prs), King's Lynn BF (2 prs), Lopham Fen (brood), Lynn Point (brood of 3), Ongar Hill (93 young), Saham Hall Flood (brood of 8), Scolt Head/Brancaster Hbr (15 broods), Sennowe Park (2 broods), Stanford TA north Area (12 young from 2/3 prs), Stanford Water (brood), Stiffkey (brood), Strumpshaw (3 prs), Swim Coots (Hickling) (brood of 2 young), Thornham Hbr (4 broods), Titchwell (2 broods), Welney (9 broods), Westmere (brood), Wissington BF (48 young from 5 broods).

Unusual spring movements of 54 east Scolt Head April 12th with 40 west there 8th May. Easterly movement of adults to traditional moulting sites off NW Germany from June 2nd when 12 Scolt Head, but less obvious than in most years, with only notable counts both from Scolt Head of 240 July 8th and 80 July 10th.

Returning birds noted moving west from Aug 23rd when 40 Scolt Head, with subsequent peak westerly counts there of 71 Aug 31st, 92 Sept 1st and 535 Sept 21st, also 100+

Sheringham, 436 East Runton, 150 Overstrand and 308 (north) Eccles all Nov 1st, 150 Sheringham Nov 4th, 410 Mundesley Nov 12th, 92 Sheringham Nov 15th, and 65 there 16th, 50 Overstrand Nov 23rd, and 64 Sheringham (3 hrs) Dec 2nd.

Mandarin

Aix galericulata

Introduced wanderer and escape; scarce breeder

Records throughout year, though principally Jan-May, of 1-4 from: Babingley, Bayfield Lake (where pr raised 4 ducklings but none fledged), Brundall, Cley, East Ruston, Fritcham, Fritton Decoy, Gunton Park, Hanworth Common, Hickling Broad, Ken Hill Marsh, King's Lynn Walks, Knettishall, Pensthorpe, Pentney GP, R Bure nr Wroxham Broad, Salhouse Broad, Sandringham (only a single bird seen May 17th), Sennowe Park, Snettisham, Thetford Nunnery Lakes, and Wells Quay (with closed yellow ring).

Only higher counts: 5 R Babingley March 1st, and from Felbrigg Park where monthly max 9 Feb, 2 March, 7 April, 2 May and 2 June. The latter record of a pr flying out of woodland June 1st the only other suggestion of breeding.

Wigeon

Anas penelope

Abundant passage migrant and winter visitor in internationally important numbers; a few over-summer and have bred

Peak monthly counts at main localities:

	Jan	Feb	Mar	Apr	Sep	Oct	Nov	Dec
Welney	4199	7735	6450	272	869	2200	6444	6892
Snettisham	323	139	350	61	114	108	110	187
Holme	1010	700	565	60	310	310	360	850
Scolt Head/Brancaster Hbr	149	62	3	-	65	1262	33	4368
Burnham Norton	3158	2200	1625	160	47	478	3645	3000
Holkham NNR	3918	6870	6166	12	34	2835	1741	12090
Blakeney/Cley	2676	1800	981	-	580	1700	4000	3437
Breydon/Berney	7300	5450	1750	73	125	1000	5400	7100
Ranworth Broad	640	374	229	-	-	112	234	680
Cantley/Buckenham	6076	5935	4075	500	100	2600	4200	4870

International importance (winter): 12,500; National importance (winter): 2800

Numbers at Welney at start and end of year lower than usual due to extensive deep flooding.

Usual rapid departure in late March/early April, with few lingering into May. Notable counts elsewhere during year include Jan 328 Pentney GP, 530 Sennowe Park; Jan/Feb 250+ Wretton Fen; Feb 380 Ken Hill Marshes, 366 Pentney GP; March 340 Pentney GP; Nov 600 Horsey Mere, 450 Sennowe Park, 420 Titchwell, 880 Wissington BF; Dec 320 Pentney GP.

Seldom noted on spring passage, only observations 30 east Overstrand April 11th and 4 east Scolt Head April 20th.

Usual scattering of summering birds, with one pr probably and one pr possibly breeding. (Counts in June/July: 6 Breydon/Berney, 2 Burnham Norton, Cantley BF, 9 Cley, Holkham NNR (9 males present, some were pricked birds; several prs noted, the females disappearing at correct time, but no broods seen), Holme (pr probably bred but failed), 2 Lakenheath Washes, Pentney GP, 3 Snettisham, 4 Titchwell, and 22 Welney (no direct evidence of nesting, but 4 juvs together from July 29th possibly raised locally).

Summer movements of 3 east Weybourne June 2nd, 7 west Sheringham June 12th and 3 west Overstrand July 2nd.

First certain return migrants single Scolt Head and 2 west Sheringham Aug 24th, with 70 Cley and 30 west Overstrand Aug 29th. Regular westerly movements from then until mid-Nov, with peak counts of 230 Scolt Head, 380 Sheringham and 364 Overstrand Sept 3rd, 750 Scolt Head Sept 21st with 425 Oct 1st and 250 Oct 2nd, 280 Sheringham Nov 1st with 254 4th and 440 15th, also 334 Sheringham, 820 Mundesley, 960 north Eccles and 261 north Caister (1 hr 15 mins) all Nov 16th.

1997 Correction: 5500 Breydon/Berney Feb, not 55,000

American Wigeon

Anas americana

Vagrant from North America

Two records: a drake moved between Blakeney FM and Cley Jan 1st-March 27th (RCA *et al*), and a drake Berney Nov 25th (PRA JRo).

Gadwall

Anas strepera

Resident, passage migrant and winter visitor

Peak monthly counts at principal localities:

	Jan	Feb	Mar	Apr	Sep	Oct	Nov	Dec
Welney	7	43	88	122	33	21	84	29
Snettisham	70	98	34	9	-	10	7	34
Holkham NNR	50	13	22	58	51	25	22	24
Blakeney/Cley	51	61	38	23	113	79	32	80
Hickling/Heigham Sound	-	-	-	-	-	62	25	
Martham Broad	186	-	-	-	-	80	-	-
Breydon/Berney	48	161	122	31	2	4	50	16
Sennowe Park	80	80	-	-	179	216	167	175
Raynham Lake	-	78	46	-	94	64	-	61
Lynford GP	102	-	-	10	-	-	45	115
Whitlingham Lane GP	-	50	-	-	-	55	89	115
Thompson Water	30	-	-	-	143	22	230	-
Stanford Water	-	-	-	-	115	110	-	65

International importance (winter): 300; National importance (winter): 80

Notable counts from elsewhere include 51 Titchwell, 53 Burnham Norton, 50 Ranworth Broad, 79 Strumpshaw, 50 Surlingham Church Marsh, and 40 Hillington Park all Jan 18th, 45 Cranwich GP Jan 24th, 60 Wissington BF Feb 7th, 40 Fritcham Feb, 53 Cringleford Marsh Feb, 58 Cockley Cley March 21st, 67 Lakenheath Washes April 5th, 52 Ouse Washes (RSPB) April 27th, 59 (48 males) Welney May 15th, 80 Holkham May 17th, 38 Lakenheath Washes June 1st, 47 Holkham June 14th, 83 Cley June 24th, 46 Holkham Park Lake July 12th, 48 Welney July 16th, 50 Stanford Water July 30th, 80 Stanford Water Aug 16th, 159 Raynham Lake Aug 30th, 67 Didlington Lake Sept 3rd, 65 Burnham Norton Oct 11th, and 146 How Hill Nov 12th.

Unusual winter observation of 2 offshore Waxham Feb 8th. Early spring movement 2 west Scolt Head March 30th, followed by further movements of 2 west April 19th, 2 east April 28th and 2 west June 27th.

Breeding records received from the following localities: Brancaster GM (7 prs produced 2 broods), Burnham Norton (3 broods totalling 21 young), Cley (only 6 young reared), Cockley Cley (2 broods totalling 12 young), Coxford (brood), Cringleford Marsh (2 broods), East Harling (brood), Fritcham Abbey Farm (3 broods), Holkham NNR (37-39 prs with 15+ broods), Holkham Park Lake (11 broods totalling 62 young), Holme (brood), Kelling WM

(pr), Lakenheath Washes (3 broods), Pentney GP (brood), Sennowe Park (4 broods), Stanford Water (3 prs bred), Strumpshaw (5-6 broods), Surlingham Church Marsh (brood), Thompson Water (3 broods of 5, 3 and one), Welney (21 broods), West Acre (brood of 8), Whitlingham Lanc STW (pr), Wisington BF (pr) and Wolterton Hall (brood).

Occasional records of autumn passage birds moving west, with one Scolt Head Aug 14th, 2 Sheringham Aug 30th and one Sept 3rd, 7 Scolt Head Sept 4th, 2 Sheringham Oct 17th with 11 Oct 18th, 2 West Runton Oct 19th, one north Horsey Oct 24th, 2 Sheringham Oct 25th, 4 on sea off Horsey Nov 7th, 2 Sheringham Nov 15th, and 8 on sea Scolt Head Nov 18th.

Teal

Anas crecca

Eurasian Teal *A (c) crecca*

Passage migrant and abundant winter visitor; breeds in small numbers

Peak monthly counts at main sites:

	Jan	Feb	Mar	Apr	Aug	Sep	Oct	Nov	Dec
Welney	60	1265	1842	231	266	415	919	2012	983
Snettisham	405	84	52	-	-	450	667	187	76
Titchwell	600	150	43	2	-	69	262	550	500
Burnham Norton	239	-	91	58	18	43	169	161	370
Holkham NNR	110	119	243	14	145	64	114	114	1022
Stiffkey Fen	210	95	22	6	5	20	167	345	325
Blakeney/Cley	450	348	184	6	300	721	1445	1621	1876
Hickling Broad	156	-	-	-	228	870	800	580	600
Breydon/Berney	224	303	779	302	62	271	200	275	510
Cantley BF	295	50	-	-	225	135	1500	800	650
Buckenham/Cantley	165	633	182	10	-	-	417	537	93

International importance (winter): 4000; National importance (winter): 1400

Numbers at Welney low at start of year due to extensive deep flooding. Highest counts elsewhere in first winter period: Jan 109 Cranwich GP, 272 Holme, 205 Pentney GP, 153 Ranworth Broad, 153 Scolt Head/Brancaster Hbr, 200 West Acre, 300 Wretton Fen; Feb 120 Pentney GP, 120 King's Lynn BF, 140 Ranworth Broad, 111 Scolt Head/Brancaster Hbr; March 118 Rockland Broad. Spring movement of 47 east Scolt Head April 20th.

Small numbers of predominately males as usual at scattered sites around the county May-mid July, with records (with max numbers) from: Breydon/Berney (29), Burnham Norton (31), Cley (9), East Wretham Heath, Hickling Broad (12), Holkham NNR (14 - 4-5 prs), Holme (23), King's Fen, East Ruston (pr), Lakenheath Washes (2 + prs), Langmere, Lynn Point (2), Pensthorpe (2 prs), Pentney GP (3), Salthouse (4), Strumpshaw (4), Welney (6+), West Acre (4), Wretton Fen (pr). Breeding confirmed at Kettlestone Common (2 prs), and Welney where 3 prs nested and one brood seen. Also pair probably nested Holme but failed.

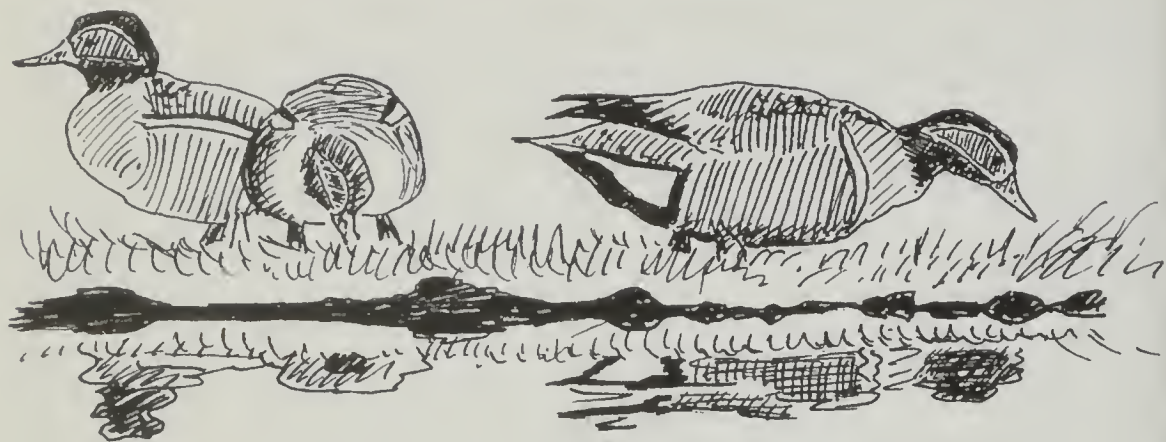
Westerly passage at coastal sites from July 16th when 27 west Scolt Head, and numbers of birds noted arriving at inland sites from late July. Peak westerly counts in Aug of 243 Sheringham (0835-1145 hrs) 26th, 276 West Runton 27th, 150 Sheringham and 188 (north) Horsey 30th, and 210 Scolt Head 31st. Subsequent peak westerly counts of 350 Scolt Head, 980 Sheringham and 337 Overstrand Sept 3rd, 132 Sheringham Sept 17th, 145 Scolt Head Sept 21st, 115 Scolt Head Oct 1st, 120 Sheringham Oct 4th, 370 Sheringham, 500 Mundesley, 530 (north) Eccles and 247 (north) Caister (1 hr 15 mins) Nov 16th. Winter movement 68 west Holme Dec 7th.

Other than those tabulated, max counts in second half of year: *Aug* 172 Holme; *Sept* 110 Holme, 175 Tallents Meadow Lake; *Oct* 298 Ranworth Broad, 180 Sennowe Park, 270 Tallents Meadow Lake; *Nov* 100 Cranwich GP, 2400 Horsey Mere, 148 Pensthorpe, 155 Ranworth Broad, 154 Scolt Head/Brancaster Hbr, 245 Sennowe Park, 125 Surlingham Church Marsh, 110 Whitlingham Lane GP; *Dec* 187 Holme, 400 Ranworth Broad, 338 Scolt Head/Brancaster Hbr, 108 Stiffkey Floods, 300 Tallents Meadow Lake, 173 Whitlingham Lane GP.

Green-winged Teal *A (c) carolinensis*

Almost annual vagrant from North America, most in spring

Drakes recorded as follows: Titchwell Jan 24th-Feb 15th (JL *et al*), Kelling WM Feb 17th-March 15th (JVB EMPS *et al*), with presumably same Cley April 7th-25th (SJMG *et al*).



Green-winged Teal (S Cale)

Mallard

Anas platyrhynchos

Widespread resident, passage migrant and winter visitor

Peak counts at selected sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Welney	631	1153	441	173	481	833	825	730	893
Terrington	143	124	4	11	4	2	97	58	203
Snettisham	721	369	142	55	409	642	352	276	378
Holme	46	40	47	23	133	140	124	72	163
Titchwell	80	59	26	23	143	132	42	95	114
Scolt Head/Brancaster Hbr	337	179	70	51	55	143	193	270	355
Holkham NNR	132	93	101	135	115	323	132	98	171
Blakeney/Cley	275	232	143	42	111	261	300	209	672
Breydon/Berney	234	288	37	29	150	265	116	203	260
Trinity Broad	125	64	57	34	247	111	242	91	168
Ranworth/Cockshoot Broad	185	131	-	37	84	315	264	273	288
Buckenham/Cantley	104	74	18	20	-	-	97	99	19
Thetford Nunnery Lakes	115	77	-	-	85	-	-	-	152
Sennowe Park	139	162	73	24	116	510	585	510	395

International importance (winter): 5000

Numbers low Welney at start of year due to deep flooding. Notable counts elsewhere: *Jan* 256 Hickling Broad, 106 Thetford Little Ouse; *Feb* 108 King's Lynn Walks, 120 Stanford Water, 115 Strumpshaw, 106 Terrington Marsh; *May* 240 Holkham NNR, 184 (163 males) Welney; *June* 127 Holkham NNR, 180 Snettisham, *Aug*: 184 Cockley Cley Lake, 130 Ormesby Broad; *Sept* 163 Diddlington Lake, 220 Hilborough Hall Lake, 200 Lopham Fen, 110 Thompson Water; *Oct* 140+ Bawsey Pits, 250 Cantley BF, 105 Cockley Cley Lake, 140 Martham Broad north, 137 Ormesby Broad, 195 Pensthorpe, 380 Stanford Water, 294 Tottenhill GP; *Nov* 271 Pensthorpe, 162 Raynham Lake, 115 Strumpshaw, 154 Thetford Little Ouse (including feral birds); *Dec* 110 Cantley BF, 106 Cockley Cley Lake, 110+ Hickling Broad, 120 Lynford GP, 123 Norwich R Wensum, 337 Pensthorpe, 122 Reedham Water (How Hill).

A good scattering of breeding records received, including 101 broods from 167 prs at Holkham NNR.

Only passage movements noted; 43 west Overstrand Sept 3rd, 31 north Eccles Nov 3rd, 28 west Sheringham Nov 11th with 32 west there Nov 16th.

Pintail

Anas acuta

Passage migrant and winter visitor, has bred

Peak monthly counts at main localities:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Welney	100	1728	1068	87	300	961	1735
Titchwell	116	40	7	5	12	63	20
Scolt Head/Brancaster Hbr	132	76	6	30	74	149	145
Blakeney/Cley	704	247	245	7	265	924	561
Breydon/Berney	192	166	52	10	45	137	163
Tottenhill GP	40	-	-	49	275	-	280

International importance (winter): 600; National importance (winter): 280

Numbers low at Welney at start of year due to deep flooding. Unusual record of 3 on sea off Horsey Jan 1st. Occasional records from other wetland sites during year, (with max numbers): *Jan* Burnham Norton (17), Sheringham (3); *Feb* Buckenham (8); *March* Buckenham (2), Lakenheath Washes (2), Rockland Broad (2); *April* Snettisham CP; *May* Ken Hill Marsh; *Aug* Burnham Norton (2); *Sept* Buckenham (4), Cantley BF (2), Pensthorpe (7), Sennowe Park (8); *Oct* Cantley BF (10), Sennowe Park (23), Terrington (44); *Nov* Burnham Norton (23), Cantley BF, Sennowe Park (33); *Dec* Burnham Norton (93), Martham Broad (3), Sennowe Park (42), Strumpshaw, Whitlingham Lane GP.

Usual rapid departure late March/early April, with most gone by mid-April. Only spring coastal movement 4 north Lynn Point April 11th. Lingering birds noted in May at Berney, Ken Hill Marsh, and Titchwell, with pair Welney all month. A few summer records from Salthouse June 16th, Welney July 6th, Kelling WM July 22nd and 26th, and probably same Cley July 30th/31st

First presumed returning birds from Aug 2nd Breydon/Berney then Aug 7th at Welney. Westerly coastal passage noted Overstrand Aug 29th, 8 Scolt Head Aug 31st, 40 Sheringham Sept 3rd, 160 Scolt Head, 22 Blakeney Point and 50 Sheringham Sept 3rd, 20 Cley Sept 12th, 35 Scolt Head and 28 Sheringham Sept 13th, 49 Scolt Head and 21 Sheringham Sept 14th, 33 Sheringham Sept 17th, 148 Scolt Head Sept 21st, 4 north Horsey Oct 31st, 64 Cley, 135 Sheringham, 63 north Eccles and 60 north Waxham/Horsey Nov 1st, 28 Sheringham Nov 3rd and 55 Sheringham Nov 7th.

Garganey

Anas querquedula

Very scarce breeding summer visitor; scarce passage migrant

First spring migrants in March pr Cley March 8th, then 2 Holme and single Martham Broad 15th, pr Hickling Broad 21st-27th, Strumpshaw 24th, pr Snettisham 28th, and Cantley BF 30th. Further spring records of 1-4 from: Brancaster GM, Breydon Water, Buckenham Marshes, Burnham Norton, Cley, Cockley Cley Lake, Flitcham, Glandford, Gunton Park, Hickling Broad, Holkham NNR, Holme, Horsey Mere, Horsey GM, Kelling WM, Lakenheath Washes, Ouse Washes (RSPB), Snettisham CP, Stiffkey Flood, Strumpshaw, Titchwell and Welney. Higher counts of up to 6 drakes Berney and 5 Ken Hill Marsh during May.

Summer records from 15 localities. Three breeding records: eclipse drake and 4 young Burnham Norton June 20th; newly hatched brood of 8 Holme July 1st-13th with female and 7 fledged young during Aug (first breeding record for reserve); female with 3 juvs at a West Norfolk locality July 6th. Breeding also suspected at Holkham NNR but no young seen, and at Welney peak counts of 19 July 26th and 18 July 29th suggestive of local breeding.

Autumn records (with monthly max) from: Berney (2 Aug, one Sept), Cley (2 Aug, 1+ Sept), Holme (one Aug, one Sept), Ken Hill Marsh (2 Aug, 2 Sept), Pentney GP (one Sept), Snettisham (2 Aug), Titchwell (2 Sept), Welney (6 Aug, 3 Sept, one Oct). Latest singles Welney Nov 10th and 23rd.

Shoveler

Anas clypeata

Passage migrant, summer and winter visitor

Peak monthly counts at selected localities:

	Jan	Feb	Mar	Apr	Aug	Sep	Oct	Nov	Dec
Welney	15	167	309	159	36	166	172	23	13
Titchwell	25	7	13	10	12	33	19	38	50
Holkham NNR	23	46	39	33	30	12	18	-	33
Cley	16	35	18	-	12	27	17	29	33
Breydon/Berney	167	183	162	39	20	10	98	96	76
Cantley BF	84	60	-	-	40	30	193	73	-
Buckenham/Cantley	24	67	24	2	-	-	35	45	4
Pensthorpe	30	20	19	-	-	24	33	-	41

National importance (winter): 100

Highest counts noted at other sites during year: Jan 31 Ranworth Broad, 45 Snettisham; March 30 Lakenheath Washes, 36 Surlingham Church Marsh; April 37 Lakenheath Washes; May 27 Cantley BF, 60 Holkham NNR, 51 (45 drakes) Welney; July 40+ Cantley BF, 132 Welney; Sept 40 Holme, 30 Sparham GP; Oct 40 Narford Lake, 35 Sennowe Park; Nov 80 Hickling Broad/Heigham Sound, 40 Sennowe Park; Dec 40+ Horsey Mere, 30 Ormesby Little Broad, 50+ Hickling (Rush Hills), 32 Sennowe Park.

Spring coastal passage noted Scolt Head where 2 north April 8th, single west April 24th, and 2 west April 26th.

Limited information on breeding, with records from the following locations: Berney (20 prs with 12-15 nests/broods), Brancaster GM (2-4 prs but no broods), Buckenham Marshes (pr), Cantley BF (brood), Coxford (2 prs bred), Haddiscoe (brood), Holkham NNR (14 broods), Holme (4 broods), Lakenheath Washes (2 broods), Recdham Water, How Hill (brood of 14), Strumpshaw (5 broods), and Welney (13 broods).

Very light autumn passage Aug 22nd-Oct 4th with westerly passage on only 9 days, mostly 1-3 birds, with only higher counts 4 west Scolt Head and 24 west Sheringham Sept

3rd (record site day count), 5 west there Oct 4th, and late inland record of 19 over Watton Nov 12th.



Red-crested Pochard *Netta rufina*

An escape, but with possibility of genuine vagrants from the Continent

Irregularly recorded at 3 localities: Welney 2 females Jan 1st-24th, one female until Feb 20th, male May 11th-18th, female June 12th, a pr Nov 2nd and again Dec 28th; Sennowe Park Feb 1st, pr May 11th, 2 prs June 7th, 2 males Aug 2nd, Sept 6th, 4 Oct 16th, Nov 22nd and Dec 14th; Hickling Broad male Jan 8th, female Jan 17th and June 28th, male July 15th, Aug 4th, male Sept 26th, and female Nov 28th and Dec 19th.

Elsewhere female UEA Broad Jan 17th, pr Blakeney Hbr March 28th, 2 Cley May 16th, female Brancaster May 21st, female at sea Sheringham May 29th, male Ormesby Broad July 14th/15th, female Cley Aug 3rd, 2 females/imms Pentney GP Aug 25th, male Tottenhill GP Sept 6th, and female/imm Thompson Water Oct 15th.

Sennowe Park birds probably originate from free-flying population at nearby Pensthorpe, and North Norfolk records may relate to a free-flying pair from Blakeney collection.

Canvasback *Aythya valisineria*

Vagrant from North America

The male at Welney from Dec 3rd 1997 was present until Feb 22nd and then again March 9th (JBK *et al*).

Pochard *Aythya ferina*

Summer breeder in small numbers, common passage migrant and winter visitor

Peak counts at selected sites:

	Jan	Feb	Mar	Apr	Sep	Oct	Nov	Dec
Welney	3500	4758	1111	39	21	414	1268	1690
Hickling Broad	220	-	-	-	-	-	170	450
Sennowe Park	63	62	55	-	11	93	136	-
Pensthorpe	-	128	81	53	72	84	104	107
Pentney GP	35	83	-	-	35	129	150	-
Tottenhill GP	66	64	56	-	37	-	-	-

National importance (winter): 440

Notable counts elsewhere: Jan 56 Ranworth Broad, 61 Broome GP; Feb 70 Colney GP; March 33 Snettisham; April 30 Raynham Lake; May 52 Hickling Broad; Sept 70 Colney GP; Dec 40 Holme.

Small numbers summered as usual at various localities, with breeding records from (number of broods in brackets): Berney (2), Barton Broad (1), Bawsey GP (1), Cantley BF (2-3), Hickling Broad (3), Holkham NNR (18), Holkham Park Lake (2), Holme (3), Horning Hall (1), Ormesby Broad (1), Ranworth Broad (2), Raynham Lake (4), Sennowe Park (1), Strumpshaw (2), Thompson Water (1) and Titchwell (2). Post breeding record of 80 Cantley BF Aug 24th.

Westerly autumn/winter movements as follows: at Scolt Head Sept 2nd, 2 Sept 3rd, 14 Sept 21st, 3 Oct 3rd, Nov 18th and 19 Nov 23rd. Elsewhere 5 West Runton Nov 1st, 3 Paston Nov 4th and 20 Sheringham Dec 5th.

Ferruginous Duck

Aythya nyroca

Rare visitor from the Continent, or escape from captivity

The imm at Stiffkey/Wiveton/Cley Dec 1997 was again at Stiffkey Fen Jan 4th-13th and 17th, and Feb 15th-24th, and at Cley Jan 27th-31st, Feb 24th and March 5th.

Subsequently pr Hickling Broad April 28th-May 3rd (PJH AJK *et al*), with the male at Duck Broad also May 3rd (PJH) and again Hickling Broad May 5th (SSm); an undoubted escape/feral bird Snettisham Nov 29th-Dec 7th and a male Welney Dec 10th (JBK).

Tufted Duck

Aythya fuligula

Summer breeder, common passage migrant and winter visitor

Peak counts at selected sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Welney	312	419	195	155	8	28	105	166
Snettisham	76	54	59	44	82	87	78	80
Holkham Park Lake	63	57	75	44	-	14	19	43
Hickling NNR	202	-	-	10	-	-	230	460
Ranworth/Cockshoot	74	79	82	32	145	-	-	-
Trinity Broads	577	290	353	121	282	254	333	788
Strumpshaw	62	27	36	-	-	-	-	-
Sennowe Park	185	133	158	82	152	187	215	195
Tottenham GP	28	28	29	-	-	-	67	-
Pentney GP	157	56	57	56	232	-	-	-
Thetford Nunnery Lakes	62	34	39	-	-	-	-	-
Lynford GP	20	-	12	28	120	79	60	85
Pensthorpe	-	287	381	191	212	234	354	329

National importance (winter): 600

Notable counts elsewhere: *Jan* 101 Broome GP, 114 Ditchingham GP, 59 Cranwich GP; *Feb* 58 Denver Sluice to Saddlebow, 56 Rockland Broad, 66 Colney GP; *March* 60 Cranwich GP; *April* 55 Cranwich GP; *May* 156 Welney; *June* 82 Welney, 90 Pensthorpe, 50 Sennowe Park; *Aug* 138 Pensthorpe, 132 Sennowe Park; *Nov* 70 Colney GP, 61 Whitlingham Lanc GP; *Dec* 50 Lyng GP.

More breeding records this year: Baconsthorpe (2 broods), Bawsey GP (1 brood), Berney (3 broods), Brancaster GM (2 prs, 1 brood), Burnham Norton (1 brood), Burnham Overy Mill (1 brood), Cantley BF (1 brood), Cley (c12 prs, 2 broods), Cockley Cley (6 broods), Cockshoot Broad (1 pr), Cranwich GP (1 brood), Downham Market Relief Channel (1 brood), Eastmere (1 brood), Felbrigg Park (1 pr), Filby Broad (4 prs), Flitcham Abbey Farm (4

broods), Hickling Broad (2 broods), Holkham Park Lake (1 brood), Holkham NNR (24 prs, 14 broods), Holme (4 broods), Lakenheath Washes (3 broods), Lopham Fen (1-2 prs), Lynford GP (6 broods), Mautby Decoy (2 broods), Narford Lake (1 brood), Selbrigg Pond (1 brood), Sennowe Park (4 broods), Sparham Pools (1 brood), Stanford Water (2 broods), Strumpshaw (4 broods), Welney (12 broods), Westmere (1 brood), Wissington BF (3 broods) and Wolterton Hall (2 Broods).

Coastal movements as follows: 20 south Heacham Jan 27th; west Weybourne April 18th; at Scolt Head 2 west April 21st, west April 27th, 2 west May 23rd, west July 31st, west Aug 23rd and 25th; west Sheringham Sept 14th and east Oct 28th; west West Runton Oct 29th; 9 Horsey on sea Oct 31st.

Scaup

Aythya marila

Winter visitor in varying numbers; scarce inland; occasional in summer

Very scarce in first winter period: *Jan* max 7 Heacham 1st-9th, 2 Hunstanton 11th and singles Sparham GP 1st-8th, Brancaster 3rd, Pentney GP 10th and Salthouse 17th-31st; *Feb* 3 Titchwell 24th and up to 2 Ten Mile Bank/Denver Sluice 12th-15th, otherwise singles Pentney GP 1st, Welney 5th-12th and Cley 20th-26th; *March* 3 Welney 9th-12th and single Kettlestone Common 9th; *April* singles Welney 6th and Snettisham 18th/19th.

Few summer records: Heigham Corner May 3rd, west Scolt Head July 29th and at Snettisham 9 July 29th, 5 July 31st and one Aug 15th.

In second winter period again few records. In Sept west Cley 17th and 2 Snettisham 24th. Oct movements of 2 east West Runton 2nd, 12 east Sheringham 8th and 7 west Cley 31st; also singles Snettisham 3rd-5th and 30th/31st, and Brancaster 6th-8th. In Nov Breydon/Berney 1st-26th with 7 29th, Snettisham 1st with 5 29th and 4 30th, 4 Welney 5th and 1-2 Colney GP 23rd-30th. Also movements of 4 west West Runton and single west East Runton 1st, 2 Eccles 1st and 3rd, one west Sheringham 3rd and 4 west 4th, 7 south Horsey 21st and single east Cley 23rd. In Dec singles Breydon/Berney 1st-13th, Sheringham 4th, Martham Broad 8th, and Cley 13th, with up to 7 Snettisham 6th-12th. Inland, singles Swanton Morley GP 22nd, Pentney GP 23rd and in Great Ouse Relief Channel from 11th with a pr 31st; also 2-4 Welney 1st-26th and pr Tottenhill GP 28th.

Eider

Somateria mollissima

Non-breeders throughout year, highest totals usually in winter and early spring

This year there were no high winter counts, and peak counts were during normal passage periods.

Max monthly counts at principal sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Terrington	90	29	9	-	1	-	-	-	-	-	6	-
Snettisham	45	12	16	15	16	13	39	55	9	6	-	-
Hunstanton/ Heacham	120	22	12	-	50	40	40	70	3	-	-	-
Holme	49	63	32	100	132	-	-	60	128	10	11	12
Titchwell	100	75	11	60	95	125	135	125	192	100	140	95
Scolt Head/ Brancaster Hbr	47	84	60	84	72	61	115	59	49	184	126	120
Blakeney Hbr/Cley	8	5	8	-	-	1	-	3	13	3	13	12

National importance (winter): 750

Usually only single-figure counts are made off east coast, except of passage birds. This may change with the new sea defences off Sea Palling.

Only spring movements were 11 Overstrand May 23rd, and 8 east there May 27th. In second winter period large movements as follows: 30 east Beeston Bump and 42 south Horsey Oct 24th, 100 west Titchwell and 47 north Eccles Oct 31st, 20 west Paston and 58 off Waxham Nov 4th, 20 north Caister Nov 11th, max 35 off Eccles Nov 15th/16th, 98 west Sheringham Nov 15th, 14 west Overstrand Nov 30th with 67 west there Dec 1st, 40 east 11 west Sheringham Dec 2nd, 30 north Eccles and 108 off Sheringham Dec 4th, with 40 there Dec 5th.

Long-tailed Duck

Clangula hyemalis

Winter visitor chiefly to North-west Norfolk coastal waters; occasional inland

Almost all records were from coast between Brancaster and Hunstanton, and involved the same birds. At Holme max 49 Jan, 30 Feb and 16 March, usually near Gore Point. Latest record 4 Titchwell March 31st. Elsewhere only record one Blakeney Hbr Feb 14th.

In second winter period first north Winterton Oct 7th and same day Holme, then 2 Brancaster Hbr Oct 15th. At Holme monthly max 15 Nov and 24 Dec. Elsewhere birds were seen around the coast in very small numbers: Burnham Overy Staithe Nov 19th; Holkham Bay east Oct 30th, 2 Nov 19th, 5 Nov 22nd and one Dec 12th; Cley west Oct 25th, Nov 1st, 3 Nov 4th and 2 west Nov 7th; Salthouse west Nov 1st, 2 Nov 11th, one Nov 17th and 2 Nov 19th; Sheringham east Oct 25th and 27th, 3 west Nov 1st and one west Nov 3rd; East Runton 3 west Nov 1st; Overstrand 3 west Nov 10th; Mundesley Nov 16th; Winterton 2 Nov 6th and Caister Nov 30th.

Common Scoter

Melanitta nigra

Winter visitor in varying numbers, passage uigrant, non-breeders over-summer

Max monthly counts at regular coastal sites; some duplication of counts inevitable:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Heacham/												
Hunstanton	1500	200	2000	2500	2000	40	30	120	80	150	-	-
Holme	58	400	430	104	3	-	-	30	45	-	220	-
Titchwell/												
Brancaster	150	50	50	200	200	200	521	60	-	1	50	650
Scolt Head	-	-	-	-	-	-	120	-	40	-	53	550
Cley/Salthouse	-	-	-	4	-	2	20	80	33	300	1500	50

National importance (winter): 350

Away from principal sites only small numbers seen except during movements. Typical movements in summer/early autumn: at Overstrand 15 east May 9th, 44 east May 27th, 15 east June 10th, 12 east June 12th, 15 west July 1st, 15 east 10 west July 2nd, 34 west Sept 3rd; at Scolt Head 15 west April 24th, 11 west April 25th, 40 east July 14th, 17 west July 18th, 120 on sea July 25th, 63 west Aug 24th, 55 west Sept 13th, 40 east 12 west Sept 20th, 80 west Oct 1st.

At end Oct/early Nov exceptional movements north along east coast and west along north coast as follows: *Oct 31st* 200 Sheringham (in 1.5 hrs), 156 West Runton (in 1.5 hrs), 248 Eccles, 150 Horsey Gap; *Nov 1st* 400 Sheringham, 310 Beeston Bump (in 2 hrs), 543 West Runton, 509 East Runton, 201 Mundesley, 100 Horsey Gap; *Nov 2nd* 720 Mundesley; *Nov 3rd* 235 Sheringham, 180 Beeston Bump (in 10 mins), 741 Eccles; *Nov 4th* 250 Salthouse,

326 Sheringham, 65 Paston, 219 Eccles; Nov 7th 850 Cley (in 1 hr). The majority of these must have settled in Holkham Bay, where quite exceptional numbers of 5750 Nov 19th and 5000-10,000 Nov 23rd. Flocks were widespread, mobile and usually distant, much disturbed by shrimp boats. Numbers soon dropped, however, to between 1000-2000, dispersing as quickly as they came.

Velvet Scoter

Melanitta fusca

Winter visitor, but numbers and localities fluctuate; occasional in summer

Max counts at selected sites; main concentration Titchwell/Brancaster (some duplication of counts is probable):

	Jan	Feb	Mar	Apr	Sep	Oct	Nov	Dec
Heacham/Hunstanton	-	-	5	4	-	8	-	-
Holme	-	-	2	-	-	14	4	-
Titchwell/Brancaster	5	12	7	1	1	1	4	23
Cley/Salthouse	-	-	-	-	-	10	4	2

An exceptional count of 30 Hunstanton May 4th with 2000 Common Scoter. Otherwise only small numbers seen elsewhere in first winter period: north Eccles Jan 1st, west Holkham Bay Jan 16th, 2 Winterton Feb 10th and 2 Snettisham March 18th.

A few summer records this year: 7 Titchwell/Brancaster June 16th and 26th, and single there July/Aug; also one south Yarmouth July 12th.

In autumn 5 west Holme Aug 29th, Eccles Sept 3rd and west Sheringham Sept 14th, then 1-5 moving off Cley, Salthouse, Sheringham, West Runton, Mundesley, Paston and Winterton Oct/Nov. Larger counts of 8 west Sheringham Oct 14th and 30th, and 8 north Hunstanton Oct 20th. In Nov 1-5 regularly Eccles-Winterton, and at least 6 Holkham Bay Nov 20th and 23rd with large Common Scoter flock.

Goldeneye

Bucephala clangula

Passage migrant and winter visitor

Max monthly counts at principal sites:

	Jan	Feb	Mar	Apr	Oct	Nov	Dec
Snettisham	73	60	74	30	-	23	65
Titchwell	23	30	5	1	5	10	36
Scolt Head/Brancaster Hbr	43	32	12	2	2	51	66
Holkham Park	50	50	40	9	-	-	20
Blakeney Hbr	18	26	2	-	-	27	63
Hickling Broad	22	26	27	-	-	28	10

Max counts of 10 or more in winter also regularly at Heacham, Hunstanton, Holme, Thornham Hbr, Burnham Overy Hbr, Holkham Bay, Wells Hbr, Horsey Mere, Martham Broad, Ormesby Little Broad and inland at Lyng GP, Pensthorpe, Pentney GP, Sennowe Park, Tottenhill GP and Ouse Relief Channel. Also present at many other inland sites in single figures.

Most birds had departed by mid-April. Last 2 Snettisham May 3rd, but one Kelling WM June 26th-July 17th.

First in autumn 2 west Cley Aug 22nd, one west Sheringham Sept 14th and one Pensthorpe Sept 28th. Main westerly passage end Oct/early Nov including 12 Cley Oct 31st, 50 Sheringham, 47 West Runton, and 35 East Runton all Nov 1st, 26 (north) Eccles Nov 2nd, and 28 Sheringham and 24 Mundesley Nov 4th.

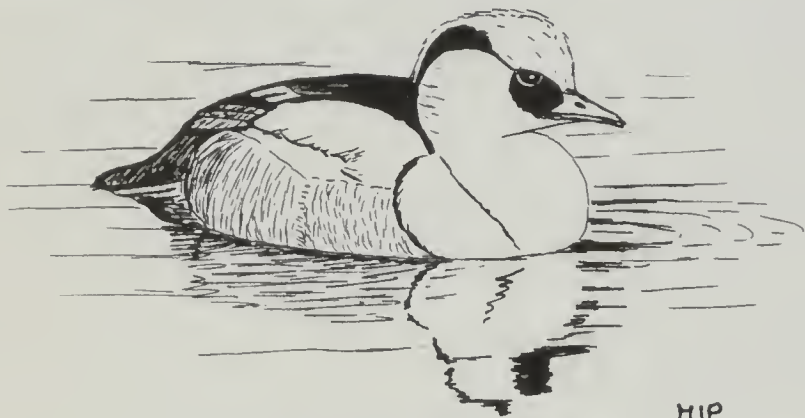
Smew

Mergellus albellus

Winter visitor, only appearing in numbers during severe winters

The small influx in Dec 1997 was concentrated as usual in eastern Broads, the Ouse Relief Channel and adjacent GPs. Birds continued primarily to be seen in these areas in early 1998 and were often very mobile, regularly flying between different sites. Records (with max counts in brackets and estimated min numbers in square brackets) from Breydon (2 Jan), Bure Park, Yarmouth (1 Feb, 1 March) last seen March 8th, Cromes Broad (2 Jan), Hickling Broad (3 Jan, 4[5] Feb), Horsey Mere (1 Jan), Langor Bridge GP (2 Jan), Martham Broad (1 Jan, 2 Feb), Ormesby Little Broad (2 Jan, 4 Feb), Snettisham (1 Feb), Stowbridge Relief Channel (4 Feb), Swanton Morley GP (1 Jan), Tottenhill GP (4[5] Jan, 4 Feb), and Welney (3 Jan). Most birds had left by end Feb.

Earliest in second winter period a 'red head' south Yarmouth Nov 3rd, with 2 Welney Nov 24th, which signalled another influx, again to eastern Broads and Ouse Relief Channel. Records (with max counts in brackets and estimated min numbers in square brackets) from Breydon (1 Dec), Cley (1 Dec), Filby Broad (4 Dec), Hickling Broad (3 Nov, 4 Dec), Lynford GP (1 Dec), Martham Broad (1 Dec), Ormesby Little Broad (3[4] Dec), Stanford Water (2 Dec), Stowbridge GP (1 Dec), Ouse Relicf Channel (1 Dec), Pentney GP (1 Dec), Tottenhill GP (2 Nov, 9 Dec) and Welney (2 Nov, 2 Dec). At Tottenhill GP 9 'red heads' Dec 11th, and 8 Dec 13th and Dec 28th represent an unusually large group.



HJP

Smew (M Preston)

Red-breasted Merganser

Mergus serrator

Passage migrant and winter visitor; occasional in summer

Max monthly counts at principal coastal localities:

	Jan	Feb	Mar	Apr	Oct	Nov	Dec
Snettisham	22	32	18	7	10	21	10
Heacham/Hunstanton/Holmc	53	30	39	18	5	55	90
Titchwell	30	30	5	2	8	39	29
Scolt Head/Brancaster Hbr	29	35	41	34	31	42	62
Blakeney Hbr	13	33	35	4	-	36	24

National importance (winter):100

Also regular in small numbers in first winter period in Holkham Bay, and at mouth and inland along R Ouse. Only east coast records: Breydon Jan 21st and 2 south Horsey Feb 28th.

Lingering birds in May Welney 2nd, Titchwell 11th, Thornham Point 22nd, Ongar Hill 25th, and Overstrand 27th, mostly prs. At Snettisham 3 May 3rd, 2 until month end then a male to Sept 2nd at least; also 2 Scolt Head/Brancaster Hbr all summer. In addition one Yarmouth July 12th.

Autumn movements began at Brancaster with 2 Aug 27th, then Holme Sept 13th and 3 Brancaster Sept 14th. Notable counts of 52 north Eccles Nov 4th, and at Sheringham westerly movements of 20 Nov 1st, 52 Nov 4th, 15 Nov 15th and 16 Nov 16th.

In second winter period, as well as north-west coastal records above, again regular at Holkham Bay (where max 11 Nov 19th and 16 Dec 30th) and off Warham Greens/Stiffkey.

Goosander

Mergus merganser

Winter visitor and passage migrant, most abundant in severe winters

Max counts from favoured sites:

	Jan	Feb	Mar	Nov	Dec
Buckenham/Cantley (R Yare)	-	5	1	-	2
UEA Broad	20	14	6	-	7
Thetford Nunnery Lakes	14	9	8	10	15
Lynford GP	11	16	-	2	10
Saddlebow/Denver Sluice*	6	23	-	-	16
Whittington Relief Channel*	11	-	-	-	11
Welney*	-	2	7	-	-

* Considerable interchange occurred between these sites and adjacent Stowbridge and Tottenhill GPs.

In first winter period also records from (max counts): Brettenham (4), Bridgham (2), Cley (1), Cranwich GP (2), Lakenheath Washes (1), Lound (2), Middleton (8 Feb 28th), Ranworth Broad (1), Rockland Broad (2), Snettisham (1), Strumpshaw (2), Thetford (1) and Titchwell (1). The following movements noted Jan-March: Jan south Hunstanton and 2 west Brancaster 11th, 3 west Titchwell 17th, 2 west Brancaster 19th, one west Mundesley 23rd; Feb 2 west Holme 17th; March over Flitcham 1st, west Sheringham 5th and 21st.

Late migrants in May at Stiffkey Fen 14th, Rockland Broad 17th, west Sheringham 20th and Titchwell/Brancaster 22nd. Also a drake Snettisham May 29th to Sept 4th.

Autumn movements: Stiffkey Fen Aug 24th, another Snettisham Sept 7th, west Sheringham Oct 26th and 2 west 27th, East Runton Oct 30th, 3 north Eccles Oct 31st, 12 west Beeston Bump Nov 1st, 8 Mundesley Nov 4th, and 6 west Holme Nov 7th, then several records of 1-2 west from Eccles to Titchwell Nov/Dec. Also in Dec 4 west Brancaster 7th and 7 west 8th, then 3 west Cley 16th.

In second winter period also records from (max counts): Felbrigg Park (1), Hickling Broad (5 Nov 15th), Horsey Mere (1), How Hill (1), Kilverstone GP (1), Lakenheath Washes (2), Ranworth Broad (1), Rockland Broad (3), Selbrigg Pond (1), Stowbridge GP (4), Sparham Pools (4), Swanton Morley (2), Wecting (1) and Whitlingham Lane GP (2).

Ruddy Duck

Oxyura jamaicensis

Introduction from North America, first recorded 1977; now widespread and breeding increasingly

More numerous this year with max counts from Hickling Broad (12 Feb), Pensthorpe (23 Sept), Pentney GP (20 Jan), Sennowe Park (10 Jan), Tottenhill GP (16 Feb) and Welney (10

April). In winter months also 1-2 at Broom GP, Colney GP, Filby Broad, Hardley Flood, Lynford GP, Lyng GP, Martham Broad, Ranworth Broad and Rollesby Broad, and up to 7 at Swanton Morley GP.

Pairs present in breeding season at Alderfen Broad (1), Blickling Lake (1), Cantley BF (1 brood), Cockley Cley (2 broods), Hickling Broad (1), Holkham NNR (2-3), Holkham Park Lake (2 broods), Mautby Decoy (1 brood), Pensthorpe (3+ broods), West Raynham Lake (2 broods), Surlingham Church Marsh (1), Thompson Water (2-3), Tottenhill GP (1), Welney (2-3), Westmere (1) and Wolterton Hall (1). Single birds were also recorded at Baconsthorpe, Cockshoot Broad, Holme, Reedham Water, Sennowe Park, Stanford Water and Titchwell.

Honey Buzzard

Pernis apivorus

Rare migrant breeder and scarce passage migrant

In May migrants west Weybourne 12th, west Thornham 14th, Titchwell 15th, 19th and 23rd, and Holkham Park 28th.

First seen at usual breeding site May 17th. Up to 4 birds were eventually present but no conclusive evidence of successful breeding, though display was seen on several occasions. One Sennowe Park June 24th was presumably from this location.

An unusually large number of autumn records: one was flushed from Sutton Fen and flew east July 27th, one Breydon July 28th was possibly same. Two were over Barsham Aug 5th, followed by singles Holme and south Snettisham Aug 8th and near Cranwich Aug 11th. A juv perched in a bramble bush in thick fog Scolt Head Sept 2nd, departed south after 20 mins. Further singles Horsey Sept 12th, Hempstead Marsh (Lessingham), Gunton and Sheringham Sept 20th, in off sea and west Sheringham and Cley Sept 27th, another in off sea Cromer Sept 27th, Winterton Sept 30th and finally Swanton Abbott Oct 3rd.

Black Kite

Milvus migrans

Vagrant from the Continent, usually in spring

Singles Norwich May 17th (IM) and Sheringham BO and Sheringham Park next day (APB).

Red Kite

Milvus milvus

Increasing visitor; birds from the Continent and British reintroduction projects occur

In first winter period the 2 birds present from late 1997 in Hoveton area remained to early Feb before moving to How Hill area Feb 4th-19th. During this period singles Horsey Jan 10th, Reedham Jan 24th and 29th, Cockshoot Broad Jan 30th, Manson Green (near Hingham) Feb 23rd and 3 Winterton Feb 17th. In March Syderstone 7th and a small number of records in proximity of Suffolk border which presumably related to birds from recently used breeding site.

Spring passage unspectacular with singles in April at Cley 5th, Watton and East Tuddenham 24th, Rockland Broad 29th, and in May at Holme 8th, Berney and Halvergate Marshes 16th/17th, Salthouse Heath 20th and Swanton Novers 26th.

In June, 2 Gorleston 9th/10th were thought to be displaced from the Suffolk breeding site after a failed nesting attempt. Additional summer singles Hollow Heath June 17th, Swanton Novers June 21st and July 11th, Titchwell June 23rd, Caston July 13th and Horsey July 27th. Also, 2 birds were present throughout June at a confidential locality.

The Horsey bird above (July 27th) may have been one of at least 2 different wing-tagged birds in Horsey/Hickling/Winterton area Aug 1st-Oct 23rd, one of which was released in Northamptonshire during late July. Additional autumn singles Thetford Aug 7th, Titchwell

Aug 9th, Rockland Sept 4th, Thetford Nunnery Sept 24th, East Tuddenham Sept 30th and How Hill Oct 17th.

During second winter period 2 were again present at Suffolk site and were occasionally seen nearby in Norfolk. Another regularly in Flitcham area from Nov 5th and was joined by a second late Dec. Both remained to year end, often in Flitcham/Gayton/Anmer area, but also increasingly over Massingham Heath, where Common Buzzards, Rough-legged Buzzards, Hen Harriers and the 2 Red Kites provided some superb raptor watching opportunities.

Marsh Harrier

Circus aeruginosus

Increasing migrant breeder, also passage migrant; small numbers winter

Three Broadland roosts were occupied during first winter period with main roost holding max of 10 Jan, 6+ Feb and 8 March. In mid-Yare valley, 4 roosted Jan, 4 Feb and 3 March and in Waveney valley 4 Jan, 5 Feb and 5 March. Also during this period singles noted west Scolt Head Jan 21st, and in Feb Cley 2nd, Titchwell 3rd, 6th and 21st, Blakeney Hbr 10th, Burnham Norton 18th and Snettisham 19th.

First spring passage birds Holme March 8th, Titchwell 10th and south-east UEA 11th followed by a steady increase with migrants widespread at coastal locations in last week of March and a number of breeding sites recorded displaying birds in first week of April.

Indication of scale of spring passage from Scolt Head where 23 moved through March 23rd-May 9th including 4 west April 7th and 6 west May 8th. In contrast, just 8 recorded from Sheringham in same period. Inland during spring Framingham Earl April 6th, Whitlingham Lane GP April 26th and May 1st, Hanworth Common May 3rd, Cockley Cley May 19th, East Tuddenham 3 dates in May and Roydon Common June 6th.

A total of 59 nests (56 in 1997) located, fledging a minimum of 117 young, surpassing the previous record total of 114 in 1992. Success rates in Wash were particularly good with 50+ young from 19 nests, and 26 young from 12 nests on north coast. A pr bred successfully in Wensum Valley for first time. Numbers of fledged young in recent years tabulated below:

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Fledged young	60	82	88	90	75	114	105	71	112	87	88	117

Aberrant-plumaged local-bred juvs were noted at Strumpshaw, Titchwell and Snettisham, where white outer primaries were a common factor in all 3 birds.

First autumn movement Sheringham July 1st, when female west. At Welney, noted on 11 dates in July (min 3 birds) then throughout Aug (min 4) and Sept (min 6). Records from less usual locations in autumn included Holme Hale Aug 3rd, Lopham Fen Aug 14th, Stanford Water Aug 16th, East Wretham Sept 29th and regularly at Flitcham where up to 5 birds with last Oct 16th.

Most birds had departed by end of Sept but lingering individuals away from Broads roosts at Scolt Head Oct 1st, 3rd-5th and 26th-29th,



Marsh Harrier (S Cale)

Holme and East Hills (Wells) Oct 18th, 2 west Overstrand Oct 20th, Cromer GC Nov 6th, Wells Nov 21st, throughout Nov at Titchwell where last Dec 17th, Snettisham Dec 21st and intermittently at Cley to Dec 29th at least.

Three roosts again in use in Broads in second winter period. Main roost max 9 Oct, 4+ Nov, 8 Dec; in mid-Yare valley 2 Oct, 2 Nov and 3 Dec; in Waveney valley 2 Oct, 2 Nov and 3 Dec.

A bird ringed in Wash was recovered in Algeria in 1997.

Hen Harrier

Circus cyaneus

Passage migrant and winter visitor; former breeder, now exceptional in summer

Roosting numbers remained stable from end of 1997 into Jan-Feb when male Sennowe Park Feb 18th was only record away from usual areas. Details of roosts for first winter period tabulated below; no data received for roosts H, I, J and K, though each of these is only sporadically used in most years:

	Roost									Max total
	A	B	C	D	E	F	G	L	M	
Jan	4	11	-	1	-	-	3	6	4	29
Feb	5	9	-	1	-	3	3	5	3	29
Mar	-	4	-	3	1	3	2	5	1	19

As usual, most birds had departed by mid-April, but lingering birds in late April at Cley 25th, Horsey 26th, East Ruston and Happisburgh 27th, Scolt Head/Brancaster regular to 28th, Berney 29th, and in May Ae-le-Yarmouth 2nd, Scolt Head 3rd/4th and 8th, Burnham Norton 8th and last Ringstead 30th/31st.

First in autumn Pentney GP Sept 17th and Thornham Point Sept 21st, then in early Oct Morston 2nd, Welney 3rd, Blakeney Point 4th, East Ruston 6th, Brancaster and picked up dead Holme 7th. Only slow increase in numbers throughout Oct and usual levels not attained until late Nov. By end of year roosting population similar to that at start of year and equates to what is considered normal for county in recent years. The only record during this period away from roost sites and usual hunting areas was 2 Stanford TA Dec 6th which also constituted the only record of year in Brecks.

Again, no details from roosts H, I, J, and K in second winter period:

	Roost									Max total
	A	B	C	D	E	F	G	L	M	
Oct	2	1	-	-	-	1	3	-	-	7
Nov	5	5	-	1	-	2	3	1	-	17
Dec	6	8	2	2	-	2	2	1	3	26

A wing-tagged juv female Sheringham Nov 4th had been in Forest of Bowland, Lancashire, and was the first English-tagged Hen Harrier from the population in question to be controlled anywhere. (See also Ringing Report - Selected Recoveries.)

Montagu's Harrier

Circus pygargus

Rare migrant breeder and scarce passage migrant

First spring migrant Waxham April 23rd, with arrival on breeding grounds from April 25th, but numbers exceptionally slow to build and passage unimpressive. A male east Cley April 29th and in May male Burnham Norton 4th, ringtail Sheringham 8th/9th, imm male west

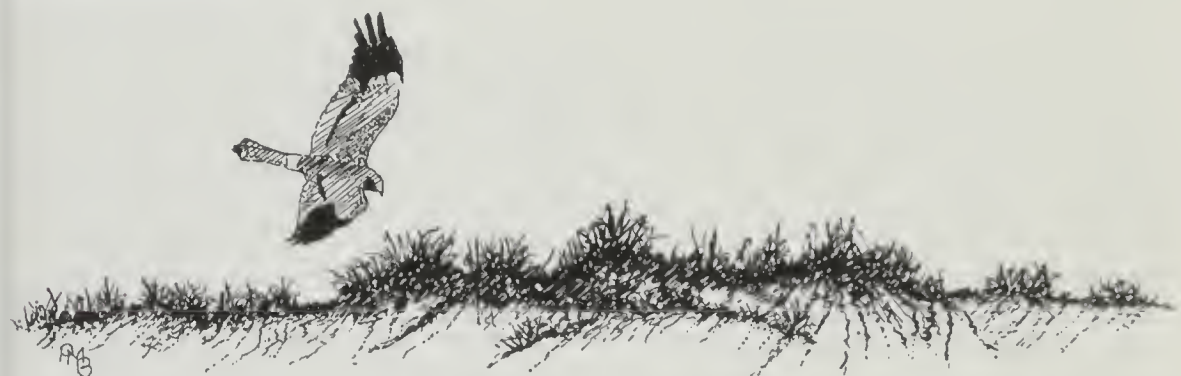
Cley 17th, ringtail Saham Toney 23rd and males Winterton and Hunstanton 30th. In June an imm male Winterton 10th may have been same as that at Choseley 16th, Holme 19th and Burnham Norton 20th.

Despite the presence of up to 4 males and 3 females in breeding area only one pr bred, successfully rearing 4 young. There does not appear to be any logical explanation for this major decline since previous year.

Breeding details since 1988 tabulated below:

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Nests	3	5	5	2	4	4	9	4	3	7	1
Fledged young	6	13	13	7	10	13	11	12	10	6	4

As is often the case with this species, autumn dispersal scarcely noticed with singles in July at Belton 11th, Strumpshaw 26th and Welney 30th. Just 2 Aug records, Foxley Wood 1st and Titchwell 31st, were followed by 2 Sept juvs, south at Lenwade 4th and Repps-with-Bastwick 5th/6th.



Montagu's Harrier (*P Beeson*)

Goshawk

Accipiter gentilis

Rare breeder; also scarce passage migrant and winter visitor

Away from potential or suspected breeding areas, one on 3 occasions in mid-Yare valley late Jan to mid-Feb and another Flitcham March 27th and 30th.

Birds noted in display at just 3 sites during March-April, only one of these in Brecks. A number of other localities in Brecks produced odd records during this period but all related to single birds. Away from these areas singles King's Lynn April 16th, Snettisham April 27th, Horning Hall May 2nd and Garboldisham on 3 dates late May and early June.

In July, one arrived from east over Walsey Hills, Cley 25th before heading south, and in Aug one Frettenham 29th and another Hickling (Stubb Mill) 31st.

Few records in late autumn and second winter period; most related to Breckland sites but singles over Holt-Cromer ridge Sept 29th and Morston Oct 7th and 9th.

Sparrowhawk

Accipiter nisus

Common resident, passage migrant and winter visitor

Regularly recorded from a variety of habitats in all months of year. Recorded prey species included Redshank, Bearded Tit, Collared Dove, Woodpigeon and Wheatear.

First spring migrant west Weybourne March 23rd, with 2 west May 9th. At Winterton an impressive 15 headed south (some in off sea) April 3rd and 3 passed south Hunstanton April 19th. At Scolt Head, singles west April 21st and 22nd with 2 west May 8th and 9th. At Sheringham 2 west April 26th and 2 departed north May 4th.

Breeding details received for 38 prs at 28 sites but with little indication of success rate. The increase on previous year is merely an indication of reports received, but still a small proportion of the real figure, and there is nothing to indicate the population is currently anything but stable.

Autumn migration less pronounced with 6 west Northrepps Oct 18th and 3 west Oct 20th; probably the same 3 birds west along Holt-Cromer ridge at West Runton on same date. Another west Sheringham Nov 11th. Interestingly, the peak of autumn activity coincided with several birds at Horsey Oct 16th, awaiting migrants arriving from the sea. Were these local birds exploiting an annual phenomenon, or possibly migrants themselves, using the same weather conditions as their prey and replacing spent reserves at the end of their journey?

Common Buzzard

Buteo buteo

Passage migrant and winter visitor; small but increasing breeding population

More obvious than usual at start of year with singles away from known breeding areas at 14 locations Jan-Feb, plus 2 South Runcton Jan 1st, 2 Houghton Jan 17th and 2 Kelling Triangle Feb 8th, and birds present at several of last year's breeding territories, in some cases still accompanied by last year's young.

Spring passage commenced early March when west Bayfield 2nd and Roughton 7th and 2 south-west Strumpshaw 9th. Passage generally light, involving 10+ birds until end of March when 6 west Sheringham 27th, and into early April when 3 south Halvergate 3rd. A further peak in movement in last week of April when noted at Beeston Regis, Hickling, and Salthouse 23rd, in off sea Holkham 24th, 2 Ongar Hill, singles Aylmerton, Glandford and Holme, and 4 in off sea Cley 26th. May produced 4 west Holme 8th with singles Holkham and Overstrand, 3 east Inceborough Hill and 3 south Blakeney 9th, and 4 east Breydon/Berney 16th. Light passage continued to early June when singles Holme 1st, Ludham 3rd, East Tuddenham 6th and Breydon 7th.

Information received relating to the Institute of Terrestrial Ecology release scheme in Norfolk (*see NBR 1995, pp 602-6*), indicates that a total of 18 birds had been released by the end of 1996, 2 of which died almost immediately after release. All birds carried radio transmitters on release and subsequent tracking has revealed 6-11 birds are currently still surviving. It can also be revealed that one of the 1996 breeding pairs comprised birds previously released under the ITE scheme.

Once again an increase in breeding numbers recorded with 5 confirmed prs producing a minimum of 7 young. The latter figure is a conservative estimate and it is likely that some of the probable prs also fledged young. This increase in recent years would appear to be a result of a combination of range expansion from the south-west, increased spring passage through the county and the added presence of released birds. This increase is mirrored in the whole of south-eastern Britain where breeding prs are now present in all counties except Kent (R Clements, *pers comm*).

It appears that this species is set to become a welcome permanent addition to the county breeding list. Details since breeding recommenced in 1992:

	1992	1993	1994	1995	1996	1997	1998
Confirmed breeding prs	1	3	2	1	2	4	5
Probable breeding prs	-	1	1	-	5	4	5
Possible breeding prs	1	1	1	1	1	1	2
Max breeding prs	2	5	5	2	8	9	12
Min fledged young	2	6	2	1	2	7	7

In addition to above, up to 2 birds at an east coast locality Jan-May and another in Broads for most of year. Further summer records from East Tuddenham June 16th, Mautby Dceoy June 26th, Sheringham west July 1st and near Upwell July 14th-20th.

During Aug/Sept many records of birds in vicinity of breeding areas, including some family groups; elsewhere, in Aug Thornham 9th, Briningham 18th, East Tuddenham 20th, 2 south Ketteringham 22nd, Salthouse Heath 30th, Foulden 31st and in Sept Waxham 12th.

Light but steady autumn passage in Oct when singles west Sheringham 1st, 16th, 18th and 20th, 1-2 Horsey/Hickling and Waxham/Winterton 2nd-11th, Holme, Morston and Yarmouth 4th, Cromer 6th, Castle Acre 9th, Titchwell 16th, East Hills (Wells) 18th, west at Northrepps 18th and 20th, Bayfield Hall 22nd, and 2 south-west Great Dunham 26th when single Besthorpe.

During Nov/Dec Garboldisham Nov 1st, Winterton Nov 1st and Dec 16th, Brake Hill (Swaffham Forest) Nov 1st and 21st, Brisley Nov 2nd, Bawdeswell Nov 6th, probably the same Sparham Nov 10th-year end, Tivtshall Nov 21st, 2 Oxwick Dec 2nd. Hickling Dec 20th and several birds still in breeding territories.

Rough-legged Buzzard

Buteo lagopus

Passage migrant and winter visitor; periodic large-scale influxes

During first winter period at least 2 wandered widely in north-west of county until March 19th, including 2 together Choseley Feb 28th. Also singles Holt Lowes Jan 9th, Halvergate Marshes Feb 14th-22nd, possibly same Chedgrave Feb 23rd and Horsey Feb 23rd. During March Herringfleet 9th, over Edgefield tip 20th, Dersingham Bog 21st/22nd, Flitcham 29th and 1-2 Halvergate and Acle Marshes 28th with 3 there 29th, 2 30th, one remaining to April 9th. Further singles in April in off sea Winterton 3rd, Bawsey 5th, Burnham Norton 19th, Snettisham 21st/22nd and 29th, and Holkham/Burnham Overy Dunes 24th.

An exceptionally late bird south Waxham June 1st (TCN).

Impressive autumn influx in Oct; on 9th singles at Northrepps, Eeels/Happisburgh (until 14th), Hickling, Horsey and Winterton; on 10th Warham Greens, Sheringham, 2-3 Waxham and 7 north in 45 mins (0915-1000 hrs) at Horsey Gap. Subsequently in Oct: 2 Waxham/Sea Palling 11th/12th; Warham Greens 12th; Holme, Scolt Head and Cley 13th; Ridlington and Northrepps 15th; 2 Titchwell, 1-2 Holkham, 3 Cley, 3 Sheringham and 2 Ringstead 16th; Holme/Thornham and Ringstead 17th-21st; Horsey 17th/18th; East Hills/Warham Greens 18th/19th; up to 4 Chedgrave/Fritton 18th with 2 to 25th; Titchwell 20th-22nd and 24th; 4 west West Runton 20th when singles Scolt Head, Burnham Overy and Tallents Meadow Lake; also 3 Berney/Halvergate Marshes 20th, 2 there 31st-Dec 15th with one remaining to year end. Further singles in Oct at Salthouse Heath 22nd, Reedham 24th/25th, Bodham 26th, Great Cressingham 29th and Scolt Head 31st.

Fewer during Nov when singles Choseley 1st, west Scolt Head 5th and 13th, Warham 3rd-5th, Potter Heigham 7th, intermittently Flitcham from 10th, Thornham 24th, Hickling 25th and Fakenham/Sculthorpe 26th. In Dec, possibly a further small influx late in month when 2 Stiffkey/Warham 19th with one to 21st, 2 Haddiscoe 20th when singles (thought to be same) Syderstone, North Creake and Burnham Market, another Roydon Common 21st and again at Stiffkey 30th/31st.

Due to the inevitable duplication it is impossible to give an accurate assessment of how many birds were involved in the autumn influx, but it seems likely that the total exceeded 30.

Osprey

Pandion haliaetus

Regular passage migrant in small numbers; over-summering has occurred

An amazing year with so many records it is difficult to separate spring and autumn passage periods. Several birds remained for prolonged periods, particularly in autumn. Spring passage involved a minimum of 35 birds and was about average by recent standards. Autumn passage produced a phenomenal total of about 50 with at least 9 birds in county Sept 27th.

First of spring Lyng-Easthaugh GP on early date of March 30th. April records from Rollesby Broad and Castle Rising 13th, Gunton Park 14th, Narborough 17th and 25th, Scolt Head 23rd and Blakeney 27th, plus 3 different birds Bure Valley Lakes late April to early May.

During May singles Waxham and Hickling Broad 4th, Cley, Winterton and East Ruston 5th, Blakeney Point and Paston 8th, East and West Runton, Sparham and in off sea Warham 9th, Weybourne 12th, west at Scolt Head 14th and 16th and east there 30th, Martham Broad 14th, Yarmouth 18th, How Hill 22nd, Swanton Novers 26th, Hickling Broad 27th/28th, Lynford GP 30th/31st and Buckenham Tofts 31st.

Fewer in June when noted Flitcham 3rd, Gillingham 4th/5th, Buckenham Tofts 5th, out to sea Sheringham 6th, Lynford Arboretum 7th, Scolt Head 10th, Yarmouth 21st and How Hill 29th.

In addition to above, one began a prolonged stay in the mid-Yare valley April 24th, to be joined by another May 21st, with both (adult and imm) present to Oct 1st and at least one to Oct 11th. During their stay, both were seen together on several occasions at both Rockland Broad and Strumpshaw but also wandered singly to Brundall, Buckenham, Cantley, Hassingham, Surlingham and Wheatfen.

In July singles How Hill 1st and 24th, Buckenham Tofts 3rd, Hardley Flood 11th, Pentney GP 23rd, and Garboldisham and Cockshoot Broad 25th. In Aug Scolt Head 7th and 8th (2 birds), Heacham 9th, Belton 10th, Hickling Broad 16th and 23rd, Middleton GP 20th, Stanford Water 21st, Brancaster 22nd and How Hill Aug 28th-Sept 4th (a Scottish ringed juv which also visited Alderfen Broad Sept 3rd).

During Sept recorded at Snettisham, Titchwell and Welney 1st, Feltwell Fen 3rd-7th, juv Holkham Park Sept 3rd-Oct 3rd with 2 juvs there Sept 7th-27th, Wells Hbr, Blakeney Point, Cley, Thurne Lake and Mannington Hall 6th (later picked up dead), with another at latter site 10th, in off sea Burnham Overy 7th, Titchwell and Cringleford 9th, Ranworth 10th, Scolt Head 10th, 27th and 30th, Cley 11th, Breydon 12th and 20th, Catfield 15th, Gunton Park 16th, Hempstead (Lessingham) 18th, Old Costessey 19th, probably same Sparham Sept 20th-Oct 7th, East Ruston 22nd, How Hill 23rd, Sheringham and Shereford/Tatterford 26th, 3 in off sea and east Cley in 45 mins (0900-0945), and later Sheringham, with singles Snettisham, Acle and Alderfen Broad, all 27th.

Predictably fewer in Oct when Welney, Sheringham, Eccles, Sea Palling and Breydon 1st, Sidestrand/Northrepps 2nd, Burnham Overy Staithe 2nd/3rd, Lynford GP 4th, 10th and 24th, Breydon 5th, Buckenham Tofts 7th-13th, adult and juv up the Wensum valley 11th, juv Bayfield Hall Lake 11th-22nd, probably the same Glandford 18th, and last of year Stanford TA 25th.

Kestrel

Falco tinnunculus

Resident and passage migrant

The level of recording for this species is still inadequate to provide meaningful comment on breeding levels in county.

Virtually unrecorded on spring passage: west Scolt Head April 20th and 2 west there May 8th, and west Sheringham May 10th.

A second consecutive poor breeding season reported from Stanford TA but no details provided. A total of 25 nests recorded from 19 locations elsewhere. At Yarmouth, up to 5 prs continued to prey on the Little Tern colony, where chick shelters and supplementary feeding of the Kestrels helped alleviate the problem.

In autumn, 7 moved east at Overstrand Sept 20th and one arrived from sea Holme Oct 18th. A late autumn concentration Berney/Halvergate Marshes where 15+ Nov 7th and 30 Nov 15th. Elsewhere max 6 Welney Nov 9th.

Red-footed Falcon

Falco vespertinus

Vagrant, most often in spring; large influx in 1992

1997 Addition: A female Burnham Overy Dunes May 20th (SJMG) elevates the total for that year to at least 6.

Merlin

Falco columbarius

Passage migrant and winter visitor; exceptional in summer

Records received from just 2 roost sites in first winter period; combined monthly max 5 Jan, 6 Feb and 3 March.

Regularly noted at coastal locations between Titchwell (up to 2) and Cley Jan-March, 1-2 Breydon throughout Jan and 1-2 Chedgrave Jan to mid-Feb (possibly the Breydon birds). At Scolt Head/Brancaster Hbr 1-2 throughout March and at least one to late April with 2 there April 20th. Elsewhere, regular during Jan-March in proximity of Broadland roosts but less common at other coastal sites. Also during this period, at other inland sites at Scarning Jan 4th, Feb 18th and March 5th, Stanford TA Jan 6th, Mundford Jan 10th, Sculthorpe Jan 18th, Flitcham Jan 20th and 31st, Northrepps Jan 24th, UEA Feb 1st-6th and March 6th, Langham Feb 16th, Massingham Heath Feb 22nd, Drymere March 8th. Holme Hale March 8th, 21st and 26th, and Hindringham March 12th.

Decreasing numbers during April with inland records from Rockland 1st, Welney 13th and Pentney GP 22nd and occasional singles at 10 coastal sites including one in off sea Holme 20th, remaining to 24th. During May/June singles intermittently Scolt Head/Brancaster Hbr May 10th-30th and Cley, Salthouse and Blakeney Point area May 6th-June 6th, plus 2 Holme May 3rd and single there 4th, and Podmore Farm (Nar valley) May 4th.

Exceptional midsummer records from Scolt Head/Brancaster Hbr June 28th and July 3rd are difficult to assign to either passage period.

First of autumn Ouse Washes (RSPB) July 31st, then 2 Snettisham Aug 15th and singles Cromer GC Aug 21st and Scolt Head Aug 22nd. Numbers slow to build in Sept when noted Blakeney Point 1st, Wells 6th, Sheringham 6th, 23rd/24th and 25th (3 birds), Snettisham 7th and 24th, Narborough 20th, Eccles 22nd and 30th, Welney 22nd-25th and Mundesley 28th.

During Oct-Dec singles regular at coastal sites from Wash to Sheringham including singles offshore at Yarmouth Oct 22nd and in off sea Holme Oct 12th. Also, 1-2 Breydon Oct with at least one into Dec, 1-2 Chedgrave Oct with one into Dec (again, possible duplication here), 1-2 regular Scolt Head/Brancaster Hbr Oct with 3 there Oct 11th, plus regular records from proximity of roosting areas. Additionally during this period records of 2 at Sheringham Oct 1st, Snettisham Oct 3rd/4th, Winterton Oct 7th, Happisburgh Oct 11th, Holkham Bay Oct 19th, Blakeney Point Nov 20th and Titchwell Dec 3rd.

Singles away from more regular haunts during second winter period as follows: *Oct* Thetford 8th, Brundall 9th, Fersfield Airfield 17th, Northrepps 18th and Aylmerton 20th; *Nov* Hilborough 10th, Cantley BF 29th; *Nov-Dec* Feltwell 6 dates (at least 2 birds); *Dec*

North Creake 7th, West Acre 8th, Welney 10th, Cranwich 13th, Blackborough End and Langham 16th, and Flitcham 20th and 23rd.

Roosting data received from just 2 sites again at end of year when combined monthly max 6 Oct, 8 Nov and 5 Dec.

Interestingly, one was seen to catch and kill a Lapwing at Holme, taking a full 10 mins to despatch its over-sized quarry.

Hobby

Falco subbuteo

Scarce but increasing migratory breeder and passage migrant

First of spring Fakenham and Holme April 19th, again at latter site April 21st, 2 there 22nd and one 25th. Also in April Brundall 21st, Cromer GC 3 west 22nd, Sea Palling and Barnham Cross Common 23rd, Colney GP 27th-29th, Cley 28th, and Hellesdon and Snettisham 29th.

Passage increased steadily throughout May when singles widespread throughout county by end of month, with records of 2 at Colney GP 6th, Hickling 9th, Cley and Swanton Novers 19th, Salthouse 24th and Welney 25th. In June, 2 Haddiscoe 25th was only multiple report away from known or suspected breeding areas and singles were regular at many habitats during month.

Breeding was confirmed at 7 locations, though details on success levels were somewhat lacking; however, a min of 8 young reached fledging stage. In addition, a further 5 sites held at least 2 birds throughout breeding period, in some cases up to 4 birds being present. It is likely that breeding may have occurred at some of these sites but the apparent increase in number of 1st-summer birds over-summering leads to a cautious approach. However, there is little doubt that this spectacular falcon is fast becoming more common during the summer and it is likely that further undiscovered pairs are present.

Breeding data in recent years is tabulated below:



Hobby (S Cale)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Confirmed prs	2	2	1	3	4	7	6	7	8	4	5	7
Possible prs	-	-	2	2	4	-	4	1	1	5	5	5
Max prs	2	2	3	5	8	7	10	8	9	9	10	12
Min fledged young	5	-	-	-	-	-	10	6	8	10	6	8

Most July records related to dispersing local-bred family groups and ever-wandering over-summering imms, but one hunting aerial insects offshore Sheringham July 17th, and 2 Snettisham July 22nd, may have been first returning birds of autumn.

During Aug-Sept numbers slowly declined as birds departed south. At this time multiple records away from known breeding areas 3 Ashill Aug 5th, 2 Thompson Water Aug 7th, 3

Sea Palling Aug 20th, 3 Welney Aug 22nd, 2 Scolt Head Sept 6th and up to 3 Holkham Lake Sept 4th-27th.

Many more lingered into Oct this year when noted singly at 9 locations to 8th plus 2 Welney 4th, then none until Oct 23rd when noted Welney, Titchwell and 2 juvs Winterton, with last of year Cockley Cley Oct 26th.

Peregrine Falcon

Falco peregrinus

Passage migrant and increasing winter visitor

It is now clear that wintering birds at Breydon are the same as those recorded at Chedgrave, Fritton and Haddiscoe, and may indeed wander into mid-Yare valley as well. At least 3 were present in this area in first winter period with at least one remaining to April 28th. Additionally 1-2 in Wash wandered as far north as Snettisham to March 29th, 1-2 Titchwell/Holme and inland to Choseley and Ringstead to March 14th, 2 Wells/Holkham to March 8th at least, one intermittently between Blakeney Point and Sheringham to Jan 31st and 1-2 intermittently at Welney to at least March 7th. Presumably records from Scolt Head Jan 1st, 10th and 17th/18th related to those frequenting Titchwell area.

During Jan-March, birds not easily attributable to occupied wintering territories at Bressingham and Fersfield Airfield Feb 8th, Thorpe Woodlands (Harling) Feb 10th and 28th, Thctford Warren and Wereham Feb 22nd and Flitcham March 9th.

One west Overstrand March 30th was probably first spring passage bird but situation becomes more clouded at this time as wintering birds depart and passage increases. Noted April Cley/Salthouse 10th, Holme 17th, Horsey/Winterton 17th, Blakeney Point/Morston and Cley 25th/26th, UEA 28th and in May Cley 5th, Scolt Head 7th, 15th, 21st and 27th, Holme 7th/8th and Swanton Novers 17th.

Occasional sightings during summer in Wells/Warham Greens area of an imm male may suggest over-summering (JRMc). If this was the case it is thought to be first such instance this century and surely reflects the upturn in the fortunes of the Peregrine in Britain since the end of persecution during World War II and the effects of DDT. Additional summer record from Strumpshaw June 19th/20th.

Early returning autumn birds Snettisham July 16th and Scolt Head July 22nd, 25th and 27th, where further singles Aug 5th/6th, 15th-17th and 25th. Also during Aug noted inland at Holt 11th, Welney 13th-16th and 31st, and Lakenheath 22nd, and coastal migrants at Snettisham 15th, Titchwell 21st-28th and Hunstanton 31st.

From Sept onwards increased records as birds began adopting the now usual wintering areas when at least 2 Fritton/Chedgrave and mid-Yare valley sites from Sept 11th, though not using Breydon regularly until Oct 15th; 1-2 Scolt Head/Brancaster Hbr from early Sept; 1-2 Titchwell/Holme from Sept 16th; singles in southern and eastern Wash from Oct 1st; one Blakeney Point to Salthouse and occasionally further east from Oct 26th. Also at least 2 different birds occasionally visited Welney Sept-Nov.

The difficulties of evaluating details of the wintering population are highlighted by events at Holkham/Wells/Warham where the following recorded: 2 juv females Oct 5th, male Oct 9th, 3 juv females mid-Oct, adult female Nov 3rd, juv male Nov 7th and 22nd and 2 adult females Dec 30th. If all birds were aged and sexed correctly, at least 7 birds in area at some stage during Oct-Dec. Interestingly, a juv female roosted beside an Osprey in this area Sept 17th-19th.

Also during Sept-Dec, further birds Wisington Sept 18th, Baconsthorpe Sept 29th and Oct 6th, Horsey Oct 11th, Wymondham Oct 26th and Dec 26th, Boyland Wood Nov 18th, Tibenham Nov 28th and in Dec in off sea Eccles 6th, Massingham Heath 13th, Winterton 16th, 2 Wereham 21st, and Lakenheath and Caister 28th.

One with jesses Horsey raptor roost Jan 26th, possibly same bird as at roost Jan 10th/11th.

Red-legged Partridge

Alectoris rufa

Common introduced resident

Several large coveys reported during early months of year with records from Merton (43), Thetford Nunnery Lakes (22) and Stradsett (45) Jan, Martham (22) and Felbrigg Park (21) Feb, and Cockley Cley (55) March.

A similar series of records in latter half of year with groups exceeding 20 at Stanford TA (60) Aug; Honing (26) Oct; Eccles (32), Merton (40), Watton (68) and Thetford Nunnery Lakes (32) Nov; Winterton (92) Dec.

Unusual records included an individual on the Norwich Union lawn beside Queens Road in central Norwich April 1st-3rd.

A survey of 49,000 acres by the Norfolk Partridge Group revealed 4981 adult birds raising 2115 young from 608 broods. The BBS results showed another slight reduction in the number of squares recorded.

Grey Partridge

Perdix perdix

Resident

Smaller coveys reported than Red-legged Partridge. All double-figure counts are listed: Snettisham (14) Jan; East Raynham (14) and Thetford Nunnery Lakes (20) Aug; Feltwell (8 coveys of up to 14) Sept; Hoe Meadows (10) and Caistor St Edmund (15) Oct; Warham Greens (12), Flitcham (14) and Stanford TA (25) Nov; Bodham (11) Dec.

The annual survey by the Norfolk Partridge Group revealed 2199 adults raising 2624 young from 526 broods on 49,000 acres.

The north-west of the county remains the stronghold for this species where it is still regarded as widespread and common. Total of 7 prs on Scolt Head (compared with 4 prs 1997) rearing 4 broods. With birds recorded in only 17 of the 59 squares covered by the BBS it would appear that the recent increase reported last year has been completely reversed.

Quail

Coturnix coturnix

Summer visitor in erratic numbers; sporadic breeder

Early arrivals in April at Burnham Deepdale 22nd, Sheringham 26th and 28th, and Breydon 27th.

A spate of widely scattered records of calling males throughout May, June and July from a total of at least 21 localities with concentrations along the north coast but several in central areas. Mainly singles noted but included 5+ Baconsthorpe, 2 Cawston Heath, 16+ Choseley, 2 Flitcham, 4+ Ringstead, 2 Sheringham and 4 Titchwell.

1998 can safely be described as a 'Quail year' evidenced by a partial survey of suitable habitat in north-west of county. This found a min of 46 calling males with the true number thought to be significantly higher (MESR). Aug records from Cawston Heath 2nd and Admiralty Point 15th.

Common Pheasant

Phasianus colchicus

Common introduced resident

Again very little information received. The only large count was 136 Cockley Cley March. On Scolt Head 8 males and about 10 females in summer with at least 6 broods reared. The

BBS results show no reduction in number of squares occupied but the average number found per occupied square had fallen by a further 10%.

A curious report of a female at Holkham in Jan carefully negotiating a thin branch 10 ft up a tree in order to obtain berries.

Full albino birds recorded at Waxham, Jan and Bodney, Feb.

Golden Pheasant

Chrysolophus pictus

Scarce and local introduced resident

Peak counts from traditional localities as follows: Croxton Heath 16, Wayland Wood 14, East Wretham Hcath 7, Wolferton 4, Great Hockham 4 and Sandringham 2. Up to 5 also present at another sensitive site. Singles also recorded at Ashill, Bradenham, Holme Hale, Merton, Thetford Warren, Thompson Water and West Harling. Brecks continues to provide virtually all records.

A noticeable increase in numbers may be reversing the recent trend. Observers are encouraged to submit all records to allow an accurate assessment.

At least one hybrid male continues to be seen at Wolferton.

Water Rail

Rallus aquaticus

Resident, passage migrant and winter visitor

Scattered reports from most areas of the county in both winter periods.

Peak counts at regular sites:

	Jan	Feb	Mar	Nov	Dec
Holme	5	9	1	3	-
Titchwell	6	1	-	5	9
Burnham Norton	-	-	-	5	4
Blakeney FM	3	2	4	2	3
Cley	1	2	5	1	-
Hickling Broad	-	-	-	12	10
Strumpshaw	-	1	3	2	1
UEA Broad	4	4	3	-	3
Thompson Water	-	2	3	2	-

In first winter period 1-2 also recorded at Boughton Fen, Brancaster, Castle Acre, Eccles, Fritton, Horsey, Kettlestone Common, Pensthorpe, Rockland Broad, Snettisham, Stanford Water, Surlingham Church Marsh, Thetford Nunnery Lakes and Nun's Bridges, Waxham, Weybourne, Whittington and Wiggenhall. At Horsey one seen feeding on a dead Muntjac Feb 7th.

Little breeding information received apart from prs at Burnham Overy, Cley, Hickling Broad, Holkham 5, Strumpshaw 3, Surlingham Church Marsh, Titchwell and Welney 2. Birds also present in summer months at How Hill, Lakenheath Washes, Sharp Street Fen 3 and Stanford TA 2.

Obvious migrants Scolt Head Oct 11th and Blakeney Point Nov 11th. At Sheringham one killed in garden by cat and another also found dead Oct.

Recorded from all same sites during second winter period with additional records from Baconsthorpe, Beeston Regis, Brandon Carrs, Catfield, Dilham, East Ruston, Filby Broad, Flitcham, Glandford, Honing, How Hill, Ormesby Broad, Ranworth Broad, Raynham, Santon Downham, Scarning, Stoke Ferry, Sutton, Tallents Meadow Lake, Warham Greens, Welney, Whittingham Lane GP, Winterton, Wiveton and Womack Water.

Spotted Crane*Porzana porzana***Scarce passage migrant, rare in winter; formerly bred**

Four autumn records: Holme Aug 16th (NML), a long-staying bird Titchwell Aug 21st-Oct 9th (the same bird as 1997?), with a 2nd individual also present Sept 28th-30th (RQS *et al*), and one Whitlingham Lane STW Oct 4th (MDC).

Moorhen*Gallinula chloropus***Common resident; immigrants in autumn**

Max counts from all regularly monitored sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Holme	12	12	37	12	8	7	39	22
Holkham Park Lake	109	85	61	140	23	81	67	78
Blakeney FM	15	27	22	-	-	-	-	82
Cley	18	18	44	28	28	19	45	73
Salthouse	30	56	60	25	40	22	39	50
Flitcham Abbey Farm	-	14	12	-	29	-	42	41
Quidenham	43	14	12	-	-	-	16	-

Notable counts from elsewhere: 97 Welney Feb, 30 Snetterton Aug, 45 Baconsthorpe Sept and 52 Stiffkey Dec.

Breeding information received again rather patchy with Abbey Heath (Thetford) 6 prs, Brancaster GM 8, Burnham Norton, 3 Cockley Cley 5, Flitcham Abbey Farm 3, Holkham NNR 113, Holkham Park Lake 7, Holme 20, Kilverstone 3, Pentney 3, Sennowe Park 4 and UEA Broad 4. The BBS found a slight but probably not significant increase over last year.

An unusual occurrence of one in off sea Sheringham Nov 3rd.

Coot*Fulica atra***Common resident and winter visitor**

Very well recorded during both winter periods following the plea in last year's Report.

Monthly max at most regularly monitored sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Snettisham	112	94	37	21	44	12	26	30
Holme	79	139	95	57	77	87	100	69
Burnham Norton	70	-	-	31	35	53	49	37
Holkham NNR	60	70	62	176	-	-	44	-
Holkham Park Lake	456	304	82	25	246	212	379	531
Blakeney FM	44	42	41	-	-	-	-	-
Cley	25	-	50	28	33	-	-	-
Hickling Broad	-	-	-	-	500	-	4500	4000
Trinity Broad	178	96	106	69	465	403	235	227
Buckenham/Cantley	238	249	101	41	-	-	-	-
Strumpshaw	230	120	113	21	-	106	169	214
Whitlingham Lane GP	-	-	-	-	105	186	132	163
Cranwich GP	-	-	-	-	159	147	76	51
Sennowe Park	289	242	105	64	295	483	452	405
Pentney GP	204	231	74	-	213	250	226	230
Welney	526	708	566	484	144	149	190	605

National importance (winter): 1100

The large numbers on Hickling Broad at end of year are highest in county for many years.

Breeding details received from Brancaster 21 prs, Bawsey GP 6, Burnham Norton 11, Cockley Cley 10, Filby Broad 6, Holkham NNR 143, Holkham Park Lake 30, Holme 32, Lakenheath Washes 16, Lynford GP 5, Pentney GP 5, Ranworth Broad 5, Sennowe Park 10, Tottenhill 6 and Welney 162. The increase in breeding numbers at Welney is attributable to summer flooding which also resulted in 358 birds at end of July.

Common Crane

Grus grus

Resident colony in Broads since 1979; some records may relate to Continental migrants

The often taken for granted Broadland group regularly reported during both winter periods as usual. Up to 8 in Horsey area Jan-April with counts of 10 on 2 dates mid-Feb. Amongst these the 2 young raised in 1997 were often seen. Four prs attempted breeding although only one pr was successful, hatching 2 young but only one fledged. It is likely that the other nests failed due to predation. In second winter period up to 11 frequently recorded.

Wandering birds or migrants: along north coast Holme-Stiffkey April 16th (2), Cley April 28th (one), Snettisham April 29th (one), Blakeney-Overstrand May 9th (2), south-west Welney Oct 5th (one), and Breydon/Fritton Marsh/Halvergate Oct 14th irregularly to Nov 17th (3).

Oystercatcher

Haematopus ostralegus

Common winter visitor, passage migrant and breeder

Table includes all sites holding 500 or more:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	455	1816	798	302	270	-	756	649	60	807	740	196
Snettisham	4295	4349	1235	439	385	410	1303	5174	2211	1780	2253	2706
Holme	688	845	196	141	80	-	50	411	250	570	785	673
Scolt Head/												
Brancaster Hbr	408	552	565	346	369	442	472	673	656	494	640	760
Wells Hbr	168	212	301	137	199	305	252	-	532	348	277	477
Warham Greens	292	59	167	-	175	-	263	703	850	812	-	594
Stiffkey	230	512	303	227	227	145	-	194	718	460	-	610
Blakeney Hbr	283	519	520	-	-	-	-	211	370	482	490	234

National importance (winter): 3600

Noteworthy counts elsewhere included: Heacham/Hunstanton 441 Jan, Titchwell 466 Jan, 372 March and 488 Sept, and Breydon 252 March. Further declines in numbers noted at Snettisham, Holme and Breydon.

A total of 578 breeding prs reported, similar to last year's 574, but some breeding information missing from several key sites and true total no doubt higher. 500+ found on coastal habitats as follows: Snettisham 20, Ken Hill GM 7, Holme 25 (no young noted), Thornham GM 1, Brancaster GM 3, Brancaster Saltmarsh 16, Brancaster Beach 16 (min 10 young fledged), Scolt Head 108 (c75 young fledged), Holkham Beach 63 (6% decline but better success), Holkham GM 36 (16% decline, poor success), Blakeney Point 200+, Cley 'handful of pairs' (fewer than 6 young fledged), Salhouse 1, Kelling WM 2 and Yarmouth 2 prs (nesting on flat roofs).

Inland a total of 78 prs reported from 32 sites but little information from main Broads sites with 2 Buckenham Fen the only report. Elsewhere: Baconsthorpe 1, Blakeney village

2, Briston 1, Burnham Overy Mill 1, Choseley 3, Coxford/Dunton 7, Docking 3, Flitcham 1, Fring 3, Gooderstone/Hilborough 6, Great Bircham 5, Guist 2, Harpley Common 1, Heckingham 1, Inmere 2, Lyng-Easthaugh GP 1, Middleton GP 2, Mileham 1, Pentney GP 2, Sculthorpe 8, Reedham Hall Farm 2, Saxthorpe 1, Sennowe Park 1, Shernborne 1, Sparham/Elsing 2, Swangey GP 2, Thetford Nunnery Lakes 2, Titchwell village 1, Welney 6, West Newton 1 and Whitlingham Lane GP 3.

Westerly visible migration most evident during second half of summer/early autumn. At Scolt Head 78 July 25th and 210 31st, and in Aug 112 2nd, 80 22nd and 45 24th. Best counts elsewhere 53 west Sheringham Aug 24th and 46 north Horsey July 25th.

An albino bird at Scolt Head in both winter periods.

Black-winged Stilt
Vagrant, mostly in late spring/summer, has bred

Himantopus himantopus

For its sixth year the male continued to be resident at Titchwell/Brancaster GM throughout the year, with visits to Holme May 25th and Scolt Head June 13th.

It has recently been ascertained by the DETR Wildlife Inspectorate that a Black-winged Stilt, bred by a local aviculturist in central Norfolk, escaped shortly before the resident bird appeared at Titchwell in 1993 (having probably travelled initially to Northumberland). Due to the unusually sedentary nature of the Titchwell bird there is, therefore, a distinct possibility that it may not be of wild origin.

Avocet
Breeding summer visitor, increasing in winter

Recurvirostra avosetta

Monthly max at main sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Titchwell	1	36	82	90	67	80	45	34	38	10	2	-
Cley	8	71	118	118	145	111	119	12	-	5	7	7
Breydon	63	157	88	87	43	65	264	224	243	3	52	32

At Breydon the July count was a site record whilst the counts in Jan, Feb and Nov were record counts for those months. Elsewhere highest counts Ongar Hill where 173 Feb 14th, 280 July 19th and an impressive 369 Aug 2nd.

There was a significant increase in numbers of breeding pairs with 252-267 prs at 15 sites fledging a min of 175 young. As the table shows, it was a record year for numbers of breeding pairs and occupied sites.

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Prs	170	131	126	157	174	209	214	203	181	252-67
Sites	n/a	n/a	n/a	n/a	n/a	n/a	10	11	13	16

Though better coverage may have been partly responsible there is no doubt that this is a genuine increase which shows no sign of slowing. With the increase in wintering birds closer to home numbers should continue to rise if suitable nesting sites can be found.

Stone Curlew
Breeding summer visitor, mainly to Brecks

Burhinus oedicnemus

A single winter record Hilborough Jan 26th was exceptional, the first in midwinter for many years. In March first migrant again Hilborough 4th. In Brecks another significant increase



Black-necked Grebe – this individual spent three months from mid-January at Holkham Park Lake, eventually attaining full summer plumage (*above D Nye, below I Leach*).





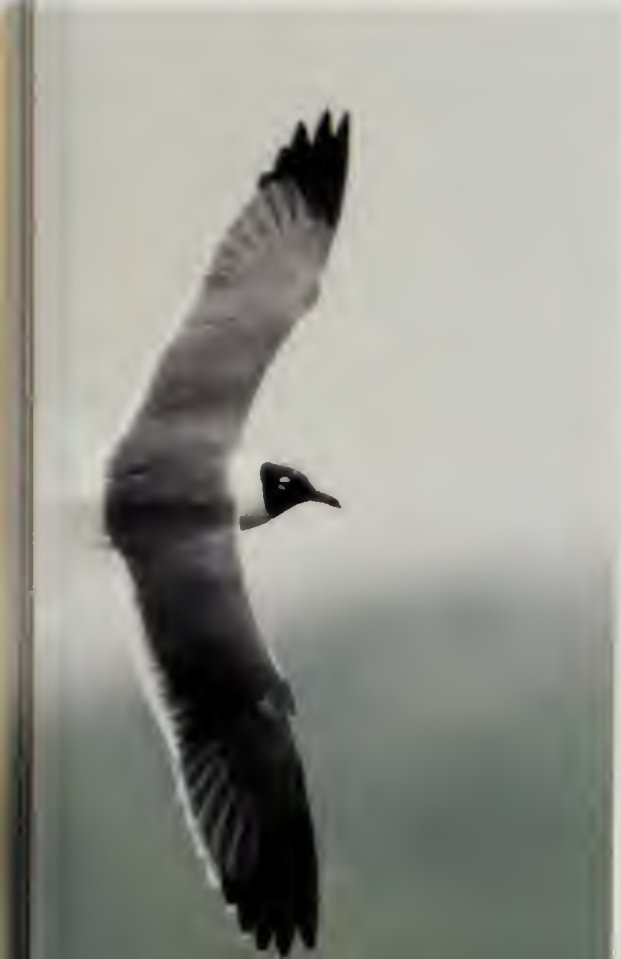
Penduline Tit – this star attraction at Titchwell remained from January to April, although was often elusive (*J Leach*).





White Stork – seen at several localities along the north coast in April (*J Bhalerao*).

Laughing Gull (left) was present at Titchwell during May and remarkably was joined by a Franklin's Gull (right) for one day (*I leach*).





Black-throated Thrush – a rare Asian visitor proved a crowd-puller at Snettisham in April (*I Leach*);
Squacco Heron – another major attraction at Pensthorpe in late April/early May (*I Leach*).

Spoonbill – one of a group of five present at Cley again during April (*J Bhalerao*).



from 122 last year to 140 prs this year. Added to the 66 found in Wessex the RSPB's target of 200 prs by 2000 has been reached ahead of schedule. This magnificent effort has been achieved by RSPB staff and their liaison with farmers and landowners. The target for 2010 has now been set for 300 prs, with the hope that the north and west of the county can be recolonised.

The largest post breeding gatherings were noted at one Breckland farm with 2 flocks totalling 78 Sept 4th; latest at this site Nov 21st. At Wecting 20 Sept 24th was other noteworthy count.

Potential pioneers away from Brecks: Winterton March 30th, Salthouse Heath April 3rd, Gorleston May 5th, Burnham Overy Dunes 2 July 5th, Cley Aug 13th-15th, and Titchwell Sept 29th/30th and Oet 19th/20th.

Collared Pratincole

Glareola pratincola

Vagrant from southern Europe

What was clearly the same individual returned for its 5th year in Norfolk. As usual it showed some loyalty to sites during the early part of its stay, then became more erratic in its appearances. First noted May 18th at Titchwell staying until 20th then moving west to Holme 20th-31st; on latter date it was seen passing Salthouse heading east before making a quick return to Titchwell 1st-4th June, then back to Holme 5th-9th. Observations became more erratic thereafter, being seen at Holme July 1st, 5th and 7th, and finally Snettisham 8th.



Collared Pratincole (R Millington)

Little Ringed Plover

Charadrius dubius

Breeding summer visitor and passage migrant

First Whitlingham Lane GP March 11th, with 2 14th, when also one UEA Broad; by month end 1-2 recorded at 12 additional localities. Spring passage more pronounced than in recent years with max 15 Buekenham/Cantley May 15th, 9 Sennowe Park May 11th, 8 Whitlingham Lane GP April 4th, 5 Pentney GP April 10th-12th and 5 Cranwich GP April 27th.

A notable increase in numbers of breeding pairs with at least 34 at 16 sites compared with 25 at 16 sites last year: North coast - one pr at one site; Broads - 5 prs at 2 sites; inland - 17 prs at 9 sites; Fens - 11 prs at 4 sites. Many sites reported good success and reasonable numbers of young fledged.

Some good counts in late summer/autumn with 5 Holme Aug 16th-Sept 5th, 7 Titchwell Aug 12th, 12 Cley July 21st and 6 Aug 11th, 7 Hickling Broad July 15th, 17 Buekenham July 16th, 6 Cantley BF July 31st, 10 Wissington BF Aug 16th, and 13 Welney July 19th increasing to 17 Aug 1st-4th. In Sept few after mid-month with up to 2 Welney until 20th and one Titchwell 30th. Last of year late juv Titchwell Oct 17th.

Small numbers also recorded moving west along coast with singles Holme April 28th and May 29th, and Sheringham Aug 22nd. An unusual record of 2 displaying on beach Scolt Head June 4th.

Ringed Plover

Charadrius hiaticula

Breeding summer visitor, passage migrant, and winter visitor in small numbers

Most regularly counted sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Snettisham	-	35	35	46	-	33	90	246	154	34	-	-
Holme	60	18	66	31	66	50	36	234	278	190	27	22
Thornham	-	26	30	28	26	15	-	144	50	12	12	-
Scolt Head/ Brancaster Hbr	85	119	116	85	434	90	173	618	660	409	95	75
Stiffkey	50	23	59	56	65	-	-	77	41	50	-	88
Blakeney Hbr	45	66	95	-	-	-	-	50	170	83	74	58
Yarmouth	95	126	-	-	-	-	-	210	157	167	106	97
Breydon	113	98	46	32	301	93	62	219	301	177	126	91

National importance: 290 (winter), 300 (passage)

Other noteworthy counts 127 Wells May, 94 Warham Greens June, 175 Burnham Overy Hbr Sept and 240 Terrington Sept.

Spring migration of *tundrae* race larger than normal from mid-May to early June with highest counts 125 Ousemouth 28th, 340 Scolt Head 16th, 301 Breydon/Berney 15th, 63 Welney 22nd and 18 Lakenheath Washes 27th, where 17 June 3rd. Last of spring Pentney GP June 20th/21st. At Scolt Head passage of nominate race birds again noted end of May with 240 25th-28th.

Increased coverage during breeding season combined with genuine increases at some sites produced a rise in breeding numbers reported with 253-255 prs. Most at coastal sites: Snettisham/Heacham 58, Holme 22 (low success), Brancaster Beach 12 (good success), Scolt Head 47 (50-80 young fledged), Holkham NNR 37 (c25 young fledged), Blakeney Point 45 (poor success), Cley 3-4, Salthouse 1, Eccles/Sea Palling 4, Horsey Corner 4 and Yarmouth 5. Inland just 15-16 prs reported: Berney 1, Gooderstone/Hilborough 5, Welney 3 (2 fledged), and Brecks 6-7.

Only visible migration noted 30 west Sheringham Sept 9th.

Kentish Plover

Charadrius alexandrinus

Scarce but annual passage migrant, mostly in spring; rare inland

A much better year than 1997 with 5 spring records: Salthouse males April 29th and May 13th, Cley female May 24th and Titchwell May 26th. Also an inland record of a female Pentney GP May 10th (ADC).

Dotterel

Charadrius morinellus

Scarce but annual passage migrant; has over-wintered

In spring Cley female April 10th, Happisburgh/Cart Gap April 28th-May 1st, Salthouse 2 west May 1st and one west 2nd, Eastmoor/Boughton Fen 2 May 6th, Scolt Head female May 14th, Ringstead 2 May 16th-18th, Paston May 25th and Weybourne female June 1st-6th.

A poor autumn with only one record, Blakeney Point Sept 3rd.

Pacific Golden Plover

Pluvialis fulva

Rare late summer/autumn vagrant from Asia

The fifth county record of this species, whose separation from American Golden Plover *P dominica* still causes problems, at Buckenham July 5th-24th (DMa SSm *et al*).

Golden Plover

Pluvialis apricaria

Passage migrant and increasing winter visitor

Most regularly counted sites:

	Jan	Feb	Mar	Apr	Aug	Sep	Oct	Nov	Dec
Snettisham	505	150	750	185	940	1300	288	1350	1200
Holme	2220	910	650	40	-	3	170	560	540
Titchwell	1900	2000	781	-	87	800	-	1100	1800
Scolt Head/Brancaster Hbr	1500	50	190	330	400	400	400	450	500
Burnham Norton	1500	700	168	120	-	325	845	1255	470
Blakeney Hbr	620	320	300	160	-	-	400	340	140
Breydon	4100	4950	2400	236	1130	1450	1360	3200	7700

National importance (winter): 2500

Counts from Holme-Burnham Norton should be used with caution as much interchange takes place between the sites.

Other than tabulated sites above, there were a further 11 (5 in 1997) sites holding 2000+: Ousemouth 5000 Dec, Terrington 2269 Aug and 7500 Nov, Stiffkey 3000 Feb, Bressingham 2500 Oct, Cawston 2250 Dec, Fakenham 2100 Feb and 2000 Nov, Fersfield Airfield 4450 Nov, Lenwade 3000 Dec, North Walsham 3500 Oct, Sculthorpe 3700 Feb and Tivetshall 2468 Jan. Eight other sites (5 in 1997) held counts of 1000+: Ongar Hill 1500 Feb, Ousemouth 1400 Feb, Binham/Houghton 1000 Nov, Cockthorpe 1000 Dec, Foulsham 1000 Feb, Horsey/Somerton 1000 Oct, St Benet's Level 1000 Jan and Winfarthing 1000 Sept.

Although increased coverage and reporting may be having some effect, it would appear that larger numbers are genuinely appearing in recent years.

Very little visible migration noted, only reports 50 west Sheringham Nov 1st and 'large numbers' in off sea Horsey Nov 24th.

Grey Plover

Pluvialis squatarola

Passage migrant and winter visitor

Regularly counted sites holding 200+ birds:

	Jan	Feb	Mar	Apr	May	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	1500	2100	708	1805	2274	276	1233	-	4064	2125	1332
Snettisham	785	1220	1330	1553	2720	251	701	209	600	380	276
Holme	813	1118	1510	288	279	3	248	253	459	204	280
Titchwell	164	185	28	42	212	-	155	504	53	60	-
Scolt Head/Brancaster Hbr	326	232	189	386	302	31	318	305	294	230	282
Wells Hbr	249	129	248	111	64	8	-	32	124	148	49
Warham Greens	265	122	87	-	38	3	-	150	137	-	150
Stiffkey	56	117	186	69	-	-	125	292	222	-	187

International importance (winter): 1500; National importance (winter): 430

Other sites with 200+ all in May: Ongar Hill 923; Ousemouth 250 and Thornham 205.

Inland: Buckenham 2 May 11th with singles 14th and 21st; Hickling Broad singles March, May and July, and 12 Aug; Lakenheath Washes May 13th; Lopham Fen Sept 18th; Pensthorpe May 14th; Tivetshall St Margaret Jan 9th; Wissington BF Aug 2nd; at Welney recorded on 17 dates in Feb (1), April (1), May (8), Sept (1), Oct (4) and Nov (2), highest counts in May with 6 8th, 5 11th, 7 14th, 5 17th, 5 28th and 4 29th.

Lapwing

Vanellus vanellus

Passage migrant and winter visitor; declining breeder

International and National importance (winter): 20,000

A total of 16 (15 in 1997) sites had flocks of 1000+: Terrington 1801 Jan, 2628 Feb, 1874 Oct and 1300 Nov; Ongar Hill 3464 Feb; Ousemouth 10,000 Jan, 6700 Feb and 12,000 Dec; Titchwell 1140 Jan, 1500 Nov and 1000 Dec; Scolt Head/Brancaster Hbr 1985 Jan and 1060 Dec; Wells 1200 Jan, 2100 Nov and 1550 Dec; Warham Greens 1500 Jan; Morston 1000 Jan; Breydon 17,100 Jan, 5240 Feb, 1400 Oct, 6100 Nov and 27,300 Dec; Cantley/Buckenham 2000 Feb; Fakenham 3000 Feb; Lenwade 1000 Dec; Sculthorpe 1000 Dec; Welney 2000 Jan, 2720 Feb, 1790 March and 3600 Dec.

Better coverage produced a total of 762 breeding prs, as usual the north coast marshes reporting the largest concentrations. Numbers and sites (with last year's figures where applicable): Wash - Ken Hill Marsh 51 (30); North coast - Holme 26 (32), Thornham GM 3, Brancaster GM 7, Holkham NNR 242 (221), Cley 3-4, Kelling WM 1; Broad - Berney 85 (55), Strumpshaw/Buckenham/Cantley 99 (89); inland 94 (57) prs at 26 (15) sites - Anmer 1, Baconsthorpe 4-5, Borough Fen (Foulton) 1, Bridgham 1, Burnham Market 2, Castle Rising 2, Corpusty 1, Cranwich GP 1, Dunton/Coxford 22, Flitcham 4, Great Bircham/Fring 4, Great Bircham/Houghton 8, Heckingham 2, Hilborough 3, Ickburgh 2, Kenninghall 3, Morton 2, Reepham 2, Saxthorpe 1, Sennowe Park 3, Sparham/Lyng 2, Stibbard 2, Stanford TA 30, Thetford Nunnery Meadows 4, West Newton 2 and Whitlingham Lane GP 10; Fens - Lakenheath Washes 4, Welney 118 (142) and Wereham 3. The increase in numbers at Berney is particularly encouraging, but other than the Yare Valley numbers would appear very low in east of county.

During June the migration of young birds and failed adults noted in small numbers, only reaching close to three figures at Ousemouth where 110 west 14th and Scolt Head 95 west 20th.

Very little movement noted in Oct, but by Nov increasing numbers were moving west: Cley 200 and Overstrand 378 2nd, Sheringham 870 5th. Scolt Head 280 18th, Hunstanton 1926 20th; largest movements on 22nd with 2213 at Holme and 620 in 45 mins at Titchwell.



Lapwings (*P Beeson*)

Knot

Calidris canutus

Passage migrant, winter visitor and non-breeding summer visitor

Monthly max at main sites:

	Jan	Feb	Mar	Apr	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	3130	9500	9500	1691	1350	468	-	16572	5610	3150
Snettisham	15000	3200	9500	7300	11600	20000	6000	13510	4900	37000
Holme	291	300	116	9	-	17400	25400	12530	900	214

International importance (winter): 3500; National importance (winter): 2900

A poor autumn showing, suggesting that the recent pattern of flocks going to the Wadden Sea to moult continues. Good numbers at Snettisham in Dec were presumably taking advantage of a healthy Cockle Spat settlement, but there is increasing evidence that *Macoma* is an even more important part of their diet - a species which itself appears to be in decline in the Wash. Investigations are ongoing regarding the relationships between shellfish stocks and wader populations and it is hoped to produce a summary account in next year's Report.

Other coastal counts: Ousemouth 1000 Dec; Heacham 15,000 Sept; Titchwell 810 Aug, 8977 Sept, 3500 Nov; Scolt Head/Brancaster Hbr 1186 Sept; Wells Hbr 510 Jan, 3660 Dec; Warham 990 Dec; no other counts exceeding 500 birds reported. East coast, highest counts at Breydon: 290 Jan, 206 Feb, 140 Dec.

Summering: the only June reports were from Snettisham, where up to 1000 all month, Titchwell 30 and Breydon 2. Return passage from 8 July, when 2200 at Snettisham. A juv Aug 7th Breydon was the earliest ever for that site.

Westerly coastal movements of 345 Scolt Head Sept 2nd, 110 Sheringham Sept 3rd, with passage described as 'notable' at Cley same day; 250 Scolt Head Oct 5th, and at Sheringham 400 Nov 1st and 230 Nov 5th.

Inland: Buckenham Marshes March 23rd, Welney unusual record of 26 flying south April 16th with singles May 2nd and 14th. Hickling Broad Aug 24th and Cantley BF Nov 12th.

Sanderling

Calidris alba

Passage migrant and winter visitor

Monthly max at main sites:

	Jan	Feb	Mar	Apr	May	Jul	Aug	Sep	Oct	Nov	Dec
Snettisham	42	48	120	375	200	2200	2280	515	426	224	188
Heacham	114	344	131	108	95	-	-	59	66	112	77
Hunstanton	61	155	76	3	3	-	-	20	40	-	-
Holme	97	231	261	300	809	91	558	535	340	38	48
Thornham	41	21	115	-	420	-	-	-	83	107	150
Titchwell	123	100	140	50	450	100	238	100	104	114	285
Scolt Head/											
Brancaster Hbr	46	57	21	26	180	195	316	135	80	62	58
Holkham Bay	80	-	-	-	43	-	-	-	45	-	-
Wells	188	52	-	151	29	-	34	138	346	54	41

International importance: 1000 (winter); National importance: 230

The July/Aug counts at Snettisham are autumn records for the site.

Highest counts away from main sites: Brancaster 100 Aug, 150 Sept, 99 Dec; Burnham Overy Hbr 161 Sept; Stiffkey 60 Feb, 80 March, 79 Sept; Warham Greens 86 Aug. Very scarce elsewhere, max Eccles 27 Jan, Breydon/Berney 23 Nov. A good spring passage continued into June, with max counts 39 Holme, 160 Titchwell and 96 Warham.

Inland: Surlingham Church Marsh April 26th; Welney May 6th and 24th with 2 May 19th/20th; Lakenheath Washes May 10th; Sparham GP May 21st, with a different bird present next day.

Little Stint

Calidris minuta

Double passage migrant in fluctuating numbers

Spring: Cley March 26th-29th the first, followed by only one April record, Cley 23rd. Passage continued from May 4th to June 3rd, all records relating to 1-2 birds, except 6 Cley May 11th.

Autumn: first arrival Cley July 19th, with a scattering of records until end Aug involving 1-2 birds, except Holme 4 Aug 11th. A strong passage commenced Sept 1st, see table for max counts at main sites. Numbers involved similar to last good autumn passage in 1996 (see table in NBR 1996), but period of movement was about 10 days earlier this year.

	Sep 1-10	Sep 11-20	Sep 21-30	Oct 1-10	Oct 11-20	Oct 21-31
Welney	15	19	19	13	7	3
Titchwell	115	95	13	15	7	3
Holme	14	17	1	-	-	-
Cley	79	31	15	3	3	1
Salthouse	-	15	10	5	1	1
Breydon	17	36	15	2	-	-
Cantley BF	105	84	-	-	-	-

Similarly widespread as in 1996, with records from a further 25 sites during Sept/Oct. Max counts in Sept: 20 Buckenham 3rd, 15 Pentney GP 7th, 14 Lakenheath Washes 11th/12th, 80 Berney 15th, 20 Stiffkey Fen 20th, 12 Scolt Head/Brancaster Hbr 21st. Coastal movements were noted on sea-watches: 11 west Scolt Head 14th and 8 west Sheringham same day (a site record). Max counts in Oct of 14 Ousemouth 11th, otherwise scattered records of 1-2 birds only.

In Nov 2 Welney 1st with one 3rd, Holkham 5th and Titchwell 19th. The only Dec record was a single Titchwell 16th.



Little Stint (S Cale)

Temminck's Stint

Calidris temminckii

Passage migrant, more frequent in spring

Spring: in May 3 individuals appeared in rapid succession, at Holme 7th, Salthouse 8th and Titchwell 9th. A single Sennowe Park 11th was first in Wensum Valley for a number of years. Another arrival from 13th when 2 Cley, remaining to 22nd, with 5 14th and single 23rd; Stiffkey Fen 14th and 4 on 22nd; 3 Berney 14th/15th and one 17th; Salthouse 16th perhaps a bird from Cley; Horsey 16th; Welney 16th, 2 19th/20th and single 26th-28th; one flew west Holkham 18th.

In autumn singles Cley July 27th, Cantley BF Sept 10th and Berney Sept 17th were the only records.

White-rumped Sandpiper

Calidris fuscicollis

Vagrant from North America

Two typical autumn adults, at Breydon Water July 6th (JL SSm CWi) and Cley Aug 11th/12th (RGM *et al*).

Pectoral Sandpiper

Calidris melanotos

Almost annual autumn vagrant from North America/Siberia; rare in spring

Following a blank spring in 1997, one Cley May 24th/25th.

In autumn Salthouse Aug 6th-15th, Titchwell Sept 9th and Berney Sept 15th-26th, with 3 23rd, and another Nov 6th.

Curlew Sandpiper

Calidris ferruginea

Autumn passage migrant in fluctuating numbers; scarce in spring

Two April records, Scolt Head/Brancaster Hbr 12th-16th and Cley 25th. Seen at 6 sites in May: Cley 1-2 on 5 dates, with 5 16th; Stiffkey Fen 9th-13th; Breydon 1-2 on 5 dates; Berney 1-2 on 3 dates with 3 14th-16th; Welney 1-2 on 7 dates with 3 28th; 2 Ousemouth also 28th. In June: 2 Titchwell 10th and one Welney 25th.

Autumn: a good sustained passage, with peak movements July 27th-Aug 9th (Breydon) and Aug 28th-Sept 24th (widespread). First back July 3rd when single Breydon. Max July counts from 14th at Titchwell 5, Cley 6, Berney 5 and Breydon 20. Breydon dominated Aug records (max 17 1st and 14 9th) until a more widespread passage began with 22 Cley 28th, and 16 Snettisham and 13 Titchwell 30th. The unfolding of main passage is shown in table of peak counts at principal sites.

	<i>Aug 11-20</i>	<i>Aug 21-31</i>	<i>Sep 1-10</i>	<i>Sep 11-20</i>	<i>Sep 21-30</i>	<i>Oct 1-10</i>
Snettisham	3	16	40	-	31	13
Holme	-	-	38	6	-	-
Titchwell	3	15	107	6	1	8
Cley	1	22	50	35	1	-
Breydon	8	12	47	50	34	17

Notable counts elsewhere during the period were: 10 Buckenham and 24 Cantley BF Sept 3rd; 31 Scolt Head/Brancaster Hbr and 13 Burnham Overy Hbr Sept 6th; 17 Ousemouth Sept 12th. Good coastal movements observed on sea-watches including 27 west Scolt Head Sept 3rd and 60 west there Sept 5th; also 18 west Sheringham Sept 3rd - best day total there since 1975. In Oct birds noted to 24th when single Cantley BF. One Welney Nov 3rd latest of year.

Purple Sandpiper

Calidris maritima

Passage migrant and declining winter visitor in small numbers

It is sobering that there was a count of this species at Hunstanton of 63 in Feb 1987 and there was a regular wintering population here numbering up to 25 until 1989; the last count in double-figures was in 1996. The Paston/Walcott area held similar numbers at that time, but cannot now be said to be a regular site. All records received for 1998 are summarised below as peak monthly counts for all sites.

	Jan	Feb	Mar	Apr	May	Jul	Aug	Sep	Oct	Nov	Dec
Heacham/Hunstanton	6	7	6	5	-	-	-	-	-	7	8
Holme	1	-	-	-	-	-	-	-	-	-	-
Titchwell	3	3	2	1	1	1	1	1	-	2	4
Scolt Head/Brancaster Hbr	-	-	-	-	-	-	2	-	-	1	-
Holkham Bay	-	-	-	-	-	-	-	-	1	-	-
Cley	-	-	-	-	1	-	2	1	1	-	-
Salthouse	-	-	-	-	-	-	-	-	-	1	-
Sheringham	1	-	-	-	-	-	-	-	1	2	-
West Runton	-	-	-	-	-	-	-	-	-	-	1
Paston	-	-	-	-	-	-	-	1	-	-	-
Walcott	2	3	-	-	-	-	-	-	-	2	-
Eccles	-	-	-	4	-	-	-	-	2	11	8
Sea Palling	2	-	-	-	-	-	-	-	-	-	4
Waxham	2	-	-	-	-	-	-	-	1	-	-
Yarmouth/Gorleston	2	1	1	1	-	-	-	-	-	-	-

The only additions to this sad catalogue are small westerly coastal movements: Sheringham 2 Sept 13th, 3 following day and one Nov 1st; Overstrand 2 Oct 25th and one Dec 11th; Horsey Gap 2 (north) Nov 1st. Extreme dates were May 13th and July 22nd, both Titchwell.

Dunlin

Calidris alpina

Passage migrant and winter visitor; non-breeders in summer

Peak counts at main sites:

	Jan	Feb	Mar	Apr	May	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	4200	3300	3000	3655	667	4036	6791	2 13979	7130	8837	
Snettisham	1286	7700	12505	8540	4700	12200	8160	3645	3521	2520	4950
Holme	526	608	642	500	240	19	417	1700	944	219	680
Titchwell	907	760	150	11	38	21	91	172	101	488	149
Scolt Head/ Brancaster Hbr	720	532	419	420	460	220	500	661	588	450	826
Warham Greens	880	150	316	-	-	29	59	320	350	-	740
Stiffkey	200	250	260	264	-	-	220	110	150	-	270
Blakeney Hbr	425	399	440	-	-	-	600	297	636	408	550
Cley	-	-	225	79	21	88	191	130	68	-	-
Breydon/Berney	4800	4300	1720	1480	1390	529	692	1615	1710	3150	3850

International importance (winter): 14,000; National importance (winter): 5300

Other notable coastal counts: Ousemouth 500 April/May, 616 Nov, 1230 Dec; Thornham 740 Feb, 500 Dec; Wells 1110 Jan, 780 Feb, 576 March; Horsey/Waxham 750 Nov.



Dunlin (*S. Cale*)

A scattering of June records, max 100 Snettisham and 64 Warham Greens. First juv noted July 13th (Scolt Head).

Largest coastal movements in Nov: on 1st 7682 west at West Runton (0650-1330 hrs) with smaller numbers, also west, at Sheringham 1500, Cley 1050 and Holme 1000.

Highest inland counts: Buckenham 50 March/April; Welney 114 Feb, 65 March, 48 Oct, 60 Nov; Cantley BF 49 Aug, 33 Oct, 40 Nov.

Broad-billed Sandpiper

Limicola falcinellus

Vagrant from North Eurasia

One at Cley May 21st-23rd (SJMG *et al*).

Ruff

Philomachus pugnax

Double passage migrant; small numbers over-winter; has bred

Monthly peak counts at main sites:

	Jan	Feb	Mar	Apr	May	Jul	Aug	Sep	Oct	Nov	Dec
Titchwell	58	70	47	5	2	30	51	165	138	96	109
Holkham NNR	21	-	24	20	-	1	1	4	14	21	11
Cley	22	21	21	20	7	57	45	22	23	-	10
Breydon/Berney	28	8	14	13	5	15	11	75	16	7	11
Welney	3	6	23	18	5	24	32	108	135	40	9
Buckenham/Cantley	-	31	20	20	-	2	6	7	35	1	-

National importance (winter): 50

Reported from a further 10 sites during the winter periods. Best counts were Brancaster Hbr 81 Jan; Blakeney Hbr 24 Jan; Stiffkey 20 Nov, 30 Dec; Wighton 20 Dec.

Spring: very few records away from sites in table, involving 1-8 birds at 6 locations. Latest in spring 2 Berney June 6th.

Autumn: more widely scattered records, with sightings from 23 more sites than those in table. Returning birds from June 21st (Welney). Highest counts were Waxham 26 Sept; Brancaster Hbr 80 Oct; Cockthorpe 21 Oct; Wissington BF 30 Aug, 25 Sept; Lopham Fen 21 Sept. One all-white male, including entire body and wings, Berney July 31st-Aug 5th.

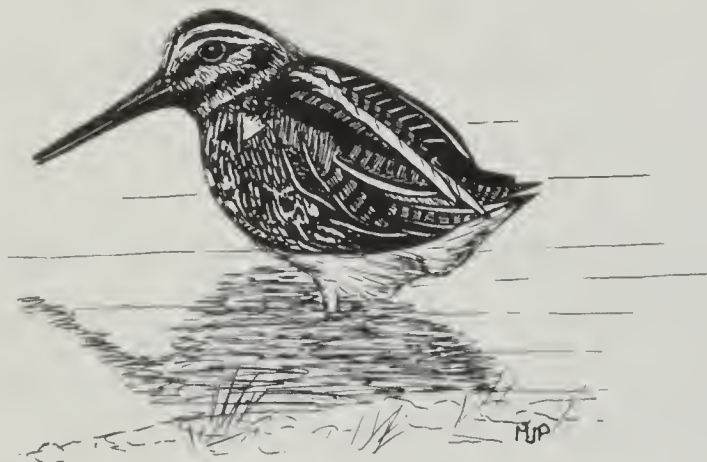
Jack Snipe

Lymnocyptes minimus

Passage migrant and winter visitor; declining

First winter period/spring: reported from total of 17 localities, never more than two together; latest Blakeney FM April 23rd.

Autumn/winter: seen at 32 localities from Sept 6th, when one Titchwell, then another in off sea Sidestrands Sept 27th. Most records of 1-2 birds, but 3 Wells Oct 3rd and 7th; 3 Scolt Head Oct 4th; 3 East Ruston Oct 13th; 4 Lyng-Easthaugh GP Oct 18th; 3 Berney Oct 20th and 22nd, and 4 Oct 23rd; 6 Whitlingham Lane GP Nov 29th and Dec 5th/6th; 3 Holme Dec 3rd.



Jack Snipe (M Preston)

Common Snipe

Gallinago gallinago

Passage migrant and winter visitor; declining breeder

The first winter period saw large numbers present at some sites compared with recent years. Counts of 30+ from: Holme 32 Jan; Titchwell 35 March; Scolt Head/Brancaster Hbr 165 Jan, 54 Feb; Holkham 34 Feb; Stiffkey Fen 110 Jan, 30 Feb; Blakeney Hbr/Saltmarsh 180 Jan; Berney 33 Jan, 40 Feb, 53 March; Cringleford 61 Feb, 36 March; Welney 70 March.

Better coverage resulted in drummers being reported from 18 sites (13 last year) but sadly numbers down yet again with only 84 reported: North coast - Holme 1, Holkham NNR 7; Broads - Berney 2, Muck Fleet 1, Strumpshaw 2, Buckenham/Cantley 22; inland - Castle Acre 1, Foulton Common 2, Great Cressingham 1, Langford 3, Litcham Common 1, Tattersett 2, West Acre 1, Whitlingham Lane GP 1; Fens - Welney 24 on reserve, 10 on arable (51 last year). The situation illustrates the perilous state of the breeding population in the county. As we enter the new millennium who would have thought that there are now more breeding Avocets in the county than Snipe? As a breeding species in the county it may not last long into the next century, apart from possibly on a few isolated reserves.

The autumn produced some visible migration with max counts at Holme 50 east Aug 15th, 30 west Sept 6th and 92 west 18th, Scolt Head 55 west Sept 21st and Hunstanton 36 south Nov 20th.

Concentrations of 30+ during autumn/second winter period: Holme 36 Aug and 40 Sept; Thornham Saltmarsh 45 Nov; Titchwell 69 Nov; Burnham Norton 134 Nov, 80 Dec; Wells Saltmarsh 44 Dec; Stiffkey Fen 50 Nov; Stiffkey Flood 250 Nov; Blakeney Hbr/Saltmarsh 50 Dec; Cley 40 Aug; Salthouse 38 Nov; Kelling WM 30 Aug; Berney 40 Aug, 31 Oct, 72 Nov, 32 Dec; Cantley BF 45 Aug; Lakenheath Washes 32 Aug, 36 Sept; Welney 30 Aug.

Great Snipe

Gallinago media

Vagrant from north-east Europe

One at Holkham FM May 12th (AIB JRMc), the first since 1994.

Long-billed Dowitcher

Limodromus scolopaceus

Vagrant from North America and north-east Siberia

A juv stayed at Welney Oct 10th-Nov 1st (JBK et al). The ninth county record and the third this decade.

Woodcock

Scolopax rusticola

Passage migrant and winter visitor; breeder particularly in the Brecks

In winter and early spring reports from about 45 sites, very similar to last year. Numbers described as low at Holkham Park, where 150 shot Jan, and counts from elsewhere bear this out. Max counts 20 Cockley Cley Jan, 12 Repps-with-Bastwick Jan and 11 Hickling Feb. Singles on coast at 5 sites in March/April.

Roding reported from 24 localities (31 1997, 20 1996, 21 1995, 30 1994, 10 1993, 26 1992), but the comprehensiveness of coverage is uncertain and all sites are listed: Brandon Carps, Buxton Heath, Drymere 5, East Ruston (Mown/King's Fen), East Ruston (South Fen), Foulden Common 7, Great Hoekham 6, Holt Lowes 6, Honing Lock, Hopton Point, Horsford 5, Kelling Heath, Lopham Fen 2, Lynford 4, Marsham Heath 3, Roydon Common, Saxthorpe, Sculthorpe Fen 2, Stanford Water, Strumpshaw, Swaffham Forest 'good numbers', Wayford Bridge 2, West Acre and West Harling 2.

Records are welcomed from all sites in the interests of establishing a better picture of this species' breeding status in the county.

Widespread reports from over 50 sites in autumn and second winter period. Coastal influxes noted early Oct when max 2 Blakeney Point 4th, 3 Yarmouth 4th, 3 Scolt Head and Sheringham 6th; and again in early Nov when 3 Happisburgh 1st, 2 Sheringham 1st, 2 Scolt Head 2nd, 7 Sheringham and Sidestrand 2nd, 6 Eeoles 3rd. At least 10 Winterton Nov 21st only other notable coastal record. Very few reported at Holkham Park, max 15 Dec.

Black-tailed Godwit

Limosa limosa

Increasing passage migrant and winter visitor; declining breeder

Peak monthly counts at main sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	910	1150	1000	445	-	-	600	2877	400	180	1	230
Ousemouth	-	-	138	760	-	-	-	-	-	-	-	-
Snettisham	1	-	170	78	11	20	140	920	300	-	-	-
Titchwell	-	2	10	-	41	40	80	40	400	95	86	18
Holkham NNR	5	2	-	80	50	80	226	-	29	26	18	1
Cley	16	46	529	588	64	120	46	70	30	100	9	20
Breydon/Berney	503	439	221	293	79	73	420	1103	1000	270	283	461
Welney	128	200	190	3330	70	129	242	58	23	8	24	56

International importance (winter): 700; National importance (winter): 70

The southern Wash and Breydon/Berney continue to be increasingly important for this species and each recorded new Aug peak counts. More than usual on coast in spring presumably because of extensive flooding in Ouse and Nene Washes.

Winter periods: noted at only 6 further sites, max 15 Brancaster Hbr Jan and 60 Halvergate Marshes Dec.

Spring: small numbers away from main sites, except April: 60 Blakeney FM; May: 37 Ken Hill Marsh, 28 Holme, 175 Scolt Head/Brancaster Hbr, 30 Salhouse, 44 Horsey and 113 Hickling Broad. Birds displaying at 2 sites during June, but no breeding reported.

In autumn rather more widespread, but small numbers other than those in table. Max: 18 Cantley BF, 24 Lakenheath Washes, 31 Hickling Broad all in July.

Bar-tailed Godwit

Limosa lapponica

Passage migrant and winter visitor; a few non-breeders in summer

Monthly max at main sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Terrington	3560	1930	1200	21	15	217	658	-	680	-	1355
Snettisham	4583	4260	3200	100	210	800	2000	2400	3080	1398	4400
Holme	518	502	997	33	11	-	115	1600	1385	301	669
Titchwell	450	230	130	5	1	-	177	2352	182	2300	-
Scolt Head/Brancaster Hbr	300	189	136	17	47	45	52	101	110	65	200
Wells Hbr	-	130	52	-	10	12	-	16	198	21	241
Stiffkey	500	187	65	25	-	-	19	44	170	-	230
Warham Greens	190	43	-	-	-	-	-	15	-	-	25
Blakeney Hbr	22	44	31	-	-	-	19	56	74	67	53
Breydon	76	74	46	7	7	5	8	13	10	24	36

International importance (winter): 1000; National importance (winter): 530

Cold weather influxes evident in Jan and Feb and the usual autumn roost gatherings at Holme and Titchwell. In Dec 1600 birds roosting on the pits at Snettisham was unprecedented - only noted before in very hard weather when pits are frozen. The only sizeable count away from main sites was 133 Thornham Jan. Only June counts were 300 Snettisham, 15 Titchwell, 11 Scolt Head, 8 Warham Greens and one west Cley.

Inland: recorded at 6 localities, all 1-2 birds except 28 flying south Hickling Sept 7th.

Whimbrel

Numenius phaeopus

Passage migrant in spring and autumn; rare in winter

Peak counts of grounded/feeding flocks at main sites:

	<i>Apr</i>	<i>May</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>
Ken Hill Marsh	3	5	-	24	3
Holme	33	48	2	32	2
Scolt Head/Brancaster Hbr	51	32	64	84	16
Holkham NNR	16	10	1	-	-
Cley	4	2	96	18	2
Breydon/Berney	85	61	15	26	4

National importance (passage): 50

Spring: earliest 2 Titchwell March 28th with another north Waxham April 7th. Main passage started April 16th, peak counts at main sites are given in table. Max counts and migrating flocks (other than shown in table) - April: 17 Horsey 22nd and 58 29th, 24 Waxham 25th;

May: 17 north Ousemouth 1st, 46 north-west Horsey 12th. Several June records, max 6 Scolt Head/Brancaster Hbr 5th and 7 Cley 11th.

Autumn: 2 Brancaster 26th marked return passage with peak numbers July 18th-Aug 27th. Max counts and migrating flocks - July: 15 south-west Ongar Hill 26th, 10 south Hunstanton 31st, 88 west Scolt Head 26th, 78 west Warham Greens 27th; Aug: 24 south-west Holkham Park 7th, 56 west Scolt Head 7th, 50 west Morston 15th, 68 Thurne 19th, 22 west Sheringham 22nd, 20 Snettisham 10th, 32 west Holme 29th. Smaller numbers to mid-Sept, max 4 Blakeney Point 7th with latest Scolt Head Oct 18th.



Whimbrel (*S Cale*)

Curlew

Numenius arquata

Passage migrant and winter visitor; scarce breeder

Monthly max at main sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	615	795	40	99	150	270	1582	3610	5	866	301	345
Ousemouth	-	122	136	-	-	-	-	-	-	-	31	81
Snettisham	845	1040	730	390	70	35	650	600	120	750	1000	1087
Heacham	450	500	133	15	24	-	58	-	1	300	-	-
Holme	230	115	211	40	13	-	15	66	129	72	106	113
Titchwell	69	37	28	20	9	7	66	110	38	140	125	-
Scolt Head/												
Brancaster Hbr	670	476	583	325	65	305	1164	1391	1100	825	650	686
Holkham NNR	73	39	79	60	-	-	-	-	41	51	162	186
Wells Hbr	220	106	103	33	72	36	671	500	406	31	86	-
Warham Greens	71	33	25	14	-	-	-	2	60	103	-	-
Blakeney Hbr	26	57	51	-	-	-	-	40	101	45	61	56
Breydon	708	603	697	410	42	159	704	742	1149	703	714	642

International importance (winter): 3500; National importance (winter): 1200

The Sept count at Breydon was a site record.

Very few sizeable counts away from main sites with max 258 Thornham Aug and 135 Ken Hill Marsh Nov. Reports of flocks feeding inland rather scarce; noted at 12 sites with max: 70 Anmer Jan and 81 Dec, 30 Blackborough End Aug, 17 Cantley BF Aug, 58 Swaffham

Nov, 32 Inmere Farm (Snettisham) Dec with a scattering of sightings of 1-2 birds elsewhere. At Scolt Head main departure in April when 255 east 20th and 52 north-east 22nd.

Breeding: 24 breeding prs in Stanford TA and reports of 1-2 at 9 other inland sites in summer.

Spotted Redshank

Tringa erythropus

Passage migrant; small numbers over-winter

In first winter period small numbers of wintering birds at several localities, especially Titchwell and Breydon/Berney. At Titchwell 1-6 daily in Jan with 7 11th and a max of 4 Feb. Breydon/Berney held 3 Jan/Feb with 4 Feb 22nd. Recorded elsewhere at Ongar Hill Jan 1st and 31st; Terrington Jan 24th, Feb 1st and 21st; Ousemouth Feb 8th; Holme Jan 10th, Feb 8th/9th and 13th, and Thornham Hbr Feb 22nd. Throughout March 3 remained at both Titchwell and Breydon/Berney.

One Cley March 6th was perhaps first spring passage bird and by end of month 5 were at Snettisham 28th. Small numbers in spring peaking late April-first week of May, with best April counts 9 Berney and 6 Cley, and in May 7 Berney, 6 Horsey, 4 Cley and 2 Snettisham. Latest in spring Snettisham May 23rd.

One Snettisham June 14th was first of autumn followed by 2 Breydon/Berney 15th, Cley and Titchwell 16th, and Welney 21st. Peak numbers in June: 6 Cley 21st, 6 Ongar Hill 28th and 3 Breydon 27th. In July numbers very low with 1-4 at usual sites with max 6 Cley 16th and 12 Snettisham 30th. A similar situation in Aug with max 6 Snettisham in first week; juv arrival from 11th, but no more than 5 at any one locality. An improvement in Sept, especially Snettisham where 89 on 7th; elsewhere peaks of 11 Cley, 5 Titchwell, 4 Kelling WM and 3 Welney. In Oct peak counts of 8 Titchwell and 6 Breydon/Berney. In Nov still 8 at Titchwell, 7 Breydon, but very few elsewhere although one Welney until 3rd. In Dec recorded only at Titchwell - up to 5, and Breydon/Berney - up to 3.

Redshank

Tringa totanus

Resident, passage migrant and winter visitor; declining breeder in some areas

Monthly max at main and most regularly counted sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	139	517	330	377	70	-	1265	1788	21	609	701	324
Snettisham	164	250	396	80	73	53	292	1440	570	425	47	83
Holme	121	115	180	40	11	6	11	86	187	173	205	137
Scolt Head/												
Brancaster Hbr	744	609	346	225	135	136	398	931	670	552	457	521
Wells Hbr	351	178	74	43	54	54	58	51	166	42	120	183
Blakeney Hbr	65	126	-	-	-	-	-	52	261	169	163	115
Breydon/Berney	618	611	1056	717	66	157	461	763	724	758	647	649

National importance (winter): 1100

Largest counts from other coastal sites included: Ousemouth 391 Nov and 217 Dec, Holkham 168 May and Warham Greens 180 May.

A total of 511-517 prs though still clearly under-recorded due to the extensive nature of saltmarsh. North coast - Snettisham 68, Holme 11 (freshmarshes only), Titchwell 14, Brancaster GM 8, Brancaster Hbr 66, Scolt Head 26, Holkham NNR 147 (77 last year), Blakeney Point 15-20, Cley 4-5, Kelling WM 1; east coast/Broads - Breydon 8, Berney 35

(21), Buckenham/Cantley 22; inland - Coxford 1; Fens - Lakenheath Washes c7 and Welney 77 (75). Notable increases at 2 freshmarsh sites: Berney (a site still in its infancy) was understandable but the increase at Holkham, with numbers almost doubling on what is a fairly established site, was remarkable. This may have been due to persistent flooding of the Ouse and Nene Washes.

Visible movement only noted in Aug: Sheringham 100+ east 15th, Weybourne 75 east 23 west 17th and Overstrand 21 east 18th.

Greenshank

Tringa nebularia

Passage migrant in spring and autumn; scarce in winter

Singles recorded in Jan at Titchwell and Brancaster Hbr and in Feb at Holme and Thornham with 2 Ousemouth 15th. The only March record was a single Holme 10th-13th.

First spring April record at Breydon 6th, with main arrival commencing 16th with further singles at Cley, Halvergate next day, 2 Breydon 18th and Winterton 19th. Peak April count of 6 Berney 28th/29th. In May more widespread with obvious influx on 14th when 7 Cley, 18 Scolt Head/Brancaster Hbr and 16 Berney. Max counts at usual localities included 3 Stiffkey Fen, 3 Breydon, 5 Buckenham, 5 Lakenheath Washes and 11 Welney. Recorded throughout June at 11 sites, all singles apart from 2 Berney 4th and 2 Scolt Head/Brancaster Hbr 20th.

Autumn passage well under way in first week of July and although numbers slightly lower in autumn than previous year, counts were still relatively high with peak numbers mid-July to mid-Sept. High counts:

	Jul			Aug			Sep		
	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-30
Terrington	-	2	41	27	-	7	2	-	-
Snettisham	-	12	52	32	-	16	28	-	9
Titchwell	1	2	19	6	4	20	20	22	6
Scolt Head/ Brancaster Hbr	11	9	17	36	4	6	37	8	8
Cley	2	27	5	6	14	7	7	35	5
Cantley BF	4	3	6	5	12	8	7	-	-
Breydon/Berney	2	6	14	7	10	4	9	3	3

Largest counts elsewhere included 33 Ongar Hill July 26th and a good series of counts at Burnham Norton with 31 July 12th, 18 Aug 9th and 46 Sept 6th, the latter count part of 163 in a coordinated WeBS count in North Norfolk. Other counts of 30 Blakeney Point Sept 7th, 10 west Sheringham Aug 19th, up to 21 Hickling Broad in Sept, 9 Horsey Aug 13th, 10 Lakenheath Washes Aug 29th, 9 Welney July 28th and 6 Wisington BF Aug 27th.

Smaller numbers in Oct with max 9 Snettisham 11th, 7 Titchwell 14th, 5 Stiffkey Fen 11th and 11 Berney 1st. The only Nov records were 2 Burnham Overy 8th and a single Berney to 15th. In Dec 2 Titchwell 7th and single Scolt Head/Brancaster Hbr 6th and 13th.

Lesser Yellowlegs

Tringa flavipes

Vagrant from North America

A juv at Welney Sept 12th-15th afterwards moving into the Cambridgeshire section of the Ouse Washes between 21st-26th before returning to Welney 27th. It reappeared here again Oct 8th and was present on and off until Nov 4th (JBK *et al*). The tenth county record and as well as being the longest staying individual, it was also the first to be seen in Nov.

Green Sandpiper

Tringa ochropus

Double passage migrant, most in autumn; small numbers over-winter

Small numbers present in first winter period with singles at Cley, Cranwich GP, Lakenheath Washes, Pentney GP, Rockland and Stoke Holy Cross, with 2 Cantley BF Jan 11th and 2 Middleton GP Feb 24th, 3 Metton Feb 14th, and up to 3 Whitlingham Lane GP throughout Jan and 4 in Feb. March records very similar, 2 remaining at Whitlingham Lane GP and singles elsewhere at 10 sites.

Very small spring passage, with 4 Whitlingham Lane GP April 5th the largest count and 2 Pentney GP April 11th. Elsewhere singles at 20 sites with final birds of spring at Colney May 13th, Welney 14th, Holme 20th and Titchwell 23rd.

One at Ken Hill Marsh June 1st was presumably a very early autumn returning migrant. First definite autumn birds at both Holme and Titchwell June 14th, Berney 15th, Welney 17th and Wissington BF 19th. Numbers very soon increased, with 5 King's Lynn BF 21st, 3 Welney 22nd, 11 Cantley BF 25th and 7 West Acre 26th. Cantley BF as expected was the premier autumn site with 27 on July 26th increasing to 41 Aug 5th and 50 next day; 50 were still present on 24th decreasing to 17 Sept 17th.

Good numbers also at Wissington BF where 15 July 9th with 17 on 22nd, and Holme where 14 in July; also 17 Holkham July 17th, 12 Cley Aug 7th, 11 Buckenham Aug 8th, 12 Tallents Meadow Lake Aug 9th, 9 Strumpshaw Aug 10th and 12 Breydon/Berney in Aug. Elsewhere up to 6 King's Lynn BF July 3rd, 9 Welney July 26th, 5 Burnham Norton Aug 7th and 9 Hickling Broad in Aug.

Numbers declined at all sites by end of Sept, but still 8 Cantley BF on 27th. In Oct 1-3 at 18 localities and in Nov/Dec 1-2 at 5 localities with 3 Halvergate Nov 18th.

Wood Sandpiper

Tringa glareola

Passage migrant in spring and autumn

First of year Cley April 22nd-26th, with another at Berney 28th. Much more obvious from May 6th when 3 Welney and on 9th when 4 Burnham Norton. Peaks of 4 mid-month Ken Hill Marsh 13th/14th, Salthouse 14th, Holkham 17th and Berney 23rd. Otherwise between 1-3 at Buckenham, Cley, Hickling Broad, Holme, Horsey, Lakenheath Washes, Pentney GP, Scolt Head, Stiffkey Fen, Strumpshaw and Titchwell. Very few after May 27th and the only early June records were at Cley 6th and Salthouse 13th, the latter possibly a very early returning bird.

Definite autumn passage from June 28th when singles Berney, Buckenham and Tallents Meadow Lake. Light passage in July especially in last week with peaks of 3 Welney 29th and 3 Cantley BF 31st. Numbers peaked in autumn in early Aug when up to 8 at Cley 3rd and 3 Salthouse 4th; 4 still at Cley on 14th and 1-2 at many coastal and inland sites. Additionally up to 4 at Berney 20th. Passage continued into Sept at Titchwell, Holme, Scolt Head, Cley, Salthouse, Kelling WM, Eccles and Breydon, and inland at Berney, Cantley BF, Hickling Broad, Pentney GP, Surlingham, Welney and Wissington BF. Oct records from Holme 1st, Salthouse 7th, Cley 15th and at Cantley BF on several dates where latest Nov 3rd.

Common Sandpiper

Actitis hypoleucos

Passage migrant in spring and autumn; rare in winter; has bred

A winter record from Breydon where single Feb 7th. First spring migrants Ouse Washes (RSPB) April 12th, Thetford Nunnery Lakes 16th and Wissington BF 20th. Main passage

commenced 21st/22nd when up to 4 Breydon, 2 Pentney GP, 2 Whitlingham Lane GP, and singles at 6 other sites. By end of April singles at many sites. Main passage in May with average numbers recorded; max 5 Holme 15th, 5 Stiffkey Fen 22nd, 6 Titchwell 9th, 6 Buckenham and Pensthorpe 12th, 6 Scolt Head/Brancaster Hbr 16th/17th, 7 Beeston Regis on beach 8th, 7 Breydon 11th, 7 Whitlingham Lanc GP 23rd, 8 Snettisham 13th, 12 Hickling Broad 24th, 12 Cley 25th and 25 Breydon/Berney 23rd. Otherwise 1-4 at 16 other localities. Passage continued to June 6th and 2 midsummer records Sparham Pools 15th and Weybourne 17th.

Return passage commenced June 25th when one Welney. Best counts in July were 11 Titchwell, 13 Sheringham Beach 19th, 14 Breydon 22nd, 19 Terrington and high total of 33 Breydon/Berney 28th. Other counts included 6 at both Welney and Cley and 8 at Snettisham and Wissington BF. These good totals continued into Aug with 20 Breydon/Berney 6th and a total of 54 along north coast 9th including 13 Titchwell. Elsewhere 17 Wissington BF 7th, 16 Snettisham 8th, and up to 10 at Hickling Broad. Rather fewer in Sept, with max 10 Terrington, 9 Wissington BF 10th and 9 Scolt Head/Brancaster Hbr 6th. In early Oct recorded at 7 localities with latest Strumpshaw 19th and Cantley BF 23rd.

Turnstone

Arenaria interpres

Passage migrant and winter visitor; some summering non-breeders

Monthly max at main and most regularly counted sites:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Terrington	5	6	17	35	3	6	115	2	31	6	6	-
King's Lynn Docks	48	81	35	39	25	-	-	-	-	-	60	100
Snettisham	23	30	22	109	-	5	509	378	238	49	7	14
Heacham	-	-	-	60	28	-	-	-	50	48	41	33
Holme	21	27	39	46	66	9	-	67	72	71	29	70
Scolt Head/ Brancaster Hbr	175	148	229	245	284	115	89	318	303	222	175	212
Stiffkey	21	30	34	40	52	-	-	82	24	45	-	60
Blakeney Hbr	15	45	40	-	-	-	-	-	125	160	55	32
Breydon	13	10	13	15	8	2	7	19	17	10	5	8

National importance (winter): 640

At Breydon numbers continue to decrease, especially in winter. Other counts not included in above: Ousemouth 56 Dec; Hunstanton 60 Jan, 101 Feb, 104 March and 86 Oct; Titchwell 230 March 15h, 80 Aug 13th and 140 Dec 16th; Thornham 195 March 15th; West Runton 30 March 4th and 50 April 21st; Eccles 28 Jan 27th, 32 Oct 25th and 41 Nov 6th.

A good selection of inland records: Welney present on 13 dates in March with 4 on 22nd, 2 April 22nd and an early juv July 30th; Lakenheath Washes 2 June 1st and single July 27th; Strumpshaw Aug 18th and Middleton GP Aug 22nd.

Red-necked Phalarope

Phalaropus lobatus

Scarce passage migrant

An average showing with 4 typical records: male in breeding plumage Titchwell July 22nd-24th, and in Sept juvs Titchwell 2nd-13th, Welney 5th/6th and Berney 8th/9th.

Grey Phalarope

Phalaropus fulicarius

Scarce autumn passage migrant; rare at other times

After last year's exceptional number in Oct an average autumn with at least 12 records, only one of which involved a bird identified in flight at sea. The only Sept record was one on sea Scolt Head 13th. Oct records began with one on sea Holme 12th followed by a long-stayer Titchwell 15th-25th. Singles then were at Walcott on beach 19th, Waxham on sea 23rd and 2 Cley 25th, also both on sea. A small movement on 30th involved singles west at Cley/Blakeney FM, another Salthouse, and west over sea Sheringham (ASLS). On 31st another on sea at Horsey. None in Nov, but a late bird at Breydon Dec 14th.

Pomarine Skua

Stercorarius pomarinus

Passage migrant during autumn; small numbers at other times

Good numbers during strong onshore winds Jan 19th when 2 east Brancaster, 2 east Scolt Head, 7 east Sheringham and 4 south Eccles. Only other records outside autumn were singles Blakeney Point and Cley Feb 28th.

First of autumn Horsey Aug 1st, but no others until singles Cley, Sheringham and 3 Mundesley 24th, and Hunstanton, Cley and east West Runton 27th. Passage during rest of autumn disappointing. In Sept recorded on just 9 dates with most 13th when west Scolt Head, 8 Sheringham, 3 east West Runton, 6 east Overstrand, west Mundesley and 3 north Winterton. Highest counts during rest of month: 3 Eccles 14th, 7 Hunstanton 15th, and 3 west one east Holme 27th. Poor numbers continued to be reported during Oct; best day 25th when 3 Hunstanton, 2 east Cley, 9 east Sheringham, 6 east West Runton, 3 east Overstrand and 27 Eccles. Highest counts during rest of month all at Sheringham where 4 east 7th, 5 east 8th, 5 east 29th and 4 west 30th. In Nov recorded on 7 dates up to 16th, most 4th when 2 Hunstanton, 11 east Sheringham, 3 east West Runton, 2 Mundesley and one Eccles. Other noteworthy counts during month at Sheringham where 7 15th and 4 east 16th. One Eccles Dec 4th was the month's only record and last of year.

Arctic Skua

Stercorarius parasiticus

Mainly autumn passage migrant, scarce at other times

More than normal recorded in first winter period when singles Holme Jan 7th; east Brancaster, east Scolt Head, Overstrand and 2 Eccles Jan 19th; Titchwell Feb 1st; Scolt Head Feb 15th; Blakeney Point, Cley and Horsey Feb 28th; Blakeney Point and 4 Yarmouth March 8th.

Spring passage poor with only record Ongar Hill May 25th. Small numbers reported mid-June when singles Kelling 12th, Scolt Head 15th and Cley 16th where 2 17th.

First of autumn Scolt Head July 4th and then daily along coast until mid-Nov. In July numbers small with max 12 Cley 14th and 17 east 2 west Scolt Head 31st. In Aug highest counts 30 east 7 west Scolt Head, 30 Cley and 80 east Sheringham 21st; 10 Titchwell, 56 west Scolt Head, 49 Cley, 40 Sheringham, 22 Overstrand and 10 Mundesley 24th; 20 west 6 east Scolt Head, 40 Cley and 35 Sheringham 26th. Also during second half of month up to 20 daily following feeding tern flocks between Holme and Scolt Head. Peak passage Sept 13th when 15 Lynn Point, 47 Hunstanton, 51 east 50 west Holme, 65 east 12 west Scolt Head, 17 east Cley, 103 Sheringham, 16 east West Runton, 27 east Overstrand and 16 west Mundesley. During rest of month largest counts 31 north Snettisham 7th and 50 Hunstanton, 18 west Holme, and 41 west 14 east Sheringham 16th. Numbers small in Oct with max 17 Hunstanton and 10 west 3 east Scolt Head 1st, 10 Sheringham 8th, and 12 Cley, 37 east Sheringham, 5 west Overstrand, 27 Eccles and 7 south Horsey 25th. Small numbers continued

to be recorded throughout Nov, most Sheringham where 5 4th and 10 east 15th. In Dec Eccles 5th and 2 Titchwell 20th.

Only inland record 2 Lakenheath Washes Sept 6th.

Long-tailed Skua

Stercorarius longicaudus

Autumn passage migrant increasingly identified in recent years

An excellent autumn with many records of juvs indicative of a good breeding season. First 2 juvs off Snettisham Aug 8th, followed by 2 juvs east Sheringham and an adult west Mundesley 21st. Highest counts of autumn Aug 24th when 8 juvs west Scolt Head, 40 juvs Cley, 20 juvs, 8 imms and one adult Sheringham, and single juvs Mundesley and Overstrand. Also recorded on an additional 5 dates during rest of month, most 26th when 3 juvs west Scolt Head, 8 juvs Cley and a juv Sheringham. In Sept recorded on 12 dates most 13th when juv Lynn Point, 2 juvs east Holme, 3 juvs east Scolt Head, 5 juvs Cley, 2 Weybourne, 3 west 7 east (all juvs) Sheringham, east West Runton, and 6 adults 8 juvs east Overstrand. Apart from 6 west Mundesley 14th no other counts during rest of month exceeded 2. Only records in Oct 4 east Sheringham and one east West Runton 25th.

Great Skua

Catharacta skua

Passage migrant mostly in autumn; small numbers at other times

In first winter period exceptional numbers recorded offshore Jan 19th when 6 west Holme, 19 east Brancaster, 8 east Scolt Head, 87 east 4 west Sheringham, 61 east Overstrand and 12 south Eccles. These counts are easily the highest midwinter counts for the county and probably also in the North Sea. Presumably the very mild winter encouraged more than normal to linger in the North Sea and were then driven south by onshore gales.

Also in Jan singles north Waxham 2nd, east East Runton 17th, west Holme 18th, 2 east Mundesley 20th and east Brancaster 21st. Only other records in first half of year during March when singles Stiffkey and Yarmouth 8th, and Holme 11th.

First of autumn Yarmouth July 12th with 1-3 on 5 other dates during rest of month. In Aug few records during first 3 weeks with first significant count 24th when 21 west Scolt Head, 17 Cley, 15 Sheringham and 3 east Overstrand. Passage continued to be disappointing during rest of autumn except on Sept 13th/14th and 17th. On 13th 12 Lynn Point, 11 Hunstanton, 99 west 12 east Holme, 105 west 12 east Scolt Head, 140 (mostly east) Sheringham, 15 Eccles and 10 west Mundesley. On 14th 8 Hunstanton, 34 west Holme, 30 west Scolt Head, 8 Cley and 35 Sheringham. On 17th 47 Hunstanton, 31 Cley and 24 west one east Sheringham. In Oct max 20 Cley 2nd, 26 west Holme, and 45 east one west Sheringham 12th, 20 west Holme 18th and 24 east Sheringham 25th. In Nov recorded on just 6 dates most 15th when 8 Titchwell and 32 east 2 west Sheringham. In Dec singles Titchwell, Salthouse, 27 Sheringham and 3 Eccles 5th, and last of year 20th when 2 Titchwell and singles Brancaster and Sheringham.

No inland records but 5 flew inland over Brancaster Staithe Sept 26th.

Mediterranean Gull

Larus melanocephalus

Regular all-year visitor in increasing numbers, often remaining for weeks; recent breeder

Bred with unknown success at Stiffkey Saltmarsh one pr and Blakeney Point 3 prs. A pair was also displaying at Burnham Overy Staithe April 26th.

Given the usual caveat that true numbers are difficult to assess, the total of individuals was broadly comparable with the previous year. Records are summarised by month and age:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st year	6	5	8	18	20	17	5	3	2	9	11	7
2nd year	8	3	17	12	4	1	5	6	3	9	7	6
Adult	19	23	17	16	11	6	8	8	17	13	24	17

Most popular sites were Heacham/Hunstanton, Scolt Head, Cley/Blakeney, Salthouse, Overstrand and particularly Yarmouth/Breydon.

Some larger counts: Heacham 4 adults March 14th; Hunstanton 5 (adult, 3 2nd-winter, 1st-winter) during Oct; Scolt Head 8 1st-summer May 21st; Overstrand up to 4 adults both winter periods; Yarmouth 11 (8 adults, 2 2nd-winter, 1st-winter) Feb 15th, 21 (11 adults, 4 2nd-winter, 6 1st-winter) Oct 12th, 25 (12 adults, 3 2nd-winter, 10 1st-winter) Nov 13th; Breydon 10 (8 2nd-summer, 2 1st-summer) April 5th, 17 (9 adults, 2 2nd-winter, 6 1st-winter) Dec 3rd.

Inland: Buckenham adult July 21st; Burnham Market adult and 2nd-winter Sept 15th; East Raynham 2nd-winter Aug 30th; Edgefield Tip adult Jan 25th, 2nd-summer May 22nd, adult June 6th/7th; adult Filby Broad March 14th; Flitcham adult Feb 19th; Holkham Park Lake adult Feb 28th, 2 adults and 2nd-summer July 19th, adult July 27th, adult and 2nd-winter all Dec; Northrepps adult Feb 20th and March 16th/17th; Norwich Eaton Park 1st-winter Feb 18th, Norwich Heartsease Lane 2nd-winter Aug 30th, Norwich UEA Broad 1st-winter Feb 19th-March 18th; Pentney GP 1st-summer April 12th; Tottenhill GP 1st-winter April 15th-21st; Welney 1st-winter Jan 7th and 30th; West Acre 1st-summer April 12th; Wiverton 3 adults and 2nd-summer April 19th; Wroxham Broad 2nd-winter Dec 8th.

Juvs reported at only 2 sites: Overstrand June 22nd-25th and Sheringham west Aug 16th.

At Yarmouth in Oct-Dec 4 birds previously ringed in Belgium (2), Germany and The Netherlands.

Laughing Gull

Larus atricilla

Vagrant from North America

The third county record, an adult summer, was initially at Titchwell May 9th-14th (RSPB *et al*), returning 16th and 20th. It also visited various sites including Holme 10th, 16th and 29th-31st (GFH *et al*), Burnham Norton 18th/19th (PMW), Burnham Overy 20th (JRMc) and finally Hunstanton June 1st-3rd. Incredibly on May 10th it was joined at Titchwell by a Franklin's Gull and like that bird also visited Kirkby-on-Bain GP in Lincs. See article page 299.

Franklin's Gull

Larus pipixcan

Vagrant from North America

A 1st-summer at Titchwell May 10th (TH BSm *et al*) was the third county record. This individual was later seen at Kirkby-on-Bain GP in Lincs. See article page 299.

Little Gull

Larus minutus

Non-breeding summer visitor, passage migrant and winter visitor

Recorded throughout year except Dec. Small numbers in first 3 months apart from 45 east Sheringham, 17 east Brancaster both Jan 19th, 30 west Holme Feb 17th and 249 east there in 2 hrs March 3rd.

Spring passage in April generally 1-2 but included: 21 on sea then east Scolt Head 18th, up to 10 Welney 19th, and 3 Rockland Broad 29th. Increasing numbers in May with usual

influx of 1st-summer birds including 3 Hickling Broad 24th; on 25th 18 Titchwell (3 adults) and 7 Cley; on 28th 3 Roekland Broad and 12 Welney. At Choseley 7 birds were following the plough May 25th.

Midsummer counts included: *June* 12 Welney 1st-3rd, 17 Titchwell 10th, up to 15 Kelling WM 12th-30th; *July* 5 Cley 1st, 7 Titchwell 5th/6th, 5 Buckenham 5th and 16th, and 7 Kelling WM 12th/13th.

Small numbers in early autumn: *Aug* 3 Cley 24th and 2 Titchwell 29th-31st; *Sept* 5 Cley and 3 Titchwell 3rd, 9 west Cley and 4 Horscy 5th, 9 Scolt Head 6th with 22 west there 26th, and 7 Sheringham 13th with 8 27th.

Higher counts in Oct but passage weak compared with previous year: *2nd* 9 Holme, 20 Cley and 29 east West Runton; *5th* 40 east Hunstanton and 60 east 25 west Scolt Head; *6th* 50 Brancaster and 37 east Scolt Head; *8th* 60 east 4 west Sheringham; *12th* 15 east 8 west Sheringham.

In Nov 8 Cley and 19 Sheringham 4th, with 2 east latter site 16th, and 3 Titchwell 11th.
1997 Correction: 755 east Sheringham Nov 30th (a site record).

Sabine's Gull

Larus sabini

Almost annual but scarce autumn vagrant from High Arctic; extremely rare in spring

A typical autumn passage: Holme adult on beach Aug 31st (CA AWO); Cley juv west Aug 29th (SB *et al*); Lynn Point adult (ADC PMW), Cley adult (MPLF BAEM) and Sheringham 3 juvs east (PJH) all Sept 13th; Mundesley juv west (MDF SJS) and Sheringham juv east (JRW) both Sept 14th; West Runton juv east Oct 2nd (MDC); Sheringham juv east Nov 4th (DJH).



Sabine's Gull (*S Cale*)

Black-headed Gull

Larus ridibundus

Breeds colonially, dispersing in winter when many immigrants from Eastern Europe

Breeding pairs recorded as follows (success unknown unless otherwise stated): Snettisham 820, Holme 22 (small number of young), Titchwell 300, Brancaster Saltmarsh 12 (washed out), Scolt Head 95 (<20 young), Holkham NNR 110-120, Bob Hall Sands 10, Wells New Ridge 3, Stiffkey West Binks 103, Stiffkey Big Binks 44, Warham Greens 35, Blakeney Point 2500 ('very good success'), Cley 12 (c20 young), Kelling WM (8 young), Cantley BF 500, Strumpshaw 250, Hoveton Marsh 1800, Middleton GP 3, Wisington BF 20 (poor success) and Welney 8 (6+ young).

Monthly roost counts at selected sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Lynn Point	7450	11000	10500	1340	2372	2100	-	-	5120	10600
Thornham	850	380	-	722	-	-	-	-	2600	1800
Scolt Head	-	66	135	1400	2000	2000	6500	8000	4450	7470

At Welney substantial roost in winter months but only counts 6200 Jan, 3470 Feb and 677 Oct; at Rockland Broad 500 Jan, 3000 Feb, 1600 March. Elsewhere 3000 West Runton Oct and 6000 Ranworth Broad Dec.

Westerly coastal movements included: Holme 537 July 17th, 303 Sept 20th; Scolt Head 280 March 30th, 550 July 10th, 870 July 20th, 1100 Aug 3rd, 780 Aug 21st, 420 Aug 27th; Sheringham 400 Jan 11th, 300 Feb 1st, 400 Nov 1st; Mundesley 800 March 2nd.

Other notable counts: Blackborough End Tip 1735 Jan 3rd, 2500 Feb 7th, 2000 Dec 23rd; Titchwell 1200 Jan 24th, 1025 April, 1190 May, 1300 Oct; Heacham 12,000 Jan 23rd; Sheringham 2500 Feb 13th; Holme 1000 Feb 27th; Holkham Park Lake 772 Feb 28th; Terrington 4500 Aug; Burnham Market 957 Sept 15th; Cantley 1200 Nov 12th; Northrepps 750 Nov 20th.

Common Gull

Larus canus

Passage migrant and winter visitor with non-breeders remaining all summer; spasmodic breeder

Breeding recorded at Blakeney Point where 3 prs bred with 'very good success' and unsuccessfully at Snettisham one pr, Scolt Head 2 prs and Stiffkey Binks 2 prs.

Monthly roost counts at selected sites:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Lynn Point	3000	3750	960	1480	950	-	220	365	-	-	1700	2950
Thornham	1800	700	-	-	100	-	-	170	-	-	2500	4000
Scolt Head	-	30	150	1200	1260	120	60	63	1500	2000	680	2780

Elsewhere 18,000 Heacham Jan, 840 Welney Jan, 1200 Rockland Broad Feb and 800 Ranworth Broad Dec.

Other notable counts: Titchwell 6000+ Jan 27th, 450 March 12th, 240 May, 120 June; Sheringham 400 Feb 1st, Holme 1000 Feb 27th, Holkham Park Lake 428 Feb 28th, Salhouse 168 May 5th, Breydon 256 May 26th and Northrepps 560 Dec 20th. At Scolt Head a large influx of imms in spring with peak counts of 1200 April 27th and 1260 May 16th.

Few significant movements: Sheringham 200 west Jan 11th, 180 west Feb 1st, 150 west March 10th; Brancaster 110 east Jan 19th; Scolt Head 300 west May 2nd.

Lesser Black-backed Gull

Larus fuscus

Passage migrant and migratory breeder; increasing in winter

Breeding recorded at 4 sites (success unknown unless otherwise stated): Titchwell pr, Wells Saltmarsh 46 prs, Blakeney Point 7 prs (poor success), Yarmouth South Denes pr on factory roof (fledged 2 young).

Small numbers recorded during winter periods, usually 1-6 apart from 160 East Harling Jan 6th, Brettenham where max 51 between Jan 22nd-Feb 22nd, 23 Lynn Point Feb 7th, 117 Caistor St Edmund Nov 19th and 22 Attlebridge Nov 21st.

First migrant recorded Sheringham west Feb 16th, thereafter few significant movements except 476 east Bowthorpe Sept 24th.

Concentrations included: Lynn Point 144 April 11th, 279 May 12th, 500 June 11th, 949 July 14th, 1300 Aug 26th; Saddlebow 85 April 20th, 420 June 14th, 400+ July 21st, 1500 Aug 9th, 910 Sept 12th, 100 Sept 15th; East Harling 240 May 11th; Titchwell 52 June, 220 Oct; Whitlingham Lane GP 82 July 5th, 180 July 27th, 100 Aug 7th, 80 Oct 10th; Blackborough End Tip 240 July 11th; Eau Brink 1338 July 26th, 449 Aug 2nd; Winfarthing 500 Aug 24th; Terrington 350 Aug; near Crostwight/Honing 180 Sept 4th; East Tuddenham 250 Sept 19th; Caistor St Edmund 90 Sept 3rd, 200 Sept 18th, 1040 Oct 2nd, 420 Oct 23rd; Hethersett 192 Sept 24th; Weston Longville 250 Sept 25th; Meeting House Hill Tip (Worstead) 160 Sept 30th; Briggate 100 Oct 7th; Hickling 250 Oct 20th.

Herring Gull

Larus argentatus

Herring Gull *L (a) argenteus/argentatus*

Increasing breeder, late summer migrant and winter visitor

Breeding recorded at 4 sites: Titchwell pair on freshmarsh with 4 large young July 25th, Wells Saltmarsh 130 prs, Blakeney Point 150 prs (poor success), Yarmouth 6 prs on roof tops (at least 10 young).

Notable movements: Holme 500 east May 14th; Scolt Head 275 east Jan 19th, 450 west March 30th, 230 east April 10th, 130 west April 20th, 650 west May 2nd; Sheringham 100 west Jan 1st, 170 west 40 east March 31st; Overstrand 300 west Jan 17th, 500 west Feb 27th, 350 west March 14th, 209 west (in 1 hr 45 mins) Dec 7th.

An influx occurred on north coast at start of year when a coordinated count Holme-Titchwell produced 12,000 Jan 26th.

Other counts included: Terrington 125 July, 2550 Aug and 418 Oct; Lynn Point roost 681 Feb 7th, 796 April 11th, 680 May 1st, 1400 June 11th, 1250 July 2nd, 1600 Aug 26th, 1400 Nov 22nd and 1600 Dec 30th; Snettisham 1300 Jan 31st, 190 May 28th, 200 July 26th and 300 Aug 9th; Holme 100 Feb 10th, 800 Dec 12th; Titchwell 631 March 15th, 2000 April 13th, 430 May, 263 June, 232 July, 231 Aug and 241 Nov; Scolt Head 111 Jan 18th, 102 Feb 12th, 146 March 18th, 250 March 28th/29th, an influx of imms occurred in April max 1000 13th and 27th/28th, 250 May 11th, 650 June 20th, 480 June 26th, 167 July 11th, 82 Aug 23rd, 400 Oct, 120 Nov and 665 Dec; Blakeney Hbr 500 Dec 6th; Blackborough End Tip 655 Jan 2nd, 500 April 12th, 400 July 11th, 1000 Sept 13th, 565 Oct 25th and 500 Nov 14th.

Yellow-legged Gull *L (a) michahellis*

Increasing visitor from southern Europe

An increase in records compared with previous year probably due more to observer awareness, particularly of imms, than any change in status. Monthly totals probably best regarded as min numbers as follows:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
18	3	5	10	12	3	28	17	20	9	6	2

An increase in inland records, due in part to scrutiny of rubbish tips: some notable counts: Aldeby Tip 6 1st-winter Jan 11th, Titchwell 3 adults Jan 21st, Edgefield Tip 6 April 18th, Whitlingham Lane GP 5+ July 24th/25th, Eau Brink 9 July 18th and 4 Aug 2nd, and Saddlebow 5 Aug 9th.

Caspian Gull *L (a) michahellis cachinnans*

Rare visitor from eastern Europe

More records of this form again reflecting increased observer awareness ahead of probable specific status: Aldeby Tip 3rd-winter Jan 11th, Edgefield Tip 1st-summer April 19th and 25th, Cley 2nd-summer/3rd-winter Aug 9th, Blackborough End Tip 2 1st-winter Nov 22nd (all AMS).

Iceland Gull

Larus glaucoides

Annual but very scarce winter visitor and passage migrant

The number of records of this species appears to be decreasing. Aldeby Tip adult Jan 2nd, Lynn Point adult Feb 21st/22nd and 2nd-winter March 8th, Titchwell 2nd-summer April 12th, Scolt Head 1st-summer April 25th and Yarmouth adult Dec 13th.

In addition a 1st-winter Iceland/Glaucous Gull Aldeby Tip Jan 3rd.

Glaucous Gull

Larus hyperboreus

Winter visitor in fluctuating numbers; rare in summer

A typical scatter of records but an increased number in north-west of county. Aldeby Tip 1st-winter Jan 2nd/3rd; Holme/Thornham/Titchwell 2nd-winter various dates Jan 20th-Feb 8th; Lynn Point 1st-winter, Heacham/Hunstanton 2nd-winter, Holme 1st-winter all March 8th; Breydon/Yarmouth 2nd-winter March 20th; Sheringham 1st-winter west March 21st; Breydon 1st-summer April 3rd; Cley 2nd-year east April 10th; Holme 1st-summer April 11th and presumed same Titchwell 12th-14th; Brancaster/Titchwell adult May 21st/22nd; Brancaster 3rd-winter Dec 3rd and 7th; Holme/Titchwell 1st-winter Dec 5th/6th; Blakeney Hbr 1st-winter Dec 6th.

Great Black-backed Gull

Larus marinus

Passage migrant, winter visitor and non-breeding summer visitor

Coastal movements included Scolt Head 60 east Jan 19th, 50 east March 29th; Sheringham 120 west March 21st, 200 west Dec 12th; Weybourne 80 west June 30th.

Notable gatherings: Longwater Industrial Estate (Costessey) 90 Jan; Holme 200 Jan, 80 Aug, 80 Sept, 58 Nov 122 Dec; Blackborough End Tip 89 Jan 2nd, 90+ Sept 13th, 117 Oct 29th, 60 Nov 14th; Thornham (roost) 220 Jan 24th; Scolt Head 55 April 12th, 101 July 25th, 131 Aug 9th, 177 Aug 23rd, 285 Sept 7th 311 Oct 11th, 110 Nov, 590 Dec; Lynn Point 81 May 12th, 175 July 2nd, 156 Aug 1st, 181 Aug 4th; Breydon 540 July 4th, 1100 Oct 16th; Terrington 67 Aug, 127 Oct, 75 Dec; Blakeney Hbr 200 Sept 1st; Titchwell 124 Sept, 103 Oct.

Kittiwake

Rissa tridactyla

Mainly passage migrant; occasional non-breeding concentrations in summer

Notable gatherings: Blakeney Point 500 feeding offshore Jan; Sheringham 150+ Jan 20th, 100 June 11th (with Cley 200 same day), 250 Nov 4th, 137 Dec 4th; Eccles 270 Nov 15th.

Coastal movements included: Heacham 240 north, Titchwell 400 east, Brancaster 2500 east, Scolt Head 630 east, Sheringham 5800 east, Mundesley 800/hr east (0800-1100 hrs), Overstrand 6000 east, Eccles 3000+ south all Jan 19th; Holme 302 east 36 west Jan 20th; Scolt Head 75 east 6 west June 11th; West Runton 203 east in 1.5 hrs Oct 28th; Holkham Bay 500 west in an hour Oct 30th; Sheringham 550 east Nov 15th with 300 east 37 west 16th.

Inland: Breydon March 3rd and June 12th; Welney April 9th, north-east April 19th and May 2nd.

Caspian Tern

Sterna caspia

Vagrant from the Baltic

A single adult in Aug at Hickling Broad 2nd, 4th and 10th, Ormesby Broad 2nd and Breydon 2nd, 4th-6th and 10th (INS SSm *et al*). As usual for Caspian Terns visiting the area this bird generally roosted at Breydon and fed elsewhere, going missing on 3rd and 7th-9th. Recorded for third consecutive year.

1997 Correction: Breydon July 30th, not 20th.

Sandwich Tern

Sterna sandvicensis

Migratory breeder and passage migrant

First arrival Brancaster March 24th, the latest first date since 1984, closely followed by Scolt Head 25th and Cley 26th.

A total breeding failure at Scolt Head for second successive year where c650 prs fledged no young, due almost entirely to predation by Herring Gulls. Similar success to last year at Blakeney Point where 3000 prs fledged 1600-2000 young.

The first juv recorded away from breeding colonies a single Breydon July 9th.

At Scolt Head gatherings of 500+ June, 700 July 3rd, 900 11th, 1000 22nd, 850 24th and 740 25th, with 700 Aug 2nd and 628 Sept 6th.

Movements/gatherings away from colonies: 225 Cley April 24th, 325 May 4th, 300 July 31st and 200 Aug 4th; 200 west Sheringham plus 50 present May 12th, 250 east Sept 9th (0730-1340 hrs); 50-150 Breydon all July; 150 west Overstrand July 1st and 200 west 5th; 700 Hunstanton Aug 6th.

Inland: 2 flying north Cranwich GP Sept 17th.

1-2 recorded at 5 north coast localities in Nov plus an exceptional max of 9 at Titchwell with last bird there 27th. There were no winter records.

Roseate Tern

Sterna dougallii

Uncommon summer visitor; has bred

The recent increase in occurrences continues. For third successive year breeding was attempted at one site where a pair failed and 3 additional birds were recorded during the summer; at another up to 5 birds were displaying and nest scraping sporadically during late June and July but no breeding took place. An examination of tail streamer length and ring combinations proved that just 5 birds accounted for records at both these sites and probably the majority of other records around the coast.

Elsewhere: Titchwell Aug 6th; west Blakeney Point Sept 1st; Cley May 19th-21st, 27th, 29th, 31st and June 4th, with 2 June 16th, 29th and July 25th; Yarmouth North Beach Little Tern colony July 7th-17th, 2 18th, one 19th-21st, 2 23rd, 3 24th, one 27th, 2 29th, 3 30th with one 31st-Aug 8th; Breydon June 6th with 2 July 29th-Aug 7th and one Aug 10th.

A juv Scolt Head Sept 4th-7th arrived with a large influx of other terns.

Common Tern

Sterna hirundo

Migratory breeder and passage migrant at both coastal and inland sites

Recorded between April 2nd (Welney) and Oct 31st (Cley).

The only notable spring coastal concentrations were at Scolt Head where 200 May 2nd and 250 29th.

A min of 706 breeding prs, 89 up on previous year. Records from 6 more breeding sites than last year including the first breeding at Welney. No figures available from some sites.

	<i>No of prs</i>	<i>Young fledged</i>
Snettisham	85	unknown
Scolt Head	192	40-50
Titchwell	3	0
Wells New Ridge	1	0
Stiffkey Binks	50	14
Blakeney Point	160	25-30
Cley	6	3
Breydon	164	115
Ranworth Broad	17	unknown
Barton Broad	15	unknown
Lyng-Easthaugh GP	1	unknown
Sparham Pools	2	2
Middleton GP	5	unknown
Pentney GP	2	unknown
Wissington BF	1	1
Welney	2	3

The Scolt Head colony had poor success due to high spring tides, which completely covered the nesting ridge, and some predation by Herring Gulls. A similar problem at Blakeney Point with adverse weather and predation by Herring Gulls resulting in few young fledging. Breydon saw a decrease in nesting birds for the first time on the RSPB platforms and a very poor breeding season (by Breydon standards) of only 0.7 young per pair; 68 dead chicks were found - many quite large and virtually fledged.

1st-summer birds at Breydon July 8th, 10th, 13th, 20th and 23rd, and Scolt Head July 24th.

In autumn 100 Overstrand Aug 4th, 190 Snettisham Aug 22nd, 90+ Lynn Point Aug 26th and 100+ Sept 10th, 500 Scolt Head Sept 5th, 550 6th and 1000 7th, 92 Titchwell Sept 5th.

Arctic Tern

Sterna paradisaea

Double passage migrant; a few pairs breed

An early record of 4 Holme April 3rd followed by light passage of 1-11 birds at 9 sites until end of month, with 21 north Welney 19th. An exceptional passage occurred over the first 4 days in May: *1st* 82 north Welney, 102 north Lynn Point, 45 east Scolt Head, 8 Breydon and 3 Strumpshaw; *2nd* 586 north Welney, 131 north Lynn Point, 275 east Scolt Head, 50 north Pensthorpe, 43 east Breydon, 41 Wroxham Broad, 37 Rockland Broad, 30 Filby Broad, 21 Colney GP, 15 Whitlingham Lane GP, a few Cley, 4 north Flitcham, 3 west Strumpshaw and singles at Titchwell, Horsey Gap and Norwich; *3rd* 259 north Welney, 270 north Lynn Point, 165 east Scolt Head, 30 Cley, 12-15 north Holkham FM, 8 Lakenheath Washes, 2 Pentney GP, and singles at Walcott and Lyng-Easthaugh GP; *4th* 119 north Welney was last large count and more normal spring passage continued until mid-May.

Breeding occurred at Scolt Head where one pr failed and Blakeney Point where 15-20 prs had very poor success. At Stiffkey Binks one pr present but success unknown.

1st-summer birds at Breydon July 9th, 15th and 17th, juvs there July 19th and Aug 23rd.

A mainly light autumn passage with 1-16 at 11 sites, the exception being Scolt Head where 45 Sept 5th, 25 6th and 25 west 10 east 13th. Latest Walcott Oct 31st.

Little Tern

Sterna albifrons

Local migratory breeder

Recorded from April 18th (Breydon) and other than a very late bird Oct 25th (Cley) no records later than Sept 14th.

Inland: Welney May 12th with 2 16th, 2 Hickling (Rush Hills) May 13th, 20th and 22nd, 3 Lakenheath Washes May 14th, Berney May 23rd and Pentney GP Sept 14th.

510 breeding prs, an increase of 104 prs on last year and a big increase in fledged young due almost entirely to record success at Yarmouth North Beach. At Scolt Head slow arrival with only 15 by end of April and many birds still arriving early June. Heavy predation at Burnham Overy and nest desertion at Scolt Head, Wells (39 prs overnight) and Blakeney Point for no known reason, probably poor weather and/or lack of food.

	<i>No of prs</i>	<i>Young fledged</i>
Holme	11	0
Titchwell	3	0
Brancaster Beach	9	5
Scolt Head	99	c30
Burnham Overy	29	0
Wells	49	0
Wells New Ridge	14	0
Stiffkey Binks	14	0
Blakeney Point	60	fewer than 15
Yarmouth	222	338

Largest autumn concentrations 134 Scolt Head July 25th and 52 Ongar Hill Aug 21st.

Black Tern

Chlidonias niger

Regular double passage migrant in variable numbers; has bred

First recorded April 22nd with singles Titchwell, Salthouse and Kelling WM followed by Holme 23rd, Brancaster, Scolt Head and Berney 28th, and 2 Holkham May 2nd. A reasonably light spring passage May 7th to end of month involving max of 192 at 21 sites, mainly 1-4 birds but a good series of counts from Welney where 16 on 9th and 11th, with 8 10th, 9 12th, 10 13th and 6 14th. The only other counts above 4 were 12 Breydon 10th with 7 on 11th, 5 Lakenheath Washes 10th, 7 Titchwell and 5 Cley 11th, 7 Strumpshaw 13th, and 6 Rockland Broad 13th, 23rd and 25th.

In June Strumpshaw and Rockland Broad 6th and Paston 13th. Only 8 records of 1-2 birds at 6 sites in July, including a very early juv Breydon 17th. In Aug 12 at 6 sites, all singles except 2 Cley 21st and 3 Scolt Head 24th.

Max of 278 birds at 13 localities on main autumn passage Sept 1st-18th, mainly 1-4 but 6 west Scolt Head/Brancaster Hbr, 5 Cley and 9 west Mundesley 3rd. A large influx of terns on 5th resulted in 26 east Holme, 7 (6 west) Titchwell, 80 Scolt Head/Brancaster Hbr (with 14 on 6th) and 22 north Horsey. Then 10 Lynn Point 9th with 5 10th, and 10 east Sheringham and 8 West Runton 13th. Recorded on only 2 dates after Sept 18th, Pentney GP 20th, Sheringham (4), West Runton and Walcott 27th.

White-winged Black Tern

Chlidonias leucopterus

Vagrant from south-east Europe

An adult Cley July 30th/31st (BJB DNy *et al*), same Titchwell July 31st/Aug 1st (PBr *et al*). Has become much rarer in the county, recorded in only 3 years between 1989 and 1998 compared with 8 years in each of the preceding 10-year periods 1979-88 and 1969-78.

Guillemot

Uria aalge

Passage migrant and winter visitor; occasional wrecks

Very few specifically identified; only significant counts 150 Cley June 11th, 42 east 2 west West Runton Oct 2nd and 100 Cley Dec 5th. First juvs noted offshore at Mundesley July 1st. Small numbers of corpses recorded along north coast Jan and Feb when 13 Scolt Head, only 2 of which were oiled.

Inland one Welney Feb 1st.

Razorbill

Alca torda

Passage migrant and winter visitor

More identified than previous species with most Oct when 100 Cley 2nd, 120 Overstrand 26th and at West Runton 201 2nd, 154 3rd, 175 5th and 117 6th, all moving east. First juvs noted offshore Salthouse and Weybourne July 6th.

Guillemot/Razorbill

No significant counts until June when 245 east Scolt Head 11th, 220 east Sheringham and 80 east Overstrand 12th. Few others until Oct when at Sheringham 350 east 15 west 6th, 600 east 50 west 12th, 220 east 17 west 25th and at West Runton 230 east 28th. In Nov 360 east 85 west Sheringham and 360 east Overstrand 10th, 255 west 60 east Sheringham and 105 Eccles 15th. In Dec most records from Sheringham where 120 east per hr 4th and 180 west 5 east 5th.

Black Guillemot

Cephus grylle

Rare passage migrant and winter visitor

A poor year with only record of presumably the same bird west Cley and Sheringham Nov 1st.

Little Auk

Alle alle

Passage migrant, most during northerly gales; occasional wrecks

In first winter period small numbers during Jan when singles Brancaster 19th, east Scolt Head 19th, Cley 20th and 24th, and east Mundesley 20th. Also one south Yarmouth Feb 16th.

First of autumn 2 exceptionally early birds east Scolt Head Sept 13th (NML NW). Other early autumn records during Oct when singles Waxham 3rd and east West Runton 6th. Recorded more regularly in Oct from 18th when one Cley and next day 2 Blakeney Point and 3 West Runton; then on a further 5 dates with most 31st when 5 west Cley, 5 Sheringham, 2 north Eccles and singles Walcott and Horsey. In Nov most during first 5 days: 1st 5 west Holme, 4 west Titchwell, 6 west Cley, 8 west one east Salthouse, 25 west Sheringham, 17 west East Runton, 10 west Cromer, 2 west Overstrand, 7 west Mundesley, 3 Eccles, 3 Horsey and 3 north Winterton; 4th west Holme, 25 west Sheringham, 3 Mundesley and one Waxham;

5th 12 Sheringham. Other notable counts during rest of month of 4 Sheringham 10th and 4 south Waxham 17th. Also at this time small numbers of wrecked birds including one inland with wildfowl along R Glaven, Cley Oct 31st and another on arable fields with Starlings Holme Nov 1st. Only records in Dec of singles on the Broadwater. Holme 6th and East Runton 8th.

Puffin

Fratercula arctica

Passage migrant and winter visitor

More than normal recorded in Jan when 6 east Sheringham 19th, 2 east Overstrand 9th, and singles east Ongar Hill 31st, east Scolt Head 19th, west Holkham Bay 16th, Sheringham 20th, Overstrand 10th and 14th, and east Mundesley 20th. In Feb only live specimen east Overstrand 16th. Also in first 2 months of year small numbers of tide-line corpses including 4 Holkham Bay, and singles Scolt Head, Blakeney Point and Overstrand.

No other records until one west Overstrand May 12th and in June 30 Cley and one east Sheringham 11th, and one Mundesley 13th. Small numbers continued to be reported in July with one west Mundesley 1st and 1-2 off Scolt Head on 5 dates 8th-25th. Apart from one west Sheringham Aug 26th none seen until Sept 13th when a major easterly movement with 4 Holme, 9 Scolt Head, 41 Cley and 31 Sheringham. Also during Sept singles east Scolt Head 14th, and Holme 16th and 17th. In Oct recorded on 4 dates with max 6th when one east Weybourne, 3 west one east Sheringham and one east West Runton, and 25th when 15 east Sheringham. Small numbers recorded on 7 dates during Nov including 2 Sheringham 10th and at Mundesley 3 west 15th and 4 west 16th. None during Dec.

Stock Dove

Columba oenas

Resident, passage migrant and winter visitor

Highest counts during first winter period were recorded at Courtyard Farm, Ringstead with 50 Jan and 125 March; other notable counts 23 Cranwich Jan, 55 Summerfield (Docking), 50 Holkham and 40 Thornham Feb, 70 North Elmham March and 48 Saddlebow April. Coastal movement noted at Sheringham where 24 east Jan 11th.

Breeding information included pairs at Old Catton Park 5, Welney 4, Banham 3, Blakeney village at least 2 and UEA 2. No clear conclusions can be drawn from the BBS results: fewer birds were found in more squares compared with last year.

Summer/early autumn counts from Flitcham where 50 July, 45 Aug and 90 Sept, with 40 East Wretham Heath Aug.

In second winter period largest gatherings included 90 Horsey/West Somerton Oct, 80 Baconsthorpe Nov, and 65 Flitcham and 54 Waxham Dec.

Woodpigeon

Columba palumbus

Resident, passage migrant and winter visitor

Highest counts during first winter period included 1500 Ringstead, 850 Morston, 500 Brettenham and 500 Flitcham Jan, 1100 Little Snoring airfield and 700 West Acre Feb, 600 Thetford Nunnery, 600 Wells and Ken Hill Marshes March, and 875 Felbrigg Park April.

Spring coastal passage noted at Sheringham where 200 west Feb 14th/21st and Holme 237 west March 31st.

Records of breeding included the following pairs at BBS/CBC sites (1997 counts in brackets): 45 Fersfield (12), 33 Kenninghall (21), 29 Banham (22), 8 Boyland Wood (9); also 2/3 Scolt Head. Again the BBS results indicated that this species is not undergoing any significant change in status.

Autumn coastal passage noted at Hunstanton where 544 south Nov 11th and 270 south Nov 14th. Second winter period counts included 1000 Sheringham Oct, 2000 Thetford Nunnery, 1000 Anmer and 800 Gimingham Nov, and 2000 Flitcham and 700 Bodham Dec.

Collared Dove

Streptopelia decaocto

First bred in Britain at Cromer in 1955, now widespread and common resident

Records during first winter period included 102 Wereham, 38 King's Lynn and 25 Wells Jan, a roost of 100 Holt Jan/Feb, 30 Welney (site record) Feb, 34 Methwold Hythe and 25 Stoke Holy Cross March. Single migrants noted Scolt Head April 24th and May 16th.

Breeding information received included 20 prs Docking, 10 Brancaster Staithe, 6-10 Brancaster, 4 Welney, with 8 territories at Banham. The BBS results lead us to believe that this species is not getting any scarcer at the moment.

Autumn coastal passage recorded at 2 sites: Hunstanton where 10 south Oct 15th, 8 south Oct 16th, and 11 south Nov 11th, and West Runton where 4 west Nov 7th.

Autumn/second winter counts included 92 Thetford (Nunnery Lane), Sept, 100 Burnham Deepdale Oct, 70 Pentney Nov, and 75 Longham, 65 Ormesby and 60 Gillingham Dec.

Leucistic birds noted at Wereham (2) Jan, Oxborough April 23rd and North Wootton June.

Turtle Dove

Streptopelia turtur

Migratory breeder and passage migrant; evidence of a recent decline

One winter record at Welney Feb 18th-21st.

First spring arrivals in April at Eccles and Snettisham 20th, Hunstanton 21st and Flitcham, Frettenham, Honing Lock and Hickling 22nd; widespread from late April onwards. Coastal passage noted in May particularly 9th when at least 50 south Snettisham and 25 west Sheringham; also 43 west Holme 30th. Evidence of migration still occurring in June when 2 north Sea Palling and west Weybourne 8th, 4 north 2 south Horsey 13th and 3 west Cley 24th.

Breeding prs/singing males reported at 41 sites with birds present at a further 30, max noted 10 prs Welney. In North Norfolk, a further decline in breeding numbers noted, but in north-east Norfolk birds widespread and reasonably numerous in July with several young seen and most pairs starting second broods. At Eccles, breeding prs increased from 2 in 1996 to probably 5 in 1998. Elsewhere, at East Tuddenham, where usually 2 to 3 prs breed, only one pr found. Of 55 squares covered by the BBS in both 1997 and 1998, 33 contained Turtle Doves in each year.

No coastal movements noted in autumn but gatherings reported at Pentney 12 Aug 7th, Terrington Marsh 26 Aug 22nd, and Baconsthorpe where numbers peaked at 53 Sept 1st with 50 still present 9th. Majority of birds had left by end Sept with just two Oct records: Baconsthorpe 2nd and Sheringham 4th.

Ring-necked Parakeet

Psittacula krameri

Introduced vagrant

Numerous records along north and east coasts between Holme and Winterton Oct 16th-Dec 7th (NBB NML MAW *et al*) almost certainly related to the same bird.

A parakeet sp at Fritton Forest Oct 24th (CAJ CTM) could not definitely be ascribed to this species.

Cuckoo

Cuculus canorus

Migratory breeder and passage migrant

In April first records Holme Hale 12th, Cley 14th, Guist, Thompson Water and Thetford Nunnery 19th and Hilborough and Thetford 20th; thereafter reported from several sites. Birds seen arriving from off sea Sheringham May 9th and at Walcott on the unusual date of June 10th.

Several observers referred to the scarcity of the species during the breeding season. At Holme, birds seen less regularly than in previous years, whilst at Edgefield, Holkham and the Stanford TA the species seemed to be in decline. At Welney, although 3 prs bred, there were few signs of success due to floods reducing the number of host species. However, again no significant population change was unearthed by the BBS this year.

During last week in Aug reports of juvs were received from several sites including Welney and Blakeney Point. Sept records from Crostwight 5th, Holme and Thornham Point 6th, Baconsthorpe 18th, Winterton 23rd and Scolt Head 30th with last records of year in Oct at Blakeney Point 1st, West Runton 3rd, Yarmouth Cemetery 4th and Burgh St Peter 8th.

Barn Owl

Tyto alba

Resident, Continental race has appeared as a vagrant

Although records received from fewer sites than last year, the species still remains widespread across the county with reports from 151 locations. Recorded in every month with the usual bias towards the winter months. Breeding records involved 32 prs at 28 sites; this compares with 22 sites last year. This figure is probably not a true reflection of breeding numbers as birds were reported at many sites throughout the year. Norfolk still remains one of the species' strongholds in Britain.

Little Owl

Athene noctua

Introduced resident

An increase in records for third consecutive year with reports from 108 locations including prs/2 birds at many sites. Areas with highest densities were in a triangle bounded by Norwich, Fakenham and Swaffham, and to south of Norwich on either side of the A140. In Broads the species remains widespread with records from a minimum of 17 sites.

Actual breeding records received from 21 sites with 2 prs noted at one. In view of the sedentary nature of this species the number of sites with birds present probably more accurately reflects the breeding population. In north-west of county both young raised at one site sadly became road casualties. At Holme, where breeding occurred last year, no sightings were recorded during the year.

Tawny Owl

Strix aluco

Widespread resident

Reported from only 64 sites but doubtless under-recorded. In Holkham Park at least 4 seen regularly at roost Jan/Feb. During breeding season (April-July) records received from 39 sites with a total of 48 prs involved; juvs reported at 7 of these locations. Areas with more than one pair included Barrow Common 8, Baconsthorpe/Hempstead Estate 6, Holkham Village 5, Fring 4, Sandringham 3+, and Ketteringham, Docking and West Newton 2 each.

In Dec a bird roosting at Thetford Nunnery was mobbed relentlessly for 3 hours by up to 14 other bird species, including Black-headed Gull.

Long-eared Owl

Asio otus

Scarce and local resident, passage migrant and winter visitor

During first winter period singles were recorded at 5 sites. Roosts with one bird throughout Jan and Feb were found at 2 sites in Fens and North Norfolk, whilst in Holkham area a bird was regularly noted hunting Jan/Feb, being most active in the early hours of the morning. In spring migrants Yarmouth Cemetery March 11th/12th, Winterton March 31st, Cley (Walsey Hills) 2 April 3rd with one 4th-11th, Titchwell April 11th and Weybourne May 7th.

Breeding reported from 11 sites with one location holding probably 3 prs; juvs seen or heard at 8 of these.

In autumn migrants recorded in off sea West Runton Oct 1st, Eccles Nov 3rd and Holme Nov 7th with other birds at Wells Oct 7th and Scolt Head Oct 11th. Further birds found dead at Yarmouth Oct 23rd and Blakeney Point Dec 6th.

Only 3 birds reported during second winter period, all in Docking area during Nov and Dec.

Long-eared Owl (*S Cale*)



Short-eared Owl

Asio flammeus

Rare breeder, regular passage migrant and winter visitor

Recorded at 22 sites during first winter period, the main area being the extensive marshes in the Acle/Halvergate/Breydon/Berney/Chedgrave area with monthly max 3 Jan, 4 Feb, 2 March and 2 April. In Wash only single birds noted except for 3 March 2nd and 2 April 6th at Snettisham. Apart from one Titchwell on 4 dates Feb/March birds absent from north-west coast until singles Holme and Scolt Head April 8th and 28th respectively.

Elsewhere recorded at Morston (March), Wiveton/Cley/Salthouse (March), Sheringham (March), West Runton (Jan), Winterton (March/April), Caister/West Caister (March/April), Yarmouth (Feb/March) and Welney (Feb/March). During May reported at Cley, Salthouse/Kelling WM (2), Winterton, Caister/West Caister, Yarmouth, Berney and Clippesby where latest 19th.

No records indicative of breeding received this year.

In autumn earliest Sept 2nd (Wells) then good numbers reported during migration period until early Nov with records from Ongar Hill, Lynn Point, North Wootton, Snettisham, Hunstanton, Holme (in off sea Oct 5th and 2 in off 6th), Titchwell, Scolt Head/Brancaster, Burnham Norton, Burnham Overy Dunes, Wells/Holkham, Warham Greens, Stiffkey, Morston, Blakeney Point, Cley (in off sea Oct 1st), Salthouse (in off sea Nov 8th), Sheringham (2 in off sea Nov 3rd), Cromer GC (2 in off sea Nov 2nd), Paston, Eccles (in off sea Nov 6th), Horsey Gap, Winterton, Caister/West Caister and Yarmouth. In second winter period at Acle/Halvergate/Berney numbers peaked around 20 Nov 22nd with at least 6 still present Dec 17th. Elsewhere recorded at Ongar Hill, Snettisham, Titchwell, Scolt Head/Brancaster, Morston (2), Cley/Salthouse (2), Northrepps, Caister/West Caister (up to 4), Upton Fen (3), Cantley BF and Welmere Sluice (Denver).

Nightjar

Caprimulgus europaeus

Local migratory breeder and rare passage migrant

An early arrival with first spring migrants Martham May 2nd (male), where possibly same found dead on road May 4th, and Cley where in off sea May 14th. During breeding season a full survey carried out in Brecks found a total of 405 churring males of which 216 were in Norfolk; this compares with a total of 177 in 1992. Elsewhere a total of 57 churring males were recorded at 19 sites, compared with only 29 males at 11 sites last year; the increase probably a reflection of better coverage. At a site in north of county a churring male was heard at midday on May 31st.

Autumn birds still present on breeding sites in Sept were noted in east of county on 2nd and in Brecks on 7th and 9th. A migrant flushed Blakeney Point Oct 5th flew across the harbour causing pandemonium amongst the geese, ducks and gulls.

Swift

Apus apus

Common migratory breeder and passage migrant

First spring records April 22nd at Snettisham, Holme, Seolt Head, Holkham, Eeoles, Horsey, Winterton, Yarmouth, Saham Toney and Thetford Nunnery. By end of month concentrations of 40 Colney GP 28th and 30 Strumpshaw 29th. Main migration occurred second week May when 1400 west Seolt Head and 700 west Sheringham 8th, and 950 west Seolt Head and 650 west Overstrand 9th. Other notable gatherings during May: 800-1000 Colney GP 10th, 300 Cranwich GP 21st, and 400 Welney and 200 Lakenheath Washes 27th. In June coastal movements noted at Seolt Head where 200 west 13th, 200 west 19th and 210 west 20th, Paston where 400 per hr east 7th and 600 per hr east 21st, and Waxham where 1000 south in one hr 21st. Counts elsewhere of 500 Cley 9th, 1000 Titchwell 10th, 1745 Burnham Norton 12th, 400 Haddiscoe 24th and 800 Welney 26th.

There was no meaningful change in the number of BBS squares occupied by Swifts but the total number of birds located was down by 30% on last year.

July movements noted at Ongar Hill where 630 north-west in one and a half hours 11th, Snettisham where 5000 south 27th, and Seolt Head where 590 west 4th, 1300 west 8th, 875 west 21st and 300 west 22nd. Other large gatherings were 500 Welney 5th and 500 moving ahead of a storm over Norwich 27th. Main departures of breeding birds noted in Broads Aug 10th/11th and at Hunstanton Aug 14th. In Sept regular sightings until second week with one still entering house eaves at Northrepps 9th. Last sightings Cantley 17th (2), Yarmouth 18th (3), West Runton 21st and Holme 28th. There were no further records after September.

Kingfisher

Alcedo atthis

Resident, numbers fluctuating in response to severity of winters

Recorded from 116 sites during year, a marked increase on last year and no doubt a reflection of recent mild winters. During first winter period seen at 33 sites with 2 or more birds at 6 of these. Breeding records also showed an increase, pairs being found at 18 sites with confirmed nesting at 12 of these and birds present at a further 31 locations. Juvs were noted at 2 sites.

In autumn/second winter period present at 77 sites. Reports of more than 2 birds came from Thetford Nunnery Lakes (4), R Bure between Coltishall and Wroxham (4) and North Walsham-Dilham Canal (up to 3). Ten other sites held 2 birds. At Eeoles a freshly arrived migrant Sept 8th and on East Runton beach in Dec a bird was seen fishing from groynes.

Hoopoe

Upupa epops

Annual vagrant in very small numbers

An excellent year with at least 7 individuals: in off sea Burnham Overy Dunes April 19th was probably same bird that remained at Heacham North Beach/Hunstanton April 20th-24th; East Ruston Common April 24th/25th; east at Burnham Overy Staithe May 16th; Winterton South Dunes May 23rd-29th; a well-watched and tame but worn individual near Cromer seafront Sept 23rd-Oct 2nd; Sheringham Oct 7th; Titchwell/Thornham Point Oct 7th-11th; Upper Sheringham Oct 18th.



Hoopoe (V Hanlon)

Wryneck

Jynx torquilla

Former breeder; now scarce annual passage migrant, mostly in autumn

An average year with total of 13 spring records, one summer and 32 autumn sightings. First of year Witton Bridge April 26th followed by scattered passage until May 14th with records from Holme (where 2 May 3rd/4th), Scolt Head, Cley, Salthouse Heath (one in 'song' 8th), Beeston Regis, Cart Gap, Caister, Yarmouth, Gorleston and inland at Hanworth Common May 7th. A summer record from Happisburgh June 18th no doubt a belated migrant.

First autumn record inland Thetford Aug 21st; a single Eeeces 31st only other Aug sighting. In Sept recorded at: Holme (2 on 1st), Ringstead, Scolt Head (3 on 6th), Burnham Norton, Wells (2 on 5th), Warham Greens, Morston, Blakeney Point, Cley, Weybourne, Overstrand, Mundesley, Winterton (4 between 2nd-8th), Yarmouth, Gorleston, Haddiscoe and Tasburgh; all except 2 between 1st-10th. In Oct north-east winds again grounded further singles at Holme, Burnham Overy Dunes, Blakeney Point and Caister. The last inland at Ingham 18th.

Green Woodpecker

Picus viridis

Resident

With more records being submitted it is again encouraging to report a healthy county population. This year recorded at a total of 93 sites of which 48 held birds in breeding season. Distribution widely scattered with West Norfolk producing sightings from 24 sites, Brecks 19 sites (obviously increased observer awareness/records as only 4 sites here last year), East Norfolk/Broads and Norwich/Central Norfolk both with 16 sites and North Norfolk 17 sites. As to be expected the Fens produced records from only 2 sites, Welney and Terrington St Clement (the latter in breeding season). Only sites to hold more than single pairs were Holkham (where 5/6 prs in Park, one in village and 2 in Meals) and Sparham (2 prs). The BBS results continue to indicate a stable population.

Noteworthy records included one 'coasting' west Sheringham Nov 3rd and 6 together Winterton Nov 18th.

Great Spotted Woodpecker

Dendrocopos major

Common resident; birds of the northern race occasional in the autumn

No doubt still under-recorded as noted at only 70 sites, although 57 of these held birds in breeding season. Found county-wide with only Fens lacking many records; there only noted Welney where a pr bred. Most of the sites held single pairs although Holkham had a min of 12 prs (but not fully covered this year); also 4 prs Merton, 3 at Briston, Sandringham CP and UEA, with 2 prs Frettenham, Kelling Triangle, Sheringham Park, South Wootton and Swanton Novers. The BBS results show a 20% reduction in the number of squares in which this species was found compared to last year. Hopefully this will not prove significant as there was a 30% increase in the number of birds found per occupied square.

Coastal migration noted Sept 26th-Nov 21st, with total of 8 sightings from Snettisham, Burnham Overy Dunes, Salthouse, Horsey and Yarmouth. A presumed migrant east at Cromer May 6th was, however, more unusual.

Lesser Spotted Woodpecker

Dendrocopos minor

Declining local resident

Again thanks to greater observer awareness and recording, another increase in number of sites. Seen at total of 61 localities (49 last year, but still a far cry from the 228 occupied sites during the species 'boom' years between 1977 and 1986) of which 52 sites had birds either drumming or in breeding season. Young noted only at Flitcham, although positive breeding records came from East Harling, Garboldisham, Quidenham and Suffield. More signs of a population decline came from Holkham Park where only 2 prs (in contrast to 4 in 1997 and 9 in 1996).

Full list of sites as follows: Alderfen, Blickling, Brandon, Bridgham, Buckenham Tofts, Cley, Clippesby, Cringleford, Ditchingham, East Harling, East Winch, Felbrigg Park, Filby Broad, Foxley (3 March 18th), Frettenham, Fustyweed (Elsing), Garboldisham, Gaywood Park, King's Lynn, Great Hockham, Gressenhall, Hanworth Common, Hilborough, Hoe, Holkham Park, Kilverstone, Lopham Fen, Lynford, Merton, North Burlingham, Pentney, Quidenham, Redenhall, Ringland, Santon Downham, Scnowe Park, Shadwell, Sparham, Stanford TA (5 different localities), Strumpshaw, Sturston Hall, Suffield, Surlingham, Tacolneston, Thetford (Nunnery and Warren), Thompson Common, Thorpe Woodlands (Harling), Two Mile Bottom, UEA (2 prs), Warren Lodge Marsh, Wayland Wood, West Mere, Whitlingham Lane GP, Witton Bridge and Wolferton.

The BBS located birds in 3 squares compared with only one last year but sadly this does not indicate a three-fold increase in this species' population!

Two autumn coastal sightings this year, Hopton Sept 5th and Holme Sept 18th.

Short-toed Lark

Calandrella brachydactyla

Vagrant from southern Europe east to Afghanistan

Only one record: Blakeney Point May 13th (GED SCJ).

Woodlark

Lullula arborea

Increasing migratory breeder, also scarce passage migrant and occasional in winter

A wintering flock of up to 16 was again present at West Stow throughout Jan. Other birds presumably wintering included 5 Northrepps Jan 13th and 5 Holkham Park on barley stubble Jan 22nd/23rd.

Spring migration first recorded Sheringham where single Jan 18th. A further 8 coastal migrants Feb 8th-March 19th, mostly Feb 17th-26th. Of these, only 3 were recorded as flying straight through.

As is now usual, breeding birds were beginning to appear back on territory by end of Jan. High temperatures in Feb brought about the earliest ever breeding season with numerous pairs feeding young before end of March. One pr must have laid their first egg on the exceptionally early date of Feb 28th in order for the fledged young to be discovered April 1st. Numbers of breeding birds continue to rise with the Breckland population totalling an impressive 549 singing males or prs; of these 309 were on the Norfolk side of border, an increase of a third over last year. Pulli continue to be colour-ringed (169 this year), so observers are encouraged to continue checking for colour rings. A number of such sightings this year included Feb records at Holme and in Lincolnshire. The Norfolk Breckland population has increased every year since 1988:

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
No of prs	20	39	48	53	69	82	108	134	167	232	309

Away from Brecks at least 16 widely spread sites produced records likely to relate to breeding. About 12-17 prs probably bred here, although fledged young only reported at 2 sites.

Post-breeding gatherings included up to 37 in 2-3 groups Weeting Heath; by end of Oct just a small group of 6 were left on harvested sugar beet nearby.

In autumn, singles in Oct at Sheringham 6th/7th, Clcy 18th and Eccles 20th, and in Nov south at Hunstanton 2nd and 7th, and Snettisham 9th.

The only wintering report at end of year was an unusual record in forest habitat at Santon Downham Dec 10th.

(Ron Hoblyn/Forest Enterprise again kindly provided the Breckland information.)

Skylark

Alauda arvensis

Resident, passage migrant and winter visitor

Highest counts in first winter period were 215 Holme, 260 Ringstead (2 flocks), 875 Scolt Head/Brancaster Hbr (all on saltmarsh), 200 Sheringham and 400 Northrepps Jan, and 220 Ongar Hill/Terrington Marsh and 761 Scolt Head (saltmarsh) Feb.

Breeding pairs included: 35-40 Blakeney Point, 26 Brancaster (17 saltmarsh and 9 golf course), 9 Heacham South Beach, 80+ Holme, 3 Lopham Little Fen, 40 Ludham, 20 Ringstead (Courtyard Farm), 82 Scolt Head (69 in 1997), 18 Titchwell and 20 Welney (22-32 1993-97). Evidence of decline from Edgefield where none were recorded for first time ever, and Watton Airfield where there were 6 singing compared to 66 in the early 80s. The BBS results indicate a further but small decline in numbers.

Autumn coastal passage began Sept 20th, but there were no large counts until first week Nov when 1000 west Sheringham and Salthouse 1st, 426 south Hunstanton 2nd, and 450 west Sheringham and 958 south Hunstanton 7th. Counts at end of year included 180 Sheringham Nov and 150 Lower Bodham and 223 Scolt Head Dec.

An individual at West Runton Oct 20th had a decurved upper mandible twice as long as normal, thought to be the result of a broken lower mandible. A bird showing characteristics of a grey eastern race, probably *dulcivox*, at Sheringham Oct 5th (KBS SCV). Eastern Skylarks appear to be rare vagrants to this country, although western birds can exhibit a wide variety of plumage variations (*see NBC Bulletin no 34*).

Shore Lark

Eremophila alpestris

Scarce winter visitor and passage migrant; exceptional in summer

Up to 66 were present in 3-4 flocks in first quarter: 20 Titchwell (ranging from Thornham Point to Brancaster), 18 Scolt Head/Brancaster (different birds) and 20 Blakeney Point. It is not clear whether 8 Waxham Jan 11th were over-wintering but there were 7 here from March 14th. An increase to 35 Titchwell Jan 4th plus 5 Holkham Gap Feb 8th and 7 Burnham Overy Dunes March 18th may well have involved birds temporarily displaced from one of main sites.

A scattering of migrants began to appear from April 19th including 7 west Weybourne May 5th and Salthouse 5th-12th (one remaining to 17th), and singles Sheringham 5th and Scolt Head 29th.

An exceptionally early autumn record involved one with Linnets Blakeney Point Aug 15th (IGJ BAEM). Less remarkable, but still early, were singles East Hills (Wells) from Sept 23rd and at Blakeney FM Sept 24th, with 2 Cley same day. Up to 4 recorded at 8 sites Sept 27th-Oct 4th. Widespread arrival Oct 5th involving 55 birds at 8 sites from Yarmouth to Brancaster including 20 Salthouse. Then on Oct 9th flocks of 45 Sheringham and 19 Holme were forerunners of an unprecedented influx. Next day (10th) at least 177 were present in the county including 40 each at Salthouse, Happisburgh and Waxham, and a rare inland record at Cantley BF (BJ). More arrived 11th when 24 Scolt Head, 64 Holkham, 15 west Sheringham, 16 West Runton, 25 Paston, 67 Happisburgh and 40 Eccles.

In East Norfolk 40 were at Horsey Oct 12th-14th. At Paston 100 appeared 17th, decreasing to 50 18th and 24 19th; 20 at Breydon Oct 18th were also likely to have been new arrivals. At Waxham 40 on 24th increased to 100 by 27th. Elsewhere 33 remained at Salthouse, increasing to 60 by 29th, and 26 west at West Runton 19th. Holkham still held 63 on 17th, going up to 80 by 24th. Burnham Overy Dunes held 34 on 13th, 11 flew west at Brancaster 20th and 47 were at Holme by 25th. With movement between sites it is always difficult to estimate numbers of this species, but a thorough assessment of the records suggests that by end of Oct over 460 Shorelarks had arrived in Norfolk.

In Nov, more birds continued to arrive but many birds became more settled at their chosen locations. The east Norfolk flocks were mostly confined to Waxham where 72 remained to Nov 11th dwindling to 40 on 29th (when 20 nearby at Eccles). Coverage was inevitably down in Dec but 43 were at Waxham 11th and 20 still present 26th. In the north the Salthouse flock increased to 90 Nov 7th, perhaps swelled by new immigrants as Blakeney Point held 19 the same day. No more than 50 were seen at Salthouse after this, although a flock remained here to year end this numbered no more than 22 during Dec. The Blakeney Point flock reached 42 Nov 11th and 65 Nov 20th with 63 remaining Dec 18th.

Further west the Holkham flock grew to 94 Nov 16th and reached an incredible 240 by 22nd. These may have included 88 that had been at Warham Greens Nov 19th. The records suggest that fewer new birds were arriving by this time so it seems likely that this flock consisted of birds previously recorded at other locations. Next day 210 remained with 137 still there Dec 24th. Scolt Head supported yet another flock rising from 40 Nov 18th to 60 23rd and 136 Dec 6th to year end. Surprisingly no significant numbers arrived at Titchwell until early Nov. Numbers here peaked at 80 Nov 13th and 75 next day. An isolated record of 60 Brancaster Nov 19th perhaps involved birds from either Titchwell or Scolt Head. The numbers at Titchwell then reduced to 20-30 and none were reported here at all after Dec 6th. Finally Holme acquired a flock of 41 Nov 20th, perhaps from Titchwell. Numbers fluctuated here but 40 were still in the area Dec 10th and 25 remained to end of year.

Due to the unprecedented numbers in the county in the second half of Nov a coordinated

count was undertaken on Dec 5th (see *NBC Bulletin no 32*). This revealed a total of 591, higher than many expected, as follows: Gore Point to Thornham (West Island) 20, Thornham (East Island) 30, Titchwell 28, Brancaster Hbr 35, Scolt Head 101, Burnham Overy (Gun Hill) 22, Holkham Bay 138, Wells Beach 21, East Hills (Wells) 9, Warham Greens 22, Blakeney Point 66, Cley/Salthouse 42, Eccles 19, Waxham 38.

All birds were found feeding either on developing saltmarsh or along the beach strandline, except for those at Titchwell and Warham which were feeding on arable, and those at Eccles and Waxham which were feeding on winter stubble. It is unlikely that all birds present in the county were found and the true total was probably greater than 600.

There is no evidence from the records submitted that more than about 280 remained to end of year, but with large flocks sometimes spread over a considerable area it is inevitable that they will have been under-recorded. What is certain is that the wintering population exceeded that of any previous year, the best of which occurred during the early 70s when up to 245 wintered.

Sand Martin

Riparia riparia

Local migratory breeder and common passage migrant

First Lynford GP March 26th followed by small arrival 28th including 5 Titchwell and 4 Thetford Nunnery Lakes. Gradual arrival over next few days including 31 west Scolt Head 30th, and on 31st 20 Strumpshaw and 15 Rockland Broad. Generally poor spring passage with peak counts of 120 Welney April 25th, 100 Tottenhill GP April 26th and 150 Colney GP May 10th. Best movements at Scolt Head were 55 west May 8th and 82 west May 9th; last spring migrants here when 2 west June 3rd.

A much better effort this year in recording breeding data: Bawsey CP (2 nests), Burgh Castle Pits (30-50 prs all failed due to Foxes), Cantley BF (25-28 active holes), Cranwich CP (94 active nest holes), Crimplesham GP (50-60 prs), Cromer GC (breeding in cliffs for first time for some years, 28 visible burrows), Hollands Meadow (colony not occupied), Lynford GP (35 active holes), Lyng-Easthaugh GP (20-30 prs bred), Morningthorpe GP ('colony'), Mundesley-Happisburgh (429 holes counted, estimated 300 birds present), Stanford TA (138 active holes: 100 Sandy Pit, 10 Widdowshill Pit and 28 North Area),



Sand Martin (S Cale)

Swanton Morley (62 nests), Whitlingham Lane GP (40 holes but never more than 7 confirmed occupied) and Wissington BF (30 nests).

First migrants of autumn 2 west Scolt Head June 20th. July gatherings included 170 Welney 9th, 170 Pentney 12th and 200 Cley 31st. Best coastal passage 194 north Horsey and 255 west Scolt Head both July 18th, 165 west Scolt Head July 19th, 100 east/hr Paston Aug 15th and 400 east/hr there Aug 19th. Reduced numbers in Sept when 20 Welney 5th, 20 west Scolt Head 6th and 100 Hardley Flood 12th. Welney recorded its last Sept 18th and only records after this were Holme 26th and in Oct Sheringham 6th, and south Hunstanton Cliffs 16th with 3 Horsey 17th.

Swallow

Hirundo rustica

Common migratory breeder and passage migrant

First March 28th when 3 west Scolt Head and singles Titchwell and Holme. Total of 9 reported 29th but only 34 more by April 18th. First significant arrival 19th-23rd: 13 Snettisham, 21 Holme, 33 west Scolt Head 19th; 180 west Scolt Head 21st; and 220 west Scolt Head and 300 east Overstrand 22nd. Heaviest spring passage May 7th-15th with best westerly counts at Scolt Head of 480 8th, 820 9th and 1100 12th when also 700 west Sheringham. Late flurry May 31st-June 2nd when max 85 west Scolt Head and stragglers moving west until June 20th. Other spring counts included 50 Welney April 27th and 200 roosting Swim Coots, Hickling May 19th.

Breeding data included 87 prs Stanford TA and 40 prs Welney. One observer commented 'scarcest I have ever known' but another recorded higher numbers at Kilverstone than in 1996/7. The BBS detected significantly reduced numbers this year. Compared to last year a 14% fall in number of squares occupied and 43% fewer birds located. The last young left a nest at Welney Sept 28th.

Autumn passage began with 18 west Scolt Head July 16th. Other westerly movements here included 335 Aug 7th, 300 Sept 4th and 250 Sept 9th. Also 1000 east Overstrand Sept 7th and an 'exceptionally heavy passage' Wells Sept 18th. Gatherings included 200 Buckenham Aug 15th, 500 roosting Lopham Fen 19th, 250 Baconsthorpe 30th, and several hundred roosting in sweet corn Shipdham late Aug. In Sept 250 Cantley BF 5th, 1200 Scolt Head 6th and 5000 roosting Martham Broad 12th. Relatively few reports after mid-Sept but still 80 Welney 30th and 50 Stanford Water Oct 8th. Several recorded Oct 9th/10th and 14 more up to 20th. Last reports Tallents Meadow Lake Oct 26th and Blakeney Point Nov 7th.



Swallow (*S Cale*)

House Martin

Delichon urbica

Common migratory breeder and passage migrant

Earliest records Eccles April 5th, Fustyweed GP (Elsing) 11th, Pentney 12th and Cockley Cley, Lynford and Ranworth Broad 14th. First began appearing in numbers 22nd when 90 east Overstrand. In May best gatherings 170 Tottenhill GP 3rd and 50 Colney GP 10th. Light westerly passage Scolt Head until June 27th including 155 May 8th, 180 9th and 180 June 2nd.

Specific breeding data: 3 prs Bodham, 37 Brettenham (Langmere boxes) with many nests around stables, Crostwick (none nested at Meadow View for first time in 22 years - 5 in 1997), 3 Edgefield (17 in 70s), 27 Heydon, 8 Langford Church, 7 Old Catton (Lodge Lane), none Old Costessey (used to be several), 8 Roudham Junction and 44 Welney (20 in 1995). In addition no change reported from Stanford TA since last year, Castle Rising and North Wootton were reported to hold normal numbers while decreases were noted at Horsford and Norwich (The Avenues/Bluebell Road area). Located in 23 of the 59 squares covered by the BBS.

Autumn gatherings included 400 Heacham Aug 10th, 175 Baconsthorpe 30th, 120 Lynford 31st, 100 Fustyweed GP (Elsing) Sept 4th, 300 Scolt Head 7th, 200 Overstrand and 150 Cley 8th, 400 Colney GP 15th-17th, 300 Alburgh 19th and 150 Snetterton GP 24th. Best movements were 200 west Cromer GC Aug 14th, 240 east and 80 west Holme 31st, 550 west Scolt Head Sept 4th and 5000 east Overstrand 7th. Following 20 south Coltishall Sept 30th only small numbers reported in Oct: 6 Holkham 18th plus 1-3 at 15 sites on 15 dates throughout the month. Latest in Nov at Overstrand 2nd/3rd, Cley (2) and Beccles (4) 5th, Scratby 7th, Holkham 9th-12th and King's Lynn 13th.

One Cromer GC May 29th and June 22nd was totally white except for a neat black crown cap.

Richard's Pipit

Anthus novaeseelandiae

Virtually annual autumn migrant from western Siberia; rare in spring and winter

Unusually 3 spring records: Waxham March 14th-20th, Weybourne April 27th and Sheringham May 8th.

In autumn total of at least 22 (all singles) at 17 coastal localities: Lynn Point Oct 4th, Hunstanton south Oct 16th, Holme Oct 5th, Brancaster east Oct 5th, Burnham Overy GM Nov 18th, Holkham west Nov 13th, Wells west Sept 22nd, Warham Greens Oct 6th, Morston Oct 5th, Blakeney Point Oct 6th, Salthouse Sept 23rd and west Nov 1st, Sheringham Sept 21st, Oct 3rd-10th and Nov 4th, Sheringham GC Sept 24th, West Runton Oct 9th, 18th-21st, Nov 6th-11th and same or another Nov 14th, Paston Oct 18th, Mundesley Nov 1st, and Eccles Sept 28th.

Also exceptionally 2 inland records at Baconsthorpe Oct 5th-7th and west Nov 7th (DHR).

Tawny Pipit

Anthus campestris

Scarce migrant from southern Europe

Only one record: Cart Gap, Happisburgh May 14th (RFo RHe TCN).

Tree Pipit

Anthus trivialis

Migratory breeder and passage migrant

Earliest arrival on breeding grounds in Brecks April 5th. Coastal spring movement started April 8th but few until 6 west Scolt Head 21st and 23rd, when also 8 present. Passage continued to May 15th with max 23 west Scolt Head 8th and 9 west next day, when also 8 west Cromer GC.

Breeding birds reported from at least 16 sites.

Light autumn passage started Sept 1st (Scolt Head) and continued to Oct 16th (Yarmouth), with peak counts of 9 Scolt Head Sept 6th and 7 Oct 1st, when also 10 Sheringham.

Meadow Pipit

Anthus pratensis

Locally common migratory breeder and passage migrant with small numbers in winter

No hard-weather movements noted, largest flocks recorded in first winter period: 138 Northrepps Jan 24th and 60 Happisburgh Jan 28th. An obvious increase of 28 Holme Jan 30th could have included early migrants. Noticeable increases during Feb included 114 Ken Hill GM 25th. Four back on territories Scolt Head Feb 15th. Spring passage in March peaked at end of month with highest counts 28th-31st, all birds moving west: Scolt Head 550 28th, 365 29th, 3000 30th and 800 31st; Overstrand 500 30th and 200 31st. Elsewhere 946 west Holme 31st, 260 Burnham Overly Dunes 29th, 300 west Sheringham 10th, and 200 Sidestrand 28th.

Large numbers continued moving west along north coast well into April: at Scolt Head 550 7th, 1150 19th, 2100 20th and 840 21st; also 350 Cromer GC 7th.

Breeding records included: 47 prs Holme, 75 singing males Scolt Head and 21 Brancaster Saltmarsh, 40 prs Blakeney Point, and 50 prs Welney.

Good autumn migration reported from all coastal sites: in Sept 250 Blakeney Point 24th and 200 Yarmouth 25th. A very marked and widespread arrival in early Oct associated with other passerines as shown below:

	2nd	3rd	4th	5th	6th	7th
Holme	450	300	-	120	-	-
Titchwell (Gypsy Lane)	-	-	-	-	200	-
Scolt Head	250	200	150	150	120	-
(plus south)		60	100	380	420	-
Holkham	-	-	350	-	-	-
East Hills-Warham Greens	-	-	-	560	-	275
Sheringham	-	350	400	350	-	-
West Runton	300	270	170	-	-	-
Sidestrand			200	-	-	-
Trimingham	160	-	-	-	-	-
Paston (moving west)	-	400	-	-	-	-
Winterton	-	-	-	-	500	-
Yarmouth South Denes	500	-	-	-	-	100
Baconsthorpe	-	-	-	-	-	200

The counts only relate to records received and there were obviously many more birds involved. The movement at Scolt Head was particularly interesting as it involved birds arriving directly off the sea and continuing south; during this period about 10 were found dead on the island, all very thin. The inland count at Baconsthorpe was also noteworthy, with 70 still there Nov 7th.

Red-throated Pipit

Anthus cervinus

Vagrant from northern Europe

Three typical records: Brancaster (RQS) and Scolt Head (NML) May 14th (probably relating to same bird), West Runton Oct 9th (MDC) and Sheringham Oct 10th (MAWe TWr).

Rock Pipit

Anthus petrosus

Winter visitor and passage migrant, most probably of the Scandinavian race littoralis

WeBS counts along north coast during first winter period produced: 302 Jan 18th including 119 Scolt Head, 110 Wells and 22 each at Warham Greens and Stiffkey; 418 Feb 15th including 23 Brancaster, 78 Scolt Head, 190 Wells and 110 Warham Greens. Numbers declined by March 15th to 193, including 121 Wells and 46 Warham Greens.

Scandinavian birds were reported from several coastal areas during March and April with max 6 Sea Palling March 15th, 6 Cley March 28th and 17 Overstrand March 30th. Lingering migrants Breydon Water April 27th-May 4th and west Sheringham also May 4th.

Exceptionally early autumn records at Sheringham Aug 29th and Holme 30th.

Max in Sept 26 West Runton 27th. Passage movement in Oct included total of 157 south Hunstanton Cliffs including 42 9th, 26 15th and 24th, and 32 on 31st. At Sheringham 35 10th, 20 16th and 15 17th, all birds moving west. A further 43 south Hunstanton in Nov with max 26 7th.

WeBS counts for second winter period produced 231 Oct 11th, including 88 Scolt Head, 34 Wells, 32 Warham Greens, 35 Stiffkey and 24 Blakeney Hbr/FM. Numbers dropped considerably and surprisingly in Nov to 82, including 54 Wells. Dec total 417 included 129 Scolt Head, 156 Wells, 51 Warham Greens, 40 Blakeney Hbr and 38 Blakeney FM.

Inland records: 3 Buckenham/Cantley Feb 15th, 2 East Ruston Oct 7th with 3 Oct 8th.

Water Pipit

Anthus spinoletta

Local winter visitor

Only large numbers seen at Buckenham where none Jan but built up in Feb with max 26 15th and in March highest count 13 21st; still 8 April 6th with last 4 14th.

Elsewhere small numbers recorded in first winter period with 1-2 at Titchwell, Stiffkey, Cley and Cantley BF throughout Jan, and one Lakenheath Washes Jan 31st. In Feb singles at Lynn Point, Titchwell, Burnham Norton, Stiffkey Fen, Cley, Kelling WM, Somerton, Bure Park (Yarmouth), Turf Fen (How Hill); also 2 Hickling Broad 10th. Only other March records Sea Palling 15th and Hickling Broad 31st.

Few autumn records received: in Oct singles West Runton 3rd, 10th and 24th, and Cantley BF 23rd; in Nov Lakenheath Washes 2nd, Bure Park (Yarmouth) 5th, 3 Cley 15th, and singles Hickling Broad 17th, 27th and 30th.

Dec records received from Titchwell, Cley, Sutton Fen, Heigham Sound, Reedham Marsh (max 3 6th), Hickling Broad (max 3 15th), Cantley BF, Cantley Marshes and Wissington BF.

Yellow Wagtail

Motacilla flava

Yellow Wagtail M (f) flavissima

Declining migratory breeder and passage migrant

First record of spring north Horsey March 17th, followed by another west Scolt Head 30th. Spring passage increased during April including peaks at Scolt Head of 45 23rd, 32 24th, 25 25th and 33 27th, all birds moving west. Max elsewhere: 17 Heacham North Beach 25th, 40 Holme 26th, 40 Blakeney FM 28th, and 100 Waxham 24th. Passage peaked in early May with impressive numbers moving west at Scolt Head: 105 8th, 75 9th and 100 11th. Elsewhere during May 35 Snettisham 5th, 50 west Cley 6th, 24 Heacham South Beach 7th and on 9th, 36 Holme, 30 west 5 east Sheringham and 24 Beeston Regis/West Runton.

Breeding records from at least 15 sites including 8 prs Holkham NNR and 5-6 prs Wissington BF. At Welney only 7 prs, due to flooding. Only one pr bred at Cantley BF where numbers have declined steadily and inexplicably over last 10 years.

Largest July concentration 50+ Berney July 28th. Autumn passage peaked in Aug with 40 roosting Wissington BF 7th-19th, increasing to 80 23rd-25th, 63 Welney 14th, 75 Lakenheath Washes 24th and 120 also roosting Haddiscoe 31st. Reduced numbers in Sept with max 22 Cantley BF 5th and 19 Welney 14th. Latest record juv Salthouse Oct 9th.

Blue-headed Wagtail *M (f) flava*

Regular unigrant from continental Europe, mainly in spring

First recorded Wissington BF April 8th-11th with further singles there 18th/19th and 25th. In second half April and May seen at several north/east coast localities with peaks of 3 Waxham April 24th, Mundesley May 4th and West Runton May 13th; also inland Buckenham May 19th.

In June singles Sheringham and Eccles 1st and Weybourne 3rd. Three interesting records in July: Ludham 4th, Wissington BF 13th and North Wootton 18th.

Grey-headed Wagtail *M (f) thunbergi*

Scarce spring migrant from North Fennoscandia

Readily identifiable males in May: on 9th 2 (+ female) Burnham Norton, 2 West Runton, and singles Sea Palling and Horsey; further singles Blakeney Point 12th-15th and Salthouse 16th/17th.

Ashy-headed Wagtail *M (f) cinereocapilla*

Rare spring migrant from Italy/southern France

A male showing the characteristics of this race Cley May 7th (RGM).

Sykes's Wagtail *M (f) beema*

Vagrant from south-west Asia

A male showing characteristics of this race Eccles June 2nd-17th (NBB).

Grey Wagtail

Motacilla cinerea

Local breeder, fairly common passage migrant, less common in winter

Records of 1-2 from at least 24 sites in early part of year. Small passage evident during March with 2 west Lynn Point 8th, west Scolt Head 17th and 29th, Holkham 25th, Overstrand 16th, and Paston 18th. Single migrants in April at Heacham North Beach 28th, Weybourne 3rd, and Beeston Regis 23rd; in May Holme 14th, Scolt Head 9th and Sheringham 8th.

Breeding birds were back on territories by mid-March. Breeding was reported from mills at Bintree, Buckenham Tofts, Buxton, Corpusty, Ebridge, Marlingford, Old Costessey and Stoke Holy Cross, and at Hellesdon Ingworth Bridge, King's Lynn BF, Langford Bridge, Lynford GP, Lyng Bridge, Raynham Lake, Wissington BF and Wolterton Hall. Also 1-2 at several other suitable sites in summer months but no proof of breeding.

One west Blakeney FM on unusual date of July 17th.

More marked autumn passage with first west Overstrand Aug 23rd. Good numbers of coastal migrants throughout Sept with max 5 Caister 26th, Sheringham 27th and Overstrand 28th, and 3 Winterton 29th. Steady passage during Oct with peak counts of 3 Holme, Sheringham and Sidestrand all 1st, Hunstanton Cliffs 15th, and Bacton 26th. Few migrants in Nov: 3 south Hunstanton Cliffs 6th/7th, and singles Holme 4th and 19th.

Most birds back on wintering grounds by early Nov.

Pied Wagtail *M (a) yarrellii*

Common breeding resident and passage migrant

During early months of year several gatherings noted with much the largest, a roost in four ornamental plane trees in Brigg Street, Central Norwich. Numbers fluctuated with 515 Jan 7th increasing to peak of 580 Jan 9th before remaining static around 420 until Feb 9th after which counts decreased rapidly and the roost was deserted by end of Feb. See article page 304.

Other notable counts in first winter period: *Jan* 47 Northrepps; *Feb* 66 Brancaster FM, 50 Hickling Broad, 50 Watton STW; *March* 35 Little Cressingham.

A bird west Holme Jan 29th may have been an early migrant but no other movement was noted until one west Sheringham Feb 13th. Westerly passage was noted regularly during March-April with 92 Sheringham March 10th the largest. A series of more conservative movements noted Scolt Head where 3 March 19th, 29 March 28th, 20 March 29th, 24 March 30th, 11 April 19th and finally 5 April 22nd. Elsewhere 6 west Overstrand March 9th and 5 Ongar Hill March 28th.

Very few breeding records of successful pairs received but post breeding gathering of 40+ Hunstanton GC July 7th-20th was made up of mainly juvs indicating local success. A 15% decline since last year was indicated in the BBS results; it remains to be seen whether this will be any more than a fluctuation. An intriguing count of 27 west Scolt Head July 27th presumably post breeding dispersal as were flocks of 30 Wissington BF July 21st and Buckenham Aug 15th.

Autumn passage migrants along coastal strip difficult to isolate from winter build-up. Certain movements provided by 13 south Hunstanton Cliffs Oct 9th and 11 south there Oct 15th, and at Sheringham 10 east Oct 1st, 16 west Oct 10th and 5 east 15 west Oct 16th. As always with visible migration of this species, birds refer to '*alba*' wagtails not racially identified.

Central Norwich roosts again occupied late autumn/winter with first report 325 Surrey Street Oct 9th. Roost still in operation Nov 9th when 125 counted, by which time nearby Brigg Street roost held majority of local birds. 320 Brigg Street Nov 4th built to 540 Nov 20th and remained similar into 1999. Another significant roost discovered at Lopham Little Fen in Dec peaked at 400+ Dec 31st.

Elsewhere gatherings of 30 or more: *Sept* 50 Brancaster Staithe, 80 Cranwich GP, 65 Lynford GP, 120 Wissington BF; *Oct* 50 Titchwell, 40 Brancaster Staithe; *Nov* 33 Titchwell, 35 Raynham Park, 45 Cranwich GP; *Dec* 45 Thornham, 80 Titchwell, 80 Brancaster Staithe. 50+ Glandford, 50 North Walsham STW, 30 East Harling.

White Wagtail *M (a) alba*

Regular passage migrant from continental Europe; has bred

An exceptionally early record Sheringham Feb 13th, the previous earliest there being March 9th. Main spring passage began in mid-March with many reported from coastal localities including 5 Waxham 15th. Good numbers throughout April with max 6 Scolt Head 21st, 5 Cley 25th, 6 Waxham 4th and 4 Winterton 14th. Max count in May 7 Scolt Head 8th.

At Cley a female bred with a Pied Wagtail but no young fledged. In June records also from Snettisham 11th and Thetford Nunnery Meadows 23rd.

Few autumn records received probably due to the difficulties of identification. In Sept 4 Welney 13th and singles Cley 1st, Kelling WM 7th and Buckenham 6th. In Oct 10 Waxham 3rd, one there 4th, Sea Palling 7th and West Runton 22nd.

Waxwing

Bombycilla garrulus

Irruptive late autumn and winter visitor

During first winter period 2 Beeston Regis Jan 6th/7th, Holkham Park Jan 27th and 2 Stalham Feb 2nd were the only records. More recorded at end of year: at Holme in Nov one in off sea 1st, 3 2nd, 5 west 5th and 2 20th. Other records in Nov at Sheringham 2nd, Sutton 18th, Martham 20th and Warham (2) 20th-23rd. Several reports in Dec with birds at Rollesby 1st, Strumpshaw 2nd and 5th, Cley 4 3rd/4th with one still present 5th, Sheringham and Santon Downham both 13th.

Wren

Troglodytes troglodytes

Very common resident and passage migrant in small numbers

The number of prs/singing males resulting from CBC and other breeding surveys: Holme 25 prs, Scolt Head 30 singing males, UEA 9 males, Boyland Wood 8 prs, Banham 7 prs, Fersfield 5 prs and Welney 31 singing males. Compared with last year increases noted at Scolt Head 58% and Boyland Wood 33% but a decrease of 16% occurred at Welney. The BBS revealed that 1998 was a good year for this species: the decline has been reversed with the population now close to what it was in 1995. Ringing totals received from 2 sites: Brandon Carrs where 41 ringed July 25th and 24 Aug 29th and Didlington where 28 ringed Aug 30th.

Autumn migration noted at Scolt Head when max counts in Sept of 30 23rd, 25 25th, 35 27th, 40 28th and 30 29th, and in Oct 15 1st and 20 2nd-4th.

Dunnock

Prunella modularis

Common resident and passage migrant, especially in autumn

Results received from CBC and other breeding surveys showed following prs/singing males: Holme 38 singing males, Scolt Head 52 singing males, UEA 6 males, Boyland Wood 8 prs, Kenninghall 5 prs and Welney 7 males. A marked increase of 93% noted at Scolt Head was no doubt due to high survival during mild winter. Elsewhere decreases were noted at Boyland Wood 20% and Welney 30%. The BBS results suggest a slight increase in numbers again. Minor fluctuations are to be expected but this species does not appear to be showing any clear upward or downward trends in recent years.

Migration recorded at several sites on north coast in autumn: Holme 37 Sept 28th and 20 Oct 3rd-5th; Brancaster GC 80 Sept 27th; Scolt Head 90 Sept 25th, 80 Sept 27th, 60 Sept 28th, 60 Oct 3rd/4th and 110 Oct 6th; and East Hills (Wells)-Warham Greens 100 Oct 5th. At Weybourne a Swedish-ringed bird was trapped Oct 1st, this being the first record in British Isles of a bird ringed in that country (MPT). Two other Continental birds were trapped that day with further birds showing these characters trapped on Oct 2nd, 6th (3) and 7th (2). Surprisingly during the past 25 years there have been only 2 other records of Continental birds trapped at this site.

Robin

Erithacus rubecula

Common resident and passage migrant, especially in autumn

One Scolt Head Feb 17th may have been an early returning migrant. Little movement reported in March with max 10 Holme 19th. Light passage noted at 5 coastal sites early April to early May with max 50 Holme April 10th and 22 Scolt Head April 19th.

Seant breeding data received with all records included: 10 prs Holme, 8 Boyland Wood, 5 Kenninghall (0 in 1997), 3 Banham (6 in 1997), one Fersfield (0 in 1997) with 12 territories UEA and 4 Welney. The BBS produced identical results to 1997.

In autumn early migrant Scolt Head Aug 27th with passage gaining momentum particularly from Sept 23rd to month end with records from 18 coastal sites: best counts 140

Scolt Head 27th and 85 28th, 52 Holme 27th and 50 30th, 50 Sheringham 28th (including 14 Continental birds ringed) and 50+ Yarmouth Cemetery 30th. Inland: 24 Baconsthorpe 23rd. On Sept 27th an unusually coloured bird at East Runton - overall colouration cream with a greyish wash to crown, wing coverts and tail, with 'red' breast replaced by a pale apricot wash - 'a very striking and attractive bird'. A leucistic individual was also noted at East Runton on Oct 6th/7th.

The best was yet to come with huge numbers arriving in early Oct. This is fully reported in the article on page 300.

Nightingale

Luscinia megarhynchos

Local migratory breeder and very scarce passage migrant

Earliest Salthouse Heath and Beeston Common April 10th, a week ahead of next arrivals Salthouse Heath (2) and Pentney 17th, Weybourne and Wissington BF (3) 18th, and Snetterton 19th. Main arrival from 23rd to end of month with singles Holme, Kettlestone Common, Kilverstone, Winterton and Narborough (2) 23rd, Holt 24th, Waxham and Leziate 26th, Lynford GP and Norwich (Sweetbriar Road) 27th, and Hunstanton GC and Whitlingham Lane GP 29th. In early May further coastal migrants Holme 1st, 7th and 21st, Blakeney Point 10th and Yarmouth Cemetery 15th.

High counts in breeding season of singing males at Salthouse Heath 7-8, Narborough 7, Brandon Carrs 5, Foulden Common 4 and Hunstanton GC 4. At Stanford TA 11 singing males at 9 sites, an apparent 50% decline from previous year.

In autumn juv Thetford Nunnery Lakes July 3rd-15th and Brandon Carrs (2) July 25th were only records.

Bluethroat

Luscinia svecica

Red-spotted Bluethroat *L s svecica*

Scarce passage migrant, now more frequently recorded in spring

A male in song Scolt Head May 17th and in autumn singles Blakeney Point Oct 3rd, Cley Oct 6th and a female Warham Greens/Stiffkey Oct 6th-10th.

White-spotted Bluethroat *L s cyanecula*

Rare spring visitor from eastern Europe

Males at Cley (*wolfi* variant with throat entirely blue) March 28th (SJMG *et al*) and in song Hickling Broad May 21st-23rd (PJH AJK).



White-spotted Bluethroat (N Arlott)

Black Redstart

Phoenicurus ochruros

Rare migratory breeder, regular passage migrant and occasional in winter

Single male present at start of year Beeston-West Runton Jan 23rd-Feb 7th. A single Overstrand March 7th but main spring arrival from March 19th onwards and reported from at least 12 sites to end of month, mostly singles but max 6 Overstrand 30th and 4 Waxham 29th/30th. Passage in April and May mostly at coastal sites, singles except in April when 2

Winterton 1st-6th and 3 22nd, 2 Holme 8th, 3 Hunstanton, 2 Heacham North Beach and 2 Blakeney Point 21st. Very few inland records except for singles in March at Stanford TA, and April at Baconsthorpe, Eccles, Flitcham, Repps-with-Bastwick and Wymondham. No passage after mid-May except for singles Holme 16th and Blakeney Point 28th, and a single male Horsford June 6th.

At Yarmouth one pr bred and 3 additional singing males (4 birds still present Oct 10th). One pr also bred Stanford TA raising 2 broods of at least one and 5. A singing male Wissington BF July 7th-10th.

Autumn passage began with an imm Burnham Overy Dunes July 14th but was generally poor with single records in Aug and Sept. Recorded from 11 sites in Oct mostly singles but max 3 Choseley 5th and 4 Yarmouth South Denes 10th. Late passage during Nov from 12 sites also mostly singles except 3 Blakeney Point 7th/8th and 4 Heacham-Hunstanton 18th, with 3 remaining to end of month and 2 throughout Dec. Elsewhere in Dec singles at Sheringham, West Runton, Bacton, Winterton and Yarmouth.

Redstart

Phoenicurus phoenicurus

Local migratory breeder (most in Brecks), common passage migrant

First spring birds Hemsby April 5th and Holme 12th. Main passage from April 19th with singles at 18 sites and max 3 Holme and 3+ Cromer GC 22nd, and 4 East Hills (Wells) 23rd. Widespread passage during May at 14 coastal sites, mostly singles but peaks of 2 Holkham and Caister GC 2nd and 5 Scolt Head 12th. The only June records were singles Holkham 13th and Snettisham 27th. Singles Baconsthorpe April 22nd and Fring 25th were only inland records of spring.

Poorly recorded in breeding season: Sheringham Park 2 prs raised 3 and 4 juvs, and 2 additional single males in July; East Wretham Heath 3 singing males in May; Weeting Heath single May 26th.

Autumn passage began with small arrival at 7 sites with up to 3 Holme, 2 Blakeney Point and Winterton Aug 31st. On Sept 1st numbers increased to 17 Scolt Head, 5 Blakeney Point and 4 Holme; steady passage throughout rest of month with peaks of 4 Mundesley and 8 Blakeney Point 5th, and 12 Scolt Head 6th. A second and larger-scale arrival took place 23rd-28th mainly along north coast with peaks at Holme of 11 23rd, 20 27th and 30+ 28th; Scolt Head 19 23rd, 55 27th and 33 28th; Blakeney Point 12 23rd and 20 24th; 15-20 Salthouse-Gramborough Hill 27th; 20 Sheringham 27th; 10 West/East Runton 27th; and 14 Eccles 24th. Elsewhere up to 7 at 25+ other sites including 4 seen arriving off sea Cley 27th. In first few days of Oct numbers remained high with 15 Holme, 20 Scolt Head and 11 Burnham Overy Dunes 1st, and 35 Warham Greens and 16 Blakeney Point 5th, but numbers declined after 6th to mostly singles (including a female/imm Yarmouth Cemetery 6th showing characteristics of race *samamisicus*) but 4 at Holme 10th; last of year Winterton 15th. Singles recorded inland in autumn at 11 sites.

Whinchat

Saxicola rubetra

Common passage migrant; has bred in past

First arrival a female Stanford TA April 22nd closely followed by 3 Friary Hills (Blakeney) and singles Holme, Kelling WM, Sea Palling and Eccles 23rd. Mostly singles recorded during last week of month except for 3 Snettisham and Happisburgh Common-East Ruston. Passage during May was mostly light with records from 20+ mostly north coast sites except on 8th when 14 Holme, 12 Brancaster GC, 9 Scolt Head, 8 Burnham Norton and 7-8 Kelling

WM, and on 9th when 10 Scolt Head and 9 Blakeney Point. Latest in spring Snettisham May 31st.

First of autumn Snettisham July 30th and passage during Aug only noticeable in last few days of month with peaks of 10 Salhouse-Weybourne 29th and 6 Horsey-Winterton 31st. Widely reported in ones and twos during Sept with most along north and east coasts with peaks of 15 Blakeney Point and 20 Sheringham 1st, 11 Salhouse-Kelling 2nd, and 42 Scolt Head 7th, with 13 there 27th. Passage tailed off in early Oct with up to 2 birds at 12 sites and finished with single Brancaster 28th, except for a very late migrant Feltwell Nov 23rd-25th.

Stonechat

Saxicola torquata

European Stonechat *S (t) hibernans*

Very small breeding population; regular passage migrant, local in winter

Well reported but passage during both seasons very light. Wintering birds well in evidence at start of year, mostly singles (but also 3 prs) at 35+ sites with peaks of 5 Chedgrave Island Jan 29th, 5 Holme Feb 15th and 9 Snettisham CP Feb 24th. Very little clear evidence of spring passage in April and May with 1-2 at 12 (mainly coastal) sites and pairs taking up nesting territories.

In breeding season pairs present at Heacham, Salhouse Heath (pr, 1 juv July, 4 juvs Aug), Kelling Heath (2 prs, 5-6 juvs), Horsey (2 prs, 1+ juv June, 3 juvs Aug), Winterton (2 prs); also present at a Breckland site (1 pr, 3 juvs).

Autumn passage was generally light from Sept 1st (Yarmouth Cemetery) into Nov mostly 1-2 at traditional coastal sites, with peaks of 5 Holme Oct 20th and 3 Cley Nov 3rd; in Dec singles at 5 north coast sites. Inland singles at Buckenham Marshes (Oct), Halvergate Marshes (Nov/Dec), Martham Broad (Nov/Dec), Strumpshaw (Oct/Nov), Whitlingham Lane GP (2 Dec) and Welney (Oct and Dec).

Siberian Stonechat *S (t) maura/stejnegeri*

Almost annual vagrant

A 1st-summer male Mundesley May 4th (MDF *et al*); an imm male Cley Sept 23rd/24th (SJM *et al*), and 1st-winter male Warham Greens Oct 7th-13th (JRW *et al*).

Wheatear

Oenanthe oenanthe

Increasingly rare migratory breeder and common passage migrant

First of spring March 14th - a typical date - with singles Docking, Sheringham GC and at 3 sites in Stanford TA breeding area. Main passage commenced 21st and continued steadily through April to mid-May including at 18 inland sites; several peaks mainly at north coast sites, the first at end of March produced totals of 20 Sheringham and 36 West Runton 28th; 20 Heacham, 22 Burnham Overy Dunes, 45 Beeston Regis-West Runton, 25 Cromer GC and 24 Hopton 30th. Passage in April was moderate with exception of large-scale passage 22nd when 50+ Snettisham, 39 Heacham North Beach, 32 Hunstanton, 100+ Holme, 62 Scolt Head, 22 Weybourne, 39 Sheringham, 70 Beeston Regis-West Runton, 50 Cromer GC, 140 Sidestrand, 20 Horsey, 40 Eccles and 20+ Yarmouth South Denes; lower totals of 24 Snettisham and 20 Brancaster 26th. Steady passage during May with up to 8 at 23 sites except for peaks of 32 Brancaster GC and 22 Scolt Head 8th; 32 Scolt Head, 30 Blakeney Point and 25+ West Runton 9th; 31 Scolt Head 12th, 29 Scolt Head and 20 Blakeney Point 13th. Passage continued in early June with singles at 7 sites in first week except 2 Salhouse 3rd. Several 'Greenland' types noted at Burnham Overy Dunes,



Turtle Dove and Yellowhammer – both attracted to a garden feeding station at Eccles (*N Bowman*).





Lesser Spotted Woodpecker – a remarkable portrait of a declining resident (*M Rawlings*).

Salthouse, Cromer GC and Northrepps late May and early June and one trapped Sheringham May 23rd.

In Brecks 12 prs bred at 6 sites in Stanford TA, but the downward trend in numbers of pairs breeding in this area, and hence the county, continues.

First of autumn Salthouse June 25th, and in July 2 Snettisham 27th/28th, and 4 30th, Scolt Head 6th and 29th-31st, Weybourne 18th, Mundesley 17th, Horsey 11th (with 2 25th), and Berney (2) 23rd-30th. Passage more evident in Aug with up to 7 (Snettisham 15th) at 14 sites. Passage during Sept and Oct widespread and mainly up to 10 birds but noticeable peaks of 18 Winterton Sept 2nd; 72 Scolt Head, 25 Burnham Overy Dunes, 100 Blakeney Point 23rd (declining to 50 24th); 40 Sheringham 24th; 50 Cromer GC 26th; 25 Holme, 56 Scolt Head, 23 West Runton 27th; 20 Salthouse 28th; 20 Blakeney Point Oct 1st; 50 Sheringham, 21 Beeston Regis-West Runton 6th; 30 Titchwell 7th; 19 Snettisham 9th and 20 Sheringham 10th; last of month Welney 19th. Two late Nov records, Berney 14th and Titchwell 27th.

Ring Ouzel

Turdus torquatus

Passage migrant in fluctuating numbers; exceptional in winter

First recorded March 28th when 5 Heacham, 3 Warham Greens and singles Burnham Overy, Cromer GC, Sidestrand and Holkham Park, with records from a further 6 sites before month end. In April, 1-5 birds at many sites with peak movement commencing 22nd when 17+ Cromer GC. Heavy passage continued during next few days with double-figure counts from a number of coastal sites including 10-12 Sea Palling 22nd-26th, 21 Snettisham CP 22nd with 22 the following day, 11 Overstrand/Cromer and 12+ west Holme 23rd. In May, strong passage continued with 1-6 birds at 32 sites with final of spring a 1st-winter male ringed inland at Hilborough June 4th. With such a bumper spring an impressive number of other inland records: Baeonsthorpe (2), Bintree, Briston, Choseley, Cockley Cley, Colney GP (2), Great Ryburgh, Lakenheath Washes, Lound Waterworks, Northrepps (6), Norwich (Sweetbriar Road), Shipdham, Stanford TA, Sutton (6), Thorpe St Andrew and UEA (2). Singing birds noted at Weybourne Camp April 22nd and Winterton May 24th.

Autumn passage from Sept 20th at Yarmouth Cemetery with 1-4 at a further 7 coastal sites until month end. In Oct, steady if unspectacular movement continued until 13th with peak counts 8 Holkham 3rd, 7 Scolt Head 6th and 8 Yarmouth Cemetery 7th. Final birds of year Nov 5th when 2 Titchwell.

Blackbird

Turdus merula

Common resident, passage migrant and winter visitor

In Jan, an unusual record of a nest with 2 eggs in the Christmas tree on the steps of Norwich City Hall. Discovered on 6th, 2 young were seen on 16th but sadly both were later found under the tree. One was already dead and although the other was returned to the nest it did not survive the night.

Small-scale movement noted from Scolt Head Feb/March with max 9 March 29th. Few signs of return passage from other sites although 50 Yarmouth Cemetery March 27th.

An early nesting bird at Recpps-with-Bastwick Feb 20th but very few other breeding reports received. These included 17 singing males Welney (compared to 22 in 1996) and 5 singing males UEA. At other regularly monitored sites, 13 prs Banham BBS (10 in 1997), 5 territories Boyland Wood (3 in 1997), 6 prs Kenninghall BBS and one pr Fersfield BBS (3 in 1997). The BBS located birds in a similar number of squares to last year but the total

number of birds found rose by over 20%. At Attleborough, a true albino present for 6 weeks in June and July.

Return passage from Sept 21st when 2 Blakeney Point. Increase in numbers from 23rd when 50+ Yarmouth Cemetery with double-figure counts over next week at Wolferton, Scolt Head, Blakeney Point and West Runton, and inland at Wayland Wood. Steady movement during first week Oct, max 80 Warham Greens and 45 Happisburgh 3rd, 50+ Yarmouth Cemetery 4th and 50 East Runton 7th, rising to 300+ between West and East Runton 10th. Peak movement, with other thrushes in early Nov, when 600 Holme, 1000 Scolt Head, 'hundreds' Cley, 4000 Sidestrand, and a notable movement over Norwich 2nd; 3000 Holme, 500 Sidestrand and 250 Paston 3rd. Smaller influx 11th when 214 Bodham and a further movement over Norwich same date while on 16th, 200 west at dusk from Warham Greens.

Black-throated Thrush

Turdus ruficollis

Vagrant from Central Asia

A female at Snettisham on April 25th, arriving in a strong Ring Ouzel passage, continued to attract the crowds until 28th (GW *et al*). With 2 in the 1970s and now 3 in the 1990s the county total moves to five.

Fieldfare

Turdus pilaris

Common passage migrant and winter visitor

In Jan three-figure totals at 10 sites with max 300 Cantley 14th, 300 Felbrigg Park 24th, 340 Holme 30th (rising to 370 Feb 2nd) and 300 Weeting Heath 31st. Few records in Feb but gradual build up during March peaking at 500 Felbrigg Park 27th. Three-figure counts at a further 12 sites, Brecks being well represented with 370 Thompson Water 7th, 430 Harling 30th and 450 Stanford TA 31st, the latter count including a complete albino. Spring passage again unimpressive with virtually no coastal reports although 150-200 at 6 inland sites during April. With the exception of 4 Pentney GP May 4th, just 1-2 birds during month at 10 mainly coastal sites, the last of spring June 6th at Strumpshaw.

First returning birds of autumn Sept 21st when singles Wells, Weybourne and Eccles, with 6 Sutton Fen and a single Blakeney Point following day. Further records of 1-3 birds to month end from Frettenham, Heacham, Morston, Scolt Head, Sheringham and Welney. Few further reports until last week Oct when 1200 Wells 26th, 1000 Heacham 30th, 2500 south Snettisham and 1580 south Hunstanton 31st. Nov 1st saw the start of a huge influx, mainly in west of county, with 10,500 west Lynn Point (0805-0935 hrs), 18,000 south Snettisham in 3 hrs, 20,000 south Hunstanton, 2400 west Baconsthorpe (0800-0920 hrs), 2000 Fakenham in one hr and 1000 Syderstone. The following day saw 'many thousands' still moving south at Hunstanton with birds also being reported in east of county, peak numbers being 1000 in off sea Sheringham, 2000 Sidestrand and 1000 west Dilham. Numbers peaked on 5th when a massive coastal movement resulted in 30,000 south Hunstanton, 10,000 west Holme, 40,000 west Scolt Head/Brancaster Hbr and 1000s in off sea/west Sheringham. Fewer inland records but 3500 Welney and 500 south Welmore Sluice also on 5th. However, the movement quickly petered out and the only other notable count was 2415 south Hunstanton 7th.

In late Nov, few notable counts, peak numbers being 620 Welney 23rd and 2000 Ranworth 24th. Some good numbers noted across county in Dec, max 1000+ Welmore Sluice 2nd and 900 Fritcham 6th, with three-figure counts from a further 6 sites.

Song Thrush

Turdus philomelos

Common resident and passage migrant; recently decreasing

An interesting series of records from Seolt Head Jan-March with 1-6 birds present on a number of dates during the period indicating continued small-scale movement. At Sheringham a small influx in Feb peaking at 35 on 14th and a similar number 21st. In April migrants noted at only 5 coastal sites with max 8 Seolt Head 23rd.

Breeding season records from just 31 sites compared with last year's 41 possibly indicating a continued decline in the county. However, found in nearly 20% more squares than last year according to the BBS results. The average number of birds per occupied square remained unchanged. At Boyland Wood there were no territories for the first time since 1994 while one observer noted a decline in records of singing birds in 'his area' from 89 in 1990 to just 21 in 1998. On a slightly brighter note, one observer at King's Lynn reported more evidence around the town while at Briston there were 13 singing males within half a mile of the village.

Autumn movement from Sept 21st when 2 Blakeney Point with a gradual increase in numbers towards month end, max 10 Yarmouth Cemetery 23rd and 30 Blakeney Point 24th; whilst on 27th 110 Seolt Head, 50 Sheringham, 63 Beeston Regis/West Runton and inland 33 south-west at Baeonsthorpe; also 160 Seolt Head 30th.

Large scale influx on coast Oct 1st when 400 Holme, 450 Seolt Head plus 1100 south, 570 Burnham Overy Dunes, 3000 between Wells car park and Lady Anne's Drive, 700 Blakeney Point, 300 Sheringham, 200 Overstrand/Sidestrand, 100+ Paston and 150 Yarmouth Cemetery. Birds continued to arrive but on a reduced scale 2nd-7th but three-figure counts still at Holme, Seolt Head, Holkham Meads, East Hills (Wells), Warham Greens, Stiffkey, Blakeney Point, Sheringham, Sidestrand, Paston (peaking 700+ 6th) and Yarmouth Cemetery. During this period some notable counts of migrants also inland: on 2nd at Watton heavy passage 0230-1200 hrs and during daylight hours a steady movement from east or north-east, flocks generally fewer than 20 in number.

Redwing

Turdus iliacus

Common passage migrant and winter visitor

In Jan max 100 Holkham Park 16th and 150 Felbrigg Park 24th with double-figure counts from only 4 other sites. Fewer reports in Feb with 60 Lynford Arboretum the highest count. Gradual build up through March with peak towards end of month when 150+ Yarmouth Cemetery 27th, 320 Rockland Broad and 100 south-east over Buckenham 28th. In April records from just 9 sites with max 30 Frettenham 1st, 20 Roydon Common 4th and 10+ Yarmouth Cemetery 24th. Single May record from Holme 3rd with an unseasonal bird Horsey Gap June 15th.

Return passage from Sept 23rd with singles Seolt Head and Blakeney Point, and 2 Yarmouth Cemetery; 1-5 at a further 4 sites to month end. In Oct, 70 Holme 1st but main movement of month from 5th when 100 Holme, 180 Seolt Head with a further 650 south, and 110 Warham Greens. Steady passage noted over next few days with 'hundreds' Titchwell, 100 plus 200 south Seolt Head, 400 Sidestrand and 1000 over Strumpshaw all on 6th; and also an impressive 500 over Thetford Nunnery in just 30 mins on 9th. Heavy passage noted over UEA 12th-14th (mainly at night) and 500 west over Fakenham 14th. A second wave of migrants arrived during first week of Nov, peak counts being 600 south Snettisham and 300 west in one hr Fakenham 1st, 7000 Overstrand/Sidestrand 2nd, 2000 over Strumpshaw, 400 Holme and 200 south Welmor 3rd, 1400 Titchwell and 270 west Sheringham 5th, with further movement noted over Norwich 11th. Only Dec records 40 Raynham Park 20th, 400 Blickling Park 28th and 45 Buckenham 30th.

Mistle Thrush

Turdus viscivorus

Common resident and partial migrant

Breeding season records from 19 sites, mainly in north-west of county, a slight increase on last year's 16. Mostly 1-3 prs but 5 West Newton and Sandringham CP, 6 Brancaster Staithe and 7 Holkham Meals. The BBS results show an increase in 1998 over last year. Remarkably the BBS surveyors located more Mistle Thrushes than Song Thrushes this year. Post breeding flocks noted July-Sept at a number of mainly inland sites, with max 16 Northwold July 26th, 50+ Garboldisham Aug 9th, 24 Weeting Heath Aug 14th, 45 Whittington Aug 22nd, 23 Beeston Regis Sept 22nd and 17 Thetford Nunnery Lakes Sept 23rd, while in Oct a flock of 42 at Flitcham.

Coastal movement from Oct 9th when 5 west Cromer GC, 3 in off sea Wells and 10 south Hunstanton Cliffs, with a further 14 south there 16th. Small-scale passage from Oct 10th at Beeston Bump where 5 west, with a further 1-2 birds west most days until 24th. In Nov at Sidestrand one in off sea 1st, 2 in off sea 2nd and 2 east 6th.

In Dec 3 singing at Merton/Watton 31st.

Cetti's Warbler

Cettia cetti

Broads breeding population established since 1974

Good numbers bred in Broads with the traditional sites all seeming to do well. Singing males during breeding season at following sites: *R Yare*: Bramerton, Rockland Broad 8+, Strumpshaw 10, Surlingham Broad 4-5, Surlingham Church Marsh 4, Whitlingham Lane GP and STW 4; *R Bure*: Cockshoot Broad, Horning Marsh Farm, Ranworth Broad 2, Wroxham Broad; *R Ant*: Catfield Fen 3-4, Honing Hall, How Hill 3, Irstead (Hall Fen). Elsewhere Hickling (including Duck Broad, Heigham Sound, Rush Hills) 7, Lopham Fen, Ludham Marshes, Ormesby Broad, Ormesby Little Broad, South Walsham Broad and Thorpe St Andrew (Carey's Meadow). The presence at Waxham of 2 singing males March 27th-June 1st at least is also a very encouraging development.

	1991	1992	1993	1994	1995	1996	1997	1998
Singing males	18	28	22	24-27	51+	56+	27-29	59-61

The above table clearly shows a general increase, and it must be assumed last year's disappointingly low figures must have been due to a lack of observer coverage/fewer records submitted.

Records away from Broads are always unusual so the appearance of 2 in north-west Norfolk was a surprise; one trapped Holme Oct 16th was only the second site record, whilst another Titchwell Nov 11th-20th was less unexpected. With the continuing run of mild winters can this secretive warbler continue to spread?

Grasshopper Warbler

Locustella naevia

Summer visitor and scarce passage migrant

A similar pattern to 1997 with first spring records Heigham Sound and Lynn Point April 14th, followed on 16th by widespread arrival at many sites and by 23rd noted countywide with records from most breeding areas. Max April counts included Holme 7, Horsey 6, Snettisham 6, Waxham 6 and Whitlingham Lane GP 9.

During breeding season other singing males at following sites: Barton Turf 3, Beeston Regis Common, Berney, Boughton Fen, Brandon Carrs 4, Burnham Thorpe Common, Catfield Common 2, Catfield Fen, Coekley Cley, Dilham 2, East Ruston Common, East Tuddenham Marsh, Foulden Common 4, Halvergate, Hickling Broad 7, Holkham NNR 6, Honing Lock, Horning Hall Marsh 5, How Hill 5, Kettlestone Common 2, Lopham Fen 3, Lynn Point, Methwold 2, Ranworth, Rockland Broad 3, Santon Downham, Seulthorpe Fen, Sea Palling, Sparham, Stanford Water 2, Stoke Ferry, Strumpshaw 6, Surlingham Church Marsh, Sutton Fen, Thorpe St Andrew (Hospital Fen), Titchwell 4, UEA and Womack Dyke. This level of data, and that received for 1997, should allow a more accurate assessment of the county's breeding population in the future.

During autumn migration many more birds noted than usual with Sept records from Holme 23rd, Scolt Head 1st and 24th, Blakeney Point 3rd and 5th, Salthouse 27th, Caister 6th and Winterton 24th. In Oct at Holme 2nd; Scolt Head 3rd, 4th (2), 5th and 6th (2); Warham Greens 7th; Blakeney Point 4th and 9th; Weybourne 5th and 9th; Sheringham and Yarmouth 4th. Also other unidentified 'locustellas' Blakeney Point 4th, 5th and 7th. These late autumn records are quite exceptional for a species that is normally only seen on 2-3 occasions during this period, and was undoubtedly due to the favourable 'fall' conditions at the time.

An Eastern Grasshopper Warbler *straminea* trapped at Sheringham Sept 20th (DHS TWr) (see *Birding World* vol 11 no 10 p 389).

Savi's Warbler

Locustella luscinioides

Rare migrant and summer visitor

The first record since 1996 concerned a singing male Hickling Broad May 18th-June 20th (CJC PJH JWh *et al*).

Sedge Warbler

Acrocephalus schoenobaenus

Summer breeder and passage migrant

An early arrival UEA Broad March 30th was followed in early April by others Holme 4th, Hickling Broad 5th, Strumpshaw 6th and Titchwell 7th. Numbers at most sites remained small until widespread influx 16th-22nd, after which good numbers present at all breeding sites.

Largest breeding season counts of singing males: Heacham North Beach 18, Holme 39, Stanford TA (R Wissey) 12, UEA Broad 11 and Welney 40. Although most sites had similar breeding numbers to 1997, Welney experienced a dramatic fall from 77 in 1997. The BBS detected birds in only 66% of the number of squares they were found last year. However, this survey locates relatively small numbers of this species so the results must be treated cautiously.

Autumn passage light with, however, first records for Oct since 1995 at Scolt Head 2nd, Warham Greens 3rd and 10th (2), and Strumpshaw 14th.

Marsh Warbler

Acrocephalus palustris

Rare in late spring and autumn

An excellent series of spring records involving 6 birds at 4 sites, all typically May-June and all but one relating to singing males. In May Ludham 18th-29th (SL); in June at another county location 3rd-15th with a second nearby 15th-19th; also Sheringham 5th-10th (MY-P *et al*).

The most interesting records came from Sea Palling where a singing bird from June 7th to at least mid-month, with a 2nd bird present from 12th, when nest building was noted on several dates (NBB *et al*). With the increased number of records in early summer this species may soon breed in the county.

One autumn record: trapped Winterton Sept 26th/27th (AWB KJB DPa).

1997 Addition: Holkham Meals June 5th (CEW).

Reed Warbler

Acrocephalus scirpaceus

Summer breeder and passage migrant

Earliest Weybourne April 16th, followed by others Cley and Heacham 23rd, then widespread arrival in next 5 days with most sites having singing males by month end.

During breeding season highest counts of singing males at Filby Broad 29, Heacham North Beach 11, Holme 35, Welney 50 and Wissington BF 15. As with Sedge Warbler numbers at Welney greatly down on 1997 (99), due to the extremely high water levels during spring.

In autumn Oct migrants more numerous than usual; in first 2 weeks recorded at 17 sites with max 4 East Hills (Wells) 3rd, 4 at Holkham Meals and 4 Scolt Head 4th, 10 Sheringham 6th, 2 Welney 9th and 3 Eccles 10th. Only two after this date, Northrepps 18th/19th and Brancaster 20th.

Great Reed Warbler

Acrocephalus arundinaceus

Vagrant from Continental Europe

An unexpected arrival of 2 birds together Berney May 26th (PRA *et al*); one was in song but unfortunately neither bird could be located the following day.

1997 Addition: Burnham Norton May 18th/9th (VE).

Icterine Warbler

Hippolais icterina

Scarce autumn migrant, rare in spring

Two typically late spring records of singing males at Scolt Head May 21st and Salthouse 30th.

In autumn an early migrant Burnham Overy Staithe Aug 11th, followed by Sept records from Wells 1st, Yarmouth North Dunes 3rd, Blakeney Point 4th, Salthouse 5th, Holme 13th, Winterton 23rd/24th and Happisburgh 27th. The second autumn in succession that this species has been scarce.

Dartford Warbler

Sylvia undata

Vagrant from southern England and the Continent

Only a single record: one seen at Brandon Station by a lucky observer during evening of April 20th (SJAY).

Barred Warbler

Sylvia nisoria

Scarce autumn migrant recorded only once in spring

The first and only record for Aug was trapped at Weybourne on 29th. Occurrences during Sept included singles Cromer 2nd and 5th/6th, Blakeney Point 3rd, Caister 3rd-6th, Warham Greens 4th, 1-2 Winterton 4th-8th, and singles Sea Palling 5th/6th and 29th.

The only Oct record was one East Runton 4th. The records show a continuing decline for fourth consecutive year.

Lesser Whitethroat

Sylvia curruca

Summer breeder and passage migrant

First recorded Repps-with-Bastwick 19th April, then mainly coastal singles throughout remainder of month with peak count 10 Snettisham 28th. Few coastal migrants reported in May with max 6 Scolt Head 6th.

In breeding season singing male counts of 9 Holme, 7 Burnham Norton, 5 Briston, 4 Ringstead, 4 Snettisham CP, 3 Salthouse Heath, 3 Brancaster, 3 Brancaster Staithe, 3 UEA, and 2-3 Lyng-Easthaugh GP. Records of ones and twos from 12 other sites. Considered very scarce in Wells area and almost non-existent in East Tuddenham area. Significantly none were ringed at Garboldisham for first time in 8 years. The BBS revealed a substantial recovery from last year's slump but numbers are still well down on previous years' totals.

Autumn migration peaks included 6 Holme Aug 31st and in Sept 3 Warham Greens 4th, 10 Holme 6th and 4 Scolt Head 24th. Last reported Wells Oct 11th.

A bird showing characteristics of *blythi* Sheringham 6th Oct (MAW SCV).

Whitethroat

Sylvia communis

Summer breeder and passage migrant

First noted Wissington BF April 10th with singles Titchwell 12th and Holme 19th. Monthly max of 5 Winterton 23rd, Rockland Broad 25th and Overstrand 28th. Strong passage more evident in early May with 16 Scolt Head and 16 Holme both 8th, and 30 Sheringham 10th.

Notable breeding season reports included 15 territories at Boyland Wood, 8 Lyng-Easthaugh GP and 8 Ringstead. At a BBS square between East Harling and Kenninghall an increase in pairs from 1-2 in 1997 to 6-7 in 1998. In addition singing male counts included 25 Welney, 10 Holme, 8 Watton and 5 UEA. Again no significant changes in the population levels were detected by the BBS. Interestingly, ringing records were down to 8 at Garboldisham compared with 27 (1996) and 50 (1995).

With the exception of 20 Holme Aug 19th, the main migration peak counts were confined to early Sept, with 20 Cromer 1st, 10 Waxham 5th, 12 Holme 6th, 6 Winterton 8th, and a surprisingly large passage end Sept/Oct with max counts of 17 Scolt Head Sept 28th, 9 Scolt Head and 7 Blakeney Point Oct 1st, 10 Sheringham Oct 4th with the last record there 10th.

Garden Warbler

Sylvia borin

Summer breeder and passage migrant

Cockley Cley and Walsey Hills shared the first record on 21st April. For remainder of month records confined to 1-2 with exception of 3 Lenwade 24th, 3 Thetford Nunnery Lakes 28th and 3 Strumpshaw 28th/29th. Evidence of a continuing arrival came from Sheringham with 6 on 9th May but numbers generally low/absent at coastal sites in month.

Scant breeding records received with 4 territories at Strumpshaw and 3 Boyland Wood, and reports of singing males 4 Watton and 3 UEA. The BBS results showed that the number of squares containing this species fell by over 30% from 1997.

As with Whitethroat, migration did not get underway until Sept: on Scolt Head peaks of 18 6th, 8 7th, 8 26th and 7 27th/28th. Elsewhere only double-figure count 10 Eccles on 24th. Passage continued into early Oct with 10 Holme 2nd, 25 Warham Greens 5th and 5 Sheringham 6th. Last recorded Holme and Sheringham Oct 10th.

Blackcap

Sylvia atricapilla

Summer breeder and passage migrant; winters in small numbers

During first winter period, up to 30 birds were reported at 18 sites including 3 Norwich Jan 1st and 10 Trowse Jan 3rd, representing a significant increase over 1997 (8 birds at 7 sites).



Blackcap (*S Cale*)

Birds at Potter's Fen (East Dereham) and Holme March 15th may have been early migrants, but main migration began in last week of March with 10 birds at 9 sites. Peak counts during April included 6 Wayland Wood 3rd, 6 Merton 3rd/4th, 10 Lyng and 7 Holme 19th, 9 Scolt Head and 6 Lynford 22nd, and 10 Sheringham 25th.

Breeding records remained in good numbers with 9 prs Ringstead, 11 territories at Boyland Wood, 10 Strumpshaw and singing male counts of 7 Watton, 7 Old Catton, 7 UEA, 4 Welney, 3 Pentney Heath and 3 Holme. The BBS results suggest that this species was slightly more numerous than last year.

Heavier autumn passage than in recent years with notable movements of 18 Scolt Head Sept 27th and 20 Holme Sept 30th, and in early Oct 40 Wells 3rd, 40 Sheringham 6th and 50 Holme 7th.

Very few records during second winter period with sightings from Eaton (2), Hilborough, Holme, Nordelph, Sprowston, Stibbard, Strumpshaw and Wiveton.

Greenish Warbler

Phylloscopus trochiloides

Vagrant from north-east Europe

Following a blank year, 2 spring reports represent the third and fourth county spring records. By coincidence the 2 previous spring records were both in the same year (1992). The first at Blakeney Point May 30th (AMS KM TW *et al*) showed well and sang occasionally, but generally skulked in the Suaeda. The second, a singing bird, at South Lopham June 1st (DRM), more uniquely represents the first inland county sighting and only hints at the number that must be overlooked away from the coast.

Arctic Warbler

Phylloscopus borealis

Vagrant from northern Europe

One at Sea Palling Sept 29th (NBB MDF AJK) was first since 1994. Unfortunately due to the nature of the site, news of the finding could not be generally released.

Pallas's Warbler

Phylloscopus proregulus

Rare autumn migrant from Siberia

A disappointing return to single figures following 2 exceptional years. In early Oct singles Stiffkey 6th (APB *et al*) and Weybourne 9th (MP). The remaining records were also along the north coast in mid-Nov, with singles East Hills (Wells) 16th/17th (JRM), Stiffkey 17th (GED *et al*), Holkham 18th-20th (JBK *et al*), Wells 19th (AIB) and 3 there 20th (JRM).

The yearly totals since 1991 are as follows:

1991	1992	1993	1994	1995	1996	1997	1998
6	2	7	12	4	29	22	8

Yellow-browed Warbler

Phylloscopus inornatus

Scarce autumn migrant from Siberia

Singles at Sheringham and Holkham Meals Sept 23rd constituted the first records. With the exception of one Yarmouth Cemetery 26th/27th, the remainder of Sept arrivals were confined to north coast, with 3 Holme 26th, Titchwell also 26th, Warham Greens and Scolt Head 28th, and East Hills (Wells) 29th.

In Oct, the north coast continued to dominate the records with singles Holme 1st/2nd, Cley 2nd, Brancaster Staithe 3rd, East Runton 3rd-5th, Weybourne (ringed) 4th, and Warham Greens 7th. At Holkham Meals 3 2nd-5th, 2 6th and one until at least 8th; 2 Titchwell 5th/6th. A single at Sea Palling 4th, 3 inland records of one Southrepps 3rd with 2 on 4th (TN), and one East Ruston 11th (PJH), complete the Oct total. Last reported at Holkham Meals Nov 8th.

Dusky Warbler

Phylloscopus fuscatus

Vagrant from northern and central Asia

Two typical arrivals, at Holkham Meals Oct 11th/12th (AMS *et al*) and Stiffkey Nov 17th/18th (JBK *et al*).

Wood Warbler

Phylloscopus sibilatrix

Passage migrant; has bred in past

The first record was of a bird at Ringstead in 'late' April. With one exception, only singles reported in May at Yarmouth Cemetery 3rd, Briggate Mill 6th, Eccles and Titchwell 9th, Reepeham 13th, Norwich (Mousehold Heath) 16th-21st, and Friary Hills (Blakeney) 28th. A second singing bird at Eccles on 9th lacked any green/yellow coloration, displaying a totally grey/white plumage.

With no breeding records received for the third consecutive year, it would appear that this delightful '*phylloscopus*' is lost as a county breeder.

In line with recent years, an extremely light autumn passage with just 2 birds in Aug at Sheringham 30th/31st, and Yarmouth Cemetery 31st. With none reported in Sept, the remaining 4 records were in Oct at Wells 3rd, Titchwell 3rd-5th, with 2 there on 4th, Yarmouth Cemetery 4th, and Stiffkey 6th.

Chiffchaff

Phylloscopus collybita

Common summer breeder, passage migrant and scarce winter visitor

In comparison with 1997, a significant increase in number of reports during first winter period, with 1-2 reported from 38 sites; also up to 6 Holkham Meals late Jan/Feb and at Overstrand 3 all Jan and 4/5 Feb 19th.

Migration underway by second week of March with many arrivals particularly at inland sites; later in month peak counts of 13 Strumpshaw 28th, 12 Scolt Head and 15 Holkham Meals 29th, and at least 15 Yarmouth Cemetery 30th. In April coastal counts included 9 Holme and 6 Scolt Head 7th, and 12 Happisburgh 22nd.

Singing male counts during breeding season included 18 Sennowe Park, 11 Houghton, 10 UEA, 9 Sandringham CP, 9 Wayland Wood, 7 Boyland Wood, 7 Ringstead and 6 Sparham Pools. The BBS detected a 10% increase in both number of squares occupied and number of

birds per occupied square since last year. Numbers ringed at Garboldisham totalled 38, the highest since 1995 (41).

Only one report in Aug of 6-8 at Cromer GC 14th. Counts of 20 Holkham Meals 26th and 7 Threxton STW 10th were the only notable Sept records. Early Oct saw one of the best autumn movements of recent years with 100 Holkham Meals and 40 Overstrand 5th; 50 Scolt Head and 150 Sheringham 6th; 45 Holme 6th/7th; 65 Warham Greens, 150 Stiffkey 7th and 150 Paston 7th; 160 Holkham Meals 8th, and 40 Yarmouth Cemetery 9th.

At least 10 *abietinus* at Sheringham Oct 6th; of the arrivals, none showed classic *collybita*, but most had mixed characteristics. Reports of the race *tristis* included a single Sheringham Sept 30th (MY-P) and 2 East Hills (Wells) Nov 7th (JRMc).

During second winter period, recorded at 15 sites with max 6 Wells in Nov and 1-2 at 11 sites in Dec.

Willow Warbler

Phylloscopus trochilus

Common summer breeder and passage migrant

First arrival at Repps-with-Bastwick 21st March, with other March reports of 3 Holkham Meals and singles at Eccles, Beetley and Thetford Warren 30th; and Yarmouth Cemetery, Filby Bridge and Lyng-Easthaugh 31st. Migration continued steadily in first half of April with max counts in second half of month of 15 Ranworth Broad 14th, 60 East Hills (Wells) 21st and on 22nd 150 Holme, 26 Scolt Head (with 40 there next day), 11 Weybourne and 30 Happisburgh. Peak counts on coast second week May when on Scolt Head 35 8th and 15 12th.

Birds showing characteristics of the race *acredula* at Weybourne April 22nd and May 8th/9th, Sheringham May 4th, 3 Cromer GC May 13th and one there June 1st.

Breeding season records included singing male counts of 15 Hickling Broad, 14 Watton, 11 UEA, 10 Welney, 4 Sparham Pools, with 5 prs Ringstead and 4 prs Boyland Wood. The BBS found birds in 11% fewer squares with 14% fewer birds per occupied square compared to 1997; this species continues to become scarcer as a breeding species.

Very little movement noted Aug with no count at coastal sites exceeding 5. Highest counts in Sept included 15 Holme, 60 Scolt Head and 40 Blakeney Point 1st; 35 Scolt Head, 100 Holkham Meals and 25 Waxham 5th, and 50 Wells 20th. Unusually migration continued strongly in Oct with 27 ringed at Weybourne in first week. Other large counts included 35 Sheringham 1st, 40 Blakeney Point 3rd including 5 *acredula*-type, and 20 Yarmouth Cemetery 4th including one *acredula*-type. Another *acredula*-type at Sidestrand Oct 5th.

A dull brown bird at Warham Greens on Oct 10th first identified as a Dusky Warbler was thought by most observers to be an eastern race Willow Warbler. Initial speculation ascribed it to the race *yakutensis*. Further deliberations concluded that it was perhaps more safely assigned to the highly variable race *acredula*. Other late records also Oct 10th at Weybourne and 3 Holkham Meals.

Goldcrest

Regulus regulus

Resident and passage migrant

In contrast to 1997, an excellent spring with good numbers at several coastal sites from mid-March with peak counts of: 100 Holme 19th falling to 50 by 29th, 250 Holkham Meals 21st-23rd, 35+ Waxham and 40+ Yarmouth Cemetery both 30th. Fewer records in April but still 35 Holme 3rd, 100+ East Hills (Wells) 10th and 33 Scolt Head 19th.

Only breeding season record from Boyland Wood where 4 territories, an increase from 3 in 1997. Since 1995 the BBS results have shown some fluctuation but as yet no clear trend has appeared.

In autumn, first migrants noted Holme where 50 Sept 30th. With continuing north-easterly winds during the first 10 days of Oct, impressive numbers of these tiny waifs became a feature at many coastal sites. At Weybourne, 178 birds were ringed during first week while at other sites peak counts included 200 Holme, 250 Scolt Head, 200 Blakeney Point, 200+ Happisburgh and 100 Winterton all 3rd; 140 East Hills (Wells) and 500 Eccles 4th (with 300 still 5th); 150 Holkham Meals and 100 Sidestrand 5th. Many birds moved quickly on but there were further influxes on 6th when 130 Holme, 220 Scolt Head, 300+ East Hills (Wells), 250 Stiffkey, 150 Weybourne Camp (114 ringed) and 250 Sheringham, and on 7th when 200+ Holme and 300+ Paston, with last significant count noted 10th when 50 Winterton.



Goldcrest (S. Cale)

Firecrest

Regulus ignicapillus

Spring and autumn passage migrant, scarce in winter; occasional breeder

One Pretty Corner (Sheringham) Jan-March 11th with 2 there Jan 24th/25th; another Holkham Meals Feb 2nd. An increase during March, especially towards end of month, with 16 birds noted at 13 coastal sites plus inland records from Roudham Junction and Lynford Stag. In April, 20 birds at 16 coastal sites including 3 Waxham 4th and 2 Holme 5th/6th, 3 birds trapped and ringed Weybourne, and a male on territory in north of county at site where breeding occurred 4 years ago. At Holkham Meals 2 males holding territory, one in April, one in May. Fewer May records with 8 singles at 7 sites with singing noted at 3 inland sites although no evidence of breeding received. Latest coastal migrant Titchwell May 26th. In June, a singing bird Sheringham Park 22nd.

Only one Aug record, Waxham 6th. A further 22 birds reported during Sept and Oct with peak numbers during last week Sept and first week Oct. All singles except 2 Yarmouth Cemetery Sept 7th-9th, 2 Winterton Sept 23rd and 2 Holme Sept 26th. Singles at Strumpshaw and Winterton Nov 7th and Pretty Corner (Sheringham) Dec 7th.

Spotted Flycatcher

Muscicapa striata

Declining summer breeder and passage migrant

Two early birds in April at Yarmouth Cemetery 24th and Sheringham 27th while at Merton a single May 4th was the earliest there in memory. As usual, spring passage protracted with records of 1-3 birds at many coastal and inland sites, last Weybourne June 17th. Peak numbers May 30th when 16 Scolt Head, 6 Burnham Overy Dunes and 11 Blakeney Point.

Breeding season records from just 41 sites compared to last year's 48. Mainly single pairs but 2 Castle Rising, 4 Ringstead (Courtyard Farm), 3 Holme Hale, 2 Honing Green, 3 How Hill, 2 UEA, 2 Sculthorpe and 2 Winfarthing. Examples of a continuing decline from Old Costessey where 2 sites vacant after breeding occurred in 1997, at East Tuddenham where no pairs bred after 2 prs last year, while at Welney no breeding was recorded again whereas 10 years ago 3-4 prs bred. In contrast a pair Holme village after last year's absence and at Garboldisham 20 were ringed which was above the 9 year average. At Weeting Heath a bizarre record of a bird feeding Coal Tits at a next box!

In Aug noted at 16 mainly inland sites, peak count being 10 Lynford Lake 18th. Coastal movement from Aug 3rd when 2 Stiffkey, with 1-3 birds at Horsey Mill, Paston and West Runton during month. In Sept, 1-4 birds at many coastal sites, peak numbers being 11 Scolt Head 6th (6 remaining 7th), 8 inland Stibbard 11th and 6+ Sheringham 24th. In Oct, 1-4 birds at 20 mainly coastal sites, with latest Thetford Nunnery and Warham Greens 10th.

Red-breasted Flycatcher

Ficedula parva

Scarce autumn migrant; rare in spring

An outstanding autumn with at least 14 individuals, first Blakeney Point Sept 1st with further birds during month at West Runton 27th and Holkham Meals 29th. Peak numbers during first 10 days of Oct: 2 Yarmouth Cemetery 3rd/4th (one to 7th), East Runton 3rd, Titchwell 4th/5th, Holme 5th/6th, Stiffkey and Blakeney Point 6th, Holkham Meals 7th-10th, Bacton 7th and Yarmouth Cemetery 10th. A late bird at Bacton Gas Terminal 28th.



Red-breasted Flycatcher (S Cale)

Pied Flycatcher

Ficedula hypoleuca

Passage migrant, scarce in spring, abundant at times in autumn; has bred

First recorded April 22nd when singles Holme, Happisburgh, Salhouse Heath and Yarmouth Cemetery with further birds East Hills (Wells) and Thetford Nunnery 23rd, and Holme and Winterton 24th. In May, 1-2 birds at 11 coastal sites during first half of month with a late single Blakeney Point 30th.

Autumn passage from Aug 30th when singles at Stiffkey and Salhouse, with 1-4 at Holme, Scolt Head, Eccles, Horsey Mill, and Yarmouth Cemetery following day. In Sept, main movement during first week with max 16 Scolt Head, 12 Blakeney Point and 20 Sheringham 1st, 10 Scolt Head 3rd, 8 Blakeney Point 5th, and 12 Scolt Head 6th. Light passage continued at many coastal sites throughout month with 1-4 birds present most days while inland, singles at Merton 7th and Norwich (Mousehold Heath) 15th. In Oct, noted at 15 coastal sites, the latest singles Holme and Stiffkey 11th; inland one Stibbard 6th/7th.

Bearded Tit

Parus biarmicus

Declining resident and partial migrant; periodic influxes from Low Countries

Recorded in early part of year in small numbers at Chedgrave Marsh, Cley, Hickling Broad, How Hill, Strumpshaw and Titchwell; also Horning Hall Marshes where max 35 Feb. Away from normal sites 10 Cantley BF Jan 10th and single UEA Broad Feb 1st.

Breeding data received as follows: North coast - Titchwell 17 prs, Brancaster GM up to 3, Burnham Norton 5 ('excellent breeding season') and at Cley 2-3 each with 2 broods - 35 juvs counted June 10th; Broads - Hickling/Whiteslea/Heigham Sound 25 prs. Horning Marsh Farm 2, Horsey 3, How Hill 6, Martham Broad 5 and Strumpshaw 10.

Some interesting movements during Sept when 8 high west Blakeney Point 24th. and on 29th when calling high over Wells Hbr and 20 south at great height over Winterton. In Oct singles Snettisham CP 9th; west along cliff top Sheringham and another (or same) Scolt Head both 11th; Cantley BF 23rd with 2 31st; Welney 2 23rd and 6 24th-26th. In Nov 2 Heacham 11th, 6 19th and 2 27th; also 8 Whitlingham Lane STW 27th.

Otherwise records in second winter period at regular sites with max 30 Hickling Broad, 20 Martham Broad, 20 Starch Grass, 20 Strumpshaw and 50 Titchwell.

Long-tailed Tit

Aegithalos caedatus

Common resident breeder; Scandinavian white-headed race very rare in autumn

The only sizeable flocks noted in first part of year were 17 Baconsthorpe Jan 1st, 43 (in 3 flocks) Pretty Corner (Sheringham) Jan 7th and 17 Holme Feb 17th.

Very few breeding records received. Although found in more squares covered by the BBS than last year, the average number of birds found per occupied square was back down again.

Flocks later in year included 30 Sheringham Park June 10th, 55+ Ranworth during June, flocks of 60, 40 and 35 Sennowe Park July 5th, 30 Frettenham Aug 1st, 34 Flitcham and 51 Wolterton Hall Aug 2nd, 30 Thompson Water Aug 7th, 35 Baconsthorpe Aug 14th, 35 How Hill Aug 20th, 30 Kelling Heath Aug 23rd, 40 Northrepps Sept 24th, 30 East Ruston throughout Sept, 65 Northrepps Oct 4th, 30 Ormesby and 25 Horsey village Oct 10th, 58 Beeston Regis Oct 31st, 30 Sidestrand regularly during Oct, 30 East Ruston Nov 7th, 27 Thetford Nunnery Nov 11th and 30 Ormesby Little Broad Dec 13th.

Evidence of birds moving at Mundesley when 32 west Sept 20th.



Long-tailed Tit (S. C.)

Marsh Tit

Parus palustris

Common breeding resident

Reported from 45 localities, a slight increase on last year. Few breeding records received but included pairs at Hilborough (2 in nest boxes), Holkham Meals (2), Houghton (3), Strumpshaw (4-5) and West Newton (2). Found in 6 of the 59 squares covered by the BBS.

Willow Tit

Parus montanus

Breeding resident in decline

In response to last year's appeal recorded from the following localities: Acle (Damgate), Barnham Cross Common, Bayfield Lake, Brundall, Boughton Fen, Buckenham Tofts, Bridgham, Brandon Carrs, Castle Acre, Catfield Fen, Cranwich GP, Cockshoot Broad, Didlington, East Harling, East Tuddenham, Fakenham, Foulden Common, Frost's Common, Fring, Fustyweed (Elsing), Garveston, Hanworth Common, Harling Fen Woods, Hickling Broad, Hoe Common, Holme Hale, Holt Lowes, Horning Marsh Farm, How Hill (Brush's Marsh and Crome's Broad), Kelling, Kettlestone Common, Langford, Lenwade, Ling Common (Coltishall), Lynford Arboretum, Lynford GP, Merton, Pensthorpe, Potter Heigham, Reepham, Rockland Broad, Roughton Fen, Sandringham, Santon Downham, Sculthorpe, Sennowe Park, Snetterton, South Wootton Common, Stanford TA (north area), Stanford Water, Stow Bedon, Strumpshaw, Surlingham Church Marsh, Sutton Broad (Hard Marsh), Swaffham Forest and GC, Syderstone Common, Thetford Nunnery, Thompson Common, Thorpe Woodlands (Harling), Titchwell, Tottington, Upton Fen, Wayland Wood, Welney, West Tofts Mere and Whittington. Also 7 tetrads occupied in Lopham/Quidenham/East Harling/Diss area.

Coal Tit

Parus ater

Breeding resident and passage migrant

At West Harling a mixed flock of 100 tits estimated to consist of 50% Coal Tits on Jan 22nd.

A good breeding season reported from Bacton Wood and Stanford TA probably due to nesting earlier thus avoiding the adverse weather in June. The BBS detected virtually no change since last year.

Returns from Garboldisham also showed best ever year with 49 ringed.

Birds showing characteristics of the Continental race *P a ater* Overstrand Sept 29th and Lynn Point Nov 1st. One in off sea Cromer GC Oct 1st also presumably this race.



Coal Tit (S. Cale)

Blue Tit

Parus caeruleus

Common breeding resident and passage migrant

Several observers reported a generally poor breeding season. At Boyland Wood of 4 nest boxes occupied only 2 successful; at Shimpling 3 boxes occupied, 2 failed, only 3 out of 8 fledged from the other; at Winfarthing 6 boxes occupied, 2 failed, nest success only partial - of 42 young seen, 24 died before fledging. Of 59 squares covered by the BBS this year 53 contained Blue Tits and 54 contained Great Tits. However, the average number of birds per occupied square was 40% lower for Great Tit.

An interesting breeding site noted at Morston in May when an adult seen carrying food to top of a hollow metal boat mast.

Only one record of autumn migration, single west Sheringham Oct 15th.

(Great Tit

Parus major

(Common breeding resident and passage migrant

A bird at Cromer Feb 7th showed grey and white underparts instead of the normal yellow and black.

Reports seem to suggest a mixed breeding season. A poor year at Stanford TA but at Shimpling exceptional number of juvs coming to feeders May/June. The BBS found birds in 15% more squares than last year (of those covered in both years); however, the number of birds per occupied square was down.

In autumn migrants noted at Paston where 13 west Sept 28th, Sheringham where 4 west Oct 15th and Beeston Bump where also 4 high west Oct 19th.

(Nuthatch

Sitta europaea

(Breeding resident, possibly in decline

Recorded from 52 localities, an increase on last year; however, not seen at East Tuddenham and North Wootton where used to be regular.

An unusual record of a 'grey washed out' bird on telegraph poles Brancaster beach road June 26th (GPD).

(Treecreeper

Certhia familiaris

(Widespread woodland resident

Reported from only 25 sites, undoubtedly reflecting the under-recording of this species.

At Welney a pr bred for first time at this site. With relatively few recorded, the BBS results are only just statistically significant and need to be interpreted with caution. However, it would seem that this species' population level fluctuates considerably from year to year, with 1998 being a good year.

(Penduline Tit

Remiz pendulinus

(Vagrant and potential breeder

The bird seen briefly at Titchwell last day of 1997 turned out to be a male which was seen intermittently at this site until April 4th (JVB DMc *et al*). Undoubtedly the same individual Holme Marsh Feb 13th/14th and 18th, and March 4th (GFH HD&SCM).

Another male Hickling Broad March 8th (AB); also 3 again at Hickling Broad (unsexed) Dec 12th (SL).

(Golden Oriole

Oriolus oriolus

(Scarce migratory breeder and passage migrant in small numbers

Migrants recorded at Titchwell May 20th. Sheringham female or imm west May 29th. Yarmouth Cemetery May 31st, Waxham imm male south June 13th and probably same Horsey Gap next day. One also Mannington Hall May 14th.

Breeding: 6 prs bred, 4 young ringed from one nest, young or family parties seen at 4 of the other nests, young heard in remaining nest. Another pair present in June at a regularly used site and probably bred. Also males singing at a further 5 sites. (Information from Golden Oriole Group.)

Red-backed Shrike

Lanius collurio

Passage migrant in small numbers; last bred 1989

Another excellent spring with at least 21 records. In first half of May a very early bird Horning Hall 2nd, male Blakeney Point 10th/11th with probably the same bird at Morston 11th-13th, male Hunstanton 11th while a male was an unfortunate road casualty at Bacton 12th, the same day as a male and female Heacham North Beach, with the male still present 13th. Fewer records mid-month: female Holme 16th/17th and a singing male Weybourne 20th/21st, with a female also there on latter date. An increase towards end of month with males Cley 28th and Burnham Overy Mill 29th, females Holme 29th and Sheringham 30th, and a male Snettisham CP 31st. In June: female Holme and male Winterton 4th, female Waxham and male Winterton 7th, male Snettisham CP 8th, male Waxham 12th with probably the same bird at Horsey Gap following day (to 14th), and a female Winterton 14th.

Midsummer males at Kelling WM July 9th and Winterton July 13th.

A reasonable autumn with 12 birds at 8 coastal sites. In Aug, juvs Sheringham and Winterton 31st with main passage in first week of Sept: Winterton 2nd and 5th-8th, Mundesley 4th-6th, Gorleston 4th-7th, Waxham 5th/6th and Scolt Head 6th. No further records until West Runton 22nd and Holme 27th. Just two in Oct: Scolt Head 6th and Winterton 10th/11th.

Great Grey Shrike

Lanius excubitor

Scarce passage migrant and declining winter visitor

In spring, a welcome increase with singles Beachamwell March 4th, Suffield April 19th, a well-watched bird at East Ruston/Happisburgh April 26th/27th and Wells May 2nd.

In autumn, a juv Mundesley Sept 27th/28th signalled the beginning of a major influx with a min of a further 23 birds in period Oct 2nd-12th as follows: 2 Scolt Head 2nd; Holme, in off sea Scolt Head, Morston/Stiffkey, and East Runton 3rd with the East Runton bird until 4th and the Morston/Stiffkey bird until 9th (seen to catch and eat a Chiffchaff on 6th); Blakeney Point 4th (probably same as Blakeney village 5th); Hunstanton GC and Warham



Great Grey Shrike (R Millington)

Greens 5th; Brancaster, Scolt Head (the 4th there, remaining until 8th) and Eeoles 6th, Blakeney Point 7th and Sheringham 8th/9th. The influx continued unabated on 9th with 2 Holme (to 10th with one still 11th), Blakeney Point, Walsey Hills, Cley (to 10th), Baeton Priory, Hickling and Winterton. What was probably the Winterton bird was seen at Horsey on 10th/11th while the Walsey Hills bird was probably responsible for records from Cley village 10th and Wiveton 15th. The final new bird of the autumn was at Titehwell 12th although there was also an undated report from Yarmouth Cemetery during the month.

In second winter period just 2 records: Santon Downham Oct 27th and then again from Nov 28th into 1999 with another Martham Broad Dec 7th/8th.

Woodchat Shrike

Lanius senator

Vagrant from southern Europe, mostly in spring

A classic spring overshoot at Holme May 28th/29th (GFH NML *et al*). The run of annual occurrences continues, the last blank year being as long as 1991.

Jay

Garrulus glandarius

Common resident; periodic influxes from the Continent following failure of acorn crop

Spring migrants only noted Cromer GC where 4 east May 9th; 2 Waxham same day may also have been on migration.

After a couple of good years this species' population seems to be falling again. The BBS found Jays to be 15-20% scarcer than last year.

Two seen flying high south Merton Oct 4th may well have been first evidence of a stronger autumn passage, though confined to Oct. There were increased numbers in Broads at this time including 15+ Martham Broad/Starch Grass 8th and 16 there 14th. This influx was also noted at King's Fen, East Ruston where 8+ 13th, Dilham Canal 8+ 22nd and Horsey/West Somerton 5+ 24th. Elsewhere 10 Thetford Nunnery Lakes 8th and 10 Santon Downham 10th. The only definite coastal migration recorded at Sheringham where 8 east Oct 10th, 5 east 15th, and 3 west 16th and 20th.

Unusual feeding behaviour noted at Thetford Mill June 16th where one attempted to catch a fledgling Great Tit, and at Old Catton where one attempted to take peanuts from a bag at a garden bird table.

Magpie

Pica pica

Common resident forming winter roosts

Impressive roost counts in first winter period including 120+ Lopham Fen Jan, 173 Roydon Common Feb 8th and 37 UEA Feb. Large gatherings also noted were 47 East Wretham Heath Jan 24th, 35 Whitlingham Lane GP Feb 5th, 20+ Horsey Feb 8th and 24 Welney Feb 16th. In second winter period 22 Snettisham Sept 20th, 45 Bowthorpe Marsh Dec and 174 at Roydon Common roost Dec 20th. These counts seem to reflect a general increase, one observer commenting that 'Magpies are now a daily sight at Old Catton where 6 years ago they were seen only occasionally', this situation is likely to be mirrored throughout the county.

In contrast BBS found that the number of birds per occupied square was down by over 20% but there was no significant change in the number of squares occupied. Only breeding season record of note 10 prs bred Welney.

Coastal migration noted on 3 dates: 6 west Cromer GC March 23rd, 2 west Scolt Head May 8th and 10 west Sheringham Oct 15th. Records from this latter site seem to be increasing, often involving groups flying high and purposefully along the Cromer Ridge, quite distinct from this species' tendency to fly high when alarmed.

Jackdaw

Corvus monedula

Common resident, passage migrant and winter visitor

Large numbers reported Jan-April, then Aug-Dec. In Jan 500 Roydon Common roost 10th (120 still present April 4th), 400 Thetford Nunnery, 200 Holkham Park both 16th, 200 Harling 27th and 220 Flitcham. In Feb 250 near Roydon Common Feb 8th and then 400 Melford Bridge, Thetford March 10th and 270 West Acre March 23rd. In second winter period 350 Pentney Aug 7th, 200 Thetford Nunnery Garden Aug 11th, and 500 Shadwell (Nunnery Stud) Sept 9th and Oct 6th.

Strong spring passage commenced with a bang late March continuing to early May. A remarkable coastal movement March 28th when 6 west 5 east Sheringham, 94 east Paston and 120 south Winterton. Further records of 51 east Cromer GC March 30th, with 20 east next day; at Scolt Head in April 4 west 16th, 4 west 21st, 4 east 3 west 23rd, then 10 west May 8th. Finally 8 east 7 west Cromer GC May 9th.

Breeding season records: Welney 3 prs, Houghton 20-50, Docking village 20, Burnham Market 20, West Newton 20 and Fring 8. BBS results indicated a 10% decrease since last year.

Autumn passage was comparatively light; in Sept 27 west Holme 20th, 14 west Overstrand 23rd and 8 east there 24th. Southerly movements at Hunstanton Cliffs of 33 Oct 16th, 30 Oct 19th, 10 Nov 6th and 10 Nov 7th.

There were further records in 1998 of individuals showing characters of a Continental/eastern form though far fewer than in 1997: Pentney GP April 4th, 12th and May 7th, and then Cley Oct 14th and Dec 12th.

Rook

Corvus frugilegus

Common resident, passage migrant and winter visitor

Large numbers reported both winter periods including 300 Brettenham Jan 27th, 250 Weybourne Feb 1st, 8000 roosting Tindall Wood, Ditchingham Feb 15th, 400 Northwold March 1st, 250 Diddlington March 7th, 1000 Caistor St Edmund Aug 1st, 1000 near Ketteringham Sept 3rd, 200 Snetterton Sept 24th, 2000 Scoulton Nov 4th, 480 Southrepps Nov 14th, 550 Nar Valley Fisheries Dec 15th and 1000+ Baconsthorpe Dec 20th. Also a mixed flock of 5000 Rooks and Jackdaws roosting Bressingham.

Many breeding season records received; of particular interest the rookery at Docking Tip increased to 620 nests, from 520 in 1996. Like the last species, the BBS results suggest a 10% drop from 1997.

Spring passage noted Scolt Head where 2 west March 31st (+8 west Holme), 11 east April 22nd and singles west May 8th and 9th. Also in May westerly migrants noted Weybourne 5th, 4 on 7th and another single 9th. Southerly autumn passage recorded Hunstanton Cliffs in Oct where 24 15th, 65 16th, 14 19th, 19 20th, 7 24th, and in Nov with 13 1st and 14 6th. Elsewhere 7 west Holme Sept 18th and 2 west Sheringham Oct 15th.

Carrion Crow

Corvus corone

Increasing resident forming winter roosts; also a passage migrant

In first winter period, Roydon Common roost peaked at 335 Jan 25th declining thereafter (still 75 April 4th); also a roost count of 305 Docking Jan 30th and large roosts/gatherings of 51 Thetford Nunnery Jan 14th, Potter Heigham 30 in Jan, 56 in a single flock Croxton Park Feb 11th, and 65 Suffield March 1st. Few counts received for second winter period but 230 Docking roost Nov 19th and many present amongst 700 corvids Lopham Fen Dec 12th.

Spring passage from late March when 11 east Paston 27th and 10 west Scolt Head 28th, with 9 west 8 east Sheringham and 30 south Winterton same day; also 33 moving past

Cromer GC during these last few days of month. Most moved through in April with westerly movements at Scolt Head of 7 16th, 38 21st, 21 23rd, 10 26th and 11 28th, and Weybourne where 6 16th, 25 21st and 6 23rd; also 35 south Waxham 24th. Passage continued into May, recorded at Holme 12 6th and 27 7th; Scolt Head 27 8th and 4 9th; Weybourne 22 5th, 7 8th and one 12th; Sheringham 11 4th, 8 (and 3 east) 9th; Cromer 16 9th. Only one autumn record of migrating birds, 2 west Sheringham Oct 15th.

Hooded Crow *C. c. cornix*: Singles reported in every month and from the following sites: Lynn Point, Roydon Common, Brancaster, Titchwell, Docking, Cley, Sheringham, Overstrand, Waxham, Horsey, Hickling (Stubb Mill), Chedgrave, Fritton Marsh, and Whittingham Lane STW. Also 5 west Holme April 26th and 2 at Snettisham Jan 24th. Cromer GC April 16th and Winterton Dec 16th, where one over-summered, forming a pair with a Carrion Crow; one flew in off sea there Aug 25th. Up to 5 Hooded x Carrion Crow hybrids were present in Burgh Castle/Belton/Berney area all year (PRA), 2 being very close to Hooded Crow in appearance and thus a pitfall for the unwary. Other reports of hybrids Fritton Marsh Feb 11th and Breydon Water Feb 22nd.

Starling

Sturnus vulgaris

(Common resident, passage migrant and winter visitor

Early year roosts of up to 2000 Thetford Feb and 3000 Chedgrave Marsh in March. Spring passage recorded on only 3 dates in March at Sheringham and Overstrand. Westerly summer movements again noted from Holme, where 45 June 19th, and Scolt Head where 150 July 7th, 1500 15th and 1200 16th. Autumn passage and immigration recorded Oct 17th-Nov 20th with vast majority in Nov, particularly early in month. All birds moving west along north coast then south past Hunstanton. On Nov 1st 50,000 Snettisham, 10,000 in 75 minutes Titchwell, 30,000 Salthouse, 10,000 in an hour Cley, 24,000 Sheringham and 40,000 Overstrand; also 15,000 Overstrand 8th. Southerly passage Hunstanton Cliffs Oct 9th-Nov 20th comprised a total of 113,000 birds including 20,700 Oct 20th, 18,900 Nov 1st and 24,200 2nd. As expected, large numbers built up at favoured coastal roost sites including 6000 Burnham Overy Oct 19th and 5500 Titchwell Oct 21st.

Observers have commented on local declines in breeding populations, for instance in Wensum valley, but more quantitative information needed. In contrast to last year's BBS results, the number of squares occupied rose slightly and the number of birds per occupied square fell slightly.

Two reports of almost complete albinism Yarmouth Oct 15th and Titchwell.

Rose-coloured Starling

Sturnus roseus

Vagrant from eastern Europe

The adult continued its protracted, but very welcome, stay at Beeston Regis/Sheringham to Feb 14th at least. It, or another, took up residence at Diss about March 10th-April 4th and was in full song towards the end of its stay (AMS *et al*).

House Sparrow

Passer domesticus

(Common but declining resident

The only records received in first winter period in Jan when 110 Pasta Food Factory, Yarmouth. An interesting record of a freshly dead young bird Watton Jan 26th. More records for second winter period including 120 Baconsthorpe Aug 30th, 135+ West Runton Sept 1st, 100 Sculthorpe Oct 9th and 150 Blakeney Quay Oct 10th. There is still evidence of decline, particularly on farmland, but the species continues to do well in some villages, for example 100 prs reported Docking. At Salthouse one observer noticed birds gathering to

feed on Orache growing amongst the strandline left by the retreating floods of 1996 and started to lay out millet seed regularly; the effect was to increase numbers, including breeding prs. Could it be that the health of local breeding populations is entirely dependent on food availability or does lack of suitable nesting sites play a part? Presumably food is the principal factor with nest site availability kicking-in to become a limiting factor thereafter.

This year's BBS results show a 10% fall in the number of squares occupied.

At Hunstanton Cliffs total of 18 migrants south Oct.

1997 Correction: The BBS found birds in 60% of squares, not 40%.

Tree Sparrow

Passer montanus

Scarce resident; passage migrant and winter visitor

Judging from records received, occurring at fewer and fewer sites. There appear to be 2 main concentrations, the first being a band from the north-west (Holme/Docking/Choseley/Ringstead) south through Flitcham, West Acre and Narborough to Swaffham, Beachamwell and Feltwell; it continues around the northern margin of Stanford TA to East Harling/Kenninghall and possibly Pulham Market (though no reports 1998). The second area is in the north: a triangle whose points correspond to Bodham/West Beckham, Corpusty/Saxthorpe and Hindringham (no reports from the latter site in 1998). Elsewhere the only records, other than of singles, were 20 North Tuddenham, 5 Kirstead, 2 East Bilney and 20 Emneth. In addition a pair raised 5 young in a nest box at Fornsett St Peter and 2 prs were at Southrepps. The presence of small farms with less intensive management regimes has been suggested as an explanation for the clusters of records in the northern area at least, and a few farmers who manage their farms with wildlife in mind also help significantly. These help maintain food levels and provide nest sites in a way that most large, intensively managed farms do not. With national population levels falling to 10% of the number in the 1960s it seems we are in danger of 'tidying' this species out of the British countryside.

No migrants reported in spring and very few in autumn; 2 west Sheringham Sept 20th and in Oct west Holme 1st, Sidestrand 9th and 3 south Hunstanton Cliffs 9th and 16th, with one 24th.

A hybrid Tree x House Sparrow Guist Oct 31st.

Chaffinch

Fringilla coelebs

Common resident; also passage migrant and winter visitor in varying numbers

In first winter period gatherings in excess of 100 birds as follows: Jan 200 Southacre 7th, 120 Ringland 11th, 450 Ickburgh 18th (500 Feb 8th) and 100+ Sparham; Feb 200 Sommerfield (Docking) 2nd, 100+ Lowseter Hill (Stanford TA) 13th and 100 Kelling 26th; March 200 South Pickenham 12th and 200 West Harling 14th. Spring migration noted Scolt Head where 20 west March 31st and 2 west April 20th and 22nd.

Breeding season records of males holding territory: Welney (26), Holme (14) and UEA (4). Again hardly any change in population level was detected by the BBS.

Autumn passage Hunstanton Cliffs comprised a total of 8513 south Oct 9th-Nov 20th with 5480 Oct including 687 13th, 1859 16th, 1492 24th and 574 31st, and 3033 Nov, including 418 2nd, 941 7th, 534 11th, 506 13th and 204 17th. Elsewhere poor autumn passage with only 15 west West Runton Sept 26th, 70 west Sheringham Oct 10th and 80 west Scolt Head Oct 16th. Numbers built up from end of Sept when 90+ Sidestrand 28th, followed by 150 there Oct 2nd, and 100+ Yarmouth Cemetery Oct 4th. In Nov 200 Southrepps 13th and 160 Potter Heigham 27th; in Dec 200 Great Hockham 2nd, 100 Brancaster Staithe 8th and 400 Gimingham from 18th.

Brambling

Fringilla montifringilla

Passage migrant and winter visitor in variable numbers

Large numbers present in Jan, flocks in excess of 100 birds comprised 400 West Newton 1st, 300 Holt Hall 4th, 100 Little Snoring 11th, 500 Castle Rising 17th, 500 Rowley Corner (Hilborough) 25th, 100 Blickling/Bucks Common 20th/21st, 400 Thetford Nunnery 25th, and a remarkable 1200 Quarles/North Creake all month. Still widespread Feb-April but numbers greatly reduced. Large counts in Feb: 400 Thetford Nunnery 1st, 220 Sennowe Park 18th, 500 Holkham Park 20th, 150 Quarles 26th and 600 Hilborough all month; in March 300 Drymere 7th, 400+ West Newton Mill 8th, 200 Buckenham Tofts 8th and 230 Kim's Belt, Thetford 15th. Spring passage noted Sheringham, 25 east and one in off sea March 28th, and Waxham north May 2nd. By May few remaining, but notably 12 singing males in first 2 weeks to south of Holt with 4 remaining in third week.

Recorded in autumn from Sept 25th (Holme and Scolt Head) but many fewer in second winter period. Only 2 counts in treble figures, 100 Ludham Oct 10th and 220 Swaffham Forest Dec 19th. A scattering of migrants at coastal sites with max 25 west Cromer GC Oct 9th. A total of 598 south Hunstanton Cliffs Oct 9th-Nov 20th with 172 Oct including 30 9th, 37 15th, 53 16th and 24 24th; 424 Nov including 306 7th and 40 11th.

Serín

Serinus serinus

Vagrant from Continental Europe

The 1st-winter male at Martham continued its stay into 1998 and was last reported March 19th (HB *et al*). Two spring records followed, 2 flying north Winterton April 18th (KJB) and a male briefly singing before a thunderstorm displaced it from a Cley garden June 3rd (MY-P).

Greenfinch

Carduelis chloris

Common resident and passage migrant

Numbers in first winter period unremarkable, largest counts in Jan being 40 Holme village 6th, 80 Thetford Nunnery 25th and 43 Holme 31st; also 45 Hilborough March 15th. Spring passage: Sheringham 35 east 5 west March 28th; westerly movements Scolt Head 3 March 31st, then in April 3 21st, 2 22nd and 2 May 8th; 55 south Heacham North Beach May 5th.

The BBS results again showed no change in the number of squares containing Greenfinches but the average number per occupied square continues to rise, this year by 16%.

Autumn passage much larger, Sheringham reporting record site counts in Oct, the largest being 450 9th, 680 10th, 450 15th and 140 16th, all moving west. At Hunstanton Cliffs 5428 south Oct 9th-Nov 20th, the vast majority in Oct including 1071 9th, 284 10th, 235 13th, 1359 15th, 819 16th, 645 19th, 323 20th and 318 24th; 333 recorded Nov including 78 2nd, 74 7th and 90 11th.

110 were at Beachamwell Aug 22nd and 200 Sparham at end of month. Not surprisingly numbers at favoured sites increased generally from end of Sept with max 120 Sidestrand 28th. Other counts reaching triple figures in Oct were 100 Bressingham 10th, 350 Snettisham 11th when 300 Horsey/West Somerton, 200 Narborough 29th, and up to 400 Flitcham; in Nov 200 Thornham Point 3rd, 250 Watlington 14th, 120 West Acre 22nd and 200 Thompson village 30th; in Dec 250 Brancaster Staithe 1st, 300 Gimmingham from 18th, 250+ Watlington 31st and 200 Sparham in month.

Goldfinch

Carduelis carduelis

Common resident, passage migrant and summer visitor

Only four counts in triple figures Jan-April: 100 Tottenhill GP Jan 28th, 150 Brettenham Feb 5th, 100+ Wayland Wood late Feb and 250 Cromer GC April 22nd. Spring passage from March 30th when 3 west Scolt Head with further westerly movements there April as follows: 25 20th, 30 25th, 35 26th and 20 27th, in May 55 8th, 10 9th and one 29th. Also 480 west 30 east Sheringham May 4th and 30 west Cromer GC May 18th. At the latter site 5 west June 26th when other finches also moving.

At Yarmouth a pair nested in a very small tree beside a factory entrance, at head height and only 3 feet from the doorway; nevertheless the first young fledged July 3rd. The BBS results suggest that the downward trend continues, albeit not very sharply.

Post-breeding flock of 120 including many juvs Stiffkey Fen Aug 3rd. Flocks of 120 Lakenheath Washes mid-Sept and Welney Sept 20th. 110 Snettisham Oct 11th and up to 400 on sunflower plots Flitcham in month; 200 Watlington Nov 14th. Strangely, only 2 reports of coastal migrants, west Sheringham Oct 25th and in off sea Overstrand Nov 10th.

Siskin

Carduelis spinus

Passage migrant and winter visitor in fluctuating numbers; small numbers breed

Interesting series of coastal movements in Jan starting on 1st, when 27 east Paston and one in off sea Horsey. More pronounced movement noted all around coast from Jan 9th when 105 west Stiffkey, with subsequent counts of 24 west Cley and 15+ east Weybourne Jan 10th; 12 south Heacham, 25 south Hunstanton, 30 Holme, 13 west Scolt Head, 100 Waxham and 32 south (2 hrs) Winterton-Scratby all Jan 11th; 40 east Holme and 100+ north Eccles Jan 12th; 19 south Snettisham and many west Cley Jan 17th; 12 south Heacham, 30 west West Runton and 5 west East Runton Jan 22nd, and 320 west 25 east with 30 present Sheringham Jan 25th.

Otherwise numerous small flocks recorded throughout the county in first winter period, and regularly noted feeding on peanuts in gardens. Highest counts: Jan 160 Barton Turf Fens, 60 Felbrigg Park, 110 Honing Lock, 200 Lynford Arboretum, 300 Lynford GP, 100 Ormesby Little Broad/Filby Bridge, 140 Pensthorpe, 80 Taverham Mill Pits, 70 UEA, 100+ West Acre Common, 50 Wheatfen, 80 Whitlingham Lane GP; Feb 50 East Winch Hall, 100 Holkham, 60 How Hill, 90 Pensthorpe, 50 Quarles, 100 Sennowe Park, 250+ Weybourne Heath.

Other than a count of 300+ Thetford Warren on 28th, records tailed off from early March, with very few inland records during April. A moderate return passage noted at coastal sites into first week of May, with highest counts 20+ Dersingham Bog March 16th, 80 Holkham Meals March 17th and 20th, 40 Titchwell March 20th, 60 Sandringham CP and 40 Sheringham Park March 22nd, 36 west Holme and 114 west Brancaster Staithe March 31st, 37 Holme April 5th, 35 Pretty Corner (Sheringham) April 19th, 23 west Scolt Head April 20th, 14 south Heacham April 21st, 30 Holkham Meals April 23rd, 62 south Heacham April 24th, 20 Ken Hill Wood April 26th, 20+ Yarmouth Cemetery May 2nd; then a set of late movements of 22 south Heacham, 250 south Hunstanton and 60 west Cley all May 5th, 27 south Heacham May 7th, and 80 west Brancaster and 9 west Scolt Head May 8th. Latest spring passage birds 2-3 Holme May 28th and 30th, and singles Holme June 1st and 6th.

Occasional records of 1-4 May/June from Honing Lock, Norwich (County Hall), Lynford Arboretum and Lynford GP. Breeding suspected or confirmed as follows: a pair with 2 young Holkham Meals May 12th, a female in a Wells garden until May 18th; pr on garden feeder Upper Guist throughout May; pr with young seen in a West Runton garden in May; juv Recpham July 10th; 2 prs bred Beeston Regis. At Garboldisham a total 1109 ringed.

with birds caught in all months of year, including juvs from May onwards, the observer considering the Brecks population to be expanding.

Midsummer movement along with Goldfinches and Linnets of 2 west Cromer GC June 26th. First autumn migrants not until Sept 18th when single West Runton, then 6 there Sept 19th/20th, followed by 7 Yarmouth Cemetery Sept 23rd. A generally poor autumn passage almost entirely confined to Oct, with max counts in that month of 50+ Yarmouth Cemetery 3rd/4th, 50 Holkham Meals 4th/5th, 50 west Warham Greens 5th, 85 north Horsey Gap 10th, 75 south Hunstanton 13th, 43 south Hunstanton and 36 west West Runton 15th, 95 south Hunstanton 16th, 20 west Cley 20th, and 63 south Hunstanton 24th. In Nov 20 Winterton 7th. At Hunstanton Cliffs from Oct 9th-Nov 20th a mere 333 were noted south in Oct and 29 south in Nov.

Very scarce inland in autumn, with only counts of any note: 26 Pensthorpe Oct 3rd, 35 Dilham Canal Oct 5th with 30 still there Oct 13th, and 50 Thetford Nunnery Oct 7th. Remained generally scarce during second winter period with few gatherings reaching double figures. The only flocks recorded of any size were: Nov 45 Ling's Mill, Hickling, 70 Santon Downham, 30 Sharp Street Fen, 40 Stibbard, 50 Thetford Nunnery, 75 West Acre: Dec 40+ Antingham, 40 Buckenham Tofts, 35 Hickling (Ling's Mill), 40 Nun's Bridges, 60 Santon Downham.

Linnet

Carduelis cannabina

Common resident and passage migrant

A good scattering of records received at start of year. It is possible that this species is very localised rather than under-recorded during the winter months. Largest gatherings recorded during this period: Jan 61 Beeston Regis Common, 180 Choseley, 50 Little Snoring, 90 Northrepps, 80 Quarles, 50 Reepham, 242 Scolt Head/Brancaster Hbr (low tide count on saltmarsh), 50 Sheringham, 220 Shouldham Thorpe, 100 Sommerfield, 100 Titchwell; Jan/Feb 120 Flitcham (on arable fields); Feb 250 Cockley Cley, 108 Ken Hill GM, 86 Scolt Head/Brancaster Hbr, 55 Welney, 130 Wilby; March 60 Cranwich GP, 60 Great Ryburgh, 74 Salthouse Heath, 230 Sennowe Park, 60 South Pickenham, 93 West Runton.

Spring passage observed from early March till early May, with again a particularly diligent series of counts from Scolt Head where westerly movements of 454 March 30th and 130 31st; 105 April 7th, 325 16th, 350 19th, 480 20th, 420 21st, 140 26th and 110 27th; 240 May 4th, 160 8th and 60 9th. Elsewhere peak monthly counts: March 195 west Holme 5th, 40 west Sheringham 10th and 111 west Holme 31st; April 50/hr in off sea Holme 5th, 2000 west Cromer GC 7th, 100/hr west Weybourne/Sheringham 16th, 200 north Winterton 18th, 340+ present Sheringham 20th, 500 east Cromer GC 22nd; May 1090 west 50 east Sheringham 4th.

Small midsummer movement of 30 west Cromer GC June 26th. Very little data received for summer months. Breeding details from Scolt Head (20-25 prs), Holme (30 prs and considered to be decreasing), Blakeney Point (6 prs), and Welney (3 prs). The BBS found Linnets in the same number of squares again but the number of birds per occupied square continues to fall, this year by a further 8%. Only a few notable flocks reported during the summer: June 60 Holme; July 270+ Kelling WM; Aug 80 Baconsthorpe, 50 Holme, 40+ Salthouse, 120 Scolt Head 16th rising to 200 by 22nd, 265 Snettisham.

As in recent years several good-sized flocks built up during Sept, principally at coastal localities, with max counts: 300 Snettisham, 250 Holme, 45 Titchwell, 280 Scolt Head, 150 Cley, 150 Sheringham, 110 East Runton, 200 Eccles, 50 East Ruston (on linseed), 90 UEA, 50 Pentney Abbey. As first visible migration not noted until Oct 10th, it is likely that these relate to concentrations of local breeders rather than passage birds.

Observations of visible autumn passage mainly limited to a few dates in Oct, with highest counts: 132 south Hunstanton 9th; 153 south Hunstanton, 73 west West Runton and 20 west 200 present Sheringham all 10th; 63 west West Runton and 60 west 100 present Sheringham 15th; 69 south Hunstanton 16th; 101 west West Runton 20th; 60 west West Runton 22nd, and 54 south Hunstanton 24th. Additionally flocks of 138 Kelling WM Oct 9th, 60 Snettisham Oct 18th, 60 Holme and 60 Titchwell during month. At Hunstanton Cliffs between Oct 9th-Nov 20th a total of 545 were recorded south in Oct and a further 57 in Nov.

Numbers appeared lower during second winter period, with max flocks recorded: *Oct* 114 Barrow Common, 80 Little Barningham, 50 West Beckham; *Nov* 140 Barrow Common, 60 Cantley, 250 Feltwell, 100 Holme, 60 North Creak, 90 Southrepps, 50+ Sparham, 40 Titchwell; *Dec* 50 Buckenham, 100+ Castle Rising, 80 Cley, 150 East Harling, 80 East Winch.

Twite

Carduelis flavirostris

Declining local winter visitor

Recorded regularly into April when 11 Berney 1st and 10 2nd, 11 Brancaster 14th and one Ongar Hill 19th. Remarkably also a pair at Weybourne May 1st-6th (MP). First in autumn Oct 4th Lynn Point. Max counts at main resorts:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Wash	60	7	52	100	-	-
Holme	52	83	82	14	-	31
Thornham-Titchwell	80	60	30	12	50	30
Brancaster-Scolt Head	85	20	30	65	80	125
Burnham Norton/Overy Hbr	50	45	4	0	50	50
Holkham Bay	80	60	26	70	45	45
Wells-Stiffkey	60	60	11	13	40	30
Morston Quay	19	23	7	13	15	20
Blakeney Hbr	48	53	87	11	103	50
Breydon/Berney	22	22	20	13	3	-

Although numbers in first winter period comparable to those in same period last year, evidence suggests the decline continues with Nov and Dec totals some 30% and 70%, respectively, of 1997 totals. The only promising news concerns the small numbers regularly present again in winter at Breydon/Berney after a two-year absence. Elsewhere 22 at Yare rivermouth Jan 1st, 20 Cley Jan 18th, one Bodham March 6th, 5 Sheringham Oct 6th, 9 Salthouse Oct 18th with 6 Nov 17th, and 40 Castle Rising Dec 12th.

Spring passage marked by just 30 west Scolt Head March 30th and 7 west Holme April 6th. Autumn passage noted in Oct with 5 west West Runton 11th, singles east Sidestrand 13th and west Sheringham 15th, and 14 west Holme 17th.

Redpoll

Carduelis flammea

Lesser Redpoll *C (f) cabaret*

Passage migrant, winter visitor and declining resident

This species' fortunes continue to wane. Remained generally scarce during start of year, with few records in double figures. Max counts: *Jan* 23 Barnhamcross Common, 30 Edgefield, 35 Flitcham, 30 Pensthorpe, 19 Sheringham, 19 Strumpshaw, 34 Thetford Nunnery

Lakes, 23+ Weybourne station; *Feb* 19 Barnhamcross Common, 30 Brettenham Heath, 15 Colney GP, 30 Flitcham, 80 Pensthorpe, 13 Thetford Nunnery Lakes, 25 UEA, 40 West Beekham; *March* 18 Bodham, 54 Harling, 20 Strumpshaw, 20 Surlingham Broad, 15 Thetford Nunnery Lakes, 20 Thetford Warren; *April* 12 Cockley Cley Warren, 10 East Harling, 15+ Norwich (Bluebell Road allotments). Up to 3 visited a garden feeder in Holt throughout Jan and Feb.

A few coastal records of 1-2 birds on return passage mid-April-late May, with only higher counts: 27 west Scolt Head May 8th, a surprising movement the following day with 10 south Heacham, 30 west Holme, 65 west Scolt Head, and 10 west East Hills (Wells) all May 9th, and 17 Waxham May 10th. An unseasonal single west Scolt Head July 3rd.

Continues to remain scarce as a breeding bird, with prs or singing males noted at the following localities during summer: Catfield Fen, Holt, How Hill, Kelling Heath (2 males), Mundford (2 males), Norwich (King Street), Ongar Hill, Overstrand (pr bred), Pensthorpe (4 males), Salthouse Heath (pr), Sharp Street Fen, Strumpshaw (2 prs bred), Sutton Fen and Wells. A flock of 10 Pensthorpe Aug 30th and Sept 8th hopefully indicative of successful breeding. Other summer records of 1-3 from Barton Turf Fen, Broad Fen (Dilham), Hand Marsh (Sutton Broad), Holt Lowes, Kettlestone Common, Mallow Marsh (Barton Turf), Norwich (The Avenues), Rackheath Industrial Estate, Sutton High Fen, Thetford Nunnery Lakes and Welney.

Autumn passage almost non-existent, with only a handful of records, mostly 1-3, Oct 10th-Nov 11th. The only higher counts 4 south Hunstanton Oct 9th and 5 west one east Sheringham Oct 15th. At Hunstanton meagre total of 8 south Oct 9th-Nov 20th. Very few noted inland during autumn, with no double-figure counts.

Given the paucity of autumn records unsurprisingly scarce in second winter period, with very few groups noted. Max counts: *Nov* 14 Baconsthorpe, 18 west Fakenham 21st, 45 Feltwell; *Dec* 50 East Harling, 17 Strumpshaw, 30 UEA.

Mealy Redpoll *C (f) flammea*

Scarce winter visitor

A handful of records at start of year in Jan, with 3 Baconsthorpe 1st, 1+ Stiffkey 2nd, one Rockland 4th, 2+ Weybourne station and single Sheringham 10th, and 1+ Strumpshaw 31st. None then until May when 8 circling and then west Sheringham 8th. Only records in second winter period single Merton Nov 29th and 'a few' with Lesser Redpolls East Harling Dec 24th.

Two-barred Crossbill

Loxia leucoptera

Vagrant from the Siberian taiga

A female accompanied mobile Crossbill flocks around the car parks at Sandringham May 23rd/24th (ADK *et al*). The seventh county record.

Crossbill

Loxia curvirostra

Breeding resident in fluctuating numbers with Thetford Forest the stronghold; immigrants arrive most years in late summer and autumn; major irruptions at irregular intervals

Following the impressive influxes of 1997, numerous countywide records from start of year till mid-July, usually of 1-20 birds. Most observations were from large established stands of conifers, few from small stands, and only occasionally at other sites. Records widespread Jan-mid-April, with the following coastal movements: *Jan* west Cley 17th; *Feb* 14 Sheringham 1st, 2 west Ongar Hill and one Titchwell 14th, 8 west Holme 15th, 14 west 3 east Holme

21st; *March* 13 Holme 7th, 3 Sheringham 15th, 10 Holme and 14 Weybourne 17th, 19 Holme and 7 Sheringham 18th; *April* 15 Holme 2nd, Eccles 21st, 8 Holme 26th.

Numbers built up at the larger stands of conifers to a peak in May, presumably as a result of return passage, with increasing numbers of records at less usual localities during this time. Records then rapidly tailed off during June.

Migrants recorded May-Aug as follows: *May* 15 south Wroxham Broad 2nd, 2 Holme 4th, 3+ Holme and one east Salthouse Heath 16th, one Sheringham 19th, 8 Holme 28th; *June* at Holme 12 16th, 7 19th and 7 21st, with 4 Titchwell 26th; *July* at Holme 12 3rd, 7 15th, one 30th; *Aug* at Holme 2 18th, single 27th, and last one 29th/30th. Despite the paucity of visible migration it can only be assumed that the vast majority of Crossbills present in May departed eastwards whence they had come. The only inland July records 25 Holt Lowes 5th, 2+ Fox Hills, Northrepps and 25 West Runton Heath both 9th, 6 Lynford Arboretum and 6 Swanton Novers Great Wood both 14th, with only inland summer record thereafter 32 Thetford Nunnery Aug 12th.

Other than those mentioned above, recorded Jan-June (with monthly max) from: Abbey Heath (20 Feb, 15 June), Baconsthorpe (one April), Bacton Wood (20 Jan/Feb, 44 May, 35+ June), Beeston Regis Heath (28+ May), Brettenham Heath (10+ April), Bridgham (10+ Feb, 5 April, 20+ May), Buckenham Tofts (12 Jan), Cawston Heath (15 March), Cley (one Feb), Cockley Cley (20 Jan, 16 Feb, 2 March, 8 April, 18 May), Cranwich GP (2 March), Croxton Heath (36 Jan, 11 April), Dersingham Bog (40 March), Didlington (2 April), Drayton Drewray (6 March), Drymere (19 May), East Harling (55 Feb), East Runton (9 Feb), East Wretham Heath (4 March, 4 May), Edgefield (3 Jan), Felbrigg Park (22 Jan, 5 Feb/March), Grimes Graves (5 March), Guist (9 April), Hockham (10 Feb), Holkham Meals (15 Jan, 20 Feb, 27 March, 2 April, 4 May, 2 June), Holkham Park (7 Feb, 3 March, 18 May, 11 June), Holt Lowes (7 Jan, 5 Feb, 10 March), Honing (6 May), Horsford (12 Feb, 50+ March, 26 April/May), Houghton (20 Jan), How Hill (5 Feb, 6+ May, 9 June), Kelling Heath (12 March, 5 May), Kelling Triangle (17 June), Lower Bodham (6 Feb), Lynford (16 Jan, 13 Feb, 27 March, 3 April, 12 May), Lynford Arboretum (32 Jan, 50 Feb, 20+ March, 51 April, 100+ May), Lynford GP (8 Jan, 5 April), Lynford Stag (24 April), Marsham (6 March), Mundford (14 Feb/March), Old Hunstanton (4 Feb), Pretty Corner (Sheringham), (3 Jan, 6 Feb, 19 April), Rishbeth Wood (3 Feb), Rougham Corner (10 March), St Helen's Well (8 April, 30 May), Sandringham (80+ Feb/March, 20 April, 200 May, 10 June), Santon Downham (30 Jan, 20 March, 2 April, 60+ May), Sheringham Park (10 Jan, 120 May, 18 June), Stanford TA (14 Feb), Strumpshaw (8 Jan), Swaffham (6 Feb, one April), Swaffham GC (2 May), Swanton Novers Great Wood (several March, 10 May), Thetford (15 Jan, 2 March), Thetford Nunnery (25 Jan, 11 Feb), Thetford Warren (20 Feb, 50+ March), Thompson Water (5 April), Thorpe Marriott (2 March), Thorpe St Andrew (30 Feb), Two Mile Bottom (14 Feb, 30 May), Upper Sheringham (16 May), Waveney Forest Fritton (18 Feb), Wayland Wood (3 March), Weeting



Crossbill (*S. Cale*)

Heath (6 March, 2 April, 9 May), West Beckham (12 March), West Bilney (2 March), West Harling Wood (11 Feb, 18 March), West Tofts (11 Jan, 26 March), Weybourne (several Jan), Whitlingham Lane GP (onc Feb), Wolferton (12 Jan, 2 Feb, 14 March), Wolterton Hall (5 Jan).

Given the scale of the 1997 influxes, disappointingly few cases of breeding received: singing male Mundford March 8th; Holkham Meals 3 prs fledged young and 2-3 other prs probably bred in April; Weybourne ad with 2 newly fledged juvs April 16th; pr with 3 young Weeting May 17th; pr bred and young seen West Runton in June; 2 prs breeding Sandringham CP; pr bred West Newton; pr bred Wolferton.

A mere 2 records of autumn passage; 16 west Cromer GC Oct 1st and 2 Holkham Meals Oct 3rd.

Incredibly scarce at end of year, with the only records: 2 Thetford Nunnery Oct 1st with 3 there Nov 5th, and 20 Thetford Warren Dec 16th.

Common Rosefinch

Carpodacus erythrinus

Rare passage migrant; potential colonist

Three typical late spring records, all imm males in song: Burnham Overy Dunes (PMW) Stiffkey Fen (MR&ORM), both May 31st, then Holkham Meals June 7th-14th (IP *et al*).



Common Rosefinch (*S Cale*)

Bullfinch

Pyrrhula pyrrhula

Resident and occasional immigrant

A welcome increase in records (though still greatly under-recorded), with observations from 41 localities. Largest flocks in first winter period 10 Ringstead and 8 Sheringham Jan, and 23 Holkham Meals Feb 7th.

Records of breeding prs from: Barrow Common, Bodham (4 prs), Boyland Wood (4 territories), Brancaster GM, Holkham Meals (7/8 prs), Strumpshaw (3 prs), Thetford Nunnery (2 prs), Titchwell (2 prs), and UEA (2 prs). The BBS failed to detect any significant changes in the species' numbers since last year.



Bullfinch (*N Arlott*)

Few noted on autumn passage, with 4 south Snettisham Oct 30th, and 5 west Holme and 5 present Snettisham Oct 31st.

Largest gatherings in second half of year: 20+ Kettlestone Common Sept 5th, 10 Foulden Common Oct, 16 Merton Nov 29th, and 10 UEA Dec.

Hawfinch

Coccothraustes coccothraustes

Elusive and very local resident; scarce migrant

Fewer records than in recent years, with majority from Brecks area. Numbers at Holkham Park seem in decline. Only regularly recorded from Barnhamcross Common (and the adjacent Thetford Nunnery), Holkham Park, Lynford Arboretum and West Harling area. Monthly max tabulated below:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Barnhamcross												
Common	6	4	1	1	-	-	-	-	-	-	4	-
Lynford Arboretum	4	7	3	-	2	3	-	-	-	-	-	-
West Harling	4	1	-	1	-	-	-	-	-	-	-	4
Holkham Park	-	1	1	-	1	-	-	-	-	-	-	-

Remains scarce, though probably overlooked, elsewhere around the county, with all other records given: 2 Little Cressingham Jan 10th, 2 Thetford Warren Feb 15th, up to 3 in a garden near Watton throughout Feb, Thetford (Cloverfields) March 5th, spring migrant feeding on a North Walsham bird table March 21st and another feeding on a Mundesley bird table April 19th-22nd, south-west over Lingwood and one Newton Flotman both May 5th, Sandringham May 17th with 3 on 24th and single there 25th, Welney Nov 3rd (first reserve record), Thetford (Tesco's) Dec 10th, and Santon Downham Dec 12th. The sole record

suggesting prospective breeding a male in song Lynford Feb 7th. A Wensum valley roost still in use at least occasionally, with 3 noted Jan 23rd.

Lapland Bunting

Calcarius lapponicus

Regular but usually scarce passage migrant and winter visitor

The opening months of year proved to be rather poor with 1-3 at Ongar Hill, Terrington Marsh, Wootton Marshes, Holme, Brancaster, Wells, Stiffkey, Blakeney Point, Cley/Salthouse, Weybourne and Sheringham. The regular flocks of the 70s and 80s which on occasion reached triple figures are now a fading memory. Only spring record 2 Cley April 27th.

Reasonable autumn passage commenced Sept 11th when one passed Sheringham. A single Cley 22nd then heralded an almost daily spate of records until end of Nov. In this period noted at the following sites (larger counts in brackets): Hunstanton, Holme (5 Oct 17th), Thornham, Titchwell, Brancaster (3 Oct 5th), Scolt Head (4 Sept 28th and Oct 5th), Holkham Bay (6 Oct 20th and 31st), Wells, Stiffkey, Blakeney Point, Cley, Salthouse (4 Sept 28th, 3 Oct 29th and 8 Nov 15th), Kelling WM (4 Nov 4th), Weybourne, Sheringham (5 Oct 16th), West Runton (4 Oct 13th), Cromer, Sidestrand, Paston, Happisburgh (3 Nov 25th), Eccles, Cart Gap, Waxham (3 Nov 1st-14th), Horsey, Winterton and Halvergate/Berney Marshes. Also inland East Ruston where 4 Nov 12th, 2/3 13th and 2 14th.

At year end another lean spell with singles Ongar Hill, Titchwell, Salthouse, Happisburgh and Halvergate.

Snow Bunting

Plectrophenax nivalis

Winter visitor in declining numbers

An average first winter period compared with recent years. All sites as follows with groups over 30 in brackets (as usual much interchange along the coast): Snettisham (47), Heacham (45), Hunstanton, Holme (31), Titchwell (80), Brancaster (80), Scolt Head, Holkham (100), Wells, Blakeney Point (68), Cley/Salthouse (200), Sheringham, West Runton, Walcott/Bacton (70), Caister, Breydon (37) and Yarmouth South Denes (42). One inland occurrence Lynford Jan 11th. Scarce by mid-March and only 2 April sightings, Yarmouth 3rd and Paston 10th.

Autumn passage began Sept 12th at Blakeney Point followed by records from Holme, Scolt Head, Cley, Sheringham, Overstrand and Eccles until month end. Oct passage slow until late month when 18 Salthouse 20th, 50 Sheringham 30th and 80 Cley, 15 Eccles and 23 Horsey, all 31st. In Nov/Dec a fair scattering present along most of the coastline although quite scarce around Wash. The following sites produced records with most notable counts in brackets: Heacham, Hunstanton (60), Holme (92), Thornham, Brancaster, Scolt Head (86), Holkham Bay (80), Blakeney Point (280 Nov 11th), Cley/Salthouse (220 Dec 30th), Kelling WM (50), Sheringham (51), West Runton, Southrepps (60), Mundesley, Paston (68), Sea Palling, Eccles, Waxham (300 Nov 25th), Winterton (90), Caister, Breydon (51) and Yarmouth (97).

In second winter period the following records away from coast in Nov: Strumpshaw 1st, Southrepps 60 6th, East Ruston 10+ 12th, 15 13th with 30 14th, single Wereham and 13 Halvergate Marshes also both 14th, and one north-east Welney 23rd.

Despite the presence of several reasonable sized flocks, the continuous movement between sites can create a somewhat false impression of a healthy county wintering population. The following North Norfolk (Holme-Salthouse) WeBS coordinated counts, however, revealed a rather different picture:

Jan	Feb	Mar	Nov	Dec
120	104	23	219	255

Yellowhammer

Emberiza citrinella

Once common resident, currently in decline

Relatively few records submitted in first winter period, although of those that were, it was encouraging to note several reasonable sized flocks. Largest counts 185 Ringstead, 85 Lower Bodham, 82 Ketteringham, 70 Guist, Northrepps and Weybourne, 60 Choseley, 50 Sparham, 47 Beeston Regis and 30 Buckenham Tofts, Flitcham, Scarning, South Acre, Trimmingham and Waxham. As proven in other years, unploughed autumn stubble remains the favoured over-wintering grounds.

Few breeding records submitted. Highest concentrations received included 13 singing males Massingham Heath, 12 Ringstead, 12 Winterton North Dunes, 8 Winterton South Dunes, 10 Frosts Common, 7 Northwold Common, 5 Rollesby and 4 Norwich Airport. At Upper Guist a pr was found in every 100 metres of hedgerow. This year's BBS results showed a more significant change than before; 1 in 10 squares that contained Yellowhammers last year did not this year.

Little evidence of coastal autumn migration with 3 west Sheringham Oct 15th the only record.

Once again several notable flocks at year end, with max 150 Garboldisham, 110 Southrepps, 90 Narborough, 80 Bradfield, 60 Bodham, 50 Old Boyland Hall and 47 Horsey.

Ortolan Bunting

Emberiza hortulana

Rare passage migrant

The usual small scattering of coastal migrants. In spring females Sheringham May 9th (MY-P *et al*) and May 20th (KBS). Three Sept records: Sheringham 2nd (KBS), Blakeney Point 3rd (CEW *et al*) and Scolt Head 6th (NML).

Rustic Bunting

Emberiza rustica

Vagrant from northern Europe

During the classic fall conditions of early Oct with north-east winds one occurred on 4th at Stiffkey Fen (PBU MLH RHu). Above-average numbers appeared along Britain's east coast and in the Northern Isles in the autumn.

Little Bunting

Emberiza pusilla

Vagrant from northern Scandinavia eastwards, mostly in autumn

Four typical autumn records: Weybourne (1st-year trapped) Sept 22nd (MP), Holme/Thornham Sept 23rd (SJA), Morston Sept 27th (GPD), and another 1st-year trapped (at dusk) Weybourne Oct 3rd and released the following morning (MP).

Reed Bunting

Emberiza schoeniclus

Resident and passage migrant

More records submitted this year. In first winter period most abundant around the saltmarshes of Scolt Head and Brancaster where 81 Jan and 134 Feb. Other coastal concentrations included 64 roosting at Brancaster GM Feb 24th, 34 Holme saltmarsh Jan 26th, 19 Holme GM Jan 10th, 17 Titchwell Jan, 15 Terrington Marsh Feb 14th and 10 Lynn Point Jan 1st. Elsewhere few records except for 22 Welney March 1st, 15 Pentney March 21st and 40 How Hill March 27th (the only notable Broads count). Records of birds feeding on either farmland set-aside or in game cover strips included 15 Wighton Feb 25th and 29 Ringstead Feb 23rd, with 20 there March 12th.

Following an appeal in the *NBC Bulletin* for records of inland breeders, a much more comprehensive insight into the county's population has been achieved. Even so, many gaps

still present. Brecks and West Norfolk were particularly well covered although with one exception nothing submitted for Broads and East Norfolk. All records as follows (single prs/singing males unless stated otherwise): North Norfolk - Titchwell 37, Brancaster GC 9, Scolt Head 78, Brancaster Hbr 92, Burnham Overy Saltmarsh 18, Burnham Overy GM 13, Burnham Norton 14 and Holkham 15; Broads - Filby Broad 4; Central - Colney, East Tuddenham, Fakenham 3, Kettlestone Common 3, Pensthorpe 7, Sparham, Swanton Morley and Worthing; Brecks - Bagmore Pits, Boughton Fen 3, Buckenham Tofts, Cockley Cley 2, Cranwich 2, Crowless Drove 2, East Wretham Heath, Foulton Common, Gooderstone, Hockwold, Langford, Lakenheath Washes 3, Lynford GP, Snetterton, Stanford TA (R Wissey 3 and Warren Home), Stanford Water, Stoke Ferry 6, Stoney Hill Breck, Thetford Nunnery Lakes, Thompson Water 2, Tottington and West Tofts Mere; West Norfolk - Blackborough End, Castle Acre 2, Eau Brink, Flitcham, Heacham 6, Lynn Point, Narborough, Pentney GP 2, Saddlcrow, Welney 22, West Acre, West Winch (Setchy Bridge) 3, Wiggshall St Germans, Wiggshall BF and Womack.

A very good autumn passage noted this year particularly in first week of Oct during north-easterly winds. Most comprehensive counts from Scolt Head where 40 Sept 25th, 50 27th, 80 28th, 60 29th, 40 30th, 60 Oct 3rd, 55 4th, 120 5th and 100 6th. Also notable increase to 50 Blakeney Point Sept 25th. Elsewhere in early Oct 30 Burnham Overy Dunes 3rd/4th, 55 Blakeney Point, 40 Sheringham and 26 West Runton 4th, 245 East Hills/Warham Greens 5th, 40 Sheringham 6th, 25 West Runton 9th, and 100 Holme and 40 Blakeney FM 10th.

At Weybourne 49 ringed during first week of Oct; between 1992 and 1997 the average autumn catch there was only 20 birds. At Hunstanton Cliffs total 118 south Oct with peaks of 26 9th, 37 16th and 40 24th.

Fewer records at year end with 53 Scolt Head Dec 6th and 40 Ludham Dec 30th being most notable.

Corn Bunting

Miliaria calandra

Local and declining resident

During first winter period almost exclusively noted in north-west Norfolk and Fens. Generally a poor showing with the exception of a few decent-sized flocks. Recorded at the following sites: Brancaster, Choseley (none Jan/Feb but 41 March 1st-15th and 35 April 14th), Docking (10 Jan 21st), Feltwell Anchor (20 Feb 12th), Hilgay Fen (22 April 19th), Lynn Point (30 March 1st and 51 April 14th), Ringstead (Courtyard Farm regular with high counts of 65 Jan 31st, 70 Feb 1st and 93 Feb 23rd), Snettisham, Stiffkey, Stowbridge, Ten Mile Bank, Terrington St Clement, Titchwell, Wiggshall St Peter (12 Feb 28th) and Welney. Elsewhere only records were from East Ruston, Northrepps (10 Jan 22nd) and Waxham.

Three records of coastal spring migrants: East Hills (Wells) May 9th and Holme and Scolt Head May 15th.

Recorded at even fewer sites this year in breeding season. Most as usual in West Norfolk and Fens with very few elsewhere. How much longer will this species hold on as a county breeder? All sites as follows (single songsters or prs unless otherwise stated): Cantley, Choseley 3, Denver Sluice, Docking, East Harling, Feltwell 12-15, Fincham, Flitcham, Gorleston, Hemsby 2, Hilborough, Lynn Point 2, Mundesley, Ringstead 5, Rollesby, Somerton, Southrepps, Ten Mile Bank 4 and Welney 2.

Only one autumn coastal migrant, west at Sheringham Oct 31st. In second winter period very few records. Only notable sightings were 18 Southery Fen Nov 26th, 15 Lynn Point Nov 29th and 28 Welney Dec 12th. Smaller numbers at Brancaster, Choseley, East Ruston, Snettisham, Ten Mile Bank and Titchwell (9 roosting in reed bed Dec).

Introductions, Escapes, Ferals and Hybrids

Appendix I - Categories A, B and C

Escapes or feral birds of species on the British List

Category A Species

Lesser White-fronted Goose

Anser erythropus

Northern Eurasia; winters southern Europe, India and China

Tottenham GP Sept 6th; Wretton Fen 3 Nov 9th.

Snow Goose

Anser caerulescens

North-east Siberia and North America; winters to Mexico

Snettisham 4 Jan 12th, 4 March 15th, 4 April 4th; Titchwell 4 March 5th, 4 Sept 11th; Fritcham 2 prs April 7th; Burnham Norton 4 Nov 22nd.

Category B/C Species

Ruddy Shelduck

Tadorna ferruginea

Breeds Asia and North Africa

Berney Oct 16th; Brisley March 16th; Colney Feb 18th to June, male Sept and Dec; Cringleford Feb 18th; Holkham Park pr March-May, 4 June 13th, pr July 19th and 26th, pr Aug 4th and 31st; Lynford GP Jan 19th; Ringland Dec 1st; Salthouse 2 Aug 7th-26th; Sennowe Park 2 March 22nd, 2 Sept 6th, 2 Oct 16th and 30th; Shadwell Estate Oct 8th; Sparham Pools Feb 2nd, March 10th and 14th; Stiffkey Jan 31st; Strumpshaw Oct 11th-17th; Swanton Novers 2 west May 16th; Thetford Nunnery Lakes Oct 8th; UEA 2 March 4th; Welney June 25th; Wensum Valley Jan 12th, 2 Jan 14th, 5 Jan 30th, 4 March 9th.

Category C Species

Lady Amherst's Pheasant

Chrysolophus amherstiae

Mountains of south-east Tibet and south-west China to Northern Burma; small breeding population Beds/Bucks

Wootton Carr a male with intermediate female Nov 11th.

Appendix II - Category D

Species that would otherwise appear on the British List except that there is reasonable doubt that they have ever occurred in a natural state

Greater Flamingo

Phoenicopterus ruber

Southern Palearctic, southern Asia, Africa and Madagascar

Breydon Feb 14th-17th, Aug 4th-28th (ringed and traced to Belfast Zoo; it also spent time in Cheshire), Sept 1st-27th, all Oct, Nov 27th and 29th, all Dec; Hickling Broad Feb 21st-28th, Aug 5th.

Saker Falcon

Falco cherrug

South central Eurasia; winters eastern Mediterranean, India and Tibet

Horsey/West Somerton one with jesses Nov 1st.



Tawny Owl – more often heard than seen, however this chick provided a rare photographic opportunity
(*T Howes*).



White-winged Black Tern – seen at Cley for two days in July before moving to Titchwell (*D Nye*);
Little Stint – a large passage occurred during September (*N Bowman*).

Little Bunting – one of two trapped in the same garden at Weybourne in the autumn (*D Nye*).





Osprey – one of two birds present at Holkham Park during September (*J Bhalerao*).

Hoopoe - this most obliging bird on Cromer seafront provided ample amusement for photographers and holidaymakers alike (*J Bhalerao*).





Greenshank – a portrait of a typical autumn migrant (*D Nye*).

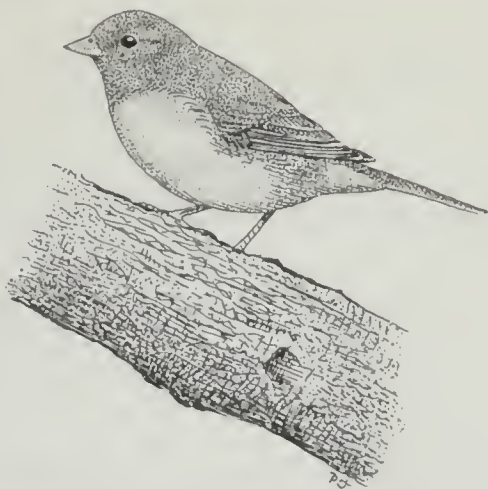
Reed Bunting – one of several species seen in large numbers during the classic ‘fall’ conditions of early October (*D Nye*).



(Chestnut Bunting

Emberiza rutila

Siberia, northern Mongolia and north-east China; winters south-east Asia and India
Salthouse May 30th-June 1st.



Chestnut Bunting (P Jones)

Appendix III - Category E

Escapes or feral birds of species not on the British List

(Black Swan

Cygnus atratus

Australia and Tasmania

Berney April 28th/29th; Cley 3 April 28th; Fritton Lake April 13th; Rockland Broad 3 all
March; Sennowc Park Nov 24th; South Pickenham 4 March 7th; UEA Broad April 8th/9th;
Welney 2 Feb 16th, Nov 1st-30th; Wretton Fen Jan 1st.

(Bar-headed Goose

Anser indicus

Central Asia; winters in India and Burma

Hickling Broad July 26th, Aug 3rd and 18th, Sept 9th, Dec 24th; Lyng-Easthaugh GP Jan
23rd; Stiffkey Fen June 1st.

(Muscovy Duck

Cairina moschata

Southern Mexico to Argentina and Brazil

Broom GP 6 Feb 24th; Snetterton GP Aug 22nd, Nov 4th; R Little Ouse, Thetford 5 Jan
29th, 5 Feb 9th, 4 March 19th, 5 March 24th, 2 May 19th, 2 June 17th, 3 June 23rd, 3 Aug
6th; Wroxham Broad Aug 27th.

(Chiloe Wigeon

Anas sibilatrix

Southern South America

Sheringham west Oct 17th; Pentney GP Nov 1st; Cley Dec 2nd.

(Speckled Teal

Anas flavirostris

Andes of Venezuela to Tierra del Fuego

Berney May 4th-15th; Cantley BF 2 July 4th, 6th and 16th.

(Chestnut Teal

Anas castanea

Australia

Snettisham GP Oct 9th; Cley Dec 2nd; Bayfield Hall Lake Dec 23rd.

(Cinnamon Teal

Anas cyanoptera

Western North America (southern Canada) to Tierra del Fuego and Falklands

Berney Sept 15th, Nov 14th; Buckenham July 11th-15th; Heigham Sound Nov 4th; Hickling
Broad Aug 10th-28th, Sept 9th-11th; Pensthorpe July 8th; Welney June 9th.

Harris's Hawk	<i>Parabuteo unicinctus</i>
<i>South-west USA to northern Argentina, Chile and Brazil</i>	
Snettisham CP April 28th.	
Red-tailed Hawk	<i>Buteo jamaicensis</i>
<i>North and Central America and West Indies</i>	
Titchwell July 23rd.	
Helmeted Guineafowl	<i>Numida meleagris</i>
<i>Africa south of Sahara and extreme southern Arabia</i>	
King's Lynn, one in Spencer Road from June to year end (successfully avoiding cars and aggressive to them at times!).	
Reeves's Pheasant	<i>Syrnaticus reevesii</i>
<i>Low altitude deciduous forests of north-central China</i>	
Lingwood March 19th; Stanford TA July 5th.	
Laughing Dove	<i>Streptopelia senegalensis</i>
<i>Africa south of Sahara to India</i>	
Rockland All Saints May 8th-25th; Cranworth one visiting gardens Aug-year end; Thetford, one also visiting garden Aug-year end.	
Crimson Rosella	<i>Platycercus elegans</i>
<i>Eastern Australia</i>	
Hunstanton May 8th.	
Eastern Rosella	<i>Platycercus eximius</i>
<i>South-east Australia and Tasmania</i>	
Eccles Nov 3rd.	
Red-rumped Parrot	<i>Psephotus haematonotus</i>
<i>Interior south-east Australia</i>	
Baconsthorpe 2 July 5th-8th.	
Budgerigar	<i>Melopsittacus undulatus</i>
<i>Drier parts of Australia</i>	
Overstrand July 11th-14th.	
Rosy (Peach)-faced Lovebird	<i>Agapornis roseicollis</i>
<i>South-west Angola to north Cape Province</i>	
Bradwell Jan 11th; Sea Palling/Eccles area 5 escaped in Aug, 2 of which were recaptured, the others then seen occasionally until Aug 19th.	
Cockatiel	<i>Nymphicus hollandicus</i>
<i>Interior of Australia</i>	
Burnham Norton April 4th, Caistor St Edmunds March 13th, Eccles Sept 11th, Kilverstone Sept 23rd, Overstrand July 1st taken by a Sparrowhawk, Repps-with-Bastick April 11th, Thetford July 7th, Thetford Nunnery Aug 28th and Thorpe Park Dec 22nd.	
Sudan Golden Sparrow	<i>Passer luteus</i>
<i>Thorn scrub of sub-Saharan Africa</i>	
Docking Sept 1st.	
Red Avadavat	<i>Amandava amandava</i>
<i>Oriental region mainland and islands</i>	
Guist Aug 19th.	
Scaly-breasted Munia	<i>Lonchura punctulata</i>
<i>Southern Asia and Malay Archipelago</i>	
This species, often referred to as 'spotted' Munia, Ormsby Oct 15th-18th was not assigned to one of the many races.	

(**Chestnut Munia**

Java

Lonchura ferruginosa

Lopham Fen Sept 15th.

(**Red-billed Quelea**

Africa south of Sahara

Quelea quelea

Cley Aug 12th-17th; Salhouse Sept 28th.

(**Canary**

Serinus canaria

Commonly bred cagebird; Madeira, Azores and western Canary Islands

Mundesley May 25th; Thetford Nunnery April 2nd-12th.

Appendix IV - Hybrids

(**White-fronted Goose x Lesser White-fronted Goose**

Holkham FM Feb 20th-23rd.

(**White-fronted Goose x Greylag Goose**

Holkham FM Dec 6th.

(**Canada Goose x Greylag Goose**

Bramerton May 29th, Lynford Arboretum April 14th, Scnnowe Park Sept 6th and 2 Dec,

Welney Dec 29th, Westmere March 24th and Wissington BF Feb 28th.

(**Barnacle Goose x Greylag Goose**

Flitcham Jan 31st.

(**Barnacle Goose x Emperor Goose**

Burnham Overy Jan 31st.

(**Barnacle Goose x White-fronted Goose**

Berney May 15th.

(**Wigeon x American Wigeon**

Welney Feb 20th.

(**Wigeon x Mallard**

Buckenham April 4th.

(**Pochard x Tufted Duck**

Strumpshaw Feb 21st and 28th; Welney Jan 3rd-30th, May 1st-30th, Dec 20th and 29th.

(**Pochard x Scaup**

Stiffkey Fen 2 Dec 21st-31st.

(**Aythya x resembling Lesser Scaup**

Welney Oct 20th.

(**Aythya x resembling Ferruginous Duck**

Welney Nov.

(**Linnet x Greenfinch**

Waxham March 28th.

(**House Sparrow x Tree Sparrow**

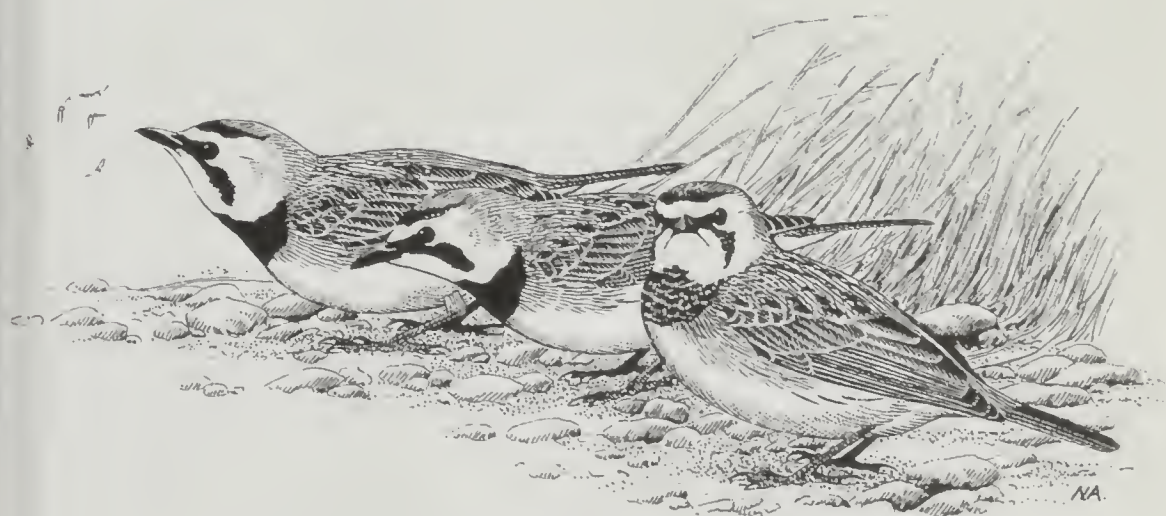
Guist Oct 31st.

Earliest and Latest Dates of Summer Migrants

	Arrivals	Departures
Manx Shearwater	Mar 11th Mundesley	Oct 26th Sheringham
Garganey	Mar 8th Cley	Nov 23rd Welney
Honey Buzzard	May 15th Titchwell	Oct 3rd Swanton Abbott
Montagu's Harrier	Apr 23rd Waxham	Sep 6th Repps-w-Bastwick
Osprey	Mar 30th Lyng-Eastaugh GP	Oct 25th Stanford TA
Hobby	Apr 19th Holme	Oct 26th Cockley Cley
Quail	Apr 22nd Burnham Deepdale	Aug 15th Admiralty Point
Stone Curlew	Mar 4th Hilborough	Nov 21st Gooderstone
Little-ringed Plover	Mar 11th Whitlingham Lane GP	Oct 17th Titchwell
Dotterel	Apr 10th Cley	Sep 3rd Blakeney Point
Little Stint	Mar 26th Cley	Dec 16th Titchwell
Temminck's Stint	May 7th Holme	Sep 17th Berney
Curlew Sandpiper	Apr 12th Scolt Head	Nov 3rd Welney
Whimbrel	Mar 28th Titchwell	Oct 18th Scolt Head
Wood Sandpiper	Apr 22nd Cley	Nov 3rd Cantley BF
Common Sandpiper	Apr 12th Ouse Washes	Oct 23rd Cantley BF
Sandwich Tern	Mar 24th Brancaster	Nov 27th Titchwell
Roseate Tern	May 19th Cley	Sep 7th Scolt Head
Common Tern	Apr 2nd Welney	Oct 31st Cley
Arctic Tern	Apr 3rd Holme	Oct 31st Walcott
Little Tern	Apr 18th Breydon	Oct 25th Cley
Black Tern	Apr 22nd 3 north coast sites	Sep 27th Walcott
Turtle Dove	Apr 20th Snettisham, Eccles	Oct 4th Sheringham
Cuckoo	Apr 12th Holme Hale	Oct 8th Burgh St Peter
Wryneck	Apr 26th Witton Bridge	Oct 18th Ingham
Nightjar	May 2nd Martham	Oct 5th Blakeney Point
Swift	Apr 22nd 10 sites	Sept 28th Holme
Sand Martin	Mar 26th Lynford GP	Oct 17th Horsey
Swallow	Mar 28th 3 north coast sites	Nov 7th Blakeney Point
House Martin	Apr 5th Eccles	Nov 13th King's Lynn
Tree Pipit	Apr 5th Santon Downham	Oct 16th Yarmouth
Yellow Wagtail	Mar 17th Horsey	Oct 9th Salthouse
Nightingale	Apr 10th Salthouse, Beeston	July 25th Brandon Carrs
Redstart	Apr 5th Hemsby	Oct 15th Winterton
Whinchat	Apr 22nd Stanford TA	Nov 25th Feltwell
Wheatear	Mar 14th 5 sites	Nov 27th Titchwell
Ring Ouzel	Mar 28th 6 sites	Nov 5th Titchwell
Grasshopper Warbler	Apr 14th Heigham S, Lynn Pt	Oct 9th Blkny Pt, Weybourne
Sedge Warbler	Mar 30th UEA	Oct 14th Strumpshaw
Reed Warbler	Apr 16th Weybourne	Oct 20th Brancaster
Lesser Whitethroat	Apr 19th Repps-w-Bastwick	Oct 11th Wells
Whitethroat	Apr 10th Wisington BF	Oct 10th Sheringham
Garden Warbler	Apr 21st Cockley C, Walscy H	Oct 10th Sheringham
Wood Warbler	late Apr Ringstead	Oct 6th Stiffkey
Willow Warbler	Mar 21st Repps-w-Bastwick	Oct 10th Weybourne, Holkham
Spotted Flycatcher	Apr 24th Yarmouth	Oct 10th Thetford, Warham
Pied Flycatcher	Apr 22nd 4 sites	Oct 11th Holme, Stiffkey
Red-backed Shrike	May 2nd Horning Hall	Oct 11th Winterton

Latest and Earliest Dates of Winter Migrants

	Departures		Arrivals	
Black-throated Diver	May 4th	Blakeney Hbr	Aug 24th	Sheringham
Great Northern Diver	May 11th	Weybourne	Aug 5th	Paston
Red-necked Grebe	May 4th	Blakeney Hbr	Jul 3rd	Seolt Head
Slavonian Grebe	Apr 26th	Titchwell, Seolt Head	Aug 9th	Titchwell
Black-necked Grebe	May 24th	Lakenheath Washes	Jul 27th	Wells Quay
Bewick's Swan	May 17th	North Wootton	Oct 7th	Welney
Whooper Swan	April 27th	Cley	Oct 10th	Welney
White-fronted Goose	Mar 15th	Martham, W Somerton	Oct 17th	Waxham
Taiga Bean Goose	Feb 25th	Holkham	Nov 9th	Buekenham
Tundra Bean Goose	Mar 8th	Holkham	Nov 12th	Ludham
Pink-footed Goose	May 25th	Holkham	Sep 12th	Holkham
Long-tailed Duck	Mar 31st	Titchwell	Oct 7th	Holme, Winterton
Goldeneye	May 3rd	Snettisham	Aug 22nd	Cley
Smew	Mar 8th	Yarmouth	Nov 3rd	Yarmouth
Goosander	May 22nd	Titchwell, Brancaster	Aug 24th	Stiffkey Fen
Hen Harrier	May 31st	Ringstead	Sep 17th	Pentney GP
Rough-legged Buzzard	Jun 1st	Waxham	Oct 9th	5 sites
Merlin	Jun 6th	Blakeney Point	Jul 31st	Ouse Washes
Purple Sandpiper	May 13th	Titchwell	Jul 22nd	Titchwell
Jack Snipe	Apr 23rd	Blakeney FM	Sep 6th	Titchwell
Shore Lark	May 29th	Seolt Head	Aug 15th	Blakeney Point
Rock Pipit	May 4th	Sheringham, Breydon	Aug 29th	Sheringham
Water Pipit	Apr 14th	Buekenham	Oct 3rd	West Runton
Fieldfare	Jun 6th	Strumpshaw	Sep 21st	3 coastal sites
Redwing	Jun 15th	Horsey Gap	Sep 23rd	Seolt Head, Blakeney
Great Grey Shrike	May 2nd	Wells	Sep 27th	Mundesley
Brambling	3rd w May	Holt	Sep 25th	Holme, Seolt Head
Twite	May 6th	Weybourne	Oct 4th	Lynn Point
Lapland Bunting	Apr 27th	Cley	Sep 11th	Sheringham
Snow Bunting	Apr 10th	Paston	Sep 12th	Blakeney Point



Shorelarks (*N Arlott*)

Non-accepted Records

The following refer to records where a written description has not been accepted by either the British Birds Rarities Committee or County Records Committee. Included are a number of county 'non-description' species (see Editorial) where, due to the unseasonal dates involved, further details were requested.

Black-necked Grebe - Scratby Nov 14th; Cory's Shearwater - West Runton Sept 13th; Little Shearwater - Sheringham Sept 11th; Great White Egret - Breydon May 19th; Black Kite - Stow Bcdon June 24th; Corncrake - Snettisham CP May 17th and Choseley Sept 2nd; White-rumped Sandpiper - Snettisham July 8th; Long-tailed Skua - Blakeney Point Nov 8th; Sabine's Gull - Brancaster March 8th; Ring-billed Gull - Burnham Overy Nov 1st and Salthouse Nov 29th; Richard's Pipit - Holme Sept 9th; Red-throated Pipit - Cley May 12th; Wheatear - Crostwick Feb 15th; Savi's Warbler - Upton Broad May 22nd, Burgh Common June 8th and Caister Sept 6th; Sedge Warbler - Titchwell Feb 22nd; Marsh Warbler - Strumpshaw Aug 7th; Booted Warbler - Yarmouth Cemetery Oct 2nd-4th; Icterine Warbler - Holme April 22nd; Yellow-browed Warbler - Ashill Sept 9th; *tristis* Chiffchaff - Wells Oct 9th; Trumpeter Finch - Waxham July 5th; Pine Grosbeak - Holkham Meals Feb 2nd.

Non-submitted Records

The following records have been reported to either the National or East Anglian Birdlines but to date no details have been received. Descriptions of any of these records would be welcomed (for consideration either by the British Birds Rarities Committee or County Records Committee) so that hopefully they can be published as accepted records in due course.

Cory's Shearwater	Holme	Oct 28th
Balearic Shearwater	Cley	Aug 4th, 21st, 22nd and 28th Oct 2nd (2) and 18th
	Cromer	Oct 2nd
Purple Heron	Yarmouth/Caister	July 17th
Black Stork	Castle Rising	Aug 9th
Honey Buzzard	Brundall	Feb 23rd
Black Kite	Waxham/Horsey	April 27th
Spotted Crake	Cley	April 29th
	Strumpshaw	Aug 16th
Sabine's Gull	Holme	Sept 9th/10th
Red-throated Pipit	Burnham Overy Dunes	May 17th
	Yarmouth Cemetery	Oct 4th
	Titchwell	Oct 4th
	Cley	Oct 6th
	Yarmouth South Denes	Oct 10th
Marsh Warbler	Cley	May 28th
Raven	Titchwell	June 4th
Common Rosefinch	Blakeney Point	May 29th
	Cley	June 1st
	Winterton	Sept 12th

List of Contributors to Systematic List

S Abbott	A F Brown	D Dorling	J M Hague
R C Abel	Jon Brown	G P Douglas	A Hale
A Allan	S J Browne	A Drewitt	M C Hall
P R Allard	R Brownsword	S P & C Dudley	J Hampshire
J Andrews	S Bryan	G E Dunmore	P Hampson
R Andrews	A L & R M Bull	K R Dye	V J Hanlon
D P Appleton	P Bullett (PBU)	A Eadson	C B Harmer
J Appleton	M Bultitude	S Eagle	R I Harold
S J Aspinall	Dr I Burrows	J Eaglen	P E Harries
C Auld	P Burrows	J Easton	J C Harris
S J Ayres (SJAY)	B J Burton	J Eaton	M L Hawkes
F Baines	J F Butcher	K & S Edwards	P Hayman
C P Baker	Buxton Heath Wildlife	M I Eldridge	P J Heath
M F B Baker	Group	N Elms	I G Henderson
Roy Baker	N & B Bye	P Etherington	D Hennessy
V G Balfour	C J Cadbury	K Eradus	Dr R Heselden (RHe)
I Ball	R Canes	K L Evans	D J Hewitt
D E Balmer	A Cannon	R D Evans	C Hewson
P & J Banwell	P Carr	V Eve	G F Hibberd
A S C Barker	D & G Carter	M J Everett	R Hill
T Barker	N Carter	T W Fairless	R Hoblyn
R I Bashford	P Cawley	C M A Farrow	D Hodge
L Batterick	D E Chamberlain	F J L Farrow	M Hodges
A Beaumont	N A Chambers	P C Feakes	S J Holloway
P E Beard	A G Channer	J Filowiat	D J Holman
H Bell	Ms D L Cheyne	P Fisher	Holme Bird
A P Benson	R H Chittenden	M D Fiszer	Observatory
R A Benson	N A & J A Clark	M P L Fogden	J S Holmes
L G Bentley	M R Clarke	D Foster	R J Holmes
S Betts (SBe)	P Clement	R Fowling (RFo)	P Holness
J V Bhalrao	Cley Bird Club	R A Foyster	P Holt
Birdline East Anglia	M Cocker	S N Freeman	P Hooper (PHo)
B R Bishop	A D Collins	A C Frost	G & E Hooton
C J Bishop	M Colman	R Frost	B Howe
J Bishop	G F Conway	D J Fuller	A Howes
M Bishop	T Cook	R J Fuller	S Howell
I Black	R Cope	J E D Furse	C Hudson
J R Blackburn	D Corbett	J Gaffney	R Hughes (RHu)
J Blackburn	Dr R A F Cox	S J M Gantlett	T Humpage
M Blair	S J Cox	R W H & H K Garner	A Humphrey
A I Bloomfield	G Coxall	P L Garvey	J Hurren
W J Boarder	A Crawford	J D & J E Geeson	A J Impey
P F & M R Bonham	M D Crewe	S Gillings	P Jackson
A D Boote	A Crocker	J & D Gilroy	C A Jacobs
T E Boulton	E Cross	P Gluth	S M de Jager
A W Bowles	A J Culshaw	D J Golds	A James
N B Bowman	K Daly	J E Goldsmith	B W Jarvis
D Bradley	T C Davies	M A Golley	J & B Jarvis
P Bradley (PBr)	R Davis	A Goodall	P & S Jeffery
K J Brett	V & R Dawson	S J Gough	I G & K Johnson
M A Brewster	T R Dean	J J D Greenwood	S & M E Johnson
D & J Bridges	P Dolton	C Gregory	C Jones
G N Brind	P J Donald	R Gregory	D Jones
R S Broke	C Donner	B M Griffin	R F Jones

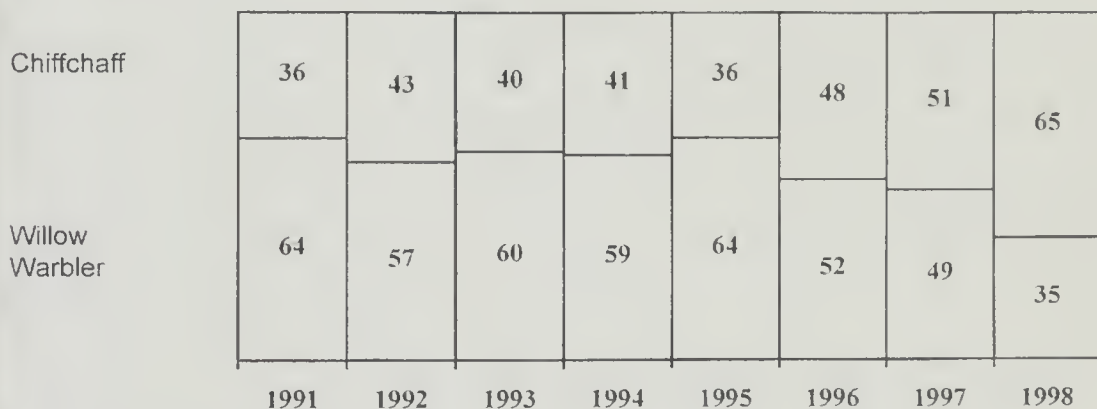
R F Jones	J & B Mighell	H R Ramsay	D Strutt
M Jowett	P M & V M Miles	N D Rawlings	G & Dr P Taylor
S C Joyner	J Miller	J Reed	M P Taylor
D Jupp	R G Millington	M Reed	W T Thrower
A J Kane	P A Monsey	M M Rehfish	P & T Tilley
J Kay	R Monteath	D C Richardson	M Toms
D F Kelly	P Montgomery	D I & Mrs R M	D K Toomer
G I Kelly	D R Moore	Richmond	P Tuck
J B Kemp	R M C Moore	A Riley	A Tucker
A D Kettle	S F Moores	I Robinson	D Tutt
Dr I F & Mrs J Keymer	G Morris	E Rodgers	UEA Bird Club
R Kimber	D Mower	J Rogers	R Viccars
J King	B J Murphy	R Rolfe	A E Vine
C A E Kirtland	N Murphy	M E S Rooney	S C Votier
P Kitchener	A Murray	J Rowe (JRo)	C Wade
D R Knight	K Murray	S Rowland	J Wagstaff
C R Knights	A J Musgrove	RSPB	S J Wakeham
J Koziol	R Musgrove	S Rudling	M Walford
P C Lack	M Mussett	D H Russell	P Walton
P Lambley	C T Mutimer	D H Sadler	M A Ward
C H Lamsdell	E T Myers	B Sage	M & A Ward
R Lang	NARVOS	E & M J Sargeant	R M Ward
C Lansdell	C & F Neale	K G Saul	E E Warminger
J Lansdell	S Neale	D & M J Saunt	R Waters
A J Last	R G Newell	C Sayer	A Watson
R Lawrence	P Newport	J Scott	M Watson
J & B Lawson	B Nichols	R E Scott	M A Webster (MAWc)
N M Lawton	D G Nicholson	R Scott-Smith	S Welsh
M E Laxen	T C Nicholson	M J Seago	C E Wheeler
Dr R M Leancy	T Nightingale	J Secker	C Whernham
D P Lester	K J R Nixon	R Shearing	J Whitelegg (JWh)
D Lilcy	D Nobbs	K B Shepherd	P Whiteman (PWh)
Dr J Lines	D J Norgate	W Shepherd	S Whittley
S Linsell	NOA	Sheringham Bird	N Williams
S M Lister	North West Norfolk	Observatory	J R Williamson
P Lockwood	Ringling Group	N Sills	C Wills (CWl)
A J Loring	D Nye (DNy)	G F & S J Simmons	A M Wilson
D Lyman	N Orchard	J Simons	J Wilson
D Machin (DMa)	J Osborne	I Sinclair	P M Wilson
I Maclean	N W Owens	G M Sirirwardena	T Wilson
J D Magee	G R Oxborough	R Q Skeen	J Windsworth
W M Makins	J Parry	M Skevington	M J Wood
J H Marchant	D Parsons (DPa)	B Small (BSm)	G Woodburn
M R & O R Marks	D Paull	C J Small	D J Woodgate
B A E Marr	R K Pearce	S P Smethurst	A Woodhouse (Awo)
H D & S C Matthews	C Penny	A J L Smith	D Woods
D Mayes	D Phillips	M H Smith	P J Woolnough
A McCallum	R F Porter	I N Smith	A Wraithmell
J R McCallum	D Poulter	S Smith (SSm)	S A Wright
R McCurley	D Powell	J P South	T Wright (TWr)
R C & S C McIntyre	R Powley	S South	M Young-Powell
D McNeill	I Prentice	S J Spooner	
J McOwat	M Preston	E M P Stanford	
C J Mead	B & B Pummell	Stanta Bird Club	
H R Mead	S Quaterman	R Starling	
H P Medhurst	C Quincey	A M Stoddart	
J Middleton	M H Rains	T Strudwick	

During 1998 a record total of 44,563 birds were ringed in the county. However, they comprised only 131 species, the lowest since 1992. This can be explained by the fact that, for the second consecutive year, rarities were few and far between. However an Eastern race Grasshopper Warbler, *Locustella naevia straminea*, was the first for the county.

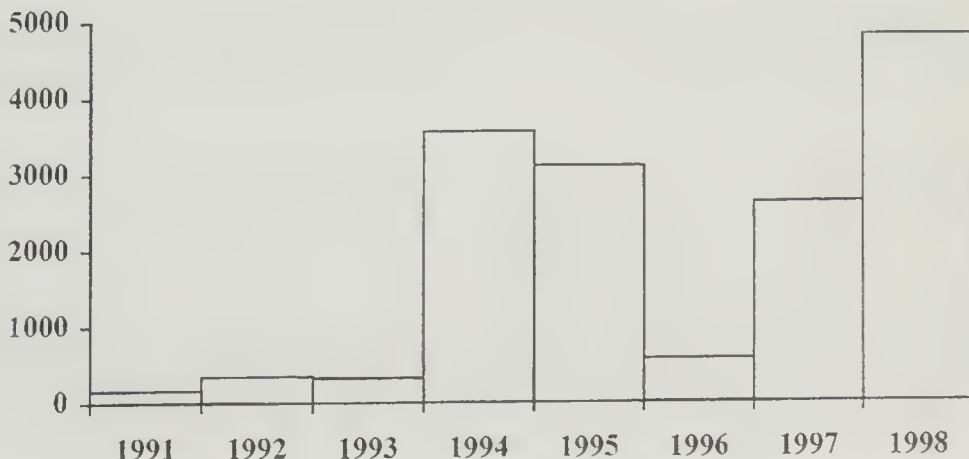
A dramatic fall of Robins, Chiffchaffs and Goldcrests during the early days of October resulted in record numbers of those species being ringed. However, the Chiffchaff total would still have exceeded that for Willow Warbler (for the second consecutive year) even without this fall. As usual, Greenfinch topped the list of birds ringed with 5,021, but surprisingly Siskin took a close second place with 4,849 (Siskin numbers seem to be particularly unpredictable). Other impressive totals ringed during year were 233 Bar-tailed Godwit, 486 Little Tern, 1,122 Reed Warbler, 92 Bearded Tit, and 1,230 Brambling. Annual ringing totals remained disappointingly low for Sand Martin, Spotted Flycatcher, Willow Tit, Tree Sparrow and Redpoll, reflecting national concerns.

Once again, thanks to Steve and Alison Wakeham for the Wash Wader Ringing Group recoveries and their interpretation, and to all Norfolk ringers for access to their data.

Annual Ringing %'s – Willow Warbler and Chiffchaff



Annual Ringing Totals - Siskin



SELECTED NORFOLK RECOVERIES NOTIFIED DURING 1998

Ringing details are shown on the first line whilst recovery information is on the second.

Age when ringed

- 1 Pullus (= nestling)
- 2 Fully grown, year of hatching unknown
- 3 Hatched during calendar year of ringing
- 4 Hatched before calendar year of ringing, but exact year unknown
- 5 Hatched during previous calendar year
- 6 Hatched before previous calendar year, but exact year unknown
- 7 Definitely hatched two calendar years before ringing
- 8 Hatched more than two calendar years before year of ringing

M = Male F = Female

Condition at Recovery

- X Found dead
- XF Found freshly dead or dying
- XL Found long dead
- A Alive and probably healthy – fate unknown
- + Shot or intentionally killed by man
- +F Shot or intentionally killed by man - fresh
- +L Shot or intentionally killed by man - not recent
- V Alive and probably healthy; caught and released by a non-ringer
- R Caught and released by ringer
- RR Ring or colour marks read in the field

Hen Harrier

1F	15.06.98	Forest of Bowland, Lancashire	
RR	04.11.98	At sea off Sheringham	265 km ESE

This wing-tagged bird was noted flying west off Sheringham during a sea watch. It is likely that during a southerly movement through England, it was displaced out into the North Sea overnight, or earlier that morning, by the strong north-westerly wind that was sweeping right across Britain at the time.

Sparrowhawk

6F	17.02.96	Banningham, North Walsham	
R	21.04.97	Helgoland, Germany	464 km ENE

Only the seventh British-ringed Sparrowhawk to be recovered in Germany. It would have been on passage at Helgoland, and possibly also at Banningham. Curiously, the last Sparrowhawk movement involving Norfolk (in 1990) also involved Helgoland Island.

Moorhen

4F	04.12.96	Thetford	
XF	27.03.97	Whalsay, Shetland, Scotland	90 km N

Although a surprising movement there are precedents for Moorhen travelling long distances. For instance, three British-ringed Moorhen have been recovered in Norway.

Oystercatcher

8	04.11.90	Holme-next-the Sea, Hunstanton	
V	25.04.98	Sandi, Sandoy, The Faeroes	1,053 km NNW
6	15.06.91	Heacham, Hunstanton	
XL	03.05.98	Risor, Aust-Agder, Norway	850 km NE
8	25.06.94	Heacham, Hunstanton	
R	25.08.98	Ha, Rogaland, Norway	713 km NNE
1	16.06.93	North Creake	
R	10.05.97	Heacham, Hunstanton	16 km W
8	12.08.97	Friskney, Lincolnshire	
X	25.03.98	Broome, Norwich	105 km SE

There is invariably one Wash-ringed Oystercatcher recovery notified from The Faeroes each year, this year there were three. The first shows one of these, which was released after having wool removed from its legs – a common problem for Oystercatchers in proximity with sheep farming.

The second and third are typical recoveries from the Norwegian breeding grounds but are highlighted for their original ringing dates. It is not unusual for immature birds to remain on their wintering grounds as non-breeders. It is also possible that, at least with the Rogaland bird which was a full adult when ringed, they may have been in too poor a condition to migrate at the time, and remained on The Wash through the summer.

The fourth and fifth show examples of birds from inland locations in Norfolk. The fourth a confirmed inland Norfolk bred bird, the fifth possibly involving an inland breeding individual, records of which have continued to increase during recent years.

Avocet

A nestling ringed on 3rd June 1998 in West Norfolk was seen again at Cliffe Pits, Kent on 29th August, some 143 km south.

Ringed Plover

6	03.07.98	Snettisham, King's Lynn	
RR	19.09.98	Balbriggan, Dublin, Eire	448 km W

The ringing date of this bird suggests it was a local breeding bird, since the first migrant Ringed Plovers do not normally arrive until well into August. It was previously thought that the British population was largely sedentary, but recent movements to France, Wales, Scotland and Eire have modified this view. The colour-ringing efforts of the North West Norfolk

Ringed Group should add more to the understanding of the behaviour of the Ringed Plover on The Wash.

Nestlings from Snettisham were re-trapped at both Seal Sands, Cleveland and at Walney Island, Cumbria within 3 days of each other during August 1998.

Knot

5	04.04.81	Heacham, Hunstanton	
X	07.06.96	Moriussaq, Greenland	4,054 km NW
4	15.10.89	Holme-next-the-Sea, Hunstanton	
X	09.06.96	Moriussaq, Greenland	4,047 km NW

The two longest movements of the year are shown. Whilst there is nothing particularly unusual about Wash-ringed Knot recoveries to Greenland (the Arctic breeding grounds of Knot are well documented, and these two take the Wash-ringed total to 72) it is always satisfying to receive such long distance recoveries. It is unfortunate that they both fell victim to an early June cold snap which is an ever present risk to birds which breed in such northern latitudes.

Sanderling

5	19.01.96	Heacham, Hunstanton	
R	08.08.98	Ujscie Wisly K, Swibna, Gdansk, Poland	1,227 km E
R	11.10.98	Heacham, Hunstanton	
4	09.10.94	Heacham, Hunstanton	
R	29.05.97	Sandgerdi, Gullbringu, Iceland	1,819 km NW
4	07.09.91	Snettisham, King's Lynn	
R	26.05.98	Sandgerdi, Gullbringu, Iceland	1,821 km NW

These show the first Wash-ringed Sanderling to be recovered in Poland and the first and second to Iceland (although one Icelandic-ringed bird was caught at Terrington back in 1973). Sanderlings on The Wash come from two different populations; one breeding in Siberia, winters on The Wash whilst the other, from Greenland, only stop on The Wash to refuel.

The first bird will have been on return passage from Siberia when it was caught in Poland. (remarkable that it was re-caught in its wintering area). The second and third were refuelling on spring passage back towards Greenland.

Dunlin

4	10.08.85	Terrington, King's Lynn	
R	02.05.97	Rio Velez, Velez-Malaga, Malaga, Spain	1,811 km S
3	20.09.97	Terrington, King's Lynn	
+	23.11.97	Aveiro, Beira Litoral, Portugal	1,513 km SSW

The first highlighted is a *schinzii* Dunlin which pass through The Wash in autumn on their way to winter in West Africa. This bird will have been on return migration, staging at Western Iberian estuaries, such as the Rio Velez.

The second was recovered (shot) just two months after ringing on The Wash. It may have been on a chosen wintering ground, or still on passage to further south.

Bar-tailed Godwit

4	29.08.68	Snettisham, King's Lynn	
R	06.12.98	Heacham, Hunstanton	
6	22.08.74	Wolferton, King's Lynn	
R	17.05.88	Norderhaverkoog, Schleswig-Holstein, Germany	580 km ENE
R	06.12.98	Heacham, Hunstanton	

The catch of 165 Bar-tailed Godwit at Heacham in December was the first to exceed 50 of this species on the eastern shores of The Wash since 1982. It is without precedent that the catch should contain two birds that exceeded the national longevity record. The first shown is one of these, and takes the species through the 30 years old barrier for the first time. Also in the catch was the second shown, which was ringed 24 years previously, and re-caught in Germany in the meantime.

Curlew

4	12.08.91	Terrington, King's Lynn	
R(=M)	22.04.98	Rhede, Weser-Ems, Germany	727 km E
4	06.09.75	Terrington, King's Lynn	
XF	20.06.98	Pirttikoski, Pyhajoki, Oulu, Finland	1,885 km NE

The first shown was the first Wash-ringed Curlew to be recovered in Germany (although two have made the return journey), but it was followed only nine days later by another. The second is a typical recovery from the main breeding stronghold of Wash Curlew. This bird, at 22 years 9 months, set a new Wash longevity record for the species, only to be beaten two months later by a bird found on the Heacham shoreline 25 years after ringing on the Lincolnshire side of The Wash.

Great Skua

1	25.07.95	Fair Isle, Northern Isles, Scotland	
XL	30.06.98	Terrington, King's Lynn	

Found on the shoreline by a local farmer, this is only the fifth recovery of a Great Skua in Norfolk, and the first since 1988.

Black-headed Gull

A Cantley nestling was found dead locally over 10 years later in July, although there is still no positive proof that any of the many nestlings ringed there have ever returned to breed. Other Cantley birds were recovered in Hampshire (29th May) and North Yorkshire (6th April).

Common Gull

5	04.02.94	East Winch, King's Lynn	
R	22.02.97	Pildammsparken, Malmohus, Sweden	873 km ENE

This is likely to have been a Scandinavian-bred bird which chose to spend its first winter in Norfolk, and subsequent winters closer to its natal area.

Lesser Black-backed Gull

1	12.07.97	Tarnbrook, Fell, Lancashire	
RR	19.12.97	near East Harling	294 km SE
1	10.07.95	Maasvlakte, Rotterdam, The Netherlands	
RR	28.09.97	Winfarthing, Diss	345 km W

An unusual movement from this Lancastrian gull colony. Most migrate south through the Cheshire Gap and then follow the Dee and Severn valleys before crossing to south-west France and Spain. By late autumn many will be in Iberia before moving on to north Africa. However, there is evidence that some gulls are now staying in England because of the food available from landfill sites.

The second shown represents an altogether more expected movement.

Common Tern

1	24.06.97	Breydon Water, Great Yarmouth	
?	28.02.98	At sea off Ghana	5,228 km S

Norfolk birds winter along the West African seaboard between Mauritania and Nigeria, so this represents a perfectly normal movement

Rock Pipit

1	04.06.96	Nidingen, Halland, Sweden	
XF	11.01.97	Terrington, King's Lynn	

The 14th Swedish-ringed Rock Pipit to be recovered in Britain. The last foreign-ringed bird to be reported in Norfolk occurred in 1992 and also came from Sweden.

Wheatear

6	28.04.97	Snettisham Coastal Park, King's Lynn	
A	20.04.98	Khouribga, Morocco	2,297 km SSW

More British-ringed Wheatear have been reported from Morocco than any other country. This bird was ringed during its spring migration northward.

Blackbird

4F	29.12.96	Garboldisham, Diss	
R	13.11.98	Helgoland, Germany	505 km ENE
4F	10.11.94	Weybourne	
X	25.03.97	Sorring, Silkeborg, Jylland, Denmark	664 km ENE
5F	02.02.97	Winfarthing, Diss	
X	17.07.98	Vindafjord, Rogaland, Norway	825 km NE

4F	26.10.93	Weybourne	
X	19.04.96	Vasteras, Bjornon, Vastmanland, Sweden	1,205 km NE
3M	16.11.96	Weybourne	
R	03.04.97	Rybachiy, Kaliningrad, Russia	1,305 km E

Many Scandinavian breeding birds choose to winter in Britain – there were additional recoveries from Denmark and Sweden that have not been highlighted. The dates relating to some of the returning birds would suggest that they were still heading northward when recovered.

Reports from Russia are distinctly unusual, although Kaliningrad does border the Baltic States where our Blackbirds are less rare.

Redwing

5	08.02.96	Weybourne	
?	08.01.98	Laudun, Garde, France	1,015 km SSE
3	07.11.96	Weybourne	
X	04.12.97	Favaios, Tsas os Montes, Portugal	1,449 km SSW

Many Redwing use Norfolk as a staging post to their wintering areas further south. There have been many recoveries to show that birds may winter in widely different European localities in different winters.

Sedge Warbler

3J	21.08.97	Haddiscoe Island, Great Yarmouth	
R	31.08.97	Berlare, Oost-Vlaanderen, Belgium	238 km SW
3J	09.08.96	Haddiscoe, Great Yarmouth	
R	03.09.96	Villeton, Lot-et-Garonne, France	916 km S

The first was in distinctive juvenile plumage when ringed, and might not have been expected to commence its journey southward via Belgium. Much more usual would have been to route via the English south coast and the area in France favoured by the second bird.

Reed Warbler

3	21.08.97	Weybourne	
X	19.09.97	at sea, North Atlantic (48 16N, 7 20W)	790 km SW
3J	20.08.97	Weybourne	
R	05.09.97	Wetteren, Oost-Vlaanderen, Belgium	286 km SE

Most British Reed Warblers migrate southwards via the French Atlantic coast. The first bird highlighted was reported as being 'not fresh' when found. The circumstances suggest that this bird may not have been seriously off course when it died.

The second was in distinctive juvenile plumage when ringed and comprises a more unusual movement.

Blackcap

3F	15.09.97	Awirs, Liege, Belgium	
R	28.09.97	Weybourne, Sheringham	391 km NW
3	01.10.98	Burnham Market	
XF	15.10.98	Felinfoel, Llanelli, Dyfed, Wales	358 km WSW
3J	11.07.98	Garboldisham, Diss	
?	11.10.98	Ca L'Andreu, Tiana, Barcelona, Spain	1,215 km S
5M	07.05.96	Holme-next-the-Sea, Hunstanton	
+F	10.03.97	Al Ladhiqiyah, Syria	3,383 km SE

The first shown is the second Belgian-ringed Blackcap to be trapped in Norfolk in as many years, this is part of a regular pattern, as is the Spanish bird. The second is much more unusual and the Syrian bird is the first British-ringed Blackcap to be reported from that country (although there have been others from Turkey and Lebanon).

Willow Warbler

4	16.05.98	Weybourne	
R	01.08.98	Newtonmore, Highland Region, Scotland	566 km NE

Not surprising that Scottish birds migrate northwards via Norfolk, though many do take a more westerly route.

Goldcrest

3M	18.10.97	Winterton Holmes	
R	25.10.97	Grimbergen, Oost-Vlaanderen, Belgium	251 km SE
3M	30.09.97	Ottenby, Oland, Sweden	
R	10.10.98	Winterton Holmes	1,026 km WSW

The first was most probably re-orienting after being blown off course. The second may still have needed to do similarly, although it is possible that it was aiming to winter in Britain.

Great Tit

5F	31.03.96	Weybourne, Sheringham	
R	04.05.96	Swarland, Alnwick, Northumberland	325 km NW

Very few British Great Tits travel such a distance.

Starling

5F	06.02.96	Burnham Market	
X	16.05.98	Naikiai, Mazeikiai, Lithuania	1,442 km ENE

Many of our winter Starlings return to breed in the Baltic States, or even further westward into Russia.

(Chaffinch

4	16.03.95	Sheringham	
R	05.04.97	Trondheim, Norway	828 km NNW
6M	23.04.97	Ormesby, Great Yarmouth	
R	12.06.97	Grenen, Skagen, Jylland, Denmark	799 km NE
5	12.03.97	Garboldisham, Diss	
?	19.04.98	Fredrikstad, Ostfold, Norway	976 km NE

Scandinavian Chaffinches migrate through Denmark, north-west Germany, and the Low Countries to winter chiefly in Britain (with smaller numbers in the Low Countries, western France and western Iberia)

(Brambling

3M	05.12.96	Cockley Cley, Swaffham	
X	15.05.97	Dorotea, Asele Lappmark, Sweden	1,576 km NE

Most of the Brambling wintering in Norfolk are from Scandinavia. Some get here via Denmark and the Low Countries, whilst others over-fly the North Sea directly.

(Greenfinch

5M	23.01.97	Ormesby, Great Yarmouth	
R	28.11.97	Pandrup, Jylland, Denmark	717 km NE
3M	19.06.97	Grimstadvatnet, More og Romsdal, Norway	
R	14.02.98	Ormesby, Great Yarmouth	1,107 km SSW
3M	13.12.97	Weybourne	
R	03.04.98	Skudeneshavn, Rogaland, Norway	737 km NE
4F	26.02.94	Winfarthing, Diss	
X	03.01.95	Twisk, Noord-Holland, The Netherlands	270 km E
3M	07.12.88	St. Columb Major, Cornwall	
R	31.05.92	Winfarthing, Diss	472 km NE

The first movement from Norfolk to Denmark is shown. This is not surprising bearing in mind the continuing trend of recoveries to and from Norway. There have now been 19 interchanges between Norfolk and Norway since 1989, but only one before that year. Two additional recoveries from Norway have not been shown.

The report from The Netherlands was the first from Norfolk to that country. The Dutch date suggests that it may have been a Norwegian bird wintering further east during a subsequent winter.

The last shown demonstrates the long established fact that some Norfolk Greenfinch travel southwestwards for the winter. Interesting that this bird travelled nearly twice as far as the one that went to The Netherlands!

Siskin

A remarkable year for Siskin, with an equally remarkable number of recoveries. The following table summarises the Siskin that moved out of England. The month shown is when the bird was trapped in Norfolk and the countries are Scotland, Belgium, The Netherlands, Denmark, Germany, Norway, Sweden and Poland.

	<i>Scot</i>	<i>Belg</i>	<i>Neth</i>	<i>Den</i>	<i>Gmny</i>	<i>Norw</i>	<i>Swed</i>	<i>Pol</i>
January	3			2				1
February	7				1		1	
March	6		2				2	
April	7	1	1					
May						1		
Total	22	1	2	2	1	1	3	1

Our winter Siskin seem to originate from four distinct populations, each with its own areas of coniferous forest - Northern England and Scotland, Scandinavia, Central Germany and locally in Thetford Forest. We need more recoveries to determine whether the Polish bird is an extension of the German population, or whether it forms part of a separate population.

5F	21.03.98	Garboldisham, Diss	
R	04.06.98	East Harling	6 km N
6M	17.01.98	Garboldisham, Diss	
R	29.03.98	Rothbury, Northumberland	374 km NNW
5F	08.02.98	Grimbergen, Oost-Vlaanderen, Belgium	
R	12.04.98	Garboldisham, Diss	264 km NW
6M	05.03.98	Garboldisham, Diss	
R	17.04.98	Klitmoller, Jylland, Denmark	709 km NE
5F	07.02.97	Glentrool, Dumfries & Galloway	
R	05.03.98	Garboldisham, Diss	469 km SE
6M	28.02.98	Gaywood, King's Lynn	
R	11.10.98	Haradsskar, Gryt, Sweden	1,200 km NE
6M	01.04.97	Jagodna, Nowakowo, Elblag, Poland	
R	17.01.98	Garboldisham, Diss	1,243 km W

The first shown is evidence of a bird remaining in the area to breed locally. The second, third and fourth demonstrate that birds that choose to winter here can be a long way away by the end of March or the beginning of April. The fifth is interesting that it chose to spend part, if not all, of its first winter in Scotland, but then its second in Norfolk. The final pair of recoveries represent the most distant of the year.

Movements within Norfolk show many of these birds to be very mobile during the course of the winter. Interestingly, of 49 Siskins re-trapped from previous winters at Garboldisham, only 8 were from more than one year before. The oldest was from four years previously.

Snow Bunting

5	24.01.98	Salthouse, Sheringham	
R	25.03.98	Fair Isle BO, Fair Isle, Scotland	751 km NNW
3	05.12.96	Castricum Duinen, Noord-Holland, The Netherlands	
R	17.02.97	Salthouse	241 km W
R	24.01.98	Salthouse	
4	02.12.95	Salthouse	
RR	25.01.98	Bremen, Germany	502 km E
5	17.01.97	Old Hunstanton	
R	28.02.98	Akureyri, Iceland	1,755 km NW

Birds from the Icelandic and Scandinavian populations are separable in the hand, and the ringing effort along the Norfolk coast have shown that they winter together in the county. Recoveries are now providing the final proof.

At first glance, the Icelandic date seems surprising, but in fact, many Snow Buntings winter on their Icelandic breeding grounds.

THE FOLLOWING ARTISTS MAY BE ABLE TO PROVIDE COPIES OF THEIR WORK OR TAKE COMMISSIONS

Norman Arlott, Hill House, Station Road, Tilney St Lawrence, King's Lynn
PE34 4RB

Peter Beeson, 27 Norman Close, Felixstowe, Suffolk IP11 9NQ

Steve Cale, Bramble Cottage, Westwood Lane, Gt Ryburgh, Fakenham
NR21 7AP

Robert Gillmor, North Light, Hill Top, Cley, Holt NR25 7SE

Vince Hanlon, Owl Cottage, 6 Hart Lane, Bodham, Holt NR25 6NT

Phil Jones, 24 Church Lane, Wolstanton, Newcastle, Staffs ST5 0EG

Chris Lansdell, Meadowsides, The Grove, Rectory Road, Coltishall
NR12 7HG

Richard Millington, Stonerunner, Coast Road, Cley, Holt NR25 7RZ

Martin Preston, Denmark House, Beach Lane, Weybourne, Holt NR25 7SR

Norfolk Ringing Totals – 1998

Mute Swan	16	Stock Dove	24	Blackcap	1701
Pink-footed Goose	1	Woodpigeon	51	Yellow-browed Warbler	1
Greylag Goose	1	Collared Dove	188	Wood Warbler	1
Egyptian Goose	3	Turtle Dove	10	Chiffchaff	1215
Shelduck	11	Barn Owl	62	Willow Warbler	695
Gadwall	15	Tawny Owl	10	Goldcrest	1359
Teal	1	Nightjar	8	Firecrest	7
Mallard	6	Swift	2	Spotted Flycatcher	41
Pochard	2	Kingfisher	13	Pied Flycatcher	31
Tufted Duck	30	Wryneck	2	Bearded Tit	92
Scaup	1	Green Woodpecker	18	Long-tailed Tit	870
Goldeneye	1	Great Sp Woodpecker	51	Marsh Tit	125
Sparrowhawk	25	Lesser Sp Woodpecker	3	Willow Tit	43
Kestrel	27	Skylark	126	Coal Tit	543
Red-legged Partridge	1	Woodlark	113	Bluc Tit	3460
Grey Partridge	46	Shore Lark	44	Great Tit	2732
Water Rail	4	Sand Martin	223	Nuthatch	18
Moorhen	10	Swallow	959	Treecreeper	101
Coot	3	House Martin	252	Golden Oriole	4
Oystercatcher	183	Tree Pipit	1	Jay	29
Avocet	15	Meadow Pipit	86	Magpie	6
Little Ringed Plover	4	Yellow Wagtail	92	Jackdaw	15
Ringed Plover	138	Pied Wagtail	149	Rook	4
Grey Plover	85	Wren	865	Starling	585
Lapwing	146	Duncock	1259	House Sparrow	310
Knot	58	Robin	2872	Tree Sparrow	14
Sanderling	68	Nightingale	13	Chaffinch	2225
Little Stint	7	Redstart	97	Brambling	1230
Curlew Sandpiper	3	Whinchat	24	Greenfinch	5021
Dunlin	517	Stonechat	14	Goldfinch	451
Ruff	1	Wheatear	223	Siskin	4849
Jack Snipe	2	Ring Ouzel	7	Linnet	146
Common Snipe	5	Blackbird	2211	Redpoll	22
Woodcock	4	Fieldfare	25	Crossbill	18
Black-tailed Godwit	74	Song Thrush	500	Bullfinch	226
Bar-tailed Godwit	233	Redwing	123	Snow Bunting	305
Curlew	93	Mistle Thrush	26	Yellowhammer	135
Redshank	43	Cetti's Warbler	2	Reed Bunting	266
Greenshank	1	Grasshopper Warbler	8	Corn Bunting	5
Green Sandpiper	5	Sedge Warbler	395	Total Ringed	44563
Common Sandpiper	13	Marsh Warbler	1		
Turnstone	45	Reed Warbler	1122		
Black-headed Gull	5	Barred Warbler	1		
Common Gull	1	Lesser Whitethroat	93		
Common Tern	145	Whitethroat	497		
Little Tern	486	Garden Warbler	213		

Breeding Woodland Birds of Holkham Park between 1995 and 1997

Andrew Bloomfield

Introduction

Holkham Park is part of one of Norfolk's oldest and largest working estates. Within its 9 mile perimeter wall, 3000 acres of open arable land, grassland and mixed woodland make it a varied and diverse part of the north Norfolk countryside. The 1200 acres of woodland include small clumps, redundant marl pits, plantations, avenues and a continuous perimeter belt. Planting dates back to 1730 (when the beech avenue at the Park's southern end was created) with up to 1,057,940 trees planted between 1781 and 1791. Dominant tree species included oak, ash, sweet chestnut, beech, sycamore and Corsican pine. Lime, elm, larch, horse chestnut, Scots pine, cherry, hazel and ilex oak were also plentiful. The ilex oaks apparently originated from acorns found amongst packing cases sent from Italy in the 1700s. Thanks to the Park's size and the variety of deciduous trees found there it could certainly be described as being one of north Norfolk's finest sites for woodland birds.

Felling and replanting began in earnest in the 1980s. As the woodlands were originally planted with commercial forestry in mind, a great deal of its mature broad-leaved trees have disappeared in recent years. This has been done in block rotations so that a number still remain and also so that large unsightly gaps in the landscape were avoided. From a naturalist's view point it would have been nice to have seen more mature trees and dead wood left, but the subsequent replanting has ensured that Holkham Park will still remain an important locality into the distant future.

In the last five years approximately 75 acres have been replanted, including 8 acres of conifers. The broad-leaved trees were planted as 40% sweet chestnut, 30% oak, 10% cherry, 10% walnut, 5% red oak and 5% other species (including ilex oak, sycamore and field maple). As Dutch Elm Disease remains ever present no elms have been replanted. Beech has also been avoided as it has been found to be more susceptible to damage from Grey Squirrels and fares less well in the drier summers of recent years. This is unfortunate as beech mast is a valuable winter food source for tits, Nuthatches, Hawfinches and Bramblings.

From a bird recording point of view it remains a great shame that no census work on breeding woodland birds was carried out earlier this century when the broad-leaved woods were at the peak of their maturity. In the last three years I have carried out surveys of selected species. Due to the size of the Park and the time I've had available this is by no means fully comprehensive but aims to give an estimate and an insight into the numbers present. Hopefully it will also encourage others to carry out census work in some of Norfolk's similar estates. Comparative studies would no doubt prove that such places are an important home for a high percentage of the County's woodpeckers, Nuthatches and Spotted Flycatchers.

The following summaries were obtained in the years 1995 to 97 and are minimum figures rather than over-estimates:-

Woodcock

The Woodcock is renowned for being a hard species to census. Its nest is difficult to locate, whilst the male's polygamous nature makes an accurate assessment of breeding numbers virtually impossible to determine. Nevertheless the males' roding courtship flight at dusk is noted annually in the spring, whilst nests and females with young are seen irregularly. Numbers of roding males remain difficult to assess as they undertake both lengthy and

varied routes. In the 1970s it was thought that up to 20 roding males were present. One keeper judged (by the number of nests and young seen) there to be between 10 and 20 breeding females present in 1991 and 1992. In the last three years only 3 to 5 roding males were thought to be present in 1995 and 1996, with an increase in 1997 up to 12. This followed two above-average winters (1995/6 and 1996/7) for immigrant Woodcock. Well over 1000 were present in each winter period. The only nest found was in June 1997. Hatching, however, coincided with almost a week of torrential rain and no young survived. Most Woodcock sightings come from the less disturbed southern end of the Park.

Like Pheasants breeding in woodland, the Woodcock prefers dense leaf litter and bramble scrub to nest in. It also needs an abundance of undisturbed open clearings, rides, grassy wood edges and neighbouring meadows. At Holkham, Woodcock are frequently observed leaving the Park at dusk to feed on grassy marshes and wide grass roadside verges during the winter months. So the Park would appear to be the ideal spot for this secretive species. Providing both felling and bramble clearance are avoided in spring and summer, the number of Woodcock will probably remain stable into the future.

Green Woodpecker

Green Woodpeckers have always been a familiar sight in the open grassland. With its scattered clumps, isolated trees and regular grazed parkland, Holkham is an ideal spot for this conspicuous species. Their loud calls and often confiding nature make them an easy species to find. The population has increased from 4 pairs in 1995 to 5 in 1996 and 6 in 1997. Family groups were seen annually. Perhaps with the abundance of suitable habitat there ought to be more present. However, long spells of severe penetrating frosts in the winter are known to affect the Green Woodpecker more than its pied relatives (due to its ground feeding habits) causing mortality and periodic population fluctuations. Other factors which may be restricting numbers are the loss of standing dead wood and its unlucky privilege of being regularly preyed upon by Sparrowhawks.

Great Spotted Woodpecker

As expected, the Great Spotted Woodpecker is the most numerous member of its family in the Park. It is a relatively easy species to census. Drumming usually commences in late January continuing through until late April. Fine, still days in March and early April see a peak in courtship behaviour, drumming and frequent noisy courtship flights. Would-be counters beware as female Great Spotted Woodpeckers occasionally drum, although not to the same extent as female Lesser Spotted Woodpeckers. June usually brings forth the first sights and sounds of youngsters. Prior to fledging, the juveniles are very noisy which enables unlocated nests to be found. Nearly all of the nests found have been in mature deciduous trees, with beech, ash, oak and sweet chestnut favoured. Elm of course was formerly utilised. In the three years, 20 pairs were found in 1995, 19 in 1996 and 18 in 1997. The removal of hardwood has undoubtedly had an effect on this species (one nest was lost to felling in 1995), although it does seem more adaptable than the Lesser Spotted Woodpecker, with an increasing number of records coming from smaller clumps and younger stands. If the Park remains as it is into the foreseeable future, it is highly likely that Great Spotted Woodpeckers will increase again as fledgling success has been good most years. The highest density was in the three-quarter mile stretch of the belt between the northern entrance, west to the church, where 6 pairs were found each year. This area contains a high quantity of oak and chestnut and remains relatively untouched by forestry work. Plenty of standing dead wood undoubtedly adds to the attraction. As much of the Park was once similar to this, one assumes that the Great Spotted Woodpecker population was probably nearly double its present size.

Lesser Spotted Woodpecker

In recent years Holkham Park seems to have gained the reputation of being one of Norfolk's premier localities for this elusive species. This could be due to the fact that many birdwatchers take the easy option and visit Holkham as they know Lesser Spotted Woodpeckers are present. Nevertheless the species has undergone a significant decline both at county and national level since the onset of the 1990s. Dutch Elm Disease devastated the traditional look of the English countryside in the 1970s and 1980s and initially prompted a dramatic upsurge in the Lesser Spotted Woodpecker population. Dead wood became widespread thus providing both an abundance of invertebrate food and nest sites. The subsequent population increase is well illustrated at county level by comparing the 81 localities which Lesser Spotted Woodpeckers were recorded in between 1960 and 1968, with the incredible 228 sites at the height of the epidemic between 1977 and 1986. Since then with many dead elms either becoming victims to gales or the forester's axe, the Lesser Spotted Woodpecker has once more become a scarcely seen localised species.

Holkham Park with its mixture of mature deciduous trees has always been a haven for Lesser Spotted Woodpeckers. No figures are available of population size prior to the 1980s although it has always been a familiar bird to birdwatchers, gamekeepers and forestry workers. Notoriously elusive, Lesser Spotted Woodpeckers should be found relatively easily between mid February and mid April, when courtship and drumming are at their peak. Mornings on fine still days seem to be the best time. Both sexes drum, the female seemingly just as frequently as the male, whilst their clear ringing, almost Kestrel-like calls can often be heard. The males indulge regularly in a spectacular butterfly-like display flight which also gives away the presence of would-be breeders. In the three study years 9 pairs were located both in 1995 and 1996, while only 3-4 pairs could be located in 1997. Surprisingly, only one family party was seen in the three years - in June 1997. This could be due to elusiveness shown once breeding is underway (nest sites are generally higher up in the canopy or in smaller branches thus proving less conspicuous than a Great Spotted Woodpecker's nest) and the time I was able to spend searching. Despite the felling of much hardwood there still remains sufficient habitat for a population increase, although the removal of much of the standing dead wood is undoubtedly having a detrimental effect on the population. Numbers were once evenly scattered throughout the Park, but in all three years most sightings came from around the Hall and in the northern woods, particularly between the Alms Houses and the lake.

Spotted Flycatcher

The Spotted Flycatcher's sleek, upright profile on an exposed perch, when not rushing to and fro in search of insects, has always been an instantly recognisable sign of summer in the Park. Its thin, squeaky calls can be heard in most of the woods, parkland and large gardens of the various farms and surrounding villages.

In 1995 several articles in both national and local press were highlighting a notable decline in the population of breeding Spotted Flycatchers. However, this was certainly not the case at the Park where a minimum of 25 pairs were found. Success was good with several pairs producing two broods. By 1996 numbers had dropped to 19 pairs, while sadly in 1997 only 11 pairs could be found.

Since the 1960s the British population is said to have dropped to a quarter of its numbers. Various factors are thought to be causing the downfall. Cold, wet summers are certainly bad news, making both feeding and food availability difficult. The destruction of suitable habitat and widespread use of various insecticides are also unfavourable factors. Drought in the Sahel region of Africa (where Spotted Flycatchers pass through on their migration to and



Spotted Flycatcher (*M Preston*)

from wintering grounds in southern Africa) has in the past proven to be disastrous for several species of migrant passerines, including Spotted Flycatchers.

Despite the removal of a number of mature ivy-clad trees, there is still plenty of suitable habitat for a larger population. Nest sites in the past have been situated alongside woodland rides, in clearings, clumps and isolated stands of trees in the parkland, well grown gardens and the more mature open woodland such as the Southern Avenue, the Monument and Obelisk Woods. Holes in deciduous trees (oak, beech and chestnut favoured), ivy and various other creeping plants found on garden walls such as rose, clematis, pyrocantha, virginia creeper, and various fruit trees have all provided nest sites in the last three years. A pair in 1996 nested successfully on the top on an old broken telegraph post leant up against the wall of a farm building. In each of three years, the vanguard has arrived in mid May, always earlier than coastal migrants at nearby Holkham Meals. However arrivals were very late in 1997 (despite an early bird appearing on May 3rd) with an almost complete absence until the first week of June. Breeding commenced virtually immediately, although timing was catastrophic as the torrential rain experienced in that month led to many nest desertions and high chick mortality. Of 11 pairs only 5 fledged broods were finally seen.

With the various factors described earlier it is highly probable that the Spotted Flycatcher will continue to fluctuate from year to year in its population size. Holkham Park, it seems, should always remain an excellent place for this charismatic species.

Nuthatch

Holkham Park has traditionally been one of north Norfolk's best spots for Nuthatches. Their noisy and confiding behaviour make them an easy species to find. During spring, the male's song and a pair's dueting calls quickly give away the presence of potential breeders. Although no population census of Nuthatches had ever been carried out, it became very clear in the early 1990s that numbers were plummeting rapidly. Various factors may have caused the decline, such as hardwood felling, felling during the breeding season, poor beechmast crops and bad weather in the summer months. No doubt all these had a knock-on effect in the population decline.

In 1995 despite an extensive search, only 18 pairs could be found. Many of their old haunts were uninhabited, and those that were produced very few fledglings. The autumn of 1995, however, brought one of the best crops of beechmast for many years. This presumably was an important lifeline for the Nuthatches as up to 30 pairs were found in 1996 and 36 pairs in 1997. In both years numbers of fledglings were high and survival rate also good. Such a recovery is most encouraging. Population fluctuations will no doubt continue into

the future considering past factors, however there is also plenty of habitat left for a further increase in Nuthatch numbers.

Hawfinch

As in many parts of its British range the Hawfinch remains a shy and mysterious bird in Holkham Park. Through the 1980s birdwatchers looked upon the site as being one of the finest places in Norfolk to see this elusive species in the winter months. The mixture of beech, hornbeam, chestnut and yew inside the northern entrance to the Park has traditionally been the favoured spot. Records reached an obvious peak annually (both in numbers and the amount of time spent there) in March and April. In this period much singing and displaying was often noted and evidence seemed to point to the area being a traditional courtship ground. Yet away from this area and the winter months, Hawfinches were very seldom seen in other areas of the Park.

Into the 1990s Hawfinches frequented the site far less regularly in the winter months, although they continued to appear in the spring (albeit less frequently). Food availability is an important factor but I feel site desertion was probably brought about more by almost constant disturbance by irresponsible birdwatchers. In the 1980s Hawfinches were seldom noted at other woods, even during their peak years. Where they went when not near the main gates has always remained a puzzling unanswered question. With increasing disturbance in recent years, Hawfinches have now begun to appear at three other sites regularly.

Although breeding has only been proven on 2 occasions (1993 and 1995) it has been suspected many times and it seems highly likely it is an annual event. The cock bird's song, whilst unfamiliar to many, is very distinctive albeit quite quiet on occasions. Often quoted as seldom heard, this is certainly untrue during the spring at Holkham. Other clues of potential breeders include the elaborate pair bonding displays. I've been fortunate enough to note the females food begging, bill touching by the pair and on one occasion the males strutting, bowing gait with wings outstretched. In 1995 a pair successfully fledged 3 youngsters, whilst another pair also probably bred. Four pairs were present in 1996 and 3 in 1997, when nest building was noted. Nesting in 1995 was confirmed at an Ilex Oak tree, something that has been suspected of several times in the past. With an abundance of these in the Park and many of the replanted areas containing good hard wood mixes including plenty of cherry and walnut the future of Holkham's Hawfinches looks even brighter. The planting of more hornbeam would of course be even more beneficial.

Other woodland species

Whilst some woodland species have declined (hopefully just in the short term) alongside woodland removal, several other species seem to have benefited from subsequent scrub growth in clearings amongst the new plantations. Whitethroats were formerly noted at only a couple of sites but in 1995 a minimum of 12 pairs were found, all in new plantations. Blackcaps also seem to be doing very well, with 40 pairs found in 1995; younger hardwood stands and scrubby clearings being favoured. No Garden Warblers or Lesser Whitethroats were noted in any year. Song Thrushes declined noticeably during the late 1980s, so it was very encouraging to find 6 broods in a third of a mile stretch of young Ash and Sycamores. In the spring of 1997 a minimum of 30 singing males were found throughout the Park, with most favouring younger stands. As mentioned in the Woodcock section, low scrub consisting of brambles, nettles and rose bay willow herb is a very important habitat for breeding warblers at Holkham, not only for nest sites but also for the variety of insect life on which they feed. With several large clearing now in the woodlands, Tree Pipits (which have never been recorded breeding) and even Nightjars might be future nesters.

The following species also bred in Holkham Park's woodlands between 1995 and 1997. Full surveys were not carried out (except where marked):- Grey Heron (3 nests in 1997, first breeding record since 1993), Sparrowhawk (a minimum of 4 pairs annually), Kestrel (only 3 pairs each year), Pheasant, Grey Partridge, Red-legged Partridge, Barn Owl (2 pairs in 1995 and 1996, one nest in an oak the other in a beech), Tawny Owl (a minimum of 15 territories in 1997), Woodpigeon, Stock Dove (a minimum of 40 territories in 1997), Turtle Dove (one singing male in 1997 only), Dunnock, Wren, Robin, Blackbird, Mistle Thrush (minimum of 20 singing males in 1995), Willow Warbler, Chiffchaff, Goldcrest (a minimum of 35 territories in 1995), Marsh Tit (a minimum of 15 pairs in 1996), Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Treecreeper (a minimum of 30 singing males in 1995), Starling, Jay, Magpie, Jackdaw (a minimum of 50 pairs in 1997), Carrion Crow, Chaffinch, Siskin (one pair bred successfully in 1997), Greenfinch and Goldfinch.

The following species were recorded in the 1995-97 period either as migrants or non-breeding summer visitors that could potentially be future breeders: Goshawk, Common Buzzard, Honey Buzzard, Hobby, Wood Warbler, Pied Flycatcher, Firecrest and Golden Oriole.

The following species have bred at Holkham Park in the past, but were not recorded in 1995-97: Long-eared Owl, Redstart, Lesser Whitethroat, Garden Warbler, Bullfinch and Tree Sparrow.

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The BTO/JNCC/RSPB Breeding Bird Survey (BBS)

This started in 1994 and gives all birdwatchers a chance to take part in important survey work. If you have a few hours to spare each year and wish to take part in the BBS, please contact your BTO Regional Representative or Richard Bashford at the BTO, National Centre for Ornithology, The Nunnery, Thetford, Norfolk IP24 3NR, (01842) 750050

Titchwell – a day to remember

Peter Bradley, Warden

A day's birdwatching at Titchwell usually produces some interesting gulls. Well, for whatever reason, Sunday 10 May 1998 was just such a day, with 10 gull species, 2 of them American vagrants.

An adult Laughing Gull, in cracking summer plumage, was first seen on the brackish marsh at mid-morning on Saturday 9th, near a sub-adult Mediterranean Gull and several Common Gulls. Strangely enough it was an American visitor who was the first to point it out to Dave (one of the volunteer wardens) who that morning was making the most of the warm, quite still conditions to map Bearded Tits from the west bank path. The Laughing Gull quickly received confirmation, and its presence soon drew in large numbers of birders who were making the most of an excellent weekend in North Norfolk.

On the Sunday life became very hectic for the staff on duty. By midday not only was the Laughing Gull still on the brackish marsh, but also a 1st-summer Franklin's Gull! This bird kept popping in and out of Titchwell - resting, feeding with a Black Tern over the freshmarsh, then disappearing out to sea.

This teasing act resulted in a lot of visits to the site; many birders yo-yoing back and forth, arriving in the morning for the Laughing Gull, leaving, racing back for the Franklin's, dipping ... only to come racing back again when it reappeared. There were 1700 visitors on that day. Thanks to the newly extended car park, good work by staff and volunteers, and everybody's good humour and patience, just about everyone managed to squeeze in.

Sadly, the Franklin's Gull was a one day wonder, and following a number of pretences at flying off to sea it really did, and that was that. The Laughing Gull stayed on in the area until June 3rd. While at Titchwell, it seemed to favour sitting in the middle of the Black-headed Gulls on the brackish marsh, sticking its bottom in the air, and shouting loudly at the other residents. Later, it became more regular at Hunstanton, where expressing a liking for junk food it received several meals of chips and bread from delighted bird photographers.

PRINTS OF PHOTOGRAPHS INCLUDING THOSE FEATURED IN THIS REPORT MAY BE OBTAINED FROM:

Julian Bhalerao, 23 Childs Way, Sheringham NR26 8TX

Andrew Bloomfield, 4 Heath Rise, Syderstone, King's Lynn PE31 8TN

Neil Bowman, Clare Cottage, Eccles on Sea NR12 0SW

Robin Chittenden, 65 Sandringham Road, Norwich NR2 3RZ

Iain Leach, 26 Ashchurch Drive, Wollaton, Notts NG8 2RA

Brian Macfarlane, 10 Peregrine Road, Norwich

Dave Nye, 2 Aran Drive, The Meadow, Sheringham NR26 8UR

Gary Smith, 19 The Elms, Hindringham, Fakenham NR21 0PF

Alan Tate, 55 Woodlands Way, Mildenhall, Suffolk IP28 7JA

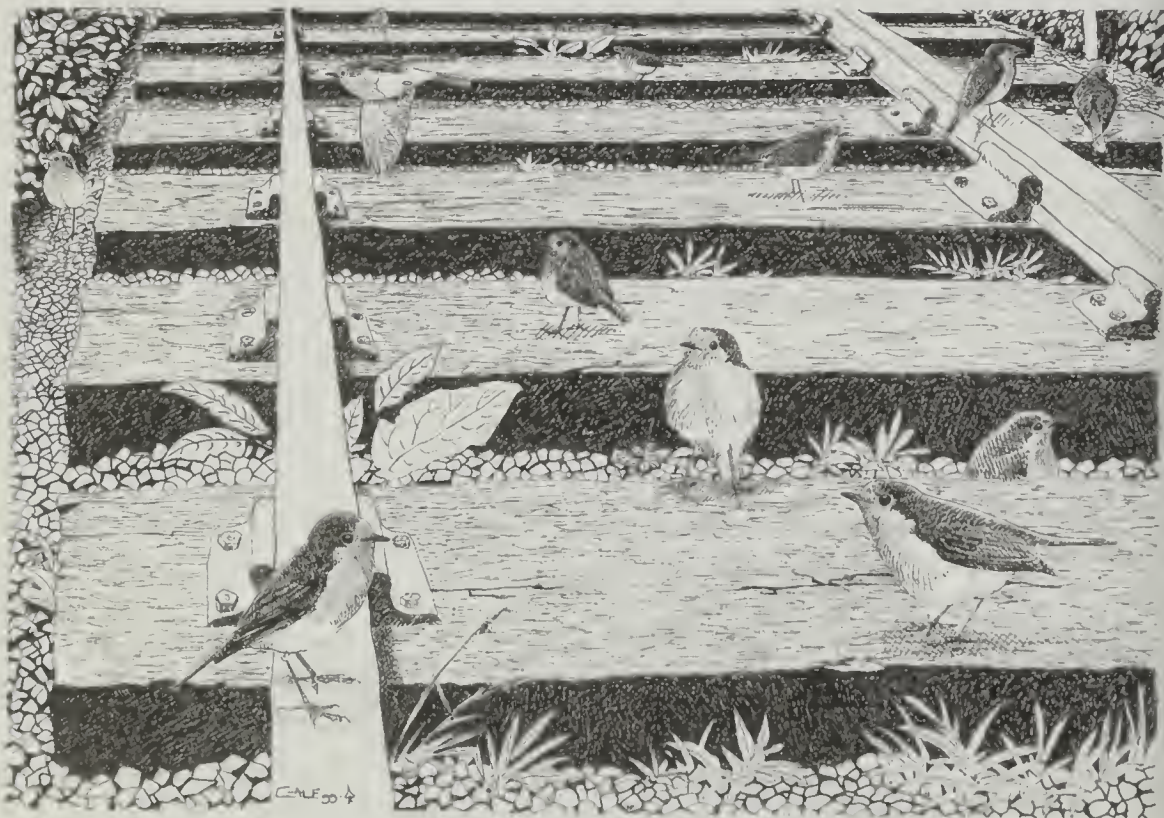
Steve Young, 6 Portelet Road, Liverpool L13 6SE

The Classic Robin fall of early October 1998

Tim Wright and Mike Young-Powell

Early October 1998 will be treated by many as one of those fantastic birdwatching experiences that typifies the wonderful potential of Norfolk during migration periods. The weather was cool and overcast, threatening rain, with a raw east to north-east wind and choppy grey sea, hardly looking as if any birds were going to be around at all. There were of course those who braved the unfriendly conditions with hope and expectation. A sixth sense coupled with great enthusiasm saw many up at dawn several days running to check their favourite haunts. It soon became clear that the predictions of a major fall were well founded. As dawn broke on the 1st coastal localities were subject to a backing cacophony of Robins, Song Thrushes hurtling overhead, Meadow Pipits chirping noisily, Dunnocks calling in strange locations - on this and subsequent days massive numbers of immigrant passerines arrived, providing for many the highlight of the birdwatching year.

Everyone out and about on the first day of the fall will have memories to be treasured; in MYP's case, he was watching dozens of Robins flitting along the base of the cliffs at Sheringham, pale, orangy birds, clearly of Continental origin and behaving quite unlike our native Robins, disappearing into every hole and hollow, even into a length of discarded drainage pipe. Large numbers were reported all along the coastline from Hunstanton to Yarmouth. Counts included 370 Holme, 650 Scolt Head, 3000 between Lady Ann's Drive and Wells Beach car park, 375 Blakeney Point, 200 Weybourne Camp, 400 Sheringham Bird Observatory, 300+ between Overstrand and Sidcstrand, 200 Paston area and 200 Yarmouth Cemetery. It is not possible to estimate numbers arriving from non-standardised



Robins (*S Cale*)

counts, but clearly many thousands of birds were involved with most arriving between dawn and early afternoon.

Sandwiched between the twin peaks for the north coast on the 1st and 3rd, the 2nd, was something of a hiatus, although birds were probably still arriving. There were still some good counts of Robins, including 300 Holme, 200 Scolt Head, 100 Wells East Hills, 300+ Blakeney Point, 50 Friary Hills, Blakeney, 300 Sheringham BO, 100+ Overstrand and 150 Yarmouth Cemetery.

The 3rd produced more excitement dominated by Robins just about everywhere. TW's long lasting memory was of persistent fine rain in the early afternoon with a cool north-easterly wind and birds being brought down with the rain and suddenly appearing as if from nowhere. It was literally raining birds! A look down the sheltered railway cutting alongside Sheringham Golf Course revealed it was alive with Robins hopping around on the railway track, flitting from bushes and posts, and picking up every morsel they could find. They were unperturbed by the presence of other birds close by. It was a similar picture along the paths in nearby Dead Man's Wood and on the sheltered west side where birds were feeding well out into the arable field. The sound was of constant "ticking" Robins from all around. It brought back memories of 18th September 1995 when numerous Redstarts occupied the same spots as Robins. Counts that day around the coast were impressive and included: 350 Holme, 1000 Scolt Head, 120 Burnham Overy Dunes, 150+ Warham Greens, 500+ Blakeney Point, 450 Sheringham BO, 3-400 East/West Runton, 140+ Happisburgh, 50 Sea Palling, 350 Winterton, and 270+ Yarmouth Cemetery; 40+ also appeared in the Wash at Snettisham CP. In contrast to the 1st the main arrival at Scolt Head, Blakeney Point and Sheringham was between 1400 hrs and dusk.

Data for the next few days reveals a gradual decline in Robin numbers. Even so there were still three-figure counts at a number of coastal localities and undoubtedly fresh arrivals. Notable counts on the 4th were 400 Scolt Head, 150 Wells East Hills, 250 Sheringham BO, 200 Sidestrand, 200+ Winterton and 320+ Yarmouth Cemetery. The 5th saw an impressive 1000 logged at Holkham Meals but it is difficult to put this into perspective due to minimal information on other dates, and the size of the area. Interestingly Yarmouth Cemetery was an exception to numbers dwindling after 3rd; in fact there was an increase here from the 2nd through to the 6th after which numbers declined. The 5th saw 400+ with 500 on the 6th. Other high counts on the 6th included 325 Holme and 200 at Scolt Head.

By the 7th three-figure counts were received from just four coastal localities and little data is available for the 8th and 9th. On the 10th only 100 were counted at Holkham Meals with 75 Holme, 100 at Burnham Overy Dunes and 80 Sheringham BO. It was just about all over. On the 12th only one bird was reported from Yarmouth Cemetery! Robin influxes were also noted inland, particularly at Guist during the first week of October. Northrepps saw 100 on Oct 4th and 90 on 6th, with 30+ at East Ruston Common on 8th.

Analysis of ringing information is valuable. At three sites on the north coast the total numbers ringed for Oct 1st-7th were as follows:

Weybourne Camp	327
Weybourne (Denmark House)	501
Sheringham BO (Dead Man's Wood only)	418

Impressive numbers indeed for three smallish areas along just 3.5 km of coastline. At Sheringham the majority ringed were certainly of the Continental race *rubecula*. Most were birds of the year pointing to a fall of juvenile birds. BWP (Coneise Ed) states that there is a slight tendency for the passage of juveniles to be separate from adult birds. The numbers of

retrapped birds at Sheringham were relatively low suggesting most birds were moving on and being replaced by new arrivals.

Continental Robins are totally migratory in the north east of their range which includes much of Scandinavia, Finland and Germany, as well as Poland, the Czech Republic, Hungary, Rumania and countries further north and east into Russia. They are partially migratory in some regions especially West Germany and Belgium, and probably largely sedentary in Iberia. Birds winter south to Saharan Oases and the Middle East. They are mostly nocturnal migrants with some local movements occurring by day. An interesting recovery involved a bird ringed at Sheringham on 1st October 1998 which was recovered 41 days later on 11th November in North Africa (Constantine, Algeria), an impressive distance of 1842 km south.

Close scrutiny of the weather conditions up to and during the falls of birds on September 29th and 30th, indicated a high pressure area building over Scandinavia with an easterly airstream beneath to the south. The weather over Great Britain was very unsettled with deepening low pressure initially centred over south west England. October 1st saw the high pressure centred over the North Baltic with a north-easterly airstream, the wind being pulled towards a deep low pressure centred over the Channel. As the days progressed, the high pressure remained more or less static with the low moving away to the south. The high became more dominant pushing east to north-easterly winds onto the east coast of Britain. Classic fall conditions indeed as birds setting off and moving in ideal clear weather in excellent conditions became caught up in cloudy, sometimes wet, generally murky and windy weather, ending up being dumped, exhausted and hungry on the east coast of Britain. Initially the conditions surely brought us birds from Scandinavia and Finland. However on later days, the expanse of the high pressure and the distance from which the airstream was coming, suggests birds from further east well into Europe and probably Asia. A number of Robins met their demise which is inevitable with such huge numbers and the poor weather conditions. At Scolt Head at least 25 birds were found dead in late Sept/early Oct. There were probably many more with several seen drowning in the sea and also in the Channel as they tried to leave the island although exhausted.

Other species involved in this fall included Song Thrushes which may not have been quite so conspicuous but were present in huge numbers on the 1st. Meadow Pipits were also very obvious at this time with the highest counts tending to fall on the 2nd. Nevertheless large numbers continued to be seen until the 7th, particularly of birds flying south off the sea at Scolt Head. There were sadly some casualties amongst this species, with a few emaciated birds found dead at Scolt Head and Sheringham BO. Birds were also steering clear of their usual open habitat and seeking the shelter of trees at Sheringham. Particularly obvious also were Goldcrests which suddenly arrived in large numbers on the 3rd and there were further big falls on the 4th-7th. Reed Buntings saw an influx on the 3rd but again numbers peaked later in the week with the largest on the 5th. The migration of Willow Warblers continued unusually strongly into early October and Chiffchaffs also arrived in large numbers during 6th-8th. There were also less obvious but noteworthy influxes of Dunnock, Redstart, Wheatear, Ring Ouzel, Tree Pipit, Grasshopper Warbler and Reed Warbler. More unusual species included a sprinkling of Red-breasted Flycatchers, an odd Hoopoe and an outstanding number of Great Grey Shrikes. It also heralded the beginning of an unprecedented arrival of Shore Larks.

As is very often the case rarities were mostly conspicuous by their absence amongst the masses of common migrants. There were one or two notable exceptions including Little Bunting (Weybourne 3rd/4th), Rustic Bunting (Stiffkey Fen 4th) and 2 Red-throated Pipits (West Runton 9th and Sheringham BO 10th). A number of unusual races of common species

also appeared, the outstanding example being an Eastern Skylark at Sheringham BO on the 5th. A number of *acredula* Willow Warblers and *abietinus* Chiffchaffs were also seen.

Elsewhere along the east coast of England, the Robin influx was widespread with 1200 at Flamborough Head on the 3rd; on the 5th there were 500 at nearby Filey, 3000 at Spurn and 540 at Gibraltar Point. Song Thrush counts included 500 at Filey on the 1st and 335 at Gibraltar Point on the 3rd. Chiffchaffs were conspicuous on the 5th with 200 at Flamborough Head and 150 at Spurn. Undoubtedly there were many thousands of birds involved in this major influx.

Whatever memory or memories remain with people of this classic fall there can be no doubt that it was one of the wonders of bird migration. We hear of, and may be lucky enough to witness, huge numbers of migrant birds at exotic localities thousands of miles away, however such occurrences can take place virtually in our back yard. On the positive side it is gratifying to know that such numbers of birds still exist amongst the doom and gloom of declines in populations. Conversely the vulnerability of birds at such stressful times, and the perils they face must also not be forgotten. What is also illustrated by the fall is how critical the weather conditions are, as well as the timing and location of such conditions. Such falls are freak occurrences and not run of the mill. Nevertheless it reaffirms Norfolk's great potential for such events. The last major Robin influx along the east coast of England took place in 1951, similarly during the first days of October. It will be very interesting to see whether we have to wait the best part of 50 years before the next major influx.

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Norfolk Bird Club Bulletins 33-34 (Norfolk Bird Club 1999)
Seago M J. *Birds of Norfolk* (1977)
The Meteorological Office.

Norfolk Bird Club

The NBC was established in 1992 to provide a forum for all those interested in the county's birds and their conservation and to promote improved communication and exchange of ideas amongst birdwatchers throughout the county. The club publishes six bulletins during the year, holds indoor meetings and organises bird survey work.

Bulletin Editors:

Andrew Bloomfield
4 Heath Rise
Syderstone, Docking
PE31 8TN

Vernon Eve

Pebble House, The Street
Syderstone PE31 8SD
Tel: 01485 578121

Membership Secretary:

Bill Landells
North Haven
Marks Lane
Santon Downham
Brandon IP27 0TG

Annual Subscriptions:

Individual: £8.50
Joint: £11.00

Pied Wagtails in Central Norwich

Observations of Norfolk's largest ever winter roost 1997-8 and 1998-9

Justin Lansdell



Pied Wagtails (*C Lansdell*)

Introduction

Living and working in Norwich city centre, I have always marvelled at the way in which some familiar species adapt to survive in the melee of inner city life. Winter brings many opportunities to study these with gull flocks on school fields, winter thrushes penetrating suburbia, and the added spice of warblers in terrace street gardens. However, short daylight hours and office work limit birding possibilities, with my notebook often padded out with nothing more spectacular than counts of feral wild fowl from the Riverside Walk!

On leaving work late in the afternoon of 20 November 1997 I was therefore curious when two small flocks of Pied Wagtails (*Motacilla alba yarrellii*) flew over Surrey Street calling loudly. A few minutes later I was enjoying the truly amazing sight of a noisy and active roost of some 420 birds in nearby Brigg Street, just a few feet above the heads of hoards of shoppers. The discovery was to change the nature of my mid-week bird watching, and over the following few months I observed the roost regularly.

Nothing however prepared me for the many evenings I was to spend in Brigg Street after the roost re-formed in late autumn 1998. As numbers built up steadily and the significance of the roost increased my visits turned into an obsession, with other aspects of my social life neglected in favour of icy nights in the deserted pedestrian street.

The Roost Site

The roost site itself is situated in four ornamental plane trees (*Platanus sp*) in Brigg Street, a busy pedestrian street in the centre of Norwich's high street shopping district. Protected on three sides by 3-4 storey department stores, the selected site is sheltered from winds, particularly the cool northerly and easterly breezes from which Norfolk suffers during mid-winter.

The trees stand 50-60 ft tall with no branches on the lower half. Above this a large rounded head of densely packed branches and twigs provides cover for roosting wagtails. The trees are slow to lose their leaves in late autumn and sluggish in regaining foliage in spring, in fact so slow when the roost was deserted in April 1999 the trees were barely in bud.

Thousands of passers-by who use the street daily plus the neon lighting from shops and decorative Christmas lighting presumably offer the warmest possible location for a roost. In December 1997 the roost trees draped in festive lighting and glowing 'golden' wagtails made a comical sight, the daily turning on of the lighting not deterring the roosting birds at all!

Nearby shop window ledges and roofs were only used rarely as roost sites in winter 1997-98, when poor weather made the trees less appealing. In 1998-99 however the huge upsurge in numbers found arboreal roost sites crammed with wagtails and the buildings were utilised regularly by significant numbers including an intrepid flock which spent a series of cold nights some 100 ft up on a narrow decorative ledge on the north-west wall of Debenhams store. The same store also offered a temporary alternative that winter when small fir trees used to celebrate the seasonal festivities were exploited by small numbers of tightly packed roosting birds.

Counts

Anybody who has attempted to count a roost will testify to just how difficult this is. All counts are based on careful scrutiny, three accurate counts are made and the average of those is used as an educated estimate. This is clearly not a quick process often involving a visit of approaching an hour and frozen fingers.

Winter 1997-98

Following the discovery of the roost numbers rose steadily reaching a peak of 680 on 8 December 1997. The nightly population remained around the 400-500 mark until early February after which the roost was abandoned. Despite searching the new location was not found. Throughout its occupation birds favoured the most sheltered tree (outside R G Pilch) with often over half the individuals in that tree alone. The most exposed tree (closest to Marks and Spencer) never held wagtails.

Winter 1998-99

Rediscovered in late September the communal city centre roost initially occupied a recently planted row of small densely leaved plane trees in adjacent Surrey Street. Although difficult to assess, numbers peaked at 325 on 9 October after which this figure dwindled. Closer to the ground this roost site was presumably vacated in early November as leaves fell exposing the wagtails which were often only at arms reach above passing office workers.

By this time the 'traditional' Brigg Street roost was already occupied and numbers there remained at similar levels to the previous winter's peak until dipping around the new year (thought likely to be weather induced). This was followed by a dramatic surge in the population size peaking at 1249 on 1 February. By this time the spectacle became the largest ever recorded in our county.

Another unexplained and short-lived decrease soon brought numbers to more modest levels but mid-February (by which time the roost was deserted in the previous winter) saw unbelievable four figure counts on seven consecutive bitterly cold visits with an all time maximum of 1584 on 24 February. Surprisingly significant numbers lingered well into March with 620 on 22 March the last major count and a small number hung on until 6 April by which time territorial pairs were visible around Norwich.

Behaviour

Throughout the observations, irrespective of the weather, the roosting Pied Wagtails began arriving 30-45 minutes before sunset. Small groups (rarely more than ten individuals) calling

Pied Wagtail Roost



and dropping vertically into the trees, often from a great height, many groups arriving in quick succession. The early arriving flocks regularly spent time perched on prominent roofs overlooking the roost site, noisily calling birds into the roost. Unlike other roost gatherings (BWP) few, if any, birds were seen to arrive after nightfall.

Once in the trees the cacophony of chirruping wagtails was often deafening, as individuals jostled for prime positions in the sheltered centre of the trees or on favoured ledges nearby. Movement between roost perches was not unusual, but as darkness fell the noise level dropped as the flock settled in, and late evening visits were greeted by silence.

Very obligingly, the roost was seemingly unruffled by the melee of shoppers below, loud noise caused little disturbance. On rare occasions when 'dread' flights occurred (notably when a fire engine passed below and when plastic bags were caught in the branches) the entire roost was evacuated, but repopulated within minutes.

In winter 1997-98 no other species were observed sharing the roost site. However intermittently during Nov-Dec 1998 the trees were also utilised by variable numbers of Starlings (*Sturnus vulgaris*) with a maximum of 198 on 2 December. More unusual was a single Robin (*Erithacus rubecula*) which spent the night of 12 January 1999 amongst the wagtail hoards. Neither species seemed to upset the Pied Wagtails, with birds competing for favoured branches and cohabiting without any obvious impact on numbers.

The dramatic spectacle of the roost initially drew much attention locally. On numerous occasions I stopped counting to participate in a public relations exercise, explaining the reasons for the roost and its importance to interested members of the public. Local newspapers carried a number of letters from laymen asking people to keep an eye open for birds, variously described as Long-tailed Tits (*Aegithalos caudatus*), Waxwings (*Bombycilla garrulus*) and even Lapwings (*Vanellus vanellus*)! In mid-December 1997 I wrote to the Eastern Evening News who gladly published my letter clarifying the situation.

The roost has provided me with many fascinating moments not least the many mist-shrouded evenings I have spent gazing in amazement at the almost lifeless wagtails, their headless shapes golden beneath the glow of nearby neon lighting. Reward for many evenings' toil, and a poignant reminder that priceless sightings often surprise you at times when you least expect, even in city centres.

Ringing in Norfolk

By Allan Hale

Why ring birds? Well, in the early days of the Bird Ringing Scheme, it was simply to find out where birds went, and this was achieved by attaching a small, uniquely numbered metal ring to a bird's leg, thus enabling it to be identified as an individual. We have learnt much from such ringing. We know for instance, that our Swallows winter in Southern Africa, and that many of our Starlings move out in spring to breed in Northern and Eastern Europe.

After 90 years of ringing there is still more to learn about migration routes and wintering areas, information which is often vital for conservation. However, the main purpose of the Ringing Scheme today is to monitor bird populations. Ringing allows us to study how many young birds leave the nest and survive to become adults each year, as well as how many adults survive the stresses of breeding, migration and severe weather. Changes in these birth and death rates are important as they may provide an early warning that a particular species is starting to decline. Ringing allowed us to identify a decline in the survival rate of Sedge Warblers and to link this to the rainfall index in their wintering area in the Sahel desert in Africa. Ringing also lets us work out the stage in birds' lives which is being affected, and has demonstrated that the recent dramatic decline in the numbers of Song Thrushes has been caused by a reduction in the survival of young birds in their first 2 months of life.

Norfolk's ringers are playing their part in this vital research. As well as conducting *ad hoc* ringing, many studies are under way, some individual and some as part of co-ordinated country-wide projects. Under the auspices of the British Trust for Ornithology, Constant Effort Sites are worked by ringers throughout Britain. The CES scheme aims to gather information which will help to explain bird population changes, through a programme of summer ringing in specific habitats. Changes between years in the total of adults captured provide an index of population change at the study sites. Information on post-fledging productivity is provided by the ratio of juveniles to adults captured in the late season, while between-year retraps provide information on survival. As most of these sites are in specified habitats, relationships between habitat and population changes can be investigated. A total of 7 CES are worked in Norfolk; these are at Barton Turf, Hilborough, Lopham Fen, Martham, Thetford, Weybourne and Wissington.

The Retrapping Adults for Survival (RAS) Project is a new national ringing project which started in 1998. The objective of the project is to gather retrap information which will allow us to monitor the survival rates of a wide range of birds in a variety of breeding habitats. This is done by aiming to catch all the adults of a chosen species in the selected study area each year. Information on survival rates is important because it can help us to understand why bird populations may be changing. Knowing about changes in survival rates of birds is vital for effective conservation action, but all too often this information is sadly lacking. RAS studies in Norfolk include Sand Martin at Worstead, Whitethroat at both Thetford and Winfarthing, and Blackbird, Siskin, Chaffinch and Greenfinch at Thetford.

At the forefront of local research projects is the North West Norfolk Ringing Group. Although formed as recently as 1990, it was responsible for 16% of all birds ringed in the county in 1998. The group's activities are led by specific scientific objectives and conservation-based projects. Many of the research projects have been associated with conservation organisations such as the RSPB and academic institutions such as the UEA. The group has instigated research projects of a unique nature on species that have not been well studied in the county. The aim is to publish scientific papers of the results in the

appropriate journals. The following few paragraphs illustrate some of the projects being run by the group.

The study of breeding Ringed Plover on the beaches from Hunstanton to Snettisham is taking a unique approach to looking at the effects of disturbance on breeding birds. Since 1994 over 600 birds have been individually colour-ringed, an essential part of this study, which allows detailed observations to be made of factors such as survival and breeding success and failure. The results show that disturbance at current levels is having the effect of reducing the population size below that which the beach should support – a direct result of human impact.

A local Avocet population is monitored by colour-ringing the chicks. The study aims to generate subsequent sightings in order that fledging success can be determined and productivity estimated. Both this study and the preceding one are carried out in conjunction with the RSPB.

In winter, the group runs a project on wintering Snow Buntings and, in the past few years, on Twite as well. The Snow Bunting project has run for 9 years and is one of the longest studies of its type in Europe. In terms of the numbers ringed, over 1600, Norfolk now has the highest ringing total for this species. The objectives of the study are to determine the racial origins and age and sex composition of the birds wintering in Norfolk. The county gets mostly Icelandic birds in winter, but Scandinavian birds can make up 50% of the catches in some years. Being at the southern edge of the range, 80% of the birds are juveniles and 80% are also females, the males wintering further north. Birds are colour-ringed with individual combinations and the re-sighting rate is good. This has enabled a detailed picture of movements around the Norfolk coast both within a winter and between subsequent winters. Snow Buntings are highly mobile and range from Snettisham in the west to Salthouse in the east, with flocks and individuals moving between sites. The colour-ringing has also shown us the migration routes birds take back to the breeding grounds. The peak movement north for Norfolk birds is as early as the second week of February. Birds put on a small amount of fat before departing to fatten further north before making the final journey back to Scandinavia or Iceland.

This project is also linked to the UEA. Individual colour-ringing and detailed observations of the birds on patches of seed has allowed non-invasive research into the behavioural ecology, foraging and competitive behaviour of the birds. A greater understanding of these complex processes is of major importance in predicting how bird populations may be affected by environmental change or habitat loss, such as that expected from sea-level rise. Snow Buntings are easy to study and may act as a model for ecologically similar (and now threatened) species such as Twite, Shore Lark, Skylark, Tree Sparrow and Linnet as well as other buntings, finches and larks.

In spring NWNRG studies the Wheatear migration through Norfolk. In past Norfolk Bird & Mammal Reports, there are several references to 'Greenland' type birds. Field identification of this race is not straightforward with some reference works stating that they stand more upright, are larger and brighter coloured and perch more on bushes; all very subjective. Both the nominate *oenanthe* and Greenland *leucorhoa* exhibit much plumage variation. Biometrics taken during ringing has shown that after 15 April the majority of birds are of the Greenland race and by May virtually all birds are of this race.

In 1999 the Wash Wader Ringing Group will be celebrating 40 years of wader ringing on the Wash. This continuing programme, gives what is thought to be the longest wader ringing data set in the world. The aim of the Group is, and always has been, to provide a better understanding of the waders using the Wash so that decisions relating to the Wash can be taken in the light of factual information. To this end the Group aims to monitor the 11 most

common waders using the Wash, ie Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank and Turnstone.



Sanderling (*R Gillmor*)

Looking back at the national Reports on Bird Ringing for the early 1960s published in *British Birds* one sees just how few waders had been ringed at that time (for example less than 3000 Dunlin and only 140 Knot had been ringed in the period 1909-1959). The early Wash Wader Ringing Group's reports for the 1960s and 1970s chronicle discoveries which are now taken for granted but which at the time were totally unknown. This included the charting of migration routes, and a summary of what had been established in the first 20 years of the Group's existence was given in the 1983-4 report.

Whilst there was a period in the 1970s when the Group's work intensified in connection with the proposed water storage project, the Group's current level of activity aims to continue to monitor the 11 study species with catches approximately monthly throughout the year and with more intensive fieldwork during the autumn migration.

Although main migration routes may have been documented there is much we do not know about the waders using the Wash. One of the benefits of a long term study such as this is to be able to monitor changes over time. Particularly striking has been the increase in Black-tailed Godwit, a species only added as one of the study birds in recent years, as they were rare when the Group was formed. Aided by the use of colour rings, the Group has been able to establish that these are Icelandic birds and that they continue further south within Britain after moulting (WWRG Report 1993-4). Conversely, Dunlin are now giving cause for concern as the numbers are declining. Work using WWRG data is currently underway to document and explain the recent misfortunes of the Oystercatcher population.

On the North Norfolk coast there are bird observatories at Holme and near Sheringham. Ringing plays a significant part in the study of migration at these sites. Additional coastal migration studies are taking place at 2 other sites at Weybourne.

A study of wintering Siskin at Garboldisham, near Diss, is in its fifth year with an annual report being published showing a summary of results. Recoveries of Garboldisham-ringed birds has shown that our winter Siskin seem to originate from 4 distinct populations, each with its own areas of coniferous forest - Northern England and Scotland, Scandinavia, Central Germany and locally in Thetford Forest. Further recoveries will doubtless determine whether a recently recovered bird from Poland is an extension of the German population, or whether it forms part of a separate population.

In Breckland the Woodlark population has increased from 48 pairs in 1986 (26 in Norfolk) to 549 pairs in 1998 (309 in Norfolk). The colour-ringing of nestlings has taken place since 1986 with a total of 1,230 ringed to date (785 in Norfolk). The objectives of the study are to identify the wintering areas of Breckland-bred birds, with sightings from places as far afield as the Isles of Scilly, South Devon, Kent and The Netherlands. The study also monitors site

fidelity, survival rates and the dispersal of birds to other breeding areas, such as North Lincolnshire, Nottinghamshire, North Norfolk, East Suffolk and Surrey.

A project to study Reed Buntings on the Mid Yare Reserve is being funded by the BTO. This is using ringing to establish how Reed Buntings utilise farmland habitats during the winter months for foraging and to determine seed size preference. During the breeding season it then aims to establish breeding population size, breeding habitat choice, territory size, site fidelity, survival and whether breeding birds and/or fledged juveniles form the wintering population and vice versa. Amongst early unexpected results is the fact that the winter population far exceeds that which was expected and that 80% of these birds are males.



Reed Buntings (*R Millington*)

The Little Tern is a rare breeding species and occurs in internationally important numbers in this country. Since 1986 a long term ringing project has been carried out on Little Tern chicks at the North Denes colony, Great Yarmouth. The colony is wardened full time during the breeding season by RSPB staff. The ringing data has been a useful tool for monitoring productivity. Biometric data (particularly repeated measurements from birds which are retrapped up to 3 times during the breeding season) provides information on growth rates, and is subsequently a good indicator of food availability. This information allows comparisons to be made between years and could be important in providing early warning of a decline in breeding success or food availability. The provision of chick shelters within the colony has been in place since 1992 but it has never been scientifically shown that the shelters are contributing to the success of the colony. During the 1999 season the ringing and retrapping data will be used to establish whether the shelters do improve the survival rate of the Little Tern chicks.

Ringing is often an essential tool in the conservation of birds. Norfolk ringers are continuing to be at the forefront of the research necessary to establish the facts that are so vital for effective conservation work.

Many of the studies mentioned above are based on colour-ringing, a method by which individual birds can be recognised without the need to recapture them. All sightings of such birds are gratefully received, and can be made via the British Trust for Ornithology, The Nunnery, Thetford (telephone 01842 750050). In particular, sightings of birds connected with North West Norfolk Ringing Group studies, can be made directly to John Middleton on 01328 730183, and those on Reed Buntings to Jennifer Keddic on 01603 716567.

A special biennial report for the years 1997-8 is to be produced by the Wash Wader Ringing Group in the Autumn which will contain a look back at the Group's history, including an article by its founder, Clive Minton. Copies of the report will be available from Phil Ireland, 27 Hainfield Drive, Solihull, B91 2PL (email Phil_Ireland@Bigfoot.com). Anyone interested in the Group's fieldwork is welcome to join in. Details from Phil Ireland.

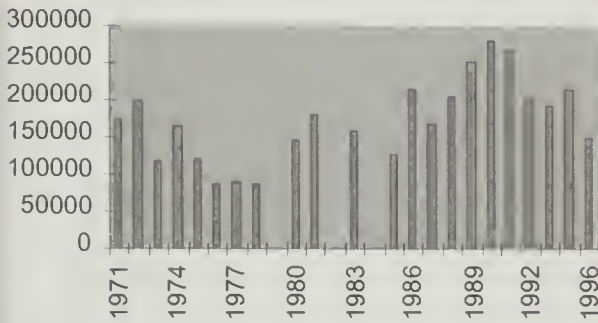
The Birds of The Wash

by Paul Fisher

The following corrections are applicable to the article published in the 1997 Norfolk Bird and Mammal Report:

Page 566: scale is incorrect -

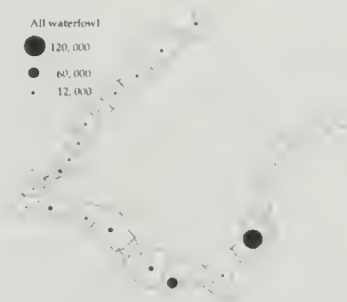
Figure 1: combined total of all waterfowl, January counts



The Wash is important at all times of year. Internationally important populations occur in all months except June.

Page 567: wrong map shown; should be the following -

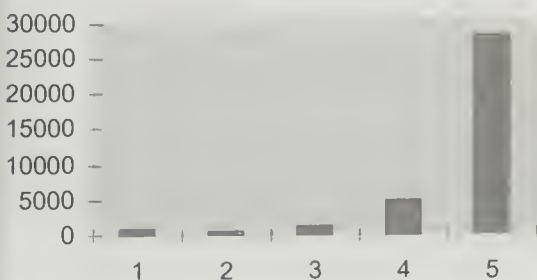
Pink-footed Geese, Oystercatcher and Knot all roost at Snettisham in particularly big numbers and largely account for the distribution below.



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Page 579: Figure 21 missing -

Figure 21: Lapwing, five-year mean of peak winter counts



Norfolk Mammal Report – 1998

Editorial

The classified list for 1998 is comprised of 1673 records, remarkably similar to the totals for 1997 (1667) and 1996 (1714). Of the 53 contributors, 16 were new, which was particularly pleasing. The bulk of new contributors were, in fact, primarily bird watchers, which also accounted for the increasing number of cetaceans seen around the coast. Records for 1998 include a number of whale and dolphin species, although identification from a few brief views as the animals surfaced, was difficult to confirm. Further information on how to identify cetaceans is clearly an important topic for a future issue of this report.

On this subject of future reports, the plan for next year is to produce a 'The Mammals of Norfolk' as a Wildlife 2000 publication. Although yet to be confirmed, it is likely that this will form a separate publication, with the Norfolk Bird & Mammal Report resuming in its current format the following year. Towards the publication of 'The Mammals of Norfolk' I urge anyone wishing to contribute records to do so by the end of June 2000. This includes all the common species, as the aim of the publication will be to make a statement of the status and distribution of each species in Norfolk at the turn of this century. At present it appears that the level of recording of the distribution of large, more 'exciting' species such as deer, is adequate, although that of the smaller, more common species, such as Rabbit, Hedgehog, Rat and Mole, is not. We also want to be in the position of assessing the status of introduced species such as grey squirrel, and declining species, perhaps covered under Biodiversity action plans, such as Water Vole and Brown Hare. So, please, all records would be appreciated. When compiling records, don't forget your grid references and please use Wildlife 2000 forms, although as space is limited on these, more detailed observations can be supplied on separate sheets. In addition, it makes data input much easier if all records for a species are grouped in chronological order. The order of mammal species should also follow that used in the classified list below

For those interested in extending their mammal research further, there is still a chance to contribute to the Mammal Society's 'Small Mammals and Road Verges National Survey'. Contact Lincoln Garland, Mammal Research Unit, School of Biological Sciences, University of Bristol, Woodland Road, Bristol, BS8 1UG. Tel: 0117 9287593, Fax: 0117 9257374, E-mail: linc.garland@bristol.ac.uk.

Last but by no means least, I am very grateful to those people who supplied articles for inclusion into the report this year. These include the recording of Porpoises from the Sheringham Bird Observatory by Dave Appleton and the Broadland Bat Survey by Cath Wilson. Please keep such articles coming in. I am also grateful to Mark Tomlinson (ECON) who assisted with the production of this report.

Dr Martin Perrow, ECON, School of Biological Sciences, University of East Anglia, Norwich, NR4 7TJ. Tel: 01603 592189 Fax: 01603 592250 E-mail: m.perrow@uea.ac.uk.

Classified List

The following contains all the mammal species for which records (individuals or groups) were received for 1998. The number of records for both 1996 and 1997 is also listed. Details on aspects of distribution, status, behaviour and ecology of particular interest are supplied. This is accompanied by the initials of the observer(s) in parentheses.

INSECTIVORA

Hedgehog

Erinaceus europaeus

1996 - 206 records, 1997 - 317 records, 1998 - 136 records. The bulk of records were again of road casualties or visitors to gardens. However, instead of being a victim, one used roads to its advantage spending a minimum of 3.5 hrs feeding on a Red-legged Partridge squashed on one (AIB). The first live sighting of the year could not have been much earlier, on 3rd Jan (MAB). In general though, most were still in their winter quarters at this time as one discovered hibernating in compost heap on Mar 20th illustrates (DB). In addition, in one regular observer's garden, food began to be taken on April 26th with the first live sighting of the year on 10th May. Animals were then seen on a further 39 occasions (JEG). Courting couples were in evidence in the same garden in May, July and late Aug. Hedgehogs are amorous beasts with sessions lasting over 2.5 hours. They also have no regard for local residents as one couple noisily active at 0330 hrs shows (JEG). The first young animal of the year on 10th May was a road casualty (IFK/JK). A number of late sightings were made including 9th (DIR/RMR), 12th and 16th Dec (SEL, JEG). Mild weather was undoubtedly responsible with temperatures up to 15°C recorded at this time. However, underweight young animals are often active last. For example, one was seen regularly throughout Nov and Dec until 23rd, taking seed scattered for birds (DLC).

Mole

Talpa europaea

1996 - 67 records, 1997 - 19 records, 1998 - 156 records. An increase in records is the result of the dedicated recording of molchills by a few observers. The first of these were on 5th Jan at Buckenham and Strumpshaw (CAJ). The last were on 31st Dec on Ted Ellis Trust land at Surlingham (DN) illustrating moles were active all year. As usual the bulk of moles seen were victims of one sort or another. Herons were seen to take them on pasture at Foulden (JEG) and on Holkham Grazing marshes (JMcC). One was also caught by a cat (GIK) and others were found dead on a farm track and on the road (JEG). When seen moles can be oblivious to human presence allowing close views. For example, one seen chasing another in the leaf litter above ground in woodland near Thompson Water (MJ). Another observer experienced moles burrowing under his feet which caused jerks violent enough to make his whole leg shake (JMcC).

Common Shrew

Sorex araneus

1996 - 15 records 1997 - 12 records, 1998 - 60 records. In a survey of cat-kills common shrew constituted 25% of the 76 animal prey brought in (DIR/RMR). Although shrews were caught throughout the year, the bulk were in May/Jun. Another cat at Melton Constable caught at least 20 during the year (IFK/JK). In contrast, a cat at Dereham caught far fewer Common shrews than Pygmy shrews (AB/RB) (see below). The most unusual location for dead shrews was one in Kelling Garden Centre (FJLF). Live shrews were also seen on occasion. This is mostly of single animals on account of their highly territorial nature.

However, family groups were seen at Holkham and Burnham Norton running up the edges of drainage dykes (JMcC). The young in such groups may link head to tail in a behaviour known as 'caravanning'.

Pygmy Shrew

Sorex minutus

1996 - 5 records, 1997 - 6 records, 1998 - 26 records. As a result of a number of observers recording cat-kills, an increase in the number of records (like Common Shrew) was noted. Thirteen Pygmy shrews, constituting 17% of small mammal prey, were taken by 2 cats in Reepham (DIR/RMR), with nearly half of these taken in July, possibly corresponding to dispersal of juveniles/usurping of territorial adults in late summer. Around 10 times more Pygmy shrews compared to Common shrews were taken by a cat in Dereham (AB/RB). The reverse was true in Melton Constable where only one Pygmy Shrew for every 20 Common Shrews was caught (IFK/JK). In response to comments about a surprising number of individuals recorded around dwellings in a previous mammal report, 2 were reported captured in snap-traps for mice in a loft (AB/RB) and dead animals were found on a garage floor at Binham (IGJ) and in a garden (DPL). A live shrew was also seen in a garden in Saxthorpe (MAB). As Pygmy Shrew hunts above ground, it is often recorded in habitats generally unsuitable for Common Shrew including wetlands and dry heath and sand dunes. Found dead in the latter habitat at Burnham Overy, Wells East Hills and Blakeney Point (JMcC). One was also seen foraging feeding amongst sandwort on the open beach at Blakeney Point (JMcC).

Water Shrew

Neomys fodiens

1996 - 4 records, 1997 - 7 records, 1998 - 15 records. Recorded dead or alive at Blakeney Fresh Marshes (JMcC), Burnham Norton (JMcC), Cley (JMcC, CBC), Dilham Canal (PJH), Holkham Grazing Marshes (JMcC), Holme Dunes NNR (JEG), Kelling Hangs (BJD), Kelling Water Meadows (JMcC), Martham Broad (PJH), Rockland (DPL), Salthouse (JMcC) and Surlingham (DN). Discovered living in a grassy bank alongside a garden pond in Melton Constable. After a 'stake-out' the observers cat caught and killed it (IFK/JK). Another in even closer proximity to human habitation was accidentally taken in a snap-trap in a shed in Taverham (LE).

CHIROPTERA

Brandt's Bat

Myotis brandtii

1996/97 - 1 record, 1998 - 0 records.

Natterer's Bat

Myotis nattereri

1996 - 1 record, 1997 - 3 records, 1998 - 7 records. At Honingham Ice house one was present on Feb 3rd and Dec 24th (AB/RB). Detected at Lynford Gravel pits (4+), Bacton Wood Lock (1), Filby Broad (5+) (PJH) and during the North Walsham & Dilham Canal ecological survey, feeding along a road (EA).

Daubenton's Bat

Myotis daubentoni

1996 - 0 records, 1997 - 2 records, 1998 - 15 records. Two found roosting in a tunnel under the A47 at Thorpe/Carcy's meadow on 10th Feb (PJH). In keeping with the typical foraging behaviour of this species, the bulk of records relate to individuals detected over water: at

least 5 over Rockland Broad (DPL), 3-4 at Lynford gravel pits (PJH), 4+ on the North Walsham & Dilham Canal at East Rushton (PJH) with 6+ recorded at other sites along the canal on various dates (EA), 5+ at Filby Broad and 15+ at Ormesby/ Rollesby Broads (PJH). One was even detected hunting over a pond on the Bergh Apton Conservation Trust bat walk (DPL).

Serotine

Eptesicus serotinus

1996 - 0 records, 1997 - 0 records, 1998 - 4 records. One recorded feeding along the North Walsham & Dilham Canal (EA) on 4th Aug. Five or more recorded at Ormesby-Rollesby-Filby Broads in late Aug (PJH). One fitting the call signature for the species detected on the Bergh Apton Conservation Trust bat walk on 4th Sept (DPL).

Noctule

Nyctalus noctula

1996 - 1 record, 1997 - 4 records, 1998 - 12 records. Up to 6 recorded at Flitcham in July, with the last (3) seen on Sept 23rd. Also seen at Hethersett (JG/JG) and over Sparham Pools and the observer's house nearby (CS). Detected at Bergh Apton (DPL), Bullmore Pit (2) and Filby Broad (2) (PJH) and Rockland Broad (DPL). Three bats believed to be of this species seen flying at Ludham on the unseasonally late date of Dec 12th, associated with a mild temperature of 15°C (SEL).

Leisler's Bat

Nyctalus leisleri

1996 0 records, 1997 - 2 records, 1998 - 0 records.

Pipistrelle

Pipistrellus pipistrellus

1996 - 38 records, 1997 - 21 records, 1998 - 61 records. Very early individuals were recorded on 14th Jan (KB/GB) and Feb 12th (JG/JG). Latest recorded were 2 abroad on 14th Dec (DLC). Roosts were recorded at Brigade (PJH); where around 20 were seen leaving and then flying along the old railway line; Corpusty (MAB) and Ditchingham, where 50 or more emerged at dusk in Aug (DLC). Other smaller concentrations saw at least 10 using Rockland Broad in early Sept with up to 8 around a stableyard in Ditchingham around the same time (DPL). Both 45 and 55 KHz forms were recorded at Bergh Apton (DPL), Bullmore Pit, Filby Broad (PJH) and during the ecological survey of the North Walsham & Dilham Canal (EA). Just 55 KHz individuals at Brigade railway bridge (1-2) and 45 Hz at Paston Church (PJH). Recorded as a road casualty at Wells and Holkham (JMcC) and one caught by a cat (DIR/RMR). A Sparrowhawk weaving to and fro across the lawn attempting to catch one in an East Tuddenham garden was successfully frightened off by the occupant of the house (AB/RB).

Nathusius's Pipistrelle

Pipistrellus nathusii

1996 - 0 records, 1997 - 0 records, 1998 - 1 record. A new mammal species for Norfolk! This, and the general increase in bat records, is testament to the increasing use of ever more elaborate bat detectors. Recorded on 5th Sept at Filby Broad (see article-Ed.). Confirmation in the hand is still awaited however, with separation from Pipistrelle aided by larger size and long shaggy fur with light tips giving a 'frosted' appearance. More critically the incisor teeth are distinctly long and slender, and the length of the fifth digit (from wrist to tip): length of forearm ratio is >1.25 if the wings are broad. The date of the record corresponds to the dispersal period for this highly migratory species until a few years ago had only previously been recorded in Dorset, Herts and Essex on mainland Britain as well as Jersey

and on a North sea oil platform. Records are now increasing, especially on the latter, and breeding colonies were found in Lincs and Belfast in 1997. At the moment, it is not clear if Norfolk has permanent residents and a breeding population, or is just picking up migrants. If the latter, confirmation in the hand may be difficult without trapping.

Barbastelle

Barbastella barbastellus

1996 - 1 record, 1997 - 1 record, 1998 - 1 record. Between 12-20 were detected at their breeding colony near Bacton (PJH), on 2 dates in Sept, where they are known to forage along the cliff top (EDP). The colony is now attracting a lot of attention. Over 800 hrs and 800 person hours of radio tracking has been undertaken by the Norfolk Bat Group (EDP).

Brown Long-eared Bat

Plecotus auritus

1996 - 1 record, 1997 - 2 records, 1998 - 1 record. Detected in flight (4-5) near Bacton (PJH).

LAGOMORPHA

Rabbit

Oryctolagus cuniculus

1996 - 252 records, 1997 - 382 records, 1998 - 189 records. An early sign of breeding activity was two individuals jumping against, and kicking, each other at UEA on Jan 5th. The first flush of young rabbits was apparent by March in records of road kills (see article - Ed). Largest groups recorded were between 50-100 in paddocks at Bergh Apton (DPL), 60+ at Beeston Regis (75% of which were young) and 120+ at Muckleborough Hill, Weybourne (PEB). Black rabbits were recorded at Beeston Regis, and Beeston Regis Common (PEB), Ditchingham (DLC), Gimmingham (AB/RB) and Sheringham (PEB). Two large free-living domestic rabbits, one brown and white and the other greyish white, were seen at Hillborough Ford (IFK/JK). Of the more unusual habitats utilised rabbits were recorded on Snettisham beach (JEG). Considerable variation in the infection rates of myxomatosis was recorded. For example two regular observers didn't see any with the disease all year (JEG, IFK/JK). In contrast another observer at East Tuddenham thought rabbits had been decimated by an outbreak in autumn. Infected rabbits were also in evidence in Broome Heath (DLC), Corpusty (MAB) and Holt (BJD). It appears that some populations are becoming immune to the disease although factors such as population density may also play an important role in disease susceptibility and transmission. One observer questioned what would happen when rabbit haemorrhagic disease (RHD) introduced from overseas by domestic stock takes hold.

Brown Hare

Lepus europaeus

1996 - 259 records, 1997 - 195 records, 1998 - 173 records. Signs of courtship included 'following' on 14th Jan (DLC), chasing on 3rd Feb (K&GB), 'boxing' on 7th March (IFK/JK) and chasing and copulation on 22nd March (MRP). Winter cereals appear to be an important early season habitat as records from Cockthorpe (CH), Stiffkey (10) (CH, JEG) and Swaffham (11) indicate. Later in the season hares may be encountered in a range of habitats, for example, 7 were seen in woodland at Saxthorpe in April (MAB), 4 were present in an orchard in early May (KB/GB) and 7 were using set-aside in July (DLC). Many people see hares on roadside verges and both running across and down roads at night (CH). This may lead to unintentional chases and casualties particularly in more built-up areas where

hares use gardens (eg in Saxlingham Nethergate -MRP and Hethersett -JG/JG). Although good numbers may be seen on occasion, for example, between 17-20 were seen along a walk along lane at High Bridgham (MJ) and 24 were seen at St Benet's Level (SEL), few observers see young animals. Only one record of 2 leverets with a parent was received (MAB). Although local increases were thought to have occurred, the number of records of one regular observer stay relatively constant - 113 in 1998 compared to 86 in 1997 and 115 in 1996 (JEG).



Brown Hare (*M Preston*)

RODENTIA

Grey Squirrel

Sciurus carolinensis

1996 - 160 records, 1997 - 108 records, 1998 - 83 records. Clearly active in Jan as a cluster of records indicate: 9th (GK), 17th (JEG), 22nd - with at least 4 abroad in woods at Sandringham (K&GB). At the end of season one was seen on 21st Dec (JEG). An unusual record of one in a maize field on 18th March (JEG), as squirrels are much more likely to be seen away from their preferred woodland habitat in summer when food becomes scarce. Squirrels are then more likely to be killed on roads (see article-Ed.) and raid gardens for unripe hazelnuts (MJ) or walnuts (DB). The owners of such gardens may be forced to pick any nuts early to save any for themselves. Squirrels visiting gardens make for some interesting observations. For example the resident cock Pheasant of a garden at Ditchingham (DLC) suddenly became aggressive towards the 1-4 squirrels present on an almost permanent basis, chasing and pecking at them. One of the squirrels developed a tatty, almost hairless, tail, which may have resulted from its habit of tipping it towards its would-be attacker to screen its body and head when feeding. The same squirrel was also prone to launch counter attacks not always under provocation (DLC). Other interesting behaviours were one taking pieces of large bracket fungus off ash in Oct (MJ) and another misjudging the strength of a branch when crossing above a road. This resulted in both the branch and the squirrel falling 6-7 m onto the road. The squirrel ran off apparently unharmed. A second squirrel making the same crossing was distinctly cautious (BJD).

Bank Vole

Clethrionomys glareolus

1996 - 33 records, 1997 - 8 records, 1998 - 46 records. Often recorded as cat-kills with 21 forming the dominant prey (28%) of a pair of cats (DIR/RMR). Away from gardens only seen infrequently (eg crossing roads - DIR/RMR). In gardens, one was seen frequently, gathering sunflower seeds spilled from a bird feeder (DPL). Another was seen taking bread from the lawn (BJD). A late nest was found under a plastic bird bath in a garden, with the young voles lying next to a female Great Crested Newt (*Triturus cristatus*) (MC). Two less fortunate individuals were found drowned in a water butt 1m above ground (DLC).

Field Vole

Microtus agrestis

1996 - 56 records, 1997 - 5 records, 1998 - 40 records. Probably dependant on the habitat available to the cat, Field Vole may be frequently recorded as a cat victim. For example, at least 26 fell victim to one cat, with records in most months of year (IFK/JK). In contrast, only a small number of voles were taken by the 2 cats of another recorder and then only in winter (DIR/RMR). Other cats were singularly unsuccessful in adding Field Vole to their tally (AB/RB). Live animals were seen on Cromer Golf Course, on the cliff face at Overstrand and at Stanford (IFK/JK). Also rather exceptionally recorded in gardens in Ditchingham (DLC) and Northrepps (BM). At the former, the availability of suitable habitat nearby, in the form of grassy paddocks where runs and nests recorded, accounts for one feeding on seed intended for birds.

Water Vole

Arvicola terrestris

1996 - 26 records, 1997 - 10 records, 1998 - 28 records. Recorded at Aylsham (IFK/JK), Blickling (IFK/JK), Burnham Norton (JMcC), Catfield Fen (PJH), Cley Reserve (JMcC), Saxthorpe, Corpusty (MAB), Gimmingham (BM), Holme (MC), Holkham Grazing Marshes (JMcC), Horning Hall Marshes (PJH), Horning Marsh Farm (PJH), How Hill (SEL, PJH), Ingworth (IFK/JK), Itteringham (MAB), Ludham Marshes (SEL), Mannington (IFK/JK), Reedham Marshes (PJH), Scurrowbeck (IFK/JK), Surlingham (DN), Titchwell (CSL/DKL), Wells North Point (JMcC). Found at 10 sites (seen at 4) along the North Walsham & Dilham Canal during an Ecological Survey (EA). One adult male was found dead at Mannington had a small hole in the skin associated with intramuscular haemorrhage over the dorsal aspect of the first two cervical vertebrae. Mustelids tend to attack at this point of the body, although the stab of a heron and as suggested by the observer a territorial fight with another male cannot be ruled out. There are general fears amongst observers of a continuing decline. For example, a general lack of sign was noted by one observer in suitable habitat in STANTA. Further, a regular worker at Holkham NNR seldom encountered voles, with only 5 territories thought to be occupied (JMcC). Another experienced observer in the Broads saw only one during the year, in Nov (PJH). Incidentally, experiences of other observers suggest this may be the best time to see them. In STANTA at least, the lack of voles may result from the presence of mink in the area (IFK/JK). This does not explain the seemingly low population in places such as the Broads, however, where mink still appear to be generally absent (see Mink -below). However, Water voles are clearly vulnerable to all sorts of predators as one very dark individual that became a victim of the local pub cat which carried it across the main road on its way home (MAB), illustrates. The vulnerability of the species almost seems to verge on ineptitude, as illustrated by one digging for the roots of Alexanders (*Smyrniolum olusatrum*) on the steep banks of the River Hun at Holme, which frequently lost its footing and tumbled backwards into the water. Opting for safer quarry it was later seen sampling water speedwell (*Veronica anagallis-aquatica*) (MC). Hope is still provided by voles turning up in marginal habitats such as garden ponds (MAB).

Wood Mouse

Apodemus sylvaticus

1996 - 40 records, 1997 - 31 records, 1998 - 47 records. Wood Mouse comprised 22% of the catch by two cats in a Reepham garden (DIR/RMR) and was the commonest prey of another at East Tuddenham (AB/RB). A number were recorded in houses and buildings: 2 juveniles live trapped in a house at Hellington (DPL), 3 live trapped in a porch in Ditchingham (DLC), with others in a Holme shed showing a distinct preference for 'russet' apples (MC). Records in houses are invariably made in winter. In the Ditchingham porch, was recorded feeding on a Wren. Although this was most likely found dead, wood mice are known to take animal prey including vertebrates such as frogs. Of the few live encounters, one at Bridgham emerging onto a lane, sitting up on the leaf litter and eating seeds before running up to the observer and sniffing her shoes before running off, was the highlight (MJ).

Yellow-necked Mouse

Apodemus flavicollis

1996 - 1 record, 1997 - 0 records, 1998 - 0 records.

Harvest Mouse

Micromys minutus

1996 - 9 records, 1997 - 11 records, 1998 - 16 records. Virtually all records relate to nests. Recorded from Briston (MAB), Hickling (PJH), Holme (MC), Martham Broad (PJH), Saxthorpe, Stiffkey (MAB), Rockland (DPL), Surlingham (DN), West Somerton (PJH). The maximum number of nests was 9 at Briston (MAB) and West Somerton (PJH). Of the actual animals recorded, one fell victim to a cat (DIR/RMR), one was found dead on a boardwalk at Cley (BJD) and one was the unintentional victim of a snap trap at Salhouse (FG). The practice of covering carrots with straw and polythene may not only unwittingly transport mice around the county, but also allow them to extend their breeding period in what is a rather safe, warm environment. The resulting numbers of mice may be large as indicated by a record of up to 70 ha⁻¹ in a field near King's Lynn after the covering was removed (RP).

House Mouse

Mus domesticus

1996 - 1 records, 1997 - 6 records, 1998 - 14 records. Recorded as a victim of cats or traps at Corpusty (MAB), East Tuddenham (AB/RB), Edgefield Green (IFK/JK), Hellington (DPL), Reepham (DIR/RMR) Sheringham (FJLF). The mice at East Tuddenham were trapped after exploiting a sack of peanuts intended for birds (AB/RB). Eleven were removed from the house in Hellington between Oct - early Dec (DPL).

Brown Rat

Rattus norvegicus

1996 - 44 records, 1997 - 109 records, 1998 - 42 records. The vast majority of records were of road casualties. Good places to see rats (if anyone wants to -Ed.) include Broome (DLC), Corpusty (MAB), Ditchingham (DLC), Kelling (BJD), Rockland Staithe, Broad and banks of Yare (DPL) and Saxthorpe (MAB). The place to be, may however, be Gimmingham where 8 were seen in 100 m (BM) of verge, or Walsey Hill where 3 were seen together below a bird table (BJD).

Coypu

Myocastor coypus

1996 - 0 records, 1997 - 1 record, 1998 - 1 record. Observers with previous experience of Coypu in Norfolk, reported one from Titchwell on 24th May (CSL/DKL). This remains unconfirmed by RSPB staff at the site.

CETACEA

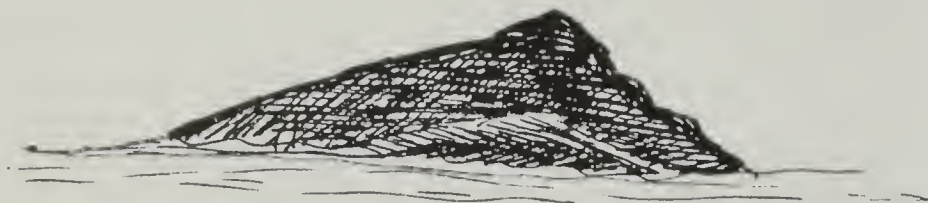
Fin Whale

Balaenoptera physalus

1998 - 1 record. Following on from the 3 records of its smaller relative, Minke Whale, in 1997, a report of an immense Fin Whale on the edge of squalls off Cley Beach on 11th April was received (CBC, WN). The animal broke surface 4 times between 0940 and 1000 hrs. Further details to confirm identification are requested.

Whale spp

A whale seen off Sheringham on 19th Sept around 1030-1100 hrs, which arched out of the water 3 times most closely resembled Sperm Whale (*Physeter macrocephalus*) (MY-P). Particular features included the coarseness and muscular nature of the dark body, with a bumpy back and no real evidence of a fin. Although the chances of seeing Sperm Whale are slim in Norfolk, with only 25 sightings between 1965-1991 with the vast majority at least 300 km west of Britain, there were 2 recent strandings: Scolt Head in Nov 1991 and Heacham in Dec 1993.



Whale spp (*M Young-Powell*)

Harbour Porpoise

Phocoena phocoena

1996 - 33 records, 1997 - 82 records, 1998 - 27 records. A general perception of a poor year to see Porpoise (IGJ) (which appears vindicated by Dave Appleton's article-Ed.). Recorded from Cley (maximum of 5 on 28th July), Great Yarmouth (SS), Great Yarmouth North Denes (July) (SB), Holme (WN), Horsey (5) (WN), Overstrand (between 1-3 seen during the course of the year) (BM), Sea Palling (WN), Scratby (2-3) (SS), Sheringham (RJ, WN) and Titchwell (5) (WN). Dead animals included an imm. at Cley 19-20th Feb (BJD), one at Eccles on 7th July (NB) and one ad. at Blakeney Point 16th Oct (BJD).

Dolphin spp

One seen at Cart Gap, Happisburgh on Aug 29th seen briefly three times as it surfaced, was described as battleship grey with no lighter marking and obviously larger than the porpoises seen at the same location on the same day. Bottle-nose Dolphin (*Tursiops truncatus*) seems the most likely candidate (RK). A further dolphin was seen close inshore at Sheringham on 12th Sept (PEB).

CARNIVORA

Fox

Vulpes vulpes

1996 - 62 records, 1997 - 62 records, 1998 - 69 records. Any increasing number of records from the outskirts of Norwich including one each in gardens at Old Catton (GIK) and



Shore Lark – a typical county winter visitor which arrived in exceptional numbers during October and November (*S Young*).

Waxwing – this attractive Scandinavian species was only seen in small numbers in 1998 (*T Howes*).





A Hedgehog taking advantage of roads for a change, eating a squashed Red-legged Partridge (*A Bloomfield*); G
Squirrels often take unripe hazelnuts and walnuts from gardens when food is in short supply in summer (*T How*

Muntjac continue to spread across Norfolk and, increasingly, may be encountered in arable fields and
gardens as well as woodland (*B Macfarlane*).





Grey Seal female and pup at the Horsey-Winterton breeding colony (*G Cresswell*).

Old bull Grey Seal on probably his last visit to the Horsey-Winterton colony (*G Cresswell*).





At a young age Grey (upper) and Common Seals (lower) are readily separated as Grey Seal pups are white, whereas Commons typically bear adult colours (black and grey to sandy-brown). Identification is further confirmed by their birthdays; Common Seals are born in June-July and Grey Seals are born October-December (both *C Higgleton*).



Sprowston and Jan records from the Thorpe Marriott estate at Taverham and at Thorpe St Andrew (SB). Foxes are typically elusive however with the majority of records at night. The distinctive screams in the mating period in Dec-Feb are a good indication of presence. Even then not often seen in pairs, exceptions being at Feltwell in Jan (BM) and animals dashing about in bracken and screaming presumably prelude to mating at Kelling Heath 14th Jan (BJD). In April, a fox, the observer's dog and a Tawny Owl appeared to try and out-compete each other over five rounds, in what is described as a highly entertaining rowdy cacophony (DLC). Records of animals with cubs received from Corpusty, including in a garden (MAB), Cromer Golf Course (BM), Earsham (DLC), East Ruston (PJH), High Bridgham (MJ), Rockland Broad (DPL) and Saxthorpe (MAB). Interactions with likely prey included the observation of a vixen during the day in the day in a East Tuddenham paddock which sniffed at rabbit holes and was ignored by 30 or more rabbits and a cock Pheasant (AB/RB). A strange record of one 'playing' with a lamb whilst the ewe looked on (JEG) was also received. Foxes taking stock may lead to conflict with humans. For example, a den surrounded by Pheasant and chicken remains found by members of the Bergh Apton Conservation Trust on their land was blocked without permission. Members found one dead cub inside (DPL).

Stoat

Mustela erminea

1996 - 44 records, 1997 - 53 records, 1998 - 54 records. Stoats in ermine were recorded from Buckenham Marshes (full apart from its tail on Jan 25th -AM and one partial ermine on Feb 28th -JW), Burnham Market in Jan (JMcC) and Foulden on 20th Feb (JEG). One in partial ermine fighting with a normal coloured individual at Holkham (JMcC). As with so many predators once in hunting mode stoats may ignore humans, as one hunting a roadside verge at Overstrand which approached within 2 m of the observer (BM) indicates. Stoats are also athletic, swimming (one large individual crossed the River Chet at Bergh Apton - DPL) and climbing (one climbed the trunks on two pear trees to a height of 3 m in a garden -DLC, and another was seen climbing evergreen oaks at Holkham -JMcC) well. This results in them taking a wide range of prey. For example, stoats were recorded taking eggs and young of Redshank and Lapwing at Burnham Overy (JMcC) and another was seen running across the road carrying a Pheasant's egg, which it dropped on the edge of the road before running off (MJ). Such behaviour makes them a problem at bird colonies which leads to attempt to control them. Although most typically seen in encounters with rabbits (eg chasing at Salthouse Heath -BJD, and eating at Blakeney Point Burham Overy Dunes, Holkham, at Wells and Wells East Hills - JMcC), which probably form the dominant prey of many stoats, it must be remembered that stoats initially evolved in isolation from rabbits, as the latter is introduced. A full grown Rabbit is large prey, especially for female or young individuals, as two sets of observations show. One at Brettenham in Nov attacked a Rabbit on the open heath. Initially pestered by two Crows which then moved off, the stoat repeatedly jumped onto the rabbit's back and tried to grip it by the back of the neck. The Rabbit was jumping about and squealing. The Stoat kept dropping off before having another go. The rabbit was then very still and the Stoat ran around it, rubbing itself on the grass, stopping on one occasion to groom itself. The post-kill displays continued for at least 10 minutes (MJ). A similar observation of a prolonged attack of a Stoat upon a Rabbit was made at Rollesby sailing base in Dec, with the sequence of events starting with the appearance of a slowly moving, squealing Rabbit. A Stoat then bounded into view. This jumped on the Rabbit, which did not struggle, but continued to squeal. The stoat appeared to be searching for the coup de grace. The Stoat then became aware of the observers and moved off. The Rabbit

appeared shocked as it didn't move and the Stoat returned for another go before moving off again. The Rabbit then recovered sufficiently to move off under some boats and resumed squealing as the Stoat attacked it again. The cries gradually became more strangled until they fell silent (MRP).

Weasel

Mustela nivalis

1996 - 45 records, 1997 - 39 records, 1998 - 40 records. Small body size compared to Stoat means Weasel take small prey, most typically mice and voles. Although as previous mammal reports indicate small birds (eg Wren, Meadow Pipit and Blue Tit) may also be taken. One was even seen to jump 45 cm into the air at a Large White butterfly feeding on Ragged Robin (JMcC). Most weasels are either seen crossing or found dead on the road. The highlight of this years records was however, one initially seen running back and forth along a roadside verge. Over a period of 5 minutes, the animal periodically approached the road, which had quite a lot of traffic on it. It then scampered off in a different direction and caught and ate something before returning. It then scrambled into the gully at the side of the road, before standing on its hind legs with its front feet on the tarmac edge and deliberately looked right and then left. No traffic coming, it then crossed safely (AB/RB) (this one was clearly a member of the 'Tufty' club and quite unlike 'Willie weasel' who always got knocked down if my memory serves me correctly - Ed).

Feral ferret

Mustela furo

1996 - 1 records, 1997 - 5 records, 1998 - 1 record. A road casualty at Briston amongst woodland (MAB).

American mink

Mustela vison

1996 - 8 records, 1997 - 7 records, 1998 - 9 records. One seen on the Ted Ellis Trust Reserve. The warden notes only seeing 2 in 5 years (DN), indicative of continued low populations in the Broads. In contrast good numbers were thought to be present in the west of the county in STANTA, with 6 killed in June in the Langford area (IFK/JK). Other records in this area include one seen swimming across a lake at Lynford before walking across ice on 21st Nov (JEG), one at Welney on 12th Feb (JEG) and one seen to catch a fish at the Ouse Washes (MJ). In the south of the county, Mink was recorded along the River Waveney. Here, an observer looking for signs of Otter along the river, was startled by screeching by her left ear. Looking up, she saw a Mink staring at her from a hole in a hollow tree. The staring continued for a short time until the animal disappeared inside the tree. Once the human intruder had retired a short distance the Mink re-appeared at the entrance to what was likely to its nest hole (DLC).

Badger

Meles meles

1996 - 11 records, 1997 - 8 records, 1998 - 4 records. Four active setts were reported from a farm around Sparham (CS) and paw prints were recorded in a wood near Holt with two holes possibly being used by a single individual (BJD). The only live record was one watched near a sett at Lyng Easthaugh (SB) in March. Another was found dead on the road at Reephham (MAB) and a temporary sett occupied at the end of 1997 was unoccupied in spring 1998 (AB/RB). Perhaps the occupants were victims on the adjacent A47?

Otter

Lutra lutra

1996 - 18 records, 1997 - 21 records, 1998 - 62 records. An increasing number of records almost certainly reflecting the continued resurgence of Otter in the county. This is no doubt

aided by the continued releases of the Otter Trust. Recorded at Alderfen Broad (WN), Buckenham Tofts (IFK/JK), Broad Fen (PJH), Catfield Fen (PJH), Corpusty (MAB), Honing Lock (PJH), Horning Hall Marshes (PJH), How Hill (PJH), Hulver Ground (PJH), Ingworth (IFK/JK), Itteringham (MAB, IFK/JK), Langford (IFK/JK), Ludham Bridge (PJH), Mannington (MAB), Recdham Marshes (PJH), Stanford (IFK/JK), Saxthorpe (MAB), Sharp Street (PJH), Strumpshaw (WN), Thompson (IFK/JK), Titchwell (WN), Tottington (IFK/JK), Wayford Bridge (PJH). Two seen on River Ant (DIR/DMR). Spraint recorded at 27 sites along North Walsham & Dilham canal in Feb during the ecological survey of the waterway (RY).

Live records included: 2 seen at New Costessey on the Tud, 2 seen on two occasions at Old Costessey on the Wensum (JFB), 2 at Thompson Water, one on the River Wavcney and Halcyon Lake in the Ditchingham area (DLC) and a family party of 5 present at Broad Fen Dilham for most of Feb (RY, PJH). An unconfirmed report of one trapped in 1997 along the Wensum, which did not survive, was also received (CS).

Raccoon

Procyon lotor

Further information on the individual recorded alongside the main A149 at Holkham on 8th March 1997 reveals that it was also seen later the same week (JMcC). No records have been received subsequently.

Feral Cat

Felis catus

1996 - 0 records, 1997 - 4 records, 1998 - 1 record. One dead on the road at Saxthorpe, an area known to support feral cats, was initially reported as a 'puma'. Although large (head/body length 53 cm, tail 28 cm, height 22 cm, weight 4.5 kg), it was not quite as large as *Felis concolor*. Somebody was clearly worried by it though, as it had been shot (MAB).

PINNIPEDIA

Common Seal

Phoca vitulina

1996 - 7 records, 1997 - 8 records, 1998 - 9 records. The colony at Blakeney was assumed to provide the daily sightings of animals between Cley and Weybourne (BJD). Also recorded at Horsey and Walcott (RK). Pups were also born on Caister beach with 2 present in September (CH) (see photo-Ed). Later in the year, one young individual on the high water mark at Holkham initially thought to be dead, made for the sea some 300 m away when approached. After several rests it reached its destination and swam off strongly ("not bad for a dead seal") (IGJ). A further young individual became trapped behind groynes running parallel with the sea at Sidestrand on 6th Feb, presumably after being deposited there on a preceding high tide. The two observers threw a coat over it and carried it to the sea, whereupon it swam (BM). A young animal in Blakeney Harbour 22nd Dec, which stayed for around 24 hours, was seen to catch a fish (IFK/JK).

Grey Seal

Halichoerus grypus

1996 - 8 records, 1997 - 4 records, 1998 - 5 records. A good season for the Grey seals at the breeding site between Horsey - Winterton with 17 pups born. One died soon after birth and one well-grown pup was discovered dead with no visible wounds. The remaining 15 left the beach by the 2nd week of Jan. A maximum of 5 bulls were seen, with one very old individual present (CH) (see photo-Ed). Away from the breeding colony also seen at Overstrand (BM)

and between Cley and Weybourne (BJD). One just offshore at Cley, was seen eating a large fish which it ate whilst holding it with its flippers (DIR/RMR).

ARTIODACTYLA

Red Deer

Cervus elaphus

1996 - 17 records, 1997 - 20 records, 1998 - 32 records. Records indicate that Red Deer are widely, but patchily, distributed in the county. The largest herds away from Thetford are probably those at Hickling where 37 were seen in Dec (SEL) and those in woods south of Holt thought to be comprised of around 50 animals, with the largest group (30) seen in March (BJD). Members of the latter herd appeared to provide regular sightings at places such as Holt Lowes by a number of observers (SB, BJD). Also recorded at Brettenham Heath (15 (MJ)), Chooseley (where a stag lying down in cereal field was seen to get up and move into roadside woods on 13th June -SB), Diddlington (4) (K&GB), Ditchingham (DLC), Knettishall Heath (MJ), Santon Warren (JEG), Saxthorpe (11)(MAB), Swaffham Forest (JEG), Thorpe Market (4 - 1 of which became a casualty on the road -FJLF), West Harling (MJ) and Wymondham where 7 were seen to the east of the bypass in Dec (SB). A group of 7 hinds, juveniles and a young male at Thorpe Woods attempted to use a gateway. However, this made them very nervous and they kept turning away until the young male approached it very slowly and then ran through it very quickly. The rest then followed and all ran off in a tight group. At East Wretham, a juvenile with a group of hinds trying to jump a fence, caught its back legs and took a fall. It appeared uninjured (MJ). At the same site later in the year two juveniles with two females were seen sparring with each other. Continuing the imitation of typical male behaviour, one then tried to wallow in the mud at the edge of the mere which was not really wet enough to make a significant impression (MJ).

Fallow Deer

Dama dama

1996 - 2 records, 1997 - 2 records, 1998 - 6 records. Away from Holkham Park where up to 300 were seen together in Jan (PJH), recorded at Catfield (3) in Dec (SEL), East Harling (1) (TD/JD) and Pretty Corner (buck and doe) (DM).

Roe Deer

Capreolus capreolus

1996 - 28 records, 1997 - 43 records, 1998 - 48 records. Largest groups seen were 5 at Lynford in Thetford (KB/GB), 8 in Swaffham including 2 bucks (JEG) and 11 in pasture at Little Cressingham (PN), all in early season. Roe Deer, although relatively large, are elusive and may move into gardens under the cover of darkness as footprints at a house at Bergh Apton illustrated (DPL). A doe was also disturbed in the grounds of Taverham Hall School (CH). The closest encounter of the year was two running towards the observer, albeit on the other side of the hedge on Marriot's Way (JFB). Browsing animals at East Wretham and Thorpe Woods were seen to feed on the new leaves of wild raspberry (MJ).

Muntjac

Muntiacus reevesi

1996 - 28 records, 1997 - 38 records, 1998 - 38 records. Increasingly seen in arable land (eg feeding in wheat at Ashby and entering a field of maize at Hickling -CAJ) and in gardens (eg one at Holme in early Nov apparently attracted by windfall crab apples - MC), as its range continues to expand. Away from Thetford, recorded at Bintry Woods (AB/RB), Cley JG/JG), Fritton (CAJ), Hoveton (WN), Holkham Meads and along the coast road between Wells

and Holkham (JMcC), Lynford Gravel Pits (PJH), Saxlingham Nethergate (MRP), Tottenhill Gravel Pits (PJH), Stow Bedon (feeding next to two Roe Deer - IFK/JK), Waveney Forest (CAJ) and Waxham Sands (BM). One near Thompson Water on Nov 30th was observed eating fallen sweet chestnuts (AB/RB). A probable road casualty in a field at Horning being consumed by magpies was reminiscent of vultures on an antelope carcass in the Serengeti (CAJ).

Chinese Water Deer

Hydropotes inermis

1996 - 179 records, 1997 - 53 records, 1998 - 89 records. Recorded from Alderfen Broad (PJH), Barton Fen (PJH), Broad Fen (PJH), Burgh Common (PJH), Cantley (JG/JG), Catfield Fen (PJH), Common Fen (PJH), Drakes Marsh (PJH), East Ruston (PJH), Ludham (SEL), Heron's Carr (Irstead) (PJH), Horning Hall (PJH), Horning Marsh Farm (PJH), How Hill (SEL, PJH), Hickling (BM, WN, PJH), Hoveton (WN), Horsey (SEL, BM), Hulver Ground (PJH), Ludham (PJH), Mallow Marsh (PJH), Mill's Marsh (PJH), Rackheath (PJH), Reedham (PJH), Rockland (where seen on 33 occasions) (DPL), Sharp Street (PJH), Stalham Fen (PJH), St Benet's Level (PJH), Strumpshaw (SS, WN, PJH), Sutton Broad, Fen and High Fen (PJH), (PJH), Upton Fen (PJH), Waggonhill Plantation, Waxham (WN, PJH), Whittingham (PJH). Range may still be expanding north and west from the Broads stronghold, with deer now firmly in residence in the Eccles area as indicated by calling at night and the presence of slots over the fields (NB). Now commonly seen grazing on marshes including those used for hay, but not those occupied by cattle in the summer (DPL).

Contributors of Mammal Records for 1998

D Appleton	Cley Bird Club	A W Humphrey	D Mower
P E Beard	B J Dawson	C A Jacobs	B Murphy
R A Benson	T & J Dean	I G & R Johnson	D Nobbs
K & G Beckett	L Eagles	R Jones	P Newport
D Beckley	Ecological Associates	M Jowett	R Powley
S Betts	Eastern Daily Press	R Kaye	D I & R M Richmond
A I Bloomfield	F J L Farrow	G I Kelly	C Sayer
N Bowman	J E Gaffney	Dr I F & J Keymer	S Smith
A & R Bull	J & J Geeson	C H & D K Lamsdell	M J Seago
M A Brewster	F Goff	D P Lester	Wildlife Newsline
J F Butcher	C Haines	S E Linsell	J Wylson
D L Cheyne	P J Heath	J McCallum	R Yaxley
M Clarke	C Higgleton	A Marshall	M Young-Powell

The Broadland Bat Survey

Cath Wilson

Trinity Broads Project Manager
Broads Authority

Introduction

During the summer of 1998 Broads Authority staff and volunteers were invited to participate in a Bat Detector Workshop. The workshop focused on training participants to use ultrasonic bat detector equipment in the field in order to separate and identify species. The Bat Conservation Trust and the Broads Authority jointly ran the training. Following on from the workshop the Authority designed a Broadland Bat Habitat and Land use survey. The main aims of the survey were to:

- Provide an opportunity for those who had received training to practice their newly acquired skills in the field.
- To determine the abundance and diversity of bat species in the area using the principal habitats in the Broads.
- To study the implications for future management in habitats in the Broads with reference to Biodiversity Action Planning both in Norfolk and nationally.
- To recognise the implications for planning applications by reporting known roost sites and earmarking areas likely to contain roosts.
- To investigate the importance of wetlands as habitat for bats compared to the wider Norfolk countryside.

The surveys were conducted in the north of the Broads Authority's executive area and focused on the broads and fen with accessible areas of open water.

Methods

The guidelines directed the surveyor to choose a route; marking ten transect inter-spaced with ten stopping points. At each point bats were detected for five minutes.

Heterodyne detectors (Bat Box III) were used to identify bat sounds, which include echolocation and social calls. The detector is designed to transform ultrasound into audible sound.

The Trinity Broads (Ormesby, Rollesby, Ormesby Little Broad and Filby) were surveyed using a time expansion / heterodyne detector (Tranquility II). The time expansion method is similar to making a high-speed tape recording and playing it back at a slower speed. The recorded sounds can be down loaded onto a computer programme, such as "Bat Sound" for bio-acoustic analysis. This is particularly useful when surveying a "frenzy" of feeding bats which may contain several species that are difficult to distinguish from one another at the same time. Species can also sound very different depending on the surrounding habitat. This analysis can assist with unusual or difficult sounds, which are proving hard for the surveyor to determine. Results were expressed as the number of passes per minute. This is, however, fairly subjective as they rely on the experience of the surveyor and variation in bat sounds encountered when surveying bats in different habitats.

Results

At least 5 species were recorded during the survey (Table 1). This included Nathusius's Pipistrelle (*Pipistrellus nathusii*), a species never recorded before in Norfolk (although one was found on a ship from Holland that docked in Gt Yarmouth) and known only in the UK from a handful of records. These were recorded in the Trinity Broads (Ormesby-Rollesby-Filby complex) and also some distance away at Woodbastwick on the River Bure. Although we have been unable to verify the species "in the hand" as yet, the call frequency of 39kHz is diagnostic. Measurement of this was made possible by the use of the Eco-Tranquility detector and subsequent analysis on Bat Sound. At the present moment there are no known roost sites of this species in Norfolk.

The commonest bats were Daubenton's (*Myotis daubentonii*) and the two forms of Pipistrelle (*Pipistrellus pipistrellus*) which were present at all sites surveyed. The number of passes for these species was also very high on occasion (Table 1). What appeared to be smaller numbers of Noctule (*Nyctalus noctula*) and Serotine (*Eptesicus serotinus*) were also recorded from a variety of locations. Species that are difficult to detect with a heterodyne detector, such as Natterer's (*Myotis nattereri*) and Long-eared Bats (*Plecotus auritus*) were absent.

A number of observations were also made:

- Daubenton's bats and Pipistrelles were recorded feeding in areas of open water, sometimes up to 15 m away from the cover of reedswamp and woodland edge. Above this distance feeding ceased.
- Nathusius's pipistrelle was located along the broad shore but not detected far out into open water.
- Areas with marginal vegetation situated between woodland edge and open water were important habitat for Pipistrelle and Serotine.
- Woodland edge adjacent to water bodies were important feeding habitat for Serotine and Noctule.
- Mature Alder (*Alnus glutinosa*) and Oak (*Quercus robur*) on the broad edge, were important habitats for male territories, in particular 55kHz Pipistrelles and Nathusius's Pipistrelle.

Discussion

As yet we still know little about bats in the Broadland area. It is essential that we understand how the different habitats are exploited by bats in order to preserve and manage our area accordingly. As a consequence, survey work has continued during 1999 with staff and volunteers from English Nature and the RSPB and members of the Norfolk Bat Group becoming involved.

The survey has also been extended to the Yare River valley and has included grazing marsh and a coastal site. A river corridor survey was also undertaken to monitor bats feeding and commuting along the River Bure. The results are to be compared with previous data collected from the Bat Conservation Trust's National Monitoring Programme data collected from the Rivers Thurne, Bure and Ant.

The data is being stored on the Broads Authority's GIS system and transect and point data will be illustrated over land use maps. This will clearly illustrate species abundance in relation to habitat type and present a good indication on locations of possible roost sites. More importantly the information will be useful in management planning for sites.

Table 1 Species and relative abundance of bats in a variety of broad and fen habitats in the Broads.

	Species						
	Noctule	Serotine	Pipistrelle		Nathusius' Pipistrelle	Daubenton's Bat	Other
			45	55			
Broads							
South Walsham	L	L	V	V		V	
Wroxham			H	H		H	
Cockshoot			L			L	
Ranworth	L		L	L		M	
Ormesby	H	V	V	V	V	V	
Ormesby Little			M	M	L	H	
Rollesby	L			L		L	
Filby	M	M	H	L	L	M	
Fen							
Shallam Dyke		L	L	L		L	present
Fishley Marshes			L	L		L	present
Woodbastwick	L	L	L	L	L	L	
Upton			L	L			present

L = Low 1 to 50 passes per 15 mins (average 1 to 3 passes/min)
 M = Medium 51 to 100 passes per 15 mins (average 4 to 6 passes/min)
 H = High 100 to 150 passes per 15 mins (average 7 to 9 passes/min)
 V = Very High 151 passes or more per 15 mins (average 10 or more passes/min)

Consideration can be taken to avoid damage or disruption to commuting routes and foraging areas.

The main objective for the year 2000 is to establish the presence of *Pipistrellus nathusii* in the Broads Executive area. Thought will also go in to researching the invertebrate fauna available at selected sites at different times of the year. This information would be useful when comparing sites with an abundance of feeding bats and similar habitats where fewer bats have been recorded.

Time will also be spent detecting roost sites using previously recorded information. The Broads Authority is in the process of purchasing Bat Sound so that sound analysis can be carried out immediately. Additional and refresher training will be conducted next season and it is hoped that staff and volunteers from the RSPB, English Nature and the Norfolk Wildlife Trust will play a fundamental role in assisting with data collection.

Finally, there is also the possibility, due to suitable habitat, that the Broads may support the Pond Bat (*Myotis dasycneme*), a species unrecorded in the UK. The species is however recorded in the Netherlands and Dutch bat enthusiasts plan to come over to assist in searching for it. There is the possibility of an exchange to Netherlands to study the habitat requirements and behaviour of this species.

Acknowledgements

Thanks to all staff and volunteers for taking part in the Broadland Bat Survey.

Harbour Porpoises at Sheringham

1993-1998

Dave P Appleton

In the early 1970s a team of birdwatchers realised the potential of a small area on the western outskirts of Sheringham for recording bird migrations. Since 1976 they have been collecting ornithological data in a scientifically standardised manner with a view to analysing the migration patterns of the various bird species in the region. This team, now known as Sheringham Bird Observatory, began recording all observations of Harbour Porpoises in 1993.

For the sake of standardisation, ornithological data is only used on days where there has been a minimum of four hours observation from dawn, of which at least a substantial part is always spent watching the sea. Such days are termed "log-days".

Over the last six years up to 13 Harbour Porpoises have been recorded on 143 days. It would be easy to examine the spread of these records, but the result would reflect seasonal variation in observer effort as much as any seasonal variation in the numbers of porpoises present. However, by examining the average number of porpoises seen per log-day, or the percentage of log-days on which porpoises were recorded, it is possible to get an indication of the seasonal variation of porpoise occurrences in inshore waters off Sheringham.

The result will still be crude, for although we can allow for monthly variations in observer coverage, we cannot eliminate other factors that may effect the patterns. For example, it is likely that between August and November a greater proportion of time is spent watching the sea on any given log-day than during the remainder of the year. On the other hand calm days when porpoises are easier to see may be more frequent at other times of the year.

In 1997, unusually good numbers were present between late February and early March including at least six on 22nd February. This coincided with strong south-westerly winds which made the offshore waters substantially rougher than the sheltered inshore waters. During this period good numbers of porpoises were also recorded elsewhere, between Cley and Overstrand at least, but upon a change in wind direction they suddenly became much harder to find. This demonstrates how our observations merely reflect the visibility of porpoises from land and not necessarily how many are present in the local sea-area.

The majority of records involve just one or two individuals, but on some occasions it is extremely difficult to know how many porpoises have been seen. Such was the case on 29th October 1995 when it was possible to see porpoises breaking the surface of a flat calm sea almost wherever you looked. Although 13 were put down as a minimum estimate, the true number may have been very much higher.

Thus Fig. 1 is presented not as a precise monthly distribution of porpoises offshore from Sheringham but a rough indicator of the seasonal variation in the visibility of porpoises from land in north Norfolk. As such there is no value in enumerating the axes but the obvious peaks confirm our impressions that whilst porpoises may be encountered at any time, they are much more likely to be seen in early spring or autumn than in winter or summer. During February and March, porpoises were observed on 23% of log-days. The mean number of porpoises recorded per log-day ranged between 0.3 and 0.4 during the better months.

1998 was a disappointing year for porpoises at Sheringham after an excellent year in 1997 with records on just five dates (February, March, September and November). Although

this was partly due to poor coverage (60% fewer log-days than the average between 1993 and 1997), Fig. 2 demonstrates that the average number of porpoises seen per log-day was the lowest since recording began in 1993. In the best year, 1997, porpoises were recorded on 26% of log-days with an average of 0.5 animals being seen per log-day.

Fig. 1: Monthly variation in observations of porpoises at Sheringham Bird Observatory 1993-1998

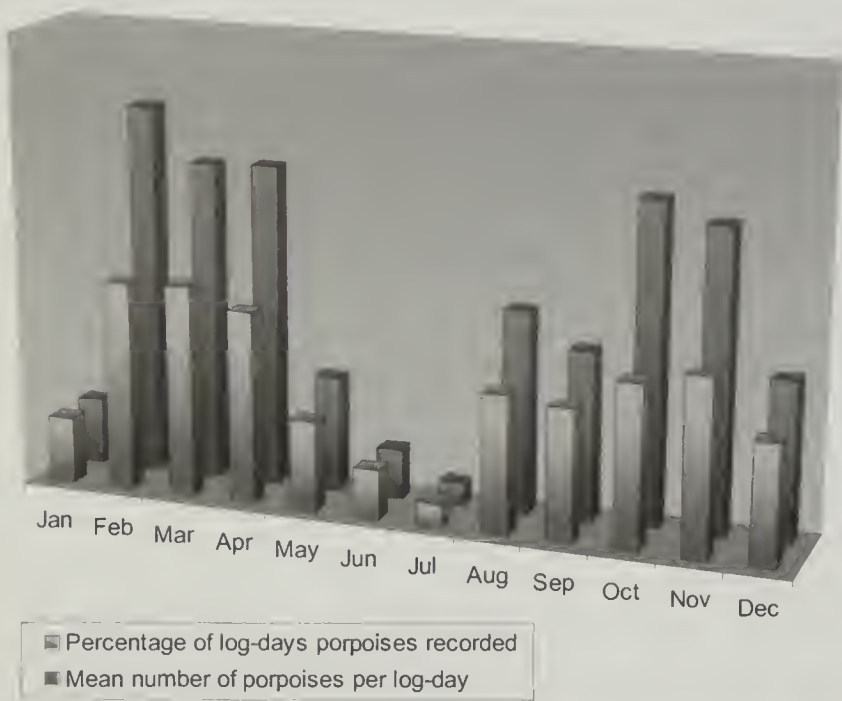
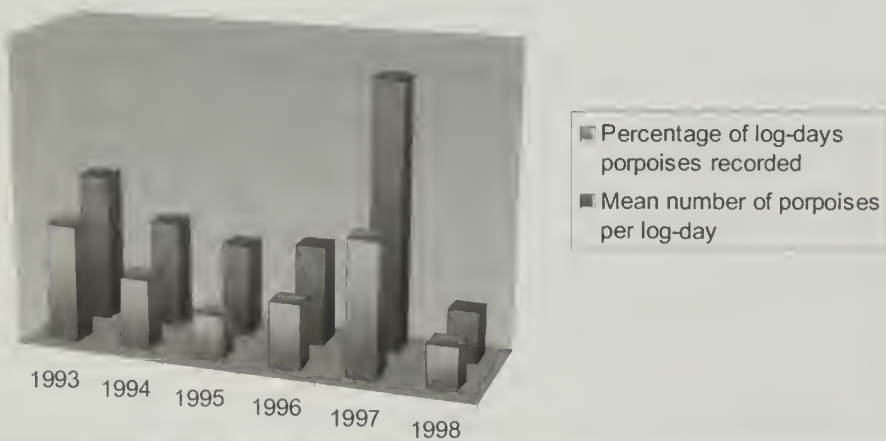


Fig. 2: Annual variation in observations of porpoises at Sheringham Bird Observatory 1993-1998



A Survey of Mammals Flattened on Norfolk's Roads (1996-1999)

Martin R Perrow

ECON, Biological Sciences, University of East Anglia

Introduction

We are all familiar with the rather sorry sight of mammals squashed on the roads. For some such as Hedgehog, this is a common occurrence and has been exploited in popular culture (eg greetings cards, jokes and TV shows - remember 'Not the Nine O'clock News?'). Indeed for mammals such as urban foxes, being hit by a motor vehicle is the most likely cause of mortality (Harris & Lloyd 1991). Moreover, other researchers suggest that the numbers of mammals killed on the road may be considerably higher than expected (Fehlberg 1994). As outlined in the Mammal Report of 1995 we understand little of the interaction between our mammal fauna and roads. In order to begin to understand some of the basic parameters of how many mammals are killed, what species are particularly vulnerable and any seasonal effect, I proposed to conduct a preliminary 'flattened fauna' survey. This brief article outlines the results of that preliminary survey.

Methods

The method used was simply to identify (wherever possible) and record the number of mammals killed on the road whilst travelling (by car, bicycle, bus or on foot) within the county on a daily basis over a 32 month period from July 1996 to February 1999 inclusive. Totals for each species for each month were thus obtained. Amongst several likely biases, the possibility of travelling a greater distance and thus encountering a greater number of animals in any one particular month, was probably the greatest. However, as most of the records were made whilst travelling to work (which is relatively constant throughout the year) and monthly totals were derived from 2 or 3 years, it was hoped the records obtained would more or less reflect reality. In addition, as Mr G Morris also supplied records over the period of 1 year from April 1997 to March 1998 inclusive, there was the possibility of comparing trends across data sets.

Results & Discussion

The total number of mammals recorded dead on the road during the study period was 831. This amounts to an encounter rate of around 0.85 per day during the study period. A total of 16 species were recorded. Excluding bats, these accounts for 50% of the terrestrial mammal species found in Norfolk. In order of abundance these were: Rabbit (55%), Hedgehog (19%), Brown Rat (11%), Grey Squirrel (6%), Brown Hare (4%), Fox (3%), Stoat (1%), Weasel, Ferret, Chinese Water Deer, Badger, Roe Deer, Muntjac, Cat, Mole and Wood Mouse (all <1%). Mr Morris' study produced rather similar results with 403 animals of 12 species (Ferret, Mink, Mole and Wood Mouse were not represented) at an encounter rate of just over 1 per day.

Overall there was little variation in the totals for any given month, which resulted in a clear seasonal pattern to the records with an initial peak in March followed by a further build-up to September when the encounter rate approached 2 per day (Fig's 1 & 2). In contrast Mr Morris' study showed a rather more general increase to a peak in mid-summer, although with a similar encounter rate (Fig 3) The difference in the seasonal pattern between

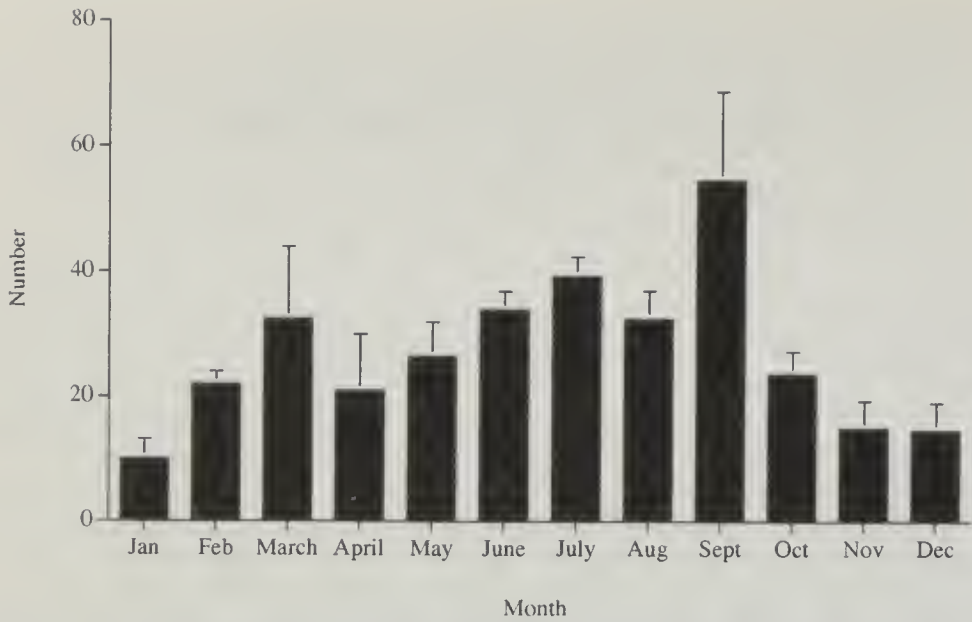


Figure 1. The mean (± 1 SE) number of mammals recorded dead on the road by month ($n=2-3$) in the period July 1996-February 1999.

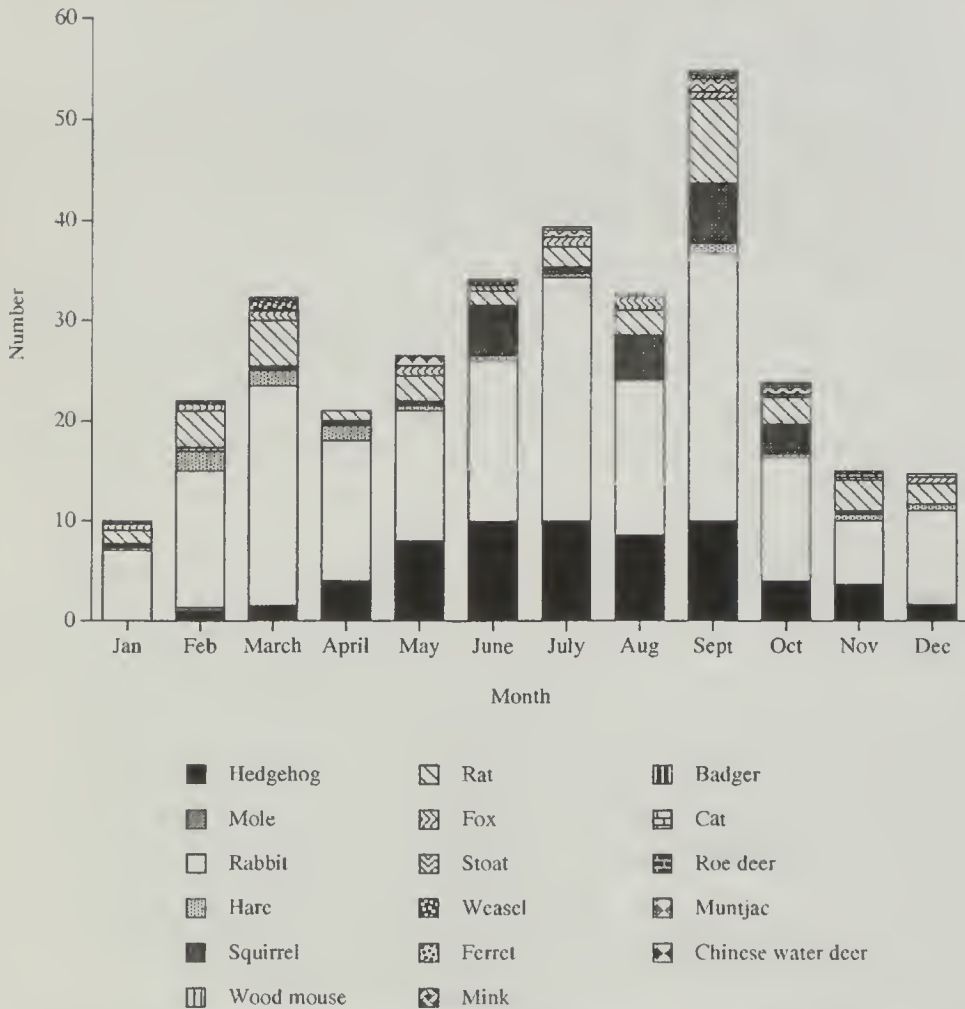


Figure 2. The mean number of each species of mammal recorded dead on the road by month in the period July 1996-February 1999.

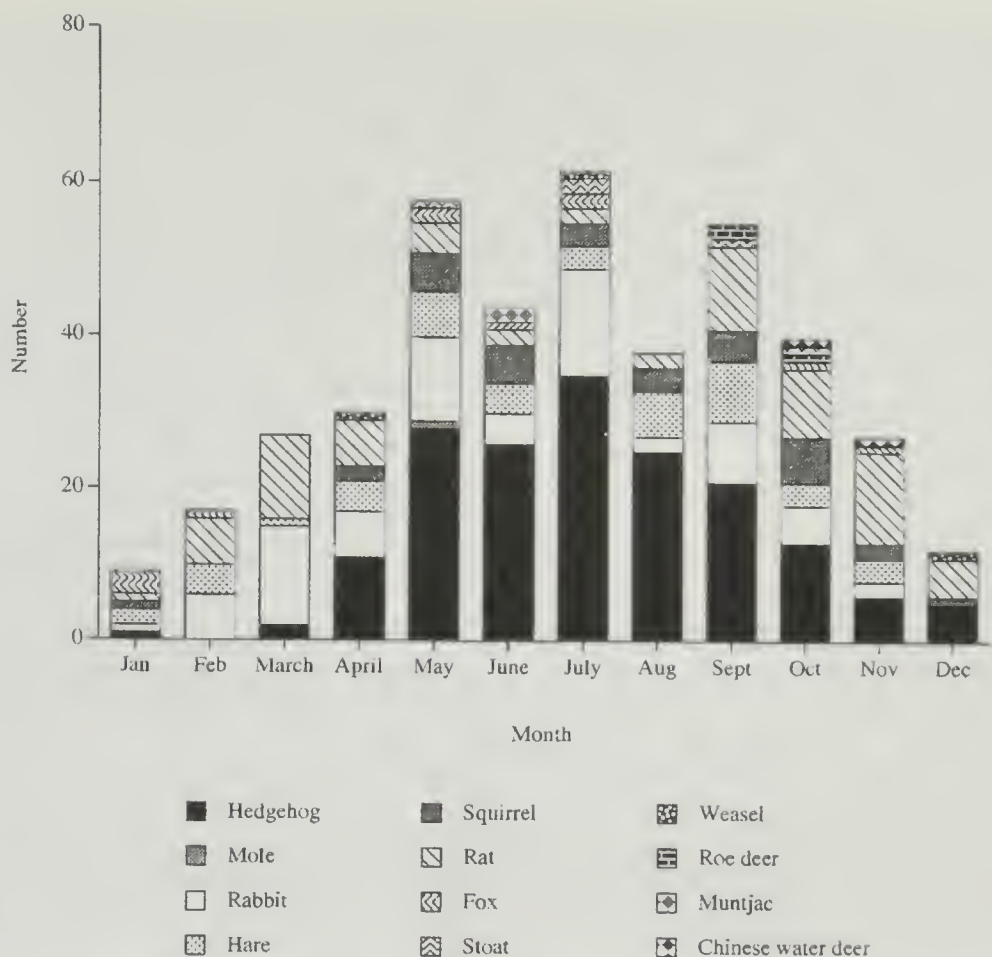


Figure 3. The mean number of each species of mammal recorded dead on the road by month in the period April 1997-March 1998.

the studies is attributable to the difference in the species composition of the road casualties: with Rabbit dominant in the main study (Fig 2) and Hedgehog, accounting for nearly 40% of records, dominant in Mr Morris' (Fig 3). The initial peak in March in the main study may thus be explained by the initial arrival of young rabbits into the population, many of which get killed on the road. A peak in September results from an increased representation of rats following the harvest of cereal crops and the late summer peak of squirrels, probably as they search for the first nut crops of the year. In contrast in Mr Morris' study the preponderance of Hedgehog, a hibernating species not generally encountered before March and reducing its activity from October onwards, tends to provides a normal distribution of records with a peak in mid-summer.

A further notable result of the study is the virtual lack of small mammals, which in proportional terms easily constitute the bulk of the mammals in Norfolk. Judging from the number of occasions species such as Wood Mouse have been seen crossing the road, this is not because small mammals avoid roads, but the result of another factor or factors. There are three obvious possibilities related directly to their small size. Firstly, as small mammals they may be unlikely to be hit by cars. Secondly, if they are killed, they may be difficult to spot, particularly from a moving car. Thirdly, dead animals are easily removed by any number of carrion feeders such as crows, magpies and gulls. A clue to the truth of the situation is provided by data on birds also gathered in the same study. The species encountered in order of abundance were: Pheasant (126), Woodpigeon (73), Blackbird (33), Rook (10), Moorhen

(7), House Sparrow (6), Song Thrush (5) Red-legged Partridge (5), Magpie (5), Black-headed Gull (4), Mallard (2), Feral pigeon (2), Collared Dove (2), Tawny Owl (2), Wren (2), Coot (1), Kestrel (1) Little Owl (1), Barn Owl (1), Jackdaw (1), Great Spotted Woodpecker (1), Dunnock (1) and Chaffinch (1). Again a bias to the less abundant, larger forms was noted. Whilst the possibility of small birds being better able to avoid being hit by cars cannot be discounted it could also be argued that small birds are much more likely to be sucked into the down draft of a moving car and injured or killed. The reduced chance of seeing a small bird or mammal on the road either because it is small or because it has been taken by a scavenger appears to offer the best explanation of the bias in the data towards larger birds or mammals.

Conclusions

Although the survey was not conducted in a truly quantifiable, rigorous manner, the number of mammals killed on Norfolk's roads is clearly high. For some species, mortality on the road may be a significant factor and may limit populations on a local scale. There is merit in taking the survey a step further by recording further parameters such as the size of the road, the speed limit and the habitats surrounding the road. The number of miles travelled providing information on the density of road-kills would also be useful. This may ultimately lead to potential management solutions, such as changing the nature of roadside verges. Anyone interested?...

Acknowledgements

Thanks to Mr G Morris for his sterling efforts in recording flattened fauna and to Mark Tomlinson (ECON) for drawing the figures.

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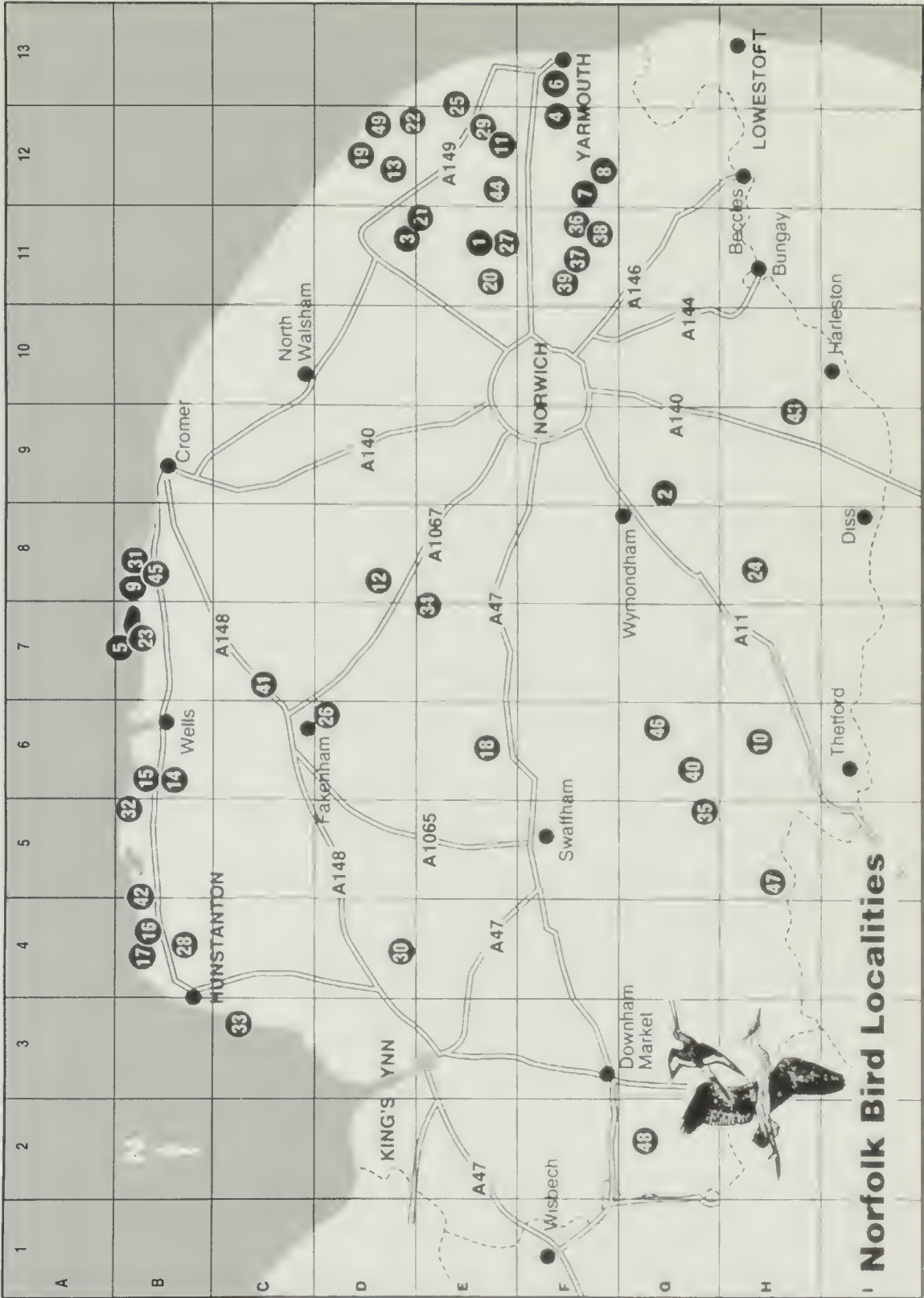
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09068 NUMBER CHARGED AT 60P/MIN AT ALL TIMES

Key to Location Map

1 Alderfen Broad	NWT	14 Holkham Lake	HE	27 Ranworth/Cockshoot Broads	NWT	40 Thompson Water	NWT
2 Ashwellthorpe Lower Wood	NWT	15 Holkham NNR	EN	28 Ringstead Downs	NWT	41 Thursford Wood	NWT
3 Barton Broad	NWT	16 Holme Bird Observatory	NOA	29 Rollesby Broad		42 Titchwell Marsh	RSPB
4 Berney Marshes	RSPB	17 Holme Dunes	NWT	30 Roydon Common	NWT	43 Tyrrel's Wood	WT
5 Blakeney Point	NT	18 Honeyput Wood	NWT	31 Salhouse Marshes	NWT	44 Upton Fen	NWT
6 Breydon Water	LNR	19 Horsey Mere	NT	32 Scolt Head Island	EN	45 Walsey Hills	NOA
7 Buckenham/Cantley Marshes	RSPB	20 Hoveton Great Broad	EN	33 Snettisham Pits	RSPB	46 Wayland Wood	NWT
8 Cantley Reservoir	BS	21 How Hill	BA	34 Sparham Pools	NWT	47 Weeting Heath	NWT
9 Cley Marsh	NWT	22 Martham Broad	NWT	35 Stanford Training Area		48 Welney Washes	W&WT
10 East Wretham Heath	NWT	23 Morston/Stiffkey Marshes	NT	36 Strumpshaw Fen	RSPB	49 Winterton Dunes	EN
11 Filby Broad		24 New Buckenham Common	NWT	37 Surlingham Broad	NWT		
12 Foxley Wood	NWT	25 Ormesby Broad		38 Surlingham/Rockland Marshes	RSPB		
13 Hickling Broad	NWT	26 Pensthorpe Waterfowl Trust	PWT	39 Ted Ellis Trust	TET		
BA	=	Broads Authority		NWT	=	Norfolk Wildlife Trust	
BS	=	British Sugar		PWT	=	Pensthorpe Waterfowl Trust	
EN	=	English Nature		RSPB	=	Royal Society for the Protection of Birds	
HE	=	Holkham Estate		TET	=	Ted Ellis Trust	
LNR	=	Local Nature Reserve		WT	=	Woodland Trust	
NOA	=	Norfolk Ornithologists Association		W&WT	=	Wildfowl & Wetlands Trust	
NT	=	National Trust					

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