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NORFOLK Bird & Mammal Report

1978



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Norfolk Naturalists' Trust Properties

Date Acquired				Acreage		Status*
On the Coast						
1926	Cley Marshes	...	...	435	Gift	S.S.S.I.†
1937	Duchess's Pightle, Burnham Overy	...	...	1	Gift	---
1937	Great and Little Eye, Salthouse	...	...	10	Purchased	S.S.S.I.
1945	East End of Scolt Island	...	...	76	Purchased	N.N.R.
1955	The Eye, Salthouse	...	...	21	Purchased	S.S.S.I.
1965	Holme Dunes	...	...	400	Purchased, Gift & Agreement	S.S.S.I.
1971	Salthouse Marshes	...	...	200	Agreement	S.S.S.I.
Broadland						
1928 and 1974	Starch Grass (Martham)	...	...	43½	Purchased & Gift	S.S.S.I.
1930	Alderfen Broad	...	...	72	Purchased	S.S.S.I.
1945 and 1969	Hickling Broad	...	...	861	Purchased	N.N.R.
1945	Hickling Broad	...	...	500	Leased	N.N.R.
1945	Barton Broad	...	...	355	Half Gift & Half Purchased	S.S.S.I.
1952	Barton Broad	...	...			S.S.S.I.
1948	Surlingham Broad	...	...	253	Purchased	S.S.S.I.
1949	Ranworth Broad	...	...	124	Gift	N.N.R.
1949	Cockshoot Broad	...	...	12	Gift	N.N.R.
1964	Firs Marsh, Burgh St. Peter	...	...	2½	Leased	---
1971	Martham Broad	...	...	103	Leased	S.S.S.I.
1972	Hardley Flood	...	...	90	Leased	---
1972	Chedgrave Common	...	...	10	Leased	---
1974	Barton Marshes	...	...	10¼	Gift	---
1979	Upton Fen	...	...	130	Purchased	S.S.S.I.
Breckland						
1938	East Wretham Heath	...	...	362	Purchased & Gift	S.S.S.I.
1942	Weeting Heath	...	...	343	Gift	N.N.R.
1949	Thetford Heath	...	...	250	Gift	N.N.R.
Other Areas						
1957	Thursford Woods	...	...	25	Gift	---
1960	Hethel Old Thorn	...	...	⅓	Gift	---
1961	Scarning Fen	...	...	10½	Gift	S.S.S.I.
1962	Hockham Fen (Cranberry Rough)	...	...	20	Purchased	S.S.S.I.
1963	Roydon Common	...	...	140	Purchased	S.S.S.I.
1966	Stoke Ferry Fen	...	...	25	Agreement	S.S.S.I.
1968	Lenwade Water	...	...	37	Agreement	---
1968	Dickleburgh Pightle	...	...	1	Agreement	---
1972	Smallburgh Fen	...	...	19	Leased	S.S.S.I.
1972	Ringstead Downs	26	Agreement	S.S.S.I.

(Continued on inside back cover)

Norfolk Bird Report - 1978

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NORFOLK BIRD REPORT 1978

Editorial

The Council of the Norfolk Naturalists Trust, in co-operation with the Norfolk & Norwich Naturalists Society, is pleased to present the annual report on the birds of Norfolk.

Review of the Year: Undoubtedly one of the highlights of the year occurred in early January when an Ivory Gull, an Arctic species and an addition to the county list, appeared suprisingly at Brancaster. The bird fed frequently on an almost totally buried seal on the beach and allowed a close approach by those observers fortunate enough to see it. Its pigeon-like appearance on the ground was in total contrast to its graceful flight. Another subsequent unexpected find in January was a Richard's Pipit which stayed at Holme for three weeks, the first wintering record of this Asiatic wanderer in the county.

An obliging Red Kite spent two days in the Buxton-Oxnead area in early February. Shortly afterwards a fortnight of cold weather occurred, but apart from hard weather movements of thrushes in particular this period produced little of ornithological interest. In contrast to 1977 the early summer migrants reverted to their more normal pattern of delaying their arrival until nearly the end of March in most instances. Nevertheless many observers spent long periods watching a Crane which frequented the Holt area for much of the month.

Generally April was disappointing with cold easterly or northerly winds for much of the time and no major movements of migrants until well into the month. However, as usual, April produced its surprises. On the 28th one fortunate observer was standing in the right place at Cley to see a Black Stork, a wanderer from Eastern Europe, fly in off the sea and pass over his head. Two days later another addition to the county list, an Alpine Accentor, appeared on the cliffs at Sheringham.

May is normally one of the most interesting months of the ornithological calendar and 1978 proved to be no exception. It was generally cold and exceptional numbers of winter visitors, especially Fieldfares, remained well into the month. In the first fortnight frequent north-easterly winds resulted in above-average numbers of Wry-necks, Pied Flycatchers and Red-backed Shrikes. As one coastal observer remarked it was more like autumn than spring! A Broad-billed Sandpiper appeared at Breydon during this period and later in the month a Great Reed Warbler was found at a West Norfolk locality. On the 28th a Pied Wheatear was seen at Winterton; this spectacular black and white bird, a vagrant from South-east Europe and another addition to the county list, was almost certainly the bird of the year. What was amazing about this record was that not only did it occur at the same locality as the Isabelline Wheatear in 1977 but it was also seen on the same date and found by the same observer.

The highlight of the breeding season was undoubtedly the successful breeding of Montagu's Harriers. Avocets again had a successful season, but Bitterns showed no recorded sign of any improvement. Similarly, submitted records suggested that Bearded Tits had a poor season.

One feature of recent years has been the appearance of one or more waders during the mid-summer period and 1978 saw a brief visit of a Terek Sandpiper to Breydon on 5th July. The east coast was also rewarded near the end of the month with a passing Red-footed Falcon at Winterton.

August and September are the traditional months for drift migrants, but apart from a small 'fall' on 6th September there was a virtual absence of such species. Despite the lack of birds 'in the bushes' the heron family was well represented with Little Egret at Winterton, Little Bittern at Cley and Purple Heron at Snettisham; a Crane also made a prolonged stay at Welney. Sea-watchers were rewarded with several records of Cory's Shearwaters and Long-tailed Skuas and two Sabine's Gulls remained for several weeks in the Holme area. Above average numbers of Little Stints and Curlew Sandpipers appeared during this period, with a White-rumped Sandpiper at Breydon and a Broad-billed Sandpiper at Wolferton. The only unusual passerines were single Serins at Sheringham and Holme.

The last day of September not only saw the appearance of several petrels on the coast, but also a change of wind direction to the north east. Next day produced the first reasonable fall of migrants of the autumn, especially Redstarts. Generally October was mild with winds mainly from southerly direction, as opposed to the hoped-for easterlies. Nevertheless a vast fog bank over the whole of the southern North Sea and light winds on the 13th resulted in a most surprising selection of far eastern rarities on 14th/15th with a Desert Wheatear on Blakeney Point, 2 Short-toed Larks at Weybourne and a Radde's Warbler at Holkham. As frequently happens these birds, due to their disorientation, stayed for several days; the Desert Wheatear, because of its tameness, must have been the most photographed bird in the county for many years! The second half of the month saw a steady arrival of winter visitors with a major immigration on 27th/28th which is described in detail on pages 8—10.

November and December saw the arrival of Rough-legged Buzzards and a Red Kite, together with a major influx of Hen Harriers which continued into 1979.

Acknowledgements: Thanks are due to G.M.S. Easy for the cover drawings of Desert Wheatear and Hen Harriers and for text illustrations; also to Dr. K. J. Carlson, P. R. Clarke, A. L. Howes, J. Pick and R. Powley for photographs and vignettes; to Holme Bird Observatory/N.O.A. for access to records; to the Norfolk Naturalists Trust Wardens; to the National Trust (Blakeney Point); to the Nature Conservancy Council (Scolt Head, Holkham, Bure Marshes (Woodbastwick) and Hoveton Great Broad); to the Cambridge Bird Club; to Gt. Yarmouth Naturalists Society; to P. R. Allard and D. A. Dorling (for compiling the annual record cards); to Mrs. M. Dorling, J. T. Fenton, P. D. Kirby, Mrs. P. Rix and Mrs. S. F. Seago for valuable assistance and to all other contributors.

Recording: Records for the 1979 Report (including field descriptions of rarities and semi-rarities) should be sent *by the end of January* to Michael J. Seago, 33 Acacia Road, Thorpe St. Andrew, Norwich NR7 0PP. Contributors are requested to submit notes in the order followed in Dr. K. H. Voous' *List of Recent Holarctic Bird Species* (1977). In order to minimise the work involved, records will not normally be acknowledged. The names of all contributors will be included in the Report. It will be appreciated that delays in receiving observations create considerable problems for the Recorders, the Records Committee and the printers. For several reasons it is essential that publication is achieved by early September.

The County Records Committee (P. R. Allard, G. E. Dunmore, D. J. Holman, S. C. Joyner and J. Kemp) considered more records than ever before in 1978 and were pleased to note an increased number of descriptions submitted at the same time as observers' records. Unfortunately the number of records rejected also increased compared with previous years and co-incidentally the majority of such records related to descriptions requested by follow-up letters. The Committee experienced particular difficulties especially with various birds of prey including Goshawk, Buzzard and

Peregrine and would comment, having regard to the members' own experiences, that often large raptors cannot be identified for certain especially if viewed only at long range. In addition several Peregrine records did not rule out the possibility of escaped Lanner Falcons.

The Committee has also given consideration to the problems of identification of various races and sub-species often reported in the Classified Notes and would request, in future years, that descriptions be submitted for the following: Balearic Shearwater, Northern Tree Creeper, Northern Long-tailed Tit, Scandinavian Rock and Water Pipits and Grey-headed and Ashy-headed Wagtails.

Finally the Committee would be pleased to advise any observer the reasons why a particular record was not accepted for publication and are willing to reconsider any previously rejected records on receipt of additional information. Any such correspondence should be addressed to the Editor in the first instance.

PIED FLYCATCHER — A NEW BREEDING SPECIES FOR NORFOLK

Felbrigg Park is National Trust property in north-east Norfolk. It consists of extensive areas of parkland, deciduous woodland and the inevitable coniferous plantations. The most important tract of woodland is the Great Wood; of about 500 acres, it is made up of an attractive mixture of beech, oak and sweet chestnuts and to a lesser extent holly, Scot's pine and Sycamore.

The wood holds a thriving population of birds, including several of the less common Norfolk species: redstart, lesser spotted woodpecker and, in certain years, wood warblers. 1978 was an exceptionally good year for redstarts, with up to 11 males singing in May and at least 4 fledged young. There were no wood warblers, but the totally unexpected discovery of a pair of pied flycatchers more than compensated.

In Great Britain, the preferred habitat of pied flycatchers is mature sessile oak woodland. The best examples of this exist in western England and Wales, where the upland valleys hold the bulk of the population. Within the last forty years their range has expanded considerably, and they are now found in southern Scotland, and north and south-west England. By no means exclusively confined to oak woods, they may be found anywhere where there are sufficient numbers of nest-sites and a plentiful supply of food.

The Felbrigg territory seemed atypical of the British pied flycatcher habitat. The nest, in a Scot's pine, was situated amid a group of very large beech trees and sweet chestnuts on the southern periphery of the wood. There were several pine plantations adjoining the deciduous trees and a large clearing to the south.

Due to incredible good fortune, the actual nest-site was located quite easily; the nesting tree was adjacent to the footpath, the hole not obscured by overhanging foliage and the female made frequent visits to the entrance hole, while carrying nesting material: dry grass. The cock bird also helped location by remaining on the exposed branches of a nearby chestnut tree, pouring out his chaffinch-like song.

During the following month, the progress of the birds was monitored by several birdwatchers, but the situation remained more or less constant until the chicks had almost fledged. The male was invariably found on the same branch of the chestnut tree, occasionally disappearing on hunting expeditions, or, as happened on several occasions, making sorties up to the nest-hole apparently to feed the female. He continued singing until the young were nearly full grown.



At this point it is worth mentioning that an unmated male may sometimes occupy a suitable nest hole and defend a territory, giving the impression that breeding has taken place and that it is feeding young. Even though the female had been seen carrying nesting material into the hole, we could not positively confirm that the flycatchers had nested until much later when both birds were making frequent visits to the hole. There was even more conclusive evidence when an adult removed a faecal sac from the nest.

About five weeks after the pair was first discovered, the chicks fledged. As is usual with this species, the family completely disappeared in the dense tree cover of the wood, consequently we were not able to ascertain how many young were raised.

These events constituted the first breeding record for the species in Norfolk, and almost certainly in East Anglia. However, of equal interest was the presumed origin of the pair. The late spring of 1978 was characterized, at least in Norfolk, by predominantly easterly winds. Associated with this weather pattern was an unusual number of Scandinavian species normally associated with autumn drift-movements. On the North Norfolk coast, wrynecks and red-backed shrikes were far more numerous than usual. There were also more records in the county of pied flycatchers. As has been said earlier, the number of singing redstarts at Felbrigg was unprecedented, at least in recent years. Whereas British and German pied flycatchers lay their eggs in the first half of May, they are rather later in Finland and the Felbrigg pair could not have laid until after June 9th. Finally, the breeding pied flycatchers chose to nest in a Scot's pine, a habit which is extremely uncommon in their normal British breeding range. Considering all these points, there seems little doubt that the Felbrigg pair was of Scandinavian breeding stock, their arrival being associated with atypical spring weather conditions.

NEAL TAYLOR & MOSS TAYLOR.

IVORY GULL, WANDERER FROM THE HIGH ARCTIC

A flush of pink sunlight tinted an otherwise lifeless grey sky as we rounded Brancaster beach-gap and followed the shore eastwards in the direction of Scolt Head. At first glance life seemed minimal, but when we scanned the distant tide-line, what was at first thought to be a white polythene sack suddenly raised its head and entered, so to speak, the land of the living. Was it perhaps some sort of snowy-white carrier pigeon? We soon saw that the reason for the bird's intent stillness was the appeasement of hunger, for underneath its tearing beak gleamed the irridiscent head of a drake mallard, and though we were now within 40 yards of our quarry, mere human presence would not, as yet, induce this strange bird to leave its succulent breakfast.

On the ground it did indeed resemble a carrier pigeon, and boasting a thick horn-coloured beak was quite unlike any other sea bird of our acquaintance. Its legs were black and comically short, while the feet were webbed and splayed out flatly, suggesting a stout strength. The snowy whiteness of the plumage was relieved only by measly black dots on the back and tail, and a crow-dark bill which merged into a smudge of dark feathering around the eye and under the chin; in short it looked like a very white bird which had recently had its head tipped, a quarter way only, into a bottle of ink!

We advanced a few steps nearer, and were soon able to identify it as an immature ivory gull, a bird of the most northerly Arctic ice-packs and a species never before recorded in Norfolk. Eventually, it became aware of an unacceptably close presence and flew about 100 yards to the west, where it instantly began to feast on the half-eaten corpse of a small wader, which was a poor sort of exchange for a mallard. The gull thought so too for on the homeward walk when we necessarily disturbed it a second time, it quickly sailed back again to its more substantial meal of wild duck.

In flight the startling whiteness of the feathers was even more apparent than on the tideline, though the outspread tail and wing-quills were delicately tipped with a row of black dots like the edge of a butterfly's wing. Two or three times it soared almost vertically into the grey wintry sky, keeled over for a brief second, and then gently swooped down again to the carrion on the tideline. Buoyant and tern-like it flew as



f borne on invisible air currents. Only on the shore, supported by those inadequate eggs, did it appear dumpy and somewhat clumsy.

Unfortunately, this stranger's stay in Norfolk was short-lived. It was last observed January 9th on the beach by Gun Hill before heading eastwards. Within 48 hours gale-force winds suddenly sprang up producing a wild night with heavy rain.

M. R. CLARKE

Mute Swan Census

During 1978, a census was undertaken of the Norfolk mute swan population. The survey, part of a European-wide census, was jointly organised in Britain by the British Trust for Ornithology and the Wildfowl Trust. Similar counts were made in Britain in 1955 and 1961 and the results are therefore directly comparable. In Norfolk, over fifty observers were involved and for all their efforts the county organisers were extremely grateful.

In April and May, Norfolk held a total of 1035 mute swans, of which 126 were classified as non-breeding territorial birds, whilst of 137 breeding pairs, all but ten were successful. The largest herd of non-breeders (108) was located on the River Ouse at King's Lynn. The location of breeding pairs was as follows (single pairs unless otherwise stated):

Rivers: Ant, Bure 6, Burn 2, Glaven, Ingol, Nar 2, Ouse 3, Tas 2, Thet 2, Thurne, Waveney 14, Wensum 3, Wissey 3 and Yare 4. *Broads:* Blackfleet, Hickling 3, Horsey 1, Hoveton Little, Ranworth, Rockland, Rollesby and Upton. *Lakes and Ponds:* Diddlington, Fowlmere, Fritton Decoy, Hardley Flood, Holkham Park, Holme, Lound, Narford, North Elmham, Raynham Hall, Runhall, Shadwell Park, Snettisham, Stoke Ferry, Stradsett and Wortwell. *Gravel Pits and Flooded Marshes:* Beetley GP, Brancaster, Breydon, Burgh St. Peter 2, Cantley, Chedgrave, Crostwick GP, Dersingham, Elsing, Fritton 2, Haddiscoe 6, Halvergate 8, Hardley Flood 2, Hempstead Heath, Lenwade, Lyng 2, Norton, Ouse Washes 9, Pentney GP, Postwick, Reedham 4, Salthouse, Snettisham 2, Somerton Holmes, Stokesby, Stowbridge GP, Thurlton 2, Westacre GP, Wickhampton 4 and Wiveton. *Reservoirs:* Gressenhall and King's Lynn.

Surprisingly, only 33 out of a possible 64 ten-kilometre squares, wholly or partly within Norfolk, held at least one breeding pair. Although the overall mute swan population was virtually the same as in 1961, there have been some interesting changes during the intervening years, the most significant of which relate to the Broads. Whereas, in 1961, Hickling Broad alone held a herd of 320 non-breeders, in 1978 the entire Broads accounted for only 69, of which a mere 22 were at their former stronghold. Breeding pairs throughout Broadland showed a similar decline — on the Broads from 24 to 12 pairs, and on the River Bure and Yare, from 20 to 6 and from 18 to 4 respectively.

Fortunately, it appears that these swans have not been lost altogether, for corresponding increases in both breeding and non-breeding birds were recorded on the Halvergate and Haddiscoe Marshes. In addition the number of breeding pairs on the River Waveney doubled to 14.

Although it would be tempting to blame the increase in holiday craft in Broadland for this decline, the same effect should be apparent on the River Waveney, when in fact the reverse is true. It would seem more likely therefore that the decimation of the swan population in Broadland, in common with the fall in numbers of other wildfowl, is largely attributable to another factor, possibly the pollution caused by the enormous winter gull roosts at Hickling.

MOSS TAYLOR

Late autumn land bird immigration in North-West Norfolk

On Oct. 28th 1978 an impressive immigration of European passerines at Hunstanton was ambitiously assessed by T. Talbot and the writer. Conditions had seemed suitable for such a venture with slack winds over-night in the southern part of the North Sea and a sea mist reported; more to the point a heavy immigration had been noted in NE Norfolk the previous morning.

The first counts at Heacham highlighted the southward movement of Fieldfares; between Heacham and Hunstanton Starling and finch movements were conspicuous and at Hunstanton Cliffs the Starling and Chaffinch passage was even more pronounced. In marked contrast the number of birds passing over Holme Dunes/Holme Bird Observatory was insignificant although the western movement was visible towards the high ground nearer the coast road and to some extent over low-lying meadowland. Along the sea wall/dunes only Skylarks were passing in numbers comparable to earlier counts.

The movement was amongst the heaviest observed off this coast and was certainly the most significant assessed there. Along the North Coast Holme - Titchwell, birds were passing in a concentrated band along the coast-facing ridge and over the adjacent meadows and marshes. The coastal dunes attracted a more diffuse movement; here and over the sea for approximately 4 kilometers a westerly heading by Skylarks was a prominent feature.

Due to the high tide and sea mist the movement veered SW at Hunstanton Cliffs. As usual some confusion resulted when some of the coasting birds continued on their westward course, lost sight of land, then returned to the Cliffs from a NW direction. It was at this point that the finches were most concentrated and low enough to be easily identified. Starlings were most conspicuous, but the wide path taken by the flocks, mainly Clifftop — Hunstanton Park but often over the sea, did cause problems when counting the passage. Fieldfares were at their most inconspicuous at this point, most passed 2 kilometers inland, not visible from the lighthouse observation centre.

South of Hunstanton the Fieldfare flocks had converged but the Starling movement had become more diffuse: some birds had continued out to sea to WSW, others were making off on a more southerly course. The finch movement had not only become more scattered but was at a considerably higher elevation, making identification more difficult. At Heacham the Fieldfare hordes continued south in impressive style over the low lying meadows all other species had spread widely over sea and shore and the finch flocks, rising still, were difficult even to see.

By combining the counts made at the various locations it seemed reasonable to deduce that during the morning 120,000 Starlings, 50,000 Chaffinches, 15,000 Fieldfares, 3,500 Skylarks, 2,000 Bramblings, 1,000 Redwings, 1,000 Meadow Pipits, 500 Greenfinches and 500 Linnets had turned down the Wash coast, along with smaller numbers of Lapwings, Snipes, Collared Doves, Corvids, Twites, Rock Pipits, Blackbirds, Song Thrushes, 80 Siskins and House Sparrows. A few flocks of Long-tailed Tits moved in with Blue Tits, also involved were Reed Buntings, Yellow Buntings Mistle Thrushes, Coal Tits, House Martins, 4 Lapland Buntings, Pied Wagtails, an unidentified falcon and a male Hen Harrier which headed high to S over the sea at Heacham.

A similar movement had been evident the previous day according to H. R. Ramsey; however Fieldfares had been more conspicuous during that arrival.



Fortunate observers at Brancaster found this Ivory Gull remarkably fearless. It remained in the area five days.

Photo: P. R. Clarke

This male Desert Wheatear stayed between Blakeney Point and Cley four days in mid-October. The nearest breeding grounds are in North Africa.

Photo: J. Pick



IS. MUSEUM
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★ ★



Hen Harriers were one of the main features of the 1978-79 winter. The first birds reached Hickling and Cley October 2nd. By the end of the year five were present at both Strumpshaw and Scolt Head with four at Roydon Common.

Photo: Dr K. J. Carlson

Hunstanton presents a unique problem for migrating birds. At no other site along the North Sea facing coastline of the British mainland are birds confronted with a situation where the sea lies at almost 250° between SSW and ENE directly barring their passage route. In spring this results in a movement south along the Hunstanton Stretch, more especially of hirundines, completely opposite to their intended heading. In autumn, during a normal WSW immigration in fine conditions when the Lincs. coast is visible, the movement S at Heacham is usually confined to the Fieldfare/Redwing element; the majority of the Lapwings, Starlings, Skylarks and finches head out over the Wash continuing their W/WSW/WNW passage. Even Fieldfares/Redwings take a SW/W heading once the mud of the South Wash has been encountered.

When sea fog or mist shrouds the distant shores of the Wash a movement similar to that of Oct. 28th will result. The concentrated movements rather depend on such features as the state of the tide: when at a low ebb and the mudflats are exposed a high proportion of the birds fan out over the saltings and few pass down to the Norfolk S. Wash shores.

During the 1950s the Cambridge Bird Club made some attempt to track down the routes taken during these arrivals. On Oct. 23rd 1956 one observer was aboard the Lynn Well lightship when a heavy movement was noted at Holme of 8,000 Starlings, 4,355 Chaffinches, 160 Greenfinches, 60 Linnets, 50 Bramblings, 13 Lapland Buntings and 8 Shorelarks. Most of these turned SSW at Gore Point, yet a considerable proportion of the Starlings set out from Gore Point across the Wash. Since nothing of this movement was reported from the lightship it was considered that birds continued across on a SW or W course.

Certainly the most thorough of these surveys was that of Oct. 18th - 26th in 1958; which perhaps provided the key to the wash movements. From watches along the N. Norfolk coast Hunstanton - Holkham, it was suggested that 200,000 Starlings, 30,000 Skylarks, 20,000 Lapwings, 18,000 Black-headed Gulls, 4,800 Chaffinches and 1,100 Meadow Pipits coasted W on 19th. This movement turned into the Wash at Hunstanton, mainly crossing the Wash towards Holbeach/Nene Mouth. The extent of this southward movement down into the Wash from Hunstanton was usually governed by the previous mentioned factors: the state of tide and weather conditions.

“As has been found annually since regular watching on diurnal migration was started in 1950 (Bourne, Smout, Vine *et al*), the course taken by birds after Hunstanton varies between WNW across the Wash and S down the coast past Snettisham. Generally, most birds keep to the coast early in the day, at high tide and especially in poor visibility and the numbers crossing the Wash (mainly to the SW) tend to be greatest in good visibility and during the day. At low tide when large expanses of mud are exposed from Snettisham southwards the coasting stream tends to turn more and more into SW movements on a standard direction across the mudflats and water”. (*Cambridge Bird Report 1958 p. 8*).

It is interesting to speculate on the origins and destination of these spectacular movements. Our understanding of the departure from the Wash has not improved a great deal since the 1950s. Those birds that had been observed heading out across the Wash at Hunstanton were seen to arrive at Freiston/Holbeach on the Lincs. side, while those that turned S at the cliffs either passed SW/WSW inland at Lynn Point, having crossed at Ouse Mouth or headed WSW inland at Nenemouth. Some birds certainly turned to W or NW along or parallel to the S. Wash shores and crossed the Welland Mouth to NW towards Frampton/Frieston. Thus the movements had become considerably more diffuse once the Wash had been traversed, and whilst the resultant passage inland was considerably more pronounced than the general movements over much of Britain they were in no way as impressive as those along the North Norfolk Coast.

The narrow passage along the Norfolk coast is of a considerably greater volume than that at inland Norfolk localities. Whilst this has generally been accepted as the accumulative result of birds arriving from the sea turning to travel WNW/W along the coast, this hardly explains the frequent westward coasting movements Cromer—Hunstanton of vast numbers of birds without any suggestion of additional birds joining the traffic from a more northerly quarter. This suggests that the arrival is already concentrated before it reaches the Norfolk coast and is simply an extended arm of a similar movement in Europe.

It is therefore tempting to look across the North Sea to the ENE to compare the similar E — W coastline of North Germany and North Holland in the region of the Frisian Islands where the great crossroads of flight lines from Scandinavia via Denmark and the route of Russian birds by-passing the Baltic Sea meet. This is an obvious stepping stone to Britain and one that would produce this conspicuous concentration if the shortest crossing to the west were made. In the sort of ideal weather conditions that coincide with the majority of these major movements in Norfolk, it would require a mere 4 — 5 hours flying time or less to hit the East Anglian coastline.

Thus the movements along the North Norfolk coast could well be the result of the funnelling of birds that had passed down the coasts of the Baltic Sea and North Sea coasts of Scandinavia and come together along the North Coast of Germany.

As can be seen comparatively little recent data is readily available on immigration on the North Norfolk coast, certainly one of the major staging posts for such movements into Great Britain. A clearer picture of the arrivals East of Cromer would seem especially valuable and even the movements along the south coast of the Wash need researching further, more especially along the Lincs. coastline.

G.M.S. EASY

Bird Ringing *Report*

During 1978, ringers were active at all the established sites in the county, and this work should result in recoveries over the next few years. Recoveries notified during the year did include some spectacular movements including waders to and from South Africa, and a Starling to Italy, the third for the country and the second from Norfolk. But for the most part they added useful supporting information to the files. There were nice series of recoveries for some of the thrushes and finches, and quick movements of Swallow and Great Tit, due to operations at strategically placed ringing stations. The second Cetti's Warbler recovery came in 1978, though only a local one.

Other recoveries have come to light many years after ringing, more especially among the sea birds of course, and there are examples in this year's list of Oystercatcher, Sandwich Tern and Gannet. One or two passerines also lived to a ripe old age, including Redpoll and Brambling.

Where the terms have been used, pullus means a nestling and a control is a bird that is handled by a ringer when it already carries a ring put on elsewhere.

Gannet

Bass Rock, E. Lothian
(pullus) 11.7.71

Blakeney Pt., (freshly dead) 20.5.78

Canada Goose

Four found dead near Castle Acre after a storm on 3.1.78 had been ringed near Worksop, Notts., including two from July 1970 and July 1971.

Barnacle Goose

One of four on Wells Golf Course, 3.10.77, had been ringed as a juvenile on the Solway Firth in 1975, and had earlier been sighted in Norway, May 1977.

Brent Goose

Snettisham 21.12.76

Dikson, Taymyr, USSR (killed), June 1977

Teal

De Koog, Texel, Netherlands 6.12.77 Salthouse (shot), Dec. 1977

Oystercatcher

Heacham 5.9.67

Vesteralen, Nordland, Norway 23.6.77

Knot

The first recovery in Britain of a Pretoria-ringed bird.

Langebaan, Cape, S. Africa 24.1.76 Wolferton (control) 19.8.77

Sanderling

The first recovery in S. Africa of a British-ringed Sanderling, although an earlier movement in the reverse direction dates back to 1971 — *Norfolk Bird Report* 1972, p 24).

Heacham 17.5.69

Langebaan, Cape, S. Africa (control)

(also controlled 1973, 1974)

13.2.77

Woodcock

Joensuu, Kuopio, Finland (pullus)
17.6.74

Kelling (killed) 25.1.77

Holmsland, Jutland, Denmark
18.11.76

Gillingham, 30.11.78

Black-headed Gull

Recoveries involved movements between Norfolk and Finland (3), Sweden (3), Estonia, Denmark (3), Poland, Germany (4) and Netherlands.

Common Gull

Matsalu, Estonia (pullus) 15.6.77

Norwich (control) 19.1.78

Sandwich Tern

Note the age of the first of these.

Stiffkey (pullus) 28.6.59

Clenchwarton (long dead) 13.7.75

Stiffkey (pullus) 22.6.67

Esmoriz, Portugal 10.9.77

Puffin

Isle of May, Fife 13.5.77

Holme (dead) 9.4.78

Kingfisher

Gillingham 26.8.77

Mildenhall, Suffolk (dead) 17.11.78

Sand Martin

Tottenham 16.7.77

Huldenberg, Brabant, Belgium (control)
1.7.78

Swallow

In addition to the following, birds ringed at Happisburgh on spring passage in 1977 or 1978 were found in Bucks., Lincs. and West Yorks. in May 1978

Weybourne 30.8.77

Watlington, Oxon. 28.8.78

Stuivehenskerke, Belgium 8.9.77

Happisburgh (control) 13.5.78

Gibraltar Point, Lincs., 6.9.78

Foulden Common (control) 22.9.78

Yellow Wagtail

This bird died after landing exhausted on a fishing vessel
Abingdon, Berks., 20.8.77 off Wells, 22.4.78

Robin

A useful autumn passage record, and another that would have been more useful had the recovery details been more precise.

Castricum, Netherlands (juv) 6.10.78 Waxham, (control) 15.10.78
 Holme 8.10.73 Adamuz, Cordoba Spain (trapped?) between
 1975 and 1977.

Blackbird

The first-mentioned suggests overwintering in Sweden. Other recoveries were from usual localities.

Tunstead 8.2.76 Floby, Skaraborg, Sweden (dead) 22.1.77
 Titchwell 14.11.76 Fair Isle (control) 6.11.77

Song Thrush

Holme 6.10.77 Birkenhead, Cheshire (cat) 19.12.77
 East Ruston 16.10.77 Zavidovo, Kalinin, USSR 8.5.78

Redwing

Sheringham 17.10.77 Foret de Cranou, Finisterre, France 21.1.79

Cetti's Warbler

The first recovery of a Norfolk-ringed bird.

Gillingham 22.4.78 Oulton Broad (control) 28.10.78

Reed Warbler

Brandon, Coventry 18.9.77 Gillingham (control) 18.6.78

Garden Warbler

Helgoland, Germany 16.6.75 Gillingham (control) 5.7.77

Chiffchaff

Note the recovery date of this bird.

South Runcton 14.8.76 Equerdreville, Manche, France (dead)
 12.1.78

Willow Warbler

Christianso, Bornholme, Denmark 5.6.77
 Terrington (dead) 2.7.77

Bearded Tit

Other movements were recorded between Titchwell and Goole, Yorks. and Ratcliffe-on-the-Wreake, Leics.

Titchwell 9.7.78 Rye Meads, Herts. (control) 26.11.78
 Walberswick, Suffolk 16.9.78 Weybourne (control) 23.10.78

Long-tailed Tit

Titchwell 25.10.78 Grantham, Lincs. (road casualty) 18.11.78

Great Tit

Ingatestone, Essex 4.3.78 Hunstanton (control) 30.3.78

Jackdaw

Bloemendaal, Netherlands 19.7.75 Burgh Castle (killed) 29.3.77

Starling

The third British Starling to be recovered in Italy is given below. The first was also Norfolk-ringed (*Norfolk Bird Report* 1970, p 161). Other recoveries followed established patterns.

Downham Market 24.1.76 Gropello Cairoli, Pavia, Italy 6.12.77

Tree Sparrow

Pitsea, Essex 30.10.76 Easton, Norwich (dead) 3.9.77

Chaffinch

Cley 16.2.78 Cuxhaven, Germany (dead) 30.3.78

Brambling

The first bird was ringed as a juvenile male, and was therefore seven years old on recovery.

Mintlyn, King's Lynn 11.12.71 Kuusamo, Oulu, Finland (dead) 2.10.78
Herda, Hordaland, Norway 9.11.75 South Runcton (control) 28.12.77

Goldfinch

Sheringham 28.4.76 Gamlingay, Cambs., 12.3.78
Westerschouwen, Zeeland, Sheringham (control) 22.4.78
Netherlands 21.10.76
Navaro, Soria, Spain 8.3.78 Sheringham (control) 4.5.78
Happisburgh 18.5.77 Villagarcia de Arosa, Pontevedra, Spain
(caged) 29.10.78

Siskin

These two recoveries make an interesting comparison.

Sheringham 18.4.76 Crewe, Cheshire 10.3.78
Sheringham 18.4.76 Sutton Coldfield, Warwicks 12.3.78

Redpoll

Given below are recoveries well to the south in France, and in Belgium outside the usual late autumn period.

Leziate, King's Lynn 2.9.72 Ruiselede, W. Flanders, Belgium 6.7.78
Leziate 28.9.75 Lommel, Limburg, Belgium 21.3.78
South Runcton 6.8.76 Jambes, Namur, Belgium 2.1.78
South Runcton 27.12.77 Loupes, Bordeaux, France 4.9.78

Classified Notes

These notes are based on *Birds of Norfolk* (revised edition 1977) where fuller details regarding status, distribution, migration and ringing recoveries may be found. Important records for Wisbech Sewage Farm (part of which is on the Lincolnshire side of the county boundary) have been selected from the files of Cambridge Bird Club. Fuller details of Fens records may be found in the Cambridge Bird Club Report for 1978.

The order used is that of Professor K. H. Voous (1977) *List of recent Holarctic Bird Species*. Observations refer to 1978, unless otherwise stated. To save space, all but the most essential initials have been omitted. Records are of single birds unless otherwise stated.

Red-throated Diver: North: Only interesting movement was 50 east off Sheringham Dec. 19th.

Black-throated Diver: North/East: Total of 21 coastal records up to March 5th and from Sept. 17th. Inland: Lound Feb. 4th—7th, Filby March 3rd and Claxton (dead) March 6th.

Great Northern Diver: North: Over 30 records up to May 13th and from Oct. 14th with unusual total of 5 off Cromer Jan. 5th. One in breeding plumage at Weybourne May 25th.

Little Grebe: Breydon: 10 - 15 breeding pairs in adjacent dykes. Wash: Peak of 64 Snettisham Nov. *All breeding records requested.*

Great Crested Grebe: Breeding season adult counts include: Earsham 2, Lound 10, Haddiscoe G.P. 2, Costessey G.P. 4, Hardley 2. Peak of 38, Breydon Aug. 9th; 44 adults and 9 immatures River Yare between Reedham and Thorpe Sept. 3rd.

Red-necked Grebe: North Holme March 5th, 14th; Hunstanton Jan. 1st, Feb. 6th, 18th, 3, March 1st, Oct. 23rd; Scolt Head May 27th (in summer plumage); Cley May 4th, Sept. 12th, Nov. 28th; Sheringham Nov. 19th; Titchwell 2, Dec. 3rd and Morston Pits Dec. 19th. East: Winterton Oct. 15th, Nov. 26th, Dec. 3rd and River Bure at Yarmouth Nov. 12th.

Slavonian Grebe: North: Holme Feb. 27th, April 8th, 2 on 15th, Oct. 18th, 22nd; Hunstanton Jan. 2nd, 5th, Feb. 6th, 18th, 26th, 3 on March 1st, 4th, 5th, 24th, 2 on April 16th; Sheringham Nov. 26th, Titchwell Feb. 1st, 2 on Dec. 3rd; Cley - Salthouse Jan. 4th, Oct. 15th, Nov. 19th and 27th; Wells 2 on Nov. 5th; Holkham 2 on Oct. 21st, 3 on 30th. Wash: Snettisham Feb. 18th - March 12th. East: Bacton Feb. 25th and Breydon 2 on Jan. 14th. Broads: Filby Dec. 1977 to Jan. 26th.

Black-necked Grebe: North: Titchwell Feb. 14th, Nov. 17th - 20th, Dec. 3rd; Hunstanton March 1st, 12th; Cley - Salthouse Feb. 25th, Nov. 27th - 28th. Wash: Snettisham Feb. 22nd - March 14th. Fens: Wisbech S.F. Sept. 17th - 24th.

Fulmar: North: Total of 38 young between Weybourne and Cromer, as follows: Weybourne to Sheringham 21, Sheringham to West Runton 5, West to East Runton 2, East Runton to Cromer 10. At least 19 occupied sites West Runton Gap to East Runton in May. Sheringham present until Sept. 15th and from Oct. 26th; largest count 71 April 9th. Wash: Hunstanton, build up up in Jan. to over 50 pairs; 18 young on ledges in summer, first young leaving Aug. 27th. First birds returned Oct. 28th. East: Present again at Bacton but nesting uncertain. Happisburgh 4 pairs from Feb. 28th and 2 pairs nested - one chick raised. Blue-phase birds at Sheringham March 16th - 18th, April 30th - July 13th, Aug. 17th - 28th, Nov. 28th, Dec. 16th; Weybourne Dec. 16th.

Cory's Shearwater: North: Cley Aug. 30th (SDE) 2, Cley Sept. 2nd (GED, SCJ) and Salthouse Sept. 7th (AMH). East: Winterton Aug. 30th (PRA).

Sooty Shearwater: North: Cley - Salthouse Aug. 14th, 6 on 25th, 5 on 26th, 27th, 28th, 5 on 30th, Sept. 1st, 2 on 18th, 30th, 3 on Oct. 1st. Hunstanton Sept. 30th, 2 on Dec. 31st. Holme 3 on Aug. 30th. Mundesley Sept. 11th. Sheringham Aug. 13th, 4 on 26th, 2 on Oct. 1st. East: Winterton 57 north in 3 hours Aug. 26th, 27th, 4 on 30th, 4 on Sept. 12th and 39 Oct. 1st (PRA).

Manx Shearwater: North: Cley-Salthouse 2 Feb. 17th, May 27th, June 8th, 2 on 10th, 4 on Aug. 27th, 3 Sept. 15th, 2 on 16th, 3 on 17th, 11 on 18th, 4 on 30th; Cromer Oct. 17th; Sheringham May 28th, 3 on June 10th, 11 on 17th, 25 on July 1st, 7 on Aug. 1st, 26 on Sept. 30th; Holme March 15th, 7 Sept. 9th, 17th, 18th, 10 on 19th; Hunstanton 3 on Sept. 17th; Blakeney Point Sept. 12th; Titchwell 10 on July 2nd. East: Winterton 6 March 16th, 2 on Sept. 14th and 2 on Oct. 1st. Wash: Snettisham 2 on Sept. 17th. Birds of the Balearic race Winterton Oct. 1st; Cley Aug. 29th and Weybourne Sept. 18th.

Storm Petrel: North: Sheringham 2, Sept. 30th.

Leach's Petrel: North: Cley Sept. 29th, 30th, Oct. 1st, 4th; Blakeney Point June 12th, Sept. 30th; Sheringham 4 Sept. 30th and Oct. 1st. East: Winterton 2 - 3 on Oct. 1st.

Petrel species: North: Holme Sept. 25th and Cley on 30th.

Gannet: North: Sheringham 540 Oct. 1st and 400 previous day. East: Winterton 224 south in 3 hours Sept. 30th; similar number Oct. 1st.

Cormorant: Broads: Ranworth Inner 187 Jan. 13th. Wash: Snettisham 25 in Oct. North: Holkham Park 84 in one tree Nov. 13th 1977.

Shag: N/E Coasts: Maxima of 4 at Snettisham Sept. 14th - 23rd and at Winterton Dec. 17th. Broads: Filby Nov. 27th. Brecks: Thetford mill pond March 11th 1977.

Bittern: Broads: 6 regular boomers compared with 7 in 1977. North: Cley one pair bred successfully.

Little Bittern: North: Cley female Aug. 5th - 6th (FME, SCJ, ERP *et al*).

Little Egret: East: Winterton one south Aug. 3rd (BC, MF).

Grey Heron: The following heronries were counted: *Borders of Wash:* Snettisham 16. *Brecks:* Didlington 8 and Shadwell 8. *Fens:* Hilgay 31 and Islington 59. *Broads:* Buckenham 14; Ranworth 7; Strumpshaw one and Halvergate Engine House Carr one (new site). *Central:* Keswick one and Colney Hall 2. Neither Narford nor Denver Sluice occupied.

Purple Heron: Wash: Snettisham area Aug. 25th - 26th (SE, LE, MPL *et al*). Additional 1977 record = East: Waxham Sept. 25th (RAB).

Black Stork: North: Cley April 28th (MPL).

Spoonbill: North: Cley, singles and parties up to 8 May 10th - Aug. 8th; on July 29th 6 left Cley in easterly direction at 10.30 and 6 arrived Minsmere at 13.15; Holme 5 west July 25th and one east Sept. 2nd. East: Breydon one May 23rd - 24th and 2 on 26th; Winterton April 22nd. *Broads:* Hickling up to 4 between June 8th - July 19th; Hardley flood May 13th.

Mute Swan: BTO census gave a county total of 1,035, including 137 breeding pairs.

Bewick's Swan: Recorded up to May 14th and from Oct. 1st. Largest concentration at Welney where 1,900 in Jan. and 1,100 by year end. 102 present on Lower Bure March 18th/19th including a Slimbridge-dyed bird, 26 March 26th and last 9 April 1st. Large numbers Breydon/Lower Bure where 130 arrived Dec. 14th and 148 there on Dec. 28th; Burgh Castle marshes 62 April 8th; Ranworth Inner Broad 46 roosting till Feb. 19th; 84 near Fleggburgh Common Dec. 26th 1977 to Jan. 6th and up to 73 near Muck Fleet from Nov. 5th roosting on Little and Filby Broads; Haddiscoe Levels 41 March 3rd; Rockland Broad 42 Dec. 30th; Hardley Flood 18 Dec. 31st; Hickling 94 March 17th, 19 on Oct. 22nd. *Brecks:* Fowl Mere 3 Nov. 26th and 2 Dec. 25th - the only records. North/Wash: Maxima of 52 Cley Dec. 6th and 26 Snettisham Dec. 26th. Easterly exodus noted at Gillingham (37 March 5th) and at Chedgrave (30 March 6th).

Whooper Swan: Recorded up to April 11th and from Sept. 18th at usual haunts with largest herds at Welney where 72 in Jan., 80 in Feb., 56 in March and 90 by year end. *Broads:* Hickling 35 Dec. 14th.

Bean Goose: East: Up to 96 in usual area till Feb. 26th and last 23 March 1st. First returned Nov. 30th, 61 by Dec. 2nd increasing to 72 by 26th. North: Holkham 2 - 3 Feb. 7th to March 4th.

Pink-footed Goose: East: Breydon 24 Jan. 3rd - the only party of note. Wash: Snettisham record 4,540 Jan. 2nd after which high winds dispersed them and only 640 thereafter. Last birds 68 Feb. 22nd. 13 returned Oct. 16th and maximum of 2,370 Dec. 26th. A severe storm with lightning Jan. 3rd killed many Pink-feet and Canada in west Norfolk; *full details will appear in the next report*. North: Brancaster 250 Jan. 9th; Holkham 21 on Jan. 10th and 70 Dec. 16th; Holme Sept. 6th, an early date; 180 there Jan. 9th and 150 Feb. 1st.

White-fronted Goose: East: Yare Valley peak of 56 Feb. 18th with 54 remaining until March 5th. 13 still present on 9th, 7 Dec. 10th increasing to 16 on 26th; Horsey 13 Jan. 10th - 13th; Winterton 18 north Dec. 31st. *Broads:* Hickling 11 Jan. 17th, 22 on 21st and 24 on 26th. North: Holkham 75 Jan. 9th, 93 on 23rd, 60 Dec. 11th and 117 by 24th. *Fens:* Welney 17 Jan. 25th, 7 March 10th, 4 Dec. 30th.

Barnacle Goose: East: Hassingham Dec. 26th; Winterton 11 south Dec. 14th. North: Cley 5 March 24th - April 9th, one Nov. - Dec. 8th; Salthouse 3 Jan. 22nd; Wells Dec. 11th; Holme 4 Jan. 4th. Wash: Snettisham Feb. 6th/7th and Nov. 26th with Pink-feet, also 2 Dec. 12th - 14th; Hunstanton 2 Dec. 22nd. *Fens:* Welney Dec. 30th.

Brent Goose: Maximum numbers at regular localities: Breydon 15; Salthouse over 2,000; Blakeney 1,000; Scolt Head 1,200; Hunstanton - Holme 600; Snettisham 1,415 and Terrington Marsh 580. Unusual numbers offshore at Sheringham Oct. 1st when 711 west and Nov. 25th when 1,638 west. At Winterton 431 north in 5 hours Oct. 1st. Yarmouth 467 north in 3½ hours Nov. 28th. East: Yare Valley 22 Jan. 3rd.

Egyptian Goose: Recorded at 28 localities.

Ruddy Shelduck: East: Breydon pair Oct. 1st - 4th with drake again on 8th. Broads: Hoveton Great 2 end Aug. to 13th Sept. North: Gunton Park Nov. 12th and pair Sept. 25th; Cley 2 Aug. 20th - 28th.

Shelduck: Wash: Ouse Mouth 2,295 Jan. 28th; Snettisham maximum of 2,426 in Feb. and 1,912 in Dec. East: Breydon peaks of 866 Feb. 10th and 682 Dec. 19th. Breeding records include single pairs at Aldeby and Flitcham, two pairs at Cockshoot Broad (where one pair previous two years) and Hoveton Great Broad, 4 pairs in straw stack West Winch and 7 pairs Stanford Water; at Hardley Flood 92 young mid-July. North: Sheringham 453 west Oct. 1st and 650 west Dec. 30th.

Mandarin: East: Smallburgh female June 9th; Winterton pair April 22nd. Central: Coston G.P. pair Aug. 17th. North: Cley March 25th; Holkham Feb. 28th and May 16th/17th.

Wigeon: Fens: Welney 12,700 in Jan. and 11,000 by year end. East: Strumpshaw 2,000 Jan. and 3,000 in Feb.; Yarmouth impressive movement offshore Dec. 30th - 1,981 north and 1,707 south in two hours. North: Sheringham total of 7,300 west Dec. 30th.

Gadwall: Brecks: Largest counts 400 - 500 Stanford Water Aug. 31st, 57 Fowlmere Feb. 4th, 48 Micklemere Nov. 26th. At West Acre an unusual breeding record of successful nesting on top of water wheel. Wash: Snettisham 48 Dec. 22nd. North: Gunton Park 480 Sept. 20th. Broads: Martham 41 Feb. 11th.

Teal: Fens: Welney 1,000 in Jan. East: Hardley Flood 634 Dec. 10th.

Pintail: Fens: Welney maximum of 850 in Jan. North: Cley 150 Dec. 12th and 100 Feb. 9th. East: Breydon 148 Feb. 19th, pair till May 27th and female till June 8th; Buckenham 30 Jan. 31st; Cantley Aug. 6th - 13th.

Garganey: Spring arrival from April 4th (Wiveton), subsequently at Narford, Hardley, Holkham, Hickling, Cley, Wells, Wiveton, Wisbech S.F. (11 end Aug.), Kelling, Cantley and Ranworth.

Blue-winged Teal: East: Cantley drake in eclipse Aug. 6th - Oct. 4th; also at Hardley from Aug. 14th - Sept. 27th (PRA, ADB *et al*). Fens: Welney drake March 5th - 12th (WT); Wisbech S.F. 2 Sept. 11th - Oct. 8th (JM, JBK, GMSE, CAEK).

Shoveler: Fens: Welney maximum 540 in Jan; Wisbech S.F. 90 Aug. 25th. Wash: Snettisham 32 Dec. 29th. East: Hardley Flood 100 Aug. 14th. Broads: Filby 45 Feb. 11th and 42 on 26th.

Red-crested Pochard: North: Cley pair Nov. 17th (MPT).

Pochard: Few breeding records submitted. Fens: Welney 500 in Jan.

Ring-necked Duck: Broads: Ranworth drake March 9th (DB).

Tufted Duck: Breeding records: 25 pairs at 9 sites in Brecks but doubtless others; elsewhere (including Welney and Salthouse) a minimum of 16 pairs at 6 sites.

Scaup: Wash: Snettisham maximum 15 Dec. 31st.

Eider: Coastal records throughout year. Largest flocks for main localities appear below: East: Yarmouth/Gorleston 17. North: Titchwell/Thornham 200; Holme 37; Scolt Head 115. Wash: Hunstanton 50 and Snettisham 28.

Long-tailed Duck: Wash: Hunstanton monthly maxima: Jan. 4, Feb. 2, March 10, April 16, Nov. 1 and Dec. 30. North: Occasional records of up to 13 until April and from Sept. 19th.

Common Scoter: Fens: Wisbech S.F. drake Oct. 14th; the only inland record.

Velvet Scoter: Wash/North: recorded Jan. - Feb. and from Oct; maximum 11. East: Up to 15 off Gorleston, Yarmouth, Sea Palling and Happisburgh until Jan. 14th and from Aug. 26th.

Goldeneye: Maxima as follows: Wash: Snettisham 53 (March) and Hunstanton 26 (Jan.). Broads: Filby 23 (Feb.)

Smew: Singles (and once 3) up to March 3rd at Breydon, Colney G.P., Rollesby and Ranworth Broads and Snettisham. At year end duck Ranworth Dec. 17th.

Red-breasted Merganser: Wash /North: Largest numbers include 28 Snettisham and 36 Hunstanton. East: Winterton 16 Oct. 27th.

Goosander: Winter records at 8 localities including 29 Gunton Park.

Ruddy Duck: Central: Drake Lyng Easthaugh G.P. July 9th (NM). Third county record. Additional 1977 record: North: Cley/Salthouse one on sea Jan. 30th (AB, RWSK).

Honey Buzzard: North: Two at one site from May 29th, but no proof of nesting. Broads: How Hill Sept. 10th - 20th observed digging out a wasp's nest. Further reading: 'Honey Buzzard at wasp's nest' by F.K. Cobb (*British Birds* 72 pp 59-64: an account of the bird at Holkham in Oct. 1976.

Black Kite: 1976 records: Holkham Gap Oct. 12th (FAW) and Holkham Park Oct. 17th (TMD). These observations may well relate to one individual.

Red Kite: North: Northrepps Dec. 12th (KMN) and Weybourne - Kelling - Cley on same date (MPL, MPT, SRB). Central: Oxnead - Buxton area Feb. 5th - 6th (JRW *et al*).

Marsh Harrier: Eight pairs bred at 6 sites rearing 18 flying young.

Hen Harrier: Recorded at 40 sites up to May 9th (Lound) and from Oct. 2nd (Hickling & Cley). At end of year widespread especially in Dec. when 5 at Strumpshaw, 5 Scolt Head/Brancaster area, 3 Holme, 4 Roydon Common, 3 Titchwell and 3 Rackheath. Full list of localities in 1978/9 winter will appear in next Report.

Montagu's Harrier: A pair bred successfully rearing 3 young. Elsewhere only at Horsey (female for several weeks), Weybourne June 28th and Hickling May 22nd.

Goshawk: Brecks: 2 March 25th (JBK) and one with jesses Nov. 26th (CAEK).

Sparrowhawk: Recorded at 41 sites, but not a single breeding record.

Buzzard: North: Brancaster Common Oct. 21st and Titchwell May 23rd. Central: Tuddenham July 15th. East: Breydon April 15th; Winterton - Horsey Gap March 3rd, 31st, April 16th; Fritton 2, March 20th; Briggate April 16th.

Rough-legged Buzzard: North: Wells/Holkham Nov. 4th - Dec. 17th; Thornham Nov. 20th; Scolt Head Nov. 12th; Burnham Overy/Overy Staithe Nov. 16th and 28th; Holme and Old Hunstanton Nov. 4th. Wash: Snettisham Nov. 28th, Dec. 2nd. East: Winterton - Horsey Gap Nov. 2nd, 5th and 2 on 8th; Burgh Castle March 3rd. Brecks: Gooderstone Nov. 26th.

Osprey: Recorded at 22 sites between April 5th (when one in off sea at Happisburgh) and Aug. 26th.

Red-footed Falcon: East: Winterton female July 25th (BC). Additional 1976 record: Holkham male May 30th (SCJ, NW).

Merlin: Recorded at Winterton, Hickling, Ormesby, Sea Palling, Scolt Head, Cley, Roydon, Hunstanton, Holkham, Wells, Snettisham, Kelling, Horsey, Sheringham, East

Cranes were seen in March and in
Aug. — Sept.



Somerton, Holme, Brancaster and Blakeney Point up to May 22nd and from Sept. 19th. Mainly singles but 3 Scolt Head and 4 Roydon.

Hobby: North: Titchwell May 2nd, Holme Oct. 10th, Scolt Head May 6th and Brinton July 27th. East: Breydon May 1st, Filby Broad May 20th, Lound May 9th, Strumpshaw July 9th, Happisburgh April 28th. Brecks: Weeting July 29th and Stanford May 31st.

Peregrine: North: Titchwell Feb. 23rd; Hunstanton Jan. 31st; Runton April 2nd; Scolt Head early in year; Ringstead Downs Jan. 31st. East: Fritton April 1st (with jesses); Winterton April 24th; Strumpshaw Sept. 8th (with jesses). Wash: Snettisham Feb. 21st. Fens: Wisbech S.F. The escape from 1977 present in the autumn.

Quail: Calling during summer between Brancaster and Burnham Market in same area as 1977. Wolferton - Lynn June 3rd.

Golden Pheasant: Recorded at Two Mile Bottom, Thetford Warren, Swaffham Heath, Shadwell, Hockham, Thompson, Santon Downham, Bodney, Wolferton, Fowl Mere, Brandon, St. Helen's Well, Foulden and Sandringham.

Spotted Crake: Fens: Wisbech S.F. Aug. 15th and Sept. 20th.

Crane: North: Holt - Thornage - Bayfield area March 6th - 26th. Fens: Welney Aug. 8th to Sept. 27th (DA, LS *et al*).

Oystercatcher: Records of breeding pairs include: East: Breydon 8. Broad: Horsey 3. North: Blakeney Point 180, Stiffkey Binks 23, Wells 9, Bob Halls Sands 4, Overy Shingle Bank 6, Scolt Head 160 (only 30 young fledged) and Brancaster GC 6. Wash: Snettisham 10, and Terrington Marsh Trial Bank 3. Inland records of breeding, both in fields of sugar beet at Fritcham and Hardley. Maximum counts at Snettisham 12,100 Jan. and 12,700 Sept., with 1380 present in late June. Further reading 'Origins and Movements of Oystercatchers on the Wash' (*British Birds* 77, pp 439 - 447).

Avocet: North: Cley winter records Jan. 1st, 7th and Feb. 5th. First breeding pair had returned March 4th. First egg hatched April 30th. Total of 5 pairs reared 17 young. Last recorded Oct. 17th. Wash: Snettisham 1 - 2 April 27th - June 19th; mating noted in mid-May but did not breed. Non-breeding records: East Breydon Jan. 10th - Feb. 26th, April 27th and Nov. 13th. Broads: Hickling 2 June 10th. Fens: Wisbech SF Aug. 20th.

Stone Curlew: Recorded from March 18th at Breckland breeding sites. Only other record Winterton Aug. 4th.

Little Ringed Plover: Extreme dates March 13th (Cantley) and September 11th (Holme). 15 breeding pairs at 10 localities. Maximum counts 6 Hickling July 25th and Aug. 19th, 16 Cantley Aug. 6th and 4 Wissington BF Sept. 9th.

Kentish Plover: Although mating was observed at one site and two scrapes made, the pair was driven off by resident Ringed Plovers. East: Breydon total of 10 individuals April 14th - May 28th, Winterton July 26th. Broads: Hickling April 9th, 21st, June 1st and 2 on 14th. North: Cley/Salthouse April 11th - May 21st, with 2 April 13th and 30th. Blakeney Point early June.

Dotterel: North: Cley 4 April 29th. Brancaster July 17th and Sept. 21st.

Golden Plover: Counts of four figures at Garboldisham April 10th (3000), St. Benets Level March 11th (2500) and Wickhampton Marshes Dec. 26th (1000).

Grey Plover: Monthly counts at Snettisham included Jan. 164, May 440, Aug. 900 and Oct. 180. At Breydon Spring peak 51 May 21st and 20 in breeding plumage June 15th/16th. Inland 5 Wisbech SF Sept. 24th.

Knot: Maximum counts for each winter period at Snettisham 21000 March and 25000 Dec. Inland = 6 Wisbech SF Aug. 28th, 7 on 30th and 1 - 3 early Sept. Hardley Flood April 29th.

Sanderling: Maximum count of 600 Snettisham in Aug. Inland = Wisbech SF May 21st and Aug. 25th and Hardley Flood May 16th.

Little Stint: Single at Cley Feb. 17th. *Spring:* East: Breydon May 8th, 26th and June 6th. Hardley Flood 3 May 18th. Broads: Hickling April 22nd, May 27th/28th. North: Cley March 25th, May 9th. 2 June 1st and 7 on 13th. Fens: Welney April 28th. *Autumn:* an unprecedented influx in the first half of September with maximum counts of 157 (250 estimated to be present) Wisbech SF Sept. 14th, 100 Cley Sept. 10th and 15th, 58 Hickling Sept. 12th, 23 Cantley Sept. 11th and 20 Breydon Sept. 6th. Elsewhere reported from Wissington BF, King's Lynn BF and Snettisham, while 27 flew west at Holme Sept. 6th, where 3 were still present until Nov. 13th.

Temminck's Stint: East: Breydon Sept. 17th (the first record from this locality for thirty years), Cantley BF May 12th and Hardley Flood May 30th. Broads: Hickling May 21st, 25th, 27th/28th, 2 on 29th, singles June 10th, July 25th, Sept. 4th, 2 on 6th and 1 on 8th. North: Cley May 11th, 13th, 19th - 25th, Aug. 2nd - 14th, with 2 on 6th. Fens: Wisbech SF Oct. 17th until early Nov.

White Rumped Sandpiper: East: Breydon July 30th - Aug. 7th. (PRA, DJH).

Pectoral Sandpiper: Broads: Hickling June 8th - 12th (SEL, DJM, DM) and Sept. 30th (SEL).

Curlew Sandpiper: Spring records from Breydon May 12th, 2 on 14th and 18th, and single on 21st, Hickling June 4th and Cley May 13th and 27th. Well marked autumn passage with a few at end of July and main influx commencing in last ten days of Aug., building up to a peak in early Sept. Maximum counts at each locality: 17 Hickling Aug. 21st, 56 Breydon, 20 Titchwell, 75 Thornham Point and 195 flying east Holme, all on Sept. 6th, 100 Cley on 7th, 150 Wisbech SF on 9th, 13 King's Lynn BF on 10th and 21 Cantley BF on 17th. Last 2 birds of autumn recorded at latter locality Oct. 7th.

Purple Sandpiper: In first winter period only recorded at Winterton Jan. 2nd, Hopton Feb. 14th/15th and Hunstanton 3 Jan. 4th and 4 March 6th. Late spring record Titchwell May 21st. Autumn passage from Aug. 10th, with 1 - 3 recorded at Winterton, Sheringham, Salthouse, Cley, Blakeney Point, Thornham Point, Titchwell and Snettisham. In second winter period up to 4 Yarmouth/Gorleston, 7 Hunstanton and 4 Heacham, with 4 flying NW Happisburgh Nov. 26th.

Dunlin: Wash: Maxima at Snettisham 12,000 in Aug. and 10,000 in Dec.

Broad-billed Sandpiper: East: Breydon May 5th - 8th (PRA *et al*). Wash: Wolferton trapped and ringed Sept. 16th (JG, PLI, PI).

Ruff: Impressive winter total of 280 at Welney in Jan.; elsewhere 40 Downham Market Jan. 15th and 24 Hickling Feb. 2nd. Present at Welney in spring but no display seen. Four parties totalling 28 birds east at Sheringham April 23rd and 34 west Aug. 17th. Maxima in autumn 200 Wisbech SF Aug. 18th/19th and 60 Cley Aug. 2nd and 28th.

Jack Snipe: Extreme dates May 13th (Tottenhill GP) and Sept. 14th (Winterton).

Snipe: Concentration of 600 Wisbech SF Sept. 9th.

Woodcock: Roding birds reported at Brettenham, Briston, East Ruston, East Tuddenham, Great Carr, Lynford, Marsham and Weeting Heath, while adult with 4 young Swanton Abbot.

Black-tailed Godwit: Breeding season: Fens: Welney 5 pairs reared young. North: Cley 2 pairs, hatching a total of 4 chicks. At a third site, a pair present during May. Autumn groups included 21 Hickling, 17 Holme and 22 Snettisham. Single winter record of one at Breydon until end of the year.

Bar-tailed Godwit: Wash: Maxima at Snettisham 3,900 in Jan., 5,500 in Feb., 2,850 in Sept. and 3,100 in Dec.

Whimbrel: Extreme dates April 20th (Breydon) and Oct. 11th (Thornham Point).

Spotted Redshank: Winter records only from Cley with 2 Feb. 19th and single on 24th. Concentrations of 40 Cley April 26th; in autumn 55 in August and 42 in Sept. at Snettisham. Late birds, 4 Cley Nov. 18th.

Redshank: Wash: Snettisham maximum 1,538 in Oct.

Greenshank: Recorded from April 27th, with spring maximum of 8 Breydon May 11th. Autumn maxima 22 Snettisham Aug. 17th with 21 on 9th and 19 Wisbech SF on 16th. December records of singles at Thornham on 3rd, Wells 3rd - 13th and Tichwell on 25th.

Green Sandpiper: Winter birds reported from east at Limpenhoe, Halvergate, Breydon and Buckenham. Autumn maxima at Cantley where 32 July 30th and 31 Aug. 12th, including a single party of 26.

Wood Sandpiper: Spring records of 1 - 2 birds from Breydon, Hickling, Hardley Flood and Cley. Autumn reports from Breydon, Cantley, Hickling and Cley; maximum of 12 Wisbech SF Aug. 9th and 16th.

Terek Sandpiper: East: Breydon July 5th (PRA).

Common Sandpiper: East: Breydon Jan. 1st - March 17th and Dec. 18th.

Turnstone: Inland records at Hardley Flood April 23rd and Welney May 1st.

Red Necked Phalarope: North: Cley Aug. 19th, 23rd and Sept. 4th. Holme Aug. 24th - Sept. 2nd. Fens: Wisbech SF Aug. 27th - Sept. 1st.

Grey Phalarope: East: Winterton Oct. 1st. North: Cromer Jan. 12th. Cley Sept. 30th. Wash: Hunstanton Oct. 23rd.

Pomarine Skua: East: Winterton 4 Aug. 11th, 31st, 4 Sept. 5th and one Oct. 17th. North: Sheringham/Weybourne/Cley: singles on four dates from Aug. 23rd with 4 Aug. 29th, 4 on 30th, 2 Sept. 18th, 9 on 30th, 2 Oct. 17th and 2 Nov. 26th. Elsewhere, Cromer Aug. 9th, Blakeney Point Aug. 21st and Sept. 16th, Holkham 3 Oct. 17th,

Scolt Head 2 Aug. 27th and 2 Sept. 2nd, Holme Sept. 4th, 19th, 23rd, 25th and 11 Nov. 26th. Inland one Briston, Nov. 30th, in weak state and later died.

Arctic Skua: Hopton, sick bird April 18th was the only spring report. Three June records: Blakeney Point 12th, 2 Winterton 14th and Cley 17th. Main autumn passage from early Aug., with maxima for each area: East: Winterton 35 Aug. 27th and 26 Sept. 30th. North: Cley 40 Aug. 6th, 70 on 28th, 50 on 29th and 50 Sept. 17th. Sheringham 50 Aug. 8th. Holme 35 Aug. 30th, 37 Sept. 4th, 47 on 19th and 50 on 30th. Wash: Hunstanton 41 Aug. 30th and 47 Sept. 17th. Terrington 19 Sept. 30th, Snettisham 10 Aug. 7th. 2 late birds Gorleston Nov. 28th. Single inland record Reepham Sept. 17th.

Long-tailed Skua: North: Holme Aug. 30th (PRC) and Cley juvenile Sept. 16th (GS). Additional 1977 records: Holme July 19th (PRC) and Snettisham Sept. 17th (GMSE).

Great Skua: Three June records: Cley 12th Winterton 16th and Sheringham 17th. Autumn passage from end of July. Maxima at main localities: East: Winterton 9 Oct. 1st. North: Cley 17 Sept. 30th. Weybourne 10 Sept. 15th. Sheringham 4 Sept. 15th. Titchwell 6 Oct. 17th. Holme 50 Sept. 19th, 40 on 29th, 125 on 30th, 28 Oct. 17th, 12 Nov. 26th. Wash: Terrington 23 Sept. 30th. A remarkable gathering of 120 was noted 60 miles NE of Yarmouth on Aug. 26th. December records from Winterton 16th, Holme 17th and Sheringham 16th.

Mediterranean Gull: East: Breydon, adult March 22nd (PRA). Yarmouth adult Sept. 2nd - 8th and Dec. 12th (PRA). North: Cley adult July 11th (RHH). Scolt Head adult Oct. 30th (PWA).

Little Gull: At an East Norfolk locality a pair of adults displaying from late May. Nesting began in first days of June, but unfortunately clutch of 3 eggs found on 16th failed to hatch. Recorded in Jan. at Cromer on 12th and 3 Weybourne on 30th. Well marked spring passage from April 3rd with up to 8 at Hickling, Breydon, Colney GP, Welney, Snettisham, Cley, Hunstanton, Filby Broad and Hardley Flood. At Hillington 15 adults in breeding plumage were present April 23rd with 20 at Titchwell May 10th. Mid-summer records from Breydon, Cley and Hickling, with up to 12 at latter locality. Maxima in autumn 274 flying NNE at Winterton Oct. 2nd and 50 Cley Oct. 11th. Unusual number of Dec. records with up to 7 at Cromer, Holme, Snettisham, Wolferton and Happisburgh, and 102 at Yarmouth and 43 flying east at Sheringham on 6th and 15 Cley on 16th.

Sabine's Gull: East: Winterton immatures Aug. 26th and Oct. 16th (PRA). Caister adult Aug. 27th (PRA). Yarmouth immature Oct. 1st (PRA, ADB). North: Holme/Thornham adult Aug. 30th, immature Sept. 4th, up to 2 adults Sept. 10th - 25th. (many observers). Titchwell Sept. 23rd (JDG, JEG).

Common Gull: North: Blakeney Point 2 pairs nested, one pair rearing 2 young.

Lesser Black-backed Gull: North: Blakeney Point one pair bred, raising single young. First breeding record for the County.

Iceland Gull: North: Cromer Nov. 23rd (MPL).

Glaucous Gull: In first winter period recorded in East at Winterton Jan. 26th, Yarmouth Feb. 16th, Gorleston March 5th and Breydon April 5th. In North records of singles from Holkham Jan. 10th and 16th, Scolt Head Jan. 11th and Cley/Weybourne/Sheringham area regular adult up to March 11th, with 3 Cley Jan. 1st one west Sheringham April 16th and Wells April 9th. Wash: Snettisham March 8th. Inland, immature Strumpshaw Jan. 4th - 6th. In the second winter period, regular adult returned to Cley area Aug. 18th and was joined by 2 others Oct. 14th - 18th. Elsewhere, singles at Yarmouth, Breydon, Winterton, Happisburgh, Holme and Hunstanton, with 2 Wells Nov. 28th and 2 Heacham Tip Dec. 29th.

Ivory Gull: North: Brancaster/Burnham Overy/Holkham immature Jan. 5th - 9th (KG, PRC *et al.*). First county record.

Sandwich Tern: Extreme dates March 25th (Scolt Head) and Nov. 24th (Cley). North: Blakeney Point 3,000 breeding pairs reared 1,500 young and Scolt Head 2,100 breeding pairs reared 1,800 young.

Roseate Tern: North: Cley July 24th (JBK). Blakeney Point Sept. 20th (ECN).

Common Tern: Extreme dates April 21st (Cley) and Nov. 2nd (Breydon). Late 'comic terns' Wells Nov. 9th and Sheringham Dec. 30th. Breeding: Number of pairs (with number of fledged young in brackets where known). East: Breydon 25 (21). Broads: Hoveton Great 4, Hardley Flood 23 (11), Martham 2 (0), Ranworth 22 (40), Ormesby 3 and How Hill 2. North: Salthouse 2 (3), Cley 22, Blakeney Point 950 (120), Stiffkey Binks 46, Bob Halls Sands 32, Overy Staithe 2, Thornham Point 2 and Scolt Head 300 (35). Central: Lyng Easthaugh GP 5 (7). Wash: Snettisham 75 (35).

Arctic Tern: Extreme dates April 16th (six at Welney) and Oct. 17th (Winterton). Breeding: North: Blakeney Point 2 pairs reared 2 young; Scolt Head one pair bred unsuccessfully.

Little Tern: Extreme dates April 21st (Breydon) and Sept. 16th (Cley). Breeding: Number of pairs (with total of fledged young in brackets where known). East: Winterton 2 and Horsey 2. Broads: Hickling 41 (85 young hatched but only 30 reached flying stage). North: Blakeney Point 130 (very few young), Stiffkey Binks 30, Bob Halls Sands 15, Overy Shingle Banks 3, Wells 3, Thornham Point 20 (15), Titchwell 25, Scolt Head 65 (7), Brancaster 14 and Holme one. Inland: 2 Colney GP April 22nd and 3 Lyng Easthaugh GP Aug. 6th.

Black Tern: First at Cley April 24th, 1 - 2 April 28th/29th at Hickling, Martham Broad, Horsey Mere, Hardley Flood and Overy Staithe. More widespread in May but numbers low with maxima of 7 Colney GP, 8 Lyng and 11 Welney on 17th and 7 Hardley Flood on 28th. Autumn passage from end of July with maxima of 12 Wells Aug. 1st; 13 Blakeney Point Aug. 22nd; 12 Wisbech SF Sept. 6th; and 9 Thornham Point; 12 Sheringham and 25 Cley Sept. 7th. Latest Cley Oct. 1st.

Guillemot: North: Sheringham 140 east on June 17th is largest number recorded.

Black Guillemot: North: Salthouse Nov. 5th.

Little Auk: North Sheringham (dead) Jan. 4th, Feb. 25th, March 3rd and April 9th, with one alive Jan. 4th. Holkham (dead) Jan. 16th, Cley (dead) Jan. 15th, Salthouse (dead) on 21st. East: Happisburgh Jan. 12th. Inland casualties: Coltishall Dec. 28th and Bechamwell Jan. 13th.

Puffin: North: Cley - Salthouse April 13th (dead) May 27th, Sept. 20th and 30th; Weybourne Jan. 12th, 4 on Dec. 16th; Sheringham 2 May 27th, 2 June 18th, Sept. 15th, Nov. 25th, Dec. 9th and 6 Dec. 16th; Holme 3 Sept. 7th and 2 Nov. 26th; Holkham (dead) Jan. 15th. Wash: King's Lynn 10 exhausted birds tended by RSPCA during Jan. with singles Dec. 7th and 31st. East: Winterton 2 Oct. 7th.

Ring-necked Parakeet: Recorded at Norwich June 8th, North Walsham Wood Oct. 22nd, Caister-on-Sea Sept. 8th, Cley Nov. 4th and Holme Oct. 24th.

Barn Owl: Recorded at 65 localities including one of the dark breasted race at Gramborough Hill Salthouse March 20th.

Little Owl: Recorded at 39 localities.

Long-eared Owl: Single pairs bred at Salthouse Heath, East Wretham and Fritton. Breeding season records from Brancaster Common, Brettenham, Cley (Walsey Hills) and Brandon. Wintering birds at Kelling Heath, Roydon Common, Reedham (2), South Runcton, Gorleston, Massingham, Wells and Winterton. Migrants in off sea at Cley Nov. 25th, Sheringham (3) Oct. 1st and one on 15th, Caister-on-Sea Nov. 29th,

Winterton Oct. 1st and Weybourne Nov. 16th. Also singles on gas-production platforms 40 miles NE of Yarmouth Oct. 17th, 19th and Nov. 1st.

Short-eared Owl: Maximum winter numbers Halvergate 23 Feb. N/E Coasts: Migrants in off sea as follows: Sheringham Oct. 19th, 22nd, 29th, Nov. 2nd, 5th, 9th, 16th and 25th; Thornham Oct. 12th; Cley Oct. 14th and 18th (3); Happisburgh Oct. 1st and Nov. 26th; Winterton Oct. 18th (2). No breeding records.

Nightjar: Breeding records received from Brecks: Brandon, Devil's Punchbowl (undoubtedly under-recorded). West: Roydon Common, Swaffham Forest, South Wootton, Narford, West Bilney. North: Salthouse Heath. East: Winterton, Fritton. Central: Horsford (only one male recorded). Further reading: 'Nightjar habitats and breeding in East Anglia' by R. Berry (*British Birds* 72 pp 207-218).

Swift: First recorded Breydon, Cley and Snettisham April 27th. 1300 moving westwards Sheringham Aug. 5th. Delayed exodus from Norwich where still 50 Sept. 27th decreasing to one Oct. 6th. Exceptionally late birds Nov. 10th at Cley, Brancaster and Hunstanton.

Kingfisher: Breeding confirmed at Cantley, Catfield (nest in fallen tree roots), How Hill, Narborough, Snettisham, Sparham Pools, Strumpshaw (2 nests) and West Acre. One trapped at Sheringham Aug. 11th.

Hoopoe: Spring records as follows: Winterton March 12th, 25th (2), 30th and April 29th, Wells April 9th, Holme April 28th/29th, Happisburgh May 1st, Hunstanton May 11th, Snettisham May 13th and Gorleston May 16th. One Autumn record: Caister-on-Sea Aug. 18th.

Wryneck: In Spring an early arrival at Hunstanton April 13th followed an exceptional number of migrants on North and East coasts (including Hickling and Kelling Heath) April 29th - May 23rd involving at least 26 birds. All records of singles apart from 5 Scolt Head May 5th/6th. By contrast few Autumn records, all in Sept: Blakeney Point 1st and 9th /10th, Blakeney 4th, Wells/Holkham 7th (3) and 9th/10th and Caister-on-Sea 25th.

Short-toed Lark: North: Weybourne an immature Oct. 14th/15th and an adult Oct. 15th - 20th (GED, SCJ, KBS *et al*). The fourth and fifth county records.

Woodlark: Records received from only 3 localities in Brecks; unusual number of 17 Santon Downham July 15th. North: One pair bred. Elsewhere two Cley Jan. 7th, Cromer Feb. 22nd/23rd, Winterton March 3rd and 26th and April 23rd - May 2nd and Scolt Head April 5th - 13th.

Shore Lark: Regularly recorded Cley—Sheringham up to May 3rd and from Oct. 15th with maximum of 35 Salthouse Dec. 3rd. Elsewhere: Holme Jan. 2nd, Oct. 29th and Nov. 3rd and 4th (2), Burnham Overy Oct. 21st, Holkham May 13th, Blakeney Point Oct. 2nd, Winterton Oct. 8th and Nov. 8th and Breydon Nov. 6th (2).

Sand Martin: Breeding colonies (notated by number of pairs) include the following: Aldeby 500, Colney/Bawburgh 4-500, Edgefield Hall G.P. 90, Haddiscoe 500, Hardley 80, North Walsham up to 100, Norton Subcourse 50 and Tottenhill 384 (marked reduction). On Aug. 5th an albino at Sheringham and a very pale buff leucistic bird at Weybourne.

Swallow: First recorded March 30th at Snettisham, but few other records until third week of April. Again a considerable number of November observations with latest on 17th at Winterton.

House Martin: A complete albino Sheringham Sept. 30th. Many November records with latest Cley on 21st.

Richard's Pipit: North: Holme Jan. 14th - Feb. 5th (HBO) (first county wintering record) and Sheringham Oct. 2nd (JM *et al*). East: Winterton Oct. 27th (PRA).

Rock Pipit: Birds showing characteristics of Scandinavian race *littoralis* at Weybourne March 25th and Breydon April 7th.

Water Pipit: Majority of records from Hickling where irregularly recorded up to April 17th (maximum of 6) and from Oct. 20th. Elsewhere three records of 1/2 Cantley B.F. in Jan., Oct. and Dec., Blakeney Point Oct. 14th and Horsey Oct. 28th (2).

Yellow Wagtail: Extreme dates March 31st (Cley) and Oct. 8th (Winterton and Blackborough End).

Blue-headed Wagtail: Spring records as follows: Cley April 23rd and May 17th, Hickling four singles April 25th - May 10th and May 27th (2), Hunstanton April 29th and May 14th, Wisbech S.F. May 9th (2), Breydon May 10th, Winterton May 12th, Stow Bridge May 13th, Colney May 17th - 24th and Buckenham June 10th. One Autumn record, Scolt Head Oct. 1st.

Grey-headed Wagtail: North: Cley May 25th (2), 26th and 28th, Kelling Quags May 30th. Broads: Hickling May 24th (2), 26th, 27th and 29th.

Ashy-headed Wagtail: A male Hardley Flood May 19th (JCE). The fifth county record of this race.

Grey Wagtail: Breeding records only from Ebridge, Marlingford and River Nar, where four pairs located which only reared total of 14 young in season due mainly to human interference.

Pied Wagtail: Roosting records include up to 70 in reeds at Foulden for most of year (including summer) and 80 at East Tuddenham in autumn.

Waxwing: Few records as in 1977: Costessey Jan. 1st and 9th, Castle Acre Jan 21st, North Walsham Jan. 27th and Feb. 6th, Thorpe St. Andrew Dec. 16th, Holme Dec. 18th (2) and Sheringham Dec. 22nd.

Black-bellied Dipper: Central: Gressenhall Jan. 1st - March 10th. (PH).

Alpine Accentor: North. Sheringham April 30th - May 4th, trapped on 1st (KBS *et al*). First county record of this mountain-breeding species which spent it's stay along a short length of cliff face.

Nightingale: Recorded singing at 31 localities. Passage birds at Happisburgh April 28th and Wells Sept. 10th. The B.T.O. is planning a further Nightingale census in 1980; all records will be welcomed.

Bluethroat: Spring: Male Titchwell May 20th, female Cley 20th - 22nd, male in song Blakeney Point 22nd and female Salthouse 23rd. Autumn: Blakeney Point Sept. 1st.

Black Redstart: Breeding: East: Yarmouth three pairs bred, one other singing male. North: Single pairs bred at two different localities, one of which also used in 1977. Winter records: Sheringham: Jan. 4th - April 1st and Dec. 21st - 28th, Gorleston Feb. 2nd, Weybourne Feb. 7th and Yarmouth Dec. 13th. Passage birds March 16th - June 6th and Oct. 14th - Nov. 30th with majority of records in spring. One at Wisington June 20th.

Redstart: Successful breeding noted at Fritton and also Felbrigg, where up to eleven singing males in May.

Whinchat: Successful breeding noted at Brettenham Heath, Bridgham (11 juveniles), Stanford Warren and Winterton.

Stonechat: Breeding pairs noted at Breydon (1), Winterton-Horsey (4), Kelling Heath (1 - 2) and Weybourne (2). Also present at East Wretham Heath in June. At least 10 migrants at Happisburgh Oct. 27th - 29th, 5 of which were trapped.

Wheatear: A total of 25 - 30 pairs bred at Weeting Heath. Late migrants at Breydon Nov. 6th and Swaffham on 11th.

Pied Wheatear: East: A first-summer male Winterton May 28th (PRA *et al*). The first county record of this spectacular south-east European breeding species.

Desert Wheatear: North: A male Blakeney Point/Cley Oct. 14th - 17th (SJA *et al*). the second county record, the first being in 1907.

Ring Ouzel: Spring passage March 29th - June 3rd with maxima of 5 Sheringham April 28th, 5 Winterton April 30th and 5 - 6 Scolt Head May 6th. Inland records at Gooderstone April 8th - 16th, 3 Crostwight April 25th and Castle Acre May 10th. Early autumn migrants Holme Sept. 2nd and Breydon on 7th. Only small autumn passage Sept. 30th - Nov. 12th involving total of 15 birds; all records of singles apart from 2 Holme Oct. 26th.

Blackbird: Large immigration noted at Happisburgh Oct. 27th when 10,000 birds present.

Fieldfare: Very late spring departure with many flocks still present until mid-May and smaller numbers noted at several localities until end of month. Two still present Foulde June 1st and up to 4 remained Winterton until 21st. Two present Holme throughout June and July. First Autumn records Aug. 19th at Cley and Sheringham. Large immigration Oct. 28th with 15,000 south-west Hunstanton-Heacham and 11,900 passing over Snettisham.

Song Thrush: An unusual fall of at least 100 birds of British race at Sheringham Sept. 23rd during prolonged south-westerly winds.



Savi's Warblers were singing at Horsey and Hickling

Redwing: Several records of late migrants during May, especially at Winterton where singles also seen June 1st and 6th. Large diurnal immigration Winterton Oct. 27th with 1000/hour arriving from east also 'hundreds' coasting north at same time. A leucistic bird at Holkham Dec. 3rd.

Cetti's Warbler: Broads: Total of 23 singing males in Yare Valley at Strumpshaw, Wheatfen and Rockland, no details received from Surlingham. Elsewhere singing males at Hardley Flood and Hickling in Jan. and Aldeby in April. One ringed Alder Carr, Gillingham April 22nd controlled Oulton Broad Oct. 28th.

Grasshopper Warbler: Broads: a substantial increase noted at Strumpshaw where 17 pairs present.

Savi's Warbler: East: one singing Winterton May 2nd - 11th (PRA). Broads: Singing males at Hickling and Horsey during summer from April 22nd, but no definite proof of breeding.

Aquatic Warbler: 1977 record: East: Waxham Sept. 25th (RAB, JRW).

Great Reed Warbler: One present at a locality in West May 23rd - June 10th (JL).

Icterine Warbler: Fewer records than in recent years, all in *Sept.* North: Holme 6th, Sheringham 8th/9th (trapped) and Holkham 9th/10th. East: Gorleston 22nd.

Barred Warbler: Only one record. Wash: Hunstanton G.C. Aug. 25th.

Blackcap: Winter records: Norwich Jan. 10th, Mulbarton Jan. 31st and Brinton (dying) Dec. 31st. Less than in recent years.

Yellow-browed Warbler: Wash: Hunstanton Oct. 1st - the bird was feeding amongst the cliff-top vegetation and on three occasions flew to a nearby beach shelter picking insects from the woodwork and glass, passing within inches of observer's head (HRR). North: Wells Oct. 8th with a second bird also present Oct. 11th (GED, SCJ *et al.*)

Radde's Warbler: North: Holkham Oct. 13th - 15th (SJM *et al.*). The seventh county record.

Wood Warbler: Spring migrants Blakeney Point and Winterton May 4th and Holkham May 13th. Males in song in breeding season at Blickling, Felbrigg, Kelling (2), Sheringham (2-one pair bred) and Snettisham. Only one Autumn migrant, Holkham Aug. 20th.

Chiffchaff: One winter record, R. Yare, Norwich (UEA) Feb. 28th. Birds of Northern races at Holkham Sept. 17th (*albietinus* or *tristis*) and Sheringham Oct. 1st (*albietinus*).

Firecrest: Spring: Holme March 19th and May 1st and 7th, Titchwell March 31st, Wells April 1st and 17th - 19th, Cley April 3rd (2) and 18/19th, Kelling Heath April 5th and Sheringham April 19th. Autumn: Holme Oct. 4th - 8th, Wells/Holkham Sept. 9th/10th and Oct. 11th and Sheringham Sept. 7th.

Spotted Flycatcher: Late migrants at Scolt Head (2) Oct. 18th and Sheringham on 20th.

Red-breasted Flycatcher: North: Wells Sept. 7th (FME) and Salthouse Oct. 1st (ERP and EDP). East: Happisburgh juvenile male trapped Oct. 18th and juvenile female trapped Oct. 26th (BMEU).

Pied Flycatcher: Spring: Many more records than normal with up to 4 birds at 25 localities April 29th - May 29th, including observations well inland at Attleborough, Horsford, Narborough and Thetford. One pair bred successfully at Felbrigg Park - see page 4. Autumn: Only very small passage with maximum of 15 at Sheringham Sept. 7th; latest Wells, Oct. 23rd.

Bearded Tit: In first winter period away from breeding localities upto 30 King's Lynn B.F. Jan. 15th, 4 Holme Feb. 19th and two R. Yare, Norwich (UEA) and one Colney G.P. March 5th. At Strumpshaw very large numbers at beginning of year (after successful breeding season in 1977) with maxima of 200 in Jan. and 300 in Feb; sudden mass emigration in cold weather in Feb. leaving only two breeding pairs. Records

from breeding season incomplete but include only 12 pairs Hickling (dramatic decline compared with 1977) and successful breeding at How Hill. None nested Salthouse Marsh for first time in many years. As compensation a new site found in tidal reeds between Brancaster and Brancaster Staithe where 4 nests found and fledged young seen. In Autumn 2 Wisbech S.F. Oct. 8th with 3 present Oct. 14th, 2 Holme and 2 Fritton Oct. 31st and 5 - 6 Burnham Norton Broad Nov. 14th.

Long-tailed Tit: Two Fritton March 24th with characteristics of the white-headed Northern race (TWF). Passage birds noted at Snettisham as follows: 10 Oct. 8th, 4 Nov. 6th and 6 on 8th.

Blue Tit: Wash: 43 passage birds at Snettisham Oct. 8th.

Treecreeper: One with characteristics of the Northern race at Weybourne Nov. 4th (FME). The first reported county record of this distinctive race.

Golden Oriole: East: Winterton June 11th (PRA).

Red-backed Shrike: An above-average number of spring migrants: Hickling May 18th, Horsey Gap May 23rd and 29th, Sheringham May 26th, Weybourne May 22nd, Blakeney Point May 22nd/23rd and June 4th, Holkham May 9th, Scolt Head (3) and Hunstanton May 20th. Isolated records Winterton June 21st and Sheringham June 30th (flew in off sea). Breeding season: County total of 8 pairs, at least 4 of which successfully reared young. Two new sites discovered, but unfortunately breeding ceased at a traditional locality in East. Only 5 autumn passage birds: New Costessey Aug. 13th, Holme Sept. 4th and 17th, Sheringham Sept. 7th and Holkham Sept. 10th.

Great Grey Shrike: An apparent decrease of records compared with recent years. In first winter period records from 9 localities with latest Cromer April 16th. A bird which had wintered at Salthouse Heath last seen April 1st and subsequently found dead. Simultaneous autumn arrival at Sheringham, Scolt Head and Snettisham Oct. 1st. Subsequent records in second winter period from 9 localities.

Woodchat Shrike: North: Holme June 1st (PRC).

Carrion Crow: West: Winter roost at Roydon Common contained up to 250 birds in Nov. - Dec.

Hooded Crow: A marked decline in number of records. In first winter period maxima of 25 Barton Fen roosting with Carrion Crows Feb. 27th and 10 Roydon Common March 26th. Summer records at Breydon June 10th, 16th and July 14th and Winterton June 21st. In second winter period only isolated records of singles and one record of two birds.

Starling: Huge immigration Oct. 28th with 200-250,000 flying westward at Scolt Head and 100,000 in 3 hours flying into Wash at Hunstanton—Heacham. See pages 8-10.

Chaffinch: A very large immigration Oct. 27th and especially Oct. 28th, when 30,000 moving west at Sheringham and 50,000 moving west at Scolt Head. The same movement noted at Hunstanton—Heacham flying into the Wash. See also pages 8-10.

Brambling: Latest spring record Holkham May 14th. A large movement Oct. 28th in association with Chaffinches; 'thousands' moving west at Scolt Head and 2,000 moving south-west at Hunstanton-Heacham.

Serin: North: Holme single females May 28th - 29th and Sept. 7th (HBO). Sheringham Aug. 18th (KBS).

Goldfinch: North: Largest spring passage at Sheringham occurred May 14th with 550 westwards.

Siskin: Largest flock reported was 30 at West Acre Jan. 30th. Two interesting records of passage birds received = total of 30 flying north-westwards Happisburgh May 4th (one ringed) and 80 flew in during 1 ½ hours watching at Hunstanton Oct. 28th.

Twite: One inland record, 13 Hilgay Fen March 27th. Usual coastal observations.

Mealy Redpoll: North: 4 Sheringham Jan. 14th and one Feb. 8th, Weybourne 4 Jan. 14th and Cley two Feb. 5th and 26th. East: Winterton Sept. 30th. Broads: Hickling Feb. 15th.

Arctic Redpoll: North: Cley Jan. 5th 1973 (CDRH). Not previously published.

Crossbill: Widely reported from Brecks including breeding records with largest flock 20 Thetford Warren July 7th. Also regularly recorded Sandringham area and Wells/Holkham, one pair successfully breeding at latter locality. Elsewhere 2 Holme Feb. 14th - 18th and one June 26th, 2 Sheringham March 11th and 2 Aug. 6th; 2 Two Mile Bottom March 18th, 22 Lound June 23rd and Kelling Heath Aug. 3rd with 3 on 4th.

Hawfinch: At East Wretham breeding proved for first time for six years but no reported build-up of winter flocks, largest number being 6 May 1st. Elsewhere: Sturston Jan. 22nd, Cringleford Feb. 26th and 28th, Hunstanton April 3rd, Hickling May 6th, Swaffham Heath May 21st, Santon Downham 2 June 18th/19th and 4 July 7th, Tommy's Belt June 25th, Sheringham July 22nd, Winterton Nov. 8th and Foulden Dec. 4th. Also reported from East Walton, Gooderstone, Hilborough, Thetford and West Acre in April.

Lapland Bunting: North: Recorded up to April 18th and from Sept. 20th with maxima of 9 Sheringham Feb. 11th and 12 Cley Dec. 11th. A late male at Hunstanton G.C. May 15th. East: Halvergate 8 Jan. 7th and 11 Jan. 21st, Breydon 10 Feb. 12th and 2 Oct. 13th, Winterton total of 17 passage birds on seven days Sept. 17th -Oct. 29th. Inland: Hassingham 5 flying west-south-west Feb. 18th.

Snow Bunting: North: A noticeable reduction in sizes of flocks reported with maxima of 100 Holme in Nov., 35 Titchwell in Feb. and 150 Cley in Nov. Wash: at least 100 Old Hunstanton in Jan. but low numbers at Snettisham, where counts in single figures except for 35 Jan. 26th and 12 on 30th. East: Breydon 180 Feb. 4th with 72 on Feb. 19th. Broads: Hickling 24 Feb. 15th. Extreme dates April 15th (Sheringham) and Sept. 18th (Cley).

Ortolan Bunting: Three records of spring males: trapped Happisburgh April 30th remaining in area 10 days, (BMEU *et al*), Winterton May 9th (PRA) and Salthouse May 23rd (SJMG). No autumn records.



The following, not mentioned in the Classified Notes, were also recorded in 1978 (breeding species in italics): *Canada Goose, Mallard, Kestrel, Red-legged Partridge, Grey Partridge, Pheasant, Water Rail, Moorhen, Coot, Ringed Plover, Lapwing, Curlew, Black-headed Gull, Herring Gull, Great Black-backed Gull, Kittiwake, Razorbill, Stock Dove, Woodpigeon, Collared Dove, Turtle Dove, Cuckoo, Tawny Owl, Green Woodpecker, Great Spotted Woodpecker, Lesser Spotted Woodpecker, Skylark, Tree Pipit, Meadow Pipit, Wren, Dunnock, Robin, Mistle Thrush, Sedge Warbler, Reed Warbler, Lesser Whitethroat, Whitethroat, Garden Warbler, Willow Warbler, Goldcrest, Marsh Tit, Willow Tit, Coal Tit, Great Tit, Nuthatch, Jay, Magpie, Jackdaw, Rook, House Sparrow, Tree Sparrow, Greenfinch, Linnet, Bullfinch, Yellowhammer, Reed Bunting and Corn Bunting.*

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NORFOLK MAMMAL REPORT 1978

Editorial

The Editor is pleased to present the 23rd Norfolk Mammal Report.

Few readers of our local newspapers can be unaware of Percy Trett's energetic interest in natural history. His name is so frequently followed by the words "...the well-known Yarmouth naturalist", that they can almost be mistaken for part of the name itself. Percy has a wide-ranging interest in many aspects of marine biology and in our special article he describes how this led to a long association with the seals on Scroby Sands. We are very pleased to include his very personal account of the work and his photographs not only for the information it presents about the seal colonies that make use of this local, unstable phenomenon, but also to mark Percy's year as President of the Norfolk and Norwich Naturalists' Society.

Thanks are expressed to all contributors to the report and apologies offered in advance to any whose names have inadvertently been omitted. All contributions, however trivial they may appear, are gratefully accepted. Each small item of information adds a piece to the total picture. Working on the report is rather like trying to solve a jig-saw puzzle without a master picture and with most of the pieces missing.

All observations submitted are filed and numbered and the information listed on the species cards for the year. After the report has been compiled the year file is stored in Norwich Castle Museum, Natural History Department. More than one report of the same incident sometimes occurs and this can be additionally useful because we all have our own way of looking at things. Taking this point further, it is interesting to read the varied patterns of reporting followed by many of our regular contributors. Some are anecdotal, some range far and wide and list sightings, road casualties, counts from keepers' gibbets from many places, some prefer to concentrate on one home area and record very detailed observations. An example of the latter is the way in which mole-hill eruptions in a particular field were noted while they varied during changes of season and climate. Some contributors must have the Ordnance Survey grid and reference numbers projected onto the terrain as they pass by, so meticulously do they list by Km. squares their sightings and signs. This is very helpful when completing distribution maps.

The editor gratefully acknowledges the specialist help he has been given so freely by Dr I. Keymer, Veterinary Investigation Centre, Dr L. M. Gosling, Coypu Research Laboratories, Arthur Woodhams, Pest Control Officer, MAFF, Rex Whitta, Wildlife Ranger, Forestry Commission District Office, Santon Downham, and John Goldsmith at the Castle Museum, Norwich. John continues to answer queries and accept specimens of all vertebrates, not just mammals. The address is: The Castle Museum, Norwich NR1 3JU. Tel: Norwich 22233 ext. 649.

Notes for the 1979 edition of the Norfolk Mammal Report should be submitted by the end of January 1979 to R. C. Hancy, 124 Fakenham Road, Taverham, Norwich NR8 6QH. Tel: Norwich 860042. Perhaps the completion and posting of notes could be part of the list of New Year Resolutions? It will be realised that the high cost of postage does not always permit individual acknowledgement.

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Scrobby Island and its Seals

by Percy Trett

Scrobby Island lies about 2½ miles out in the sea off the East Norfolk Coast, just NE of Great Yarmouth. It is in the main a sand bank formed on top of a ridge of hard boulder clay. The fierce tides and winds of this area pile up the fine sand onto the ridge and form an island that constantly changes its shape and position in the sea. On occasions the island disappears entirely beneath the waves only to re-emerge a few weeks later, maybe half a mile either North or South of its last position. Surrounded, as it is, by lesser sand banks, it is a dangerous place to approach by boat and is normally left well alone. The absence of humans, makes the place attractive to seals and there is a residential herd of about 120 common seals (*Phoca vitulina*) using the area. John Woolston and I used to accompany Robin Harrison on his bird ringing expeditions to the island, some thirty years ago. Robin was the official ringer for the area and as such had a busy time ringing the numerous sandwich, common and occasionally little terns that bred there each summer. Woolston and I were studying marine biology and were more interested in the life surrounding the island. The seals, naturally, came within the scope and were made more interesting, as at this time, the common seals were dropping their pups. Our interest in seals became known and shortly we were asked to tag the pups for a Dutch fur company, using the continental round metal tags. We did this for several years, but the tagging was of limited success, as the common seal's normal habitat, is that of sandy beaches, the identification marks were soon abraded from the tags and eventually the metal became very sharp and dangerous to the beast. One point of interest did come from this experiment as we learnt that there is a fairly constant shift of common seals from our sand banks to those of Europe and vice versa.

During the early summer of 1958, we noticed that there were about seventeen larger and heavier seals amongst the herd of commons and were fairly certain that these were grey seals (*Halichoerus grypus*). To corroborate this we invited the late Earl of Cranbrook (then President of the British Mammal Society) and Dr K. M. Backhouse to join us and confirm our observation. They did this during June of that year, seeing 7 greys on that occasion. Lord Cranbrook asked us to keep a weekly log of the number of these large seals and let him know if there was any increase, especially during the autumn and early winter period. Our notes record that by October the numbers had increased to about 100 greys and that during late November the large bulls were becoming territory minded. On the 29th of November "Skipper" Jack Woodhouse of Caister told us that he had seen four small white seals on the island. We went out the following day and found that there were four newly born grey seal pups there. On December the 7th, Prof. H. R. Hewer, of the Imperial College, London came with us and using London Zoo metal tags, tagged eight pups (all female). We paid periodic visits to the island that winter, but found only two more pups, without tags. Those that had been tagged, moulted and we believe successfully got away to the sea. Since then, each winter, except for this past winter (78/79), the grey seals have bred on the island. Once the local fishermen reported that during November there was a concentration of 700 grey seals on the island. This, I thought was a grossly exaggerated figure, possibly put about



Only the wary look in the eye of this peaceful looking Grey seal cow betrays the fact that careless approach can turn her into an attacking fury.





Ruth King (Secretary B.S.A.C.), Percy Trett and Chris Hale tagging a grey seal pup.

This Common seal pup is just two days old. Note the remains of the umbilical cord.



in order to lend weight to their argument for a cull, which they were pressing for at that time. I went out to see for myself and was somewhat surprised to count 450+ greys hauled out on the island. Allowing for about a third being away fishing, I had to concede that the fishermen were probably right in their estimation. Nearly all that number of beasts proved to be non breeders and laid with the non breeding herds, leaving the harem bulls and their herds of breeding cows well alone. That year we counted 52 pup greys born in a period covering Christmas and after. This was the largest number of greys that we have seen on the island. Why they came is a bit of a mystery, but we noted that a cull was taking place at that time on the Farne Islands, so feel they may have fled the disturbance there. The greys on the Farnes, that used to be heavily persecuted, have been protected and increased in numbers due to the tireless efforts of Mrs Grace Hickling and her team of field workers there. The breeding beaches etc on the Farnes are usually occupied and the cows have started pupping by late October, breeding reaching a peak during early November. Whilst, at Scroby, the breeding herds are usually begining to produce pups by early December, reaching a sharp peak in numbers about 20th December. These facts, lead me to believe that Scroby takes the overspill of late breeders from the Farnes. I believe that late pupping cows, approaching their time find that the beaches on the Farnes are over crowded, so come to Scroby and haul out here where young bulls have already established territories. This is somewhat borne out by the fact that several of the adults bear the orange tags of the Farne Islands.

When we visit Scroby during December, after having hauled our inflatable boats well up the beach and securely moored them, we locate the position of the main non breeding herds and if we are lucky and the wind is blowing from the herds to us, so as not to carry our scent to them and panic them into the water, we will be able to get close to them. We are usually able to walk to within 500 yards of the herds and then we have to get down and crawl the rest of the way. Done cautiously we find that oftimes get to within 25 yards of the nearest beasts. Once in position, we count the numbers, noting how many are greys, how many are commons, any with distinctive markings, any with tail tags, and if so, what colours. Having made our notes, we leave as we came, cautiously. We then make our way over to the breeding herds. As we approach, most of the cows take to the water, leaving their pups littering the beach. These pups are reluctant swimmers for the first two or three weeks of their lives. We keep clear of the cows that have stayed with their pups as they are usually extremely agressive. Sometimes we will lie down beside a newly born pup, the mother who is watching from just the otherside of the waves doesn't like this and will usually haul out to drive off what she takes to be a strange cow near to her pup. As she comes over the sand rather like a giant looping caterpillar, we notice that everytime she hits the sand, that she wobbles all over like a jelly — this is understandable as she has a covering of about 3" of blubber. We roll out of the way as she comes up to the pup; she catches our scent and returns to the sea. This layer of blubber is necessary, as during the period that she is lactating (usually 3 to 4 weeks), she will not feed, but spends her time guarding her pup and keeping the youngster from approaching neighbouring strange cows. If it happens that a pup does go to a strange cow other than its mother, she will pick it up by the scruff of its neck, savagely bite and shake it before tossing it aside. If per chance it lands near yet another strange cow, the procedure will be repeated. The pup weighs about 30 lbs at birth and will have a weekly weight gain of about 30 lb per week, which indicates the richness of the milk that the cow is producing. Needless to say at the end of the lactating period, when the cow deserts her now huge pup, her layer of blubber has gone. The pup is born with long white fur. At about 2½ to 3 weeks the beast starts to moult, first at the extremities, on the snout, the flippers and the tail. Within a short period all the white fur has gone and a most beautiful mottled grey second coat appears. This is the pelt that the furrriers

want, especially as the young beasts have not, as yet, been fighting and so bear no scars.

Turning now to the common seals, these breed during the summertime, usually late June and early July. On Scroby we have a herd of about 120 beasts, though on one occasion there were over 300 commons on the island. When the pups are born, they will have already shed their first coat of white fur, their milk teeth and the sheaths from their claws, inside their mothers. Indeed when you examine the placenta of the common seal you will find the fur with it. Thus, when the common seal pup is born it is much further advanced than the grey seal. It can and does swim from birth. Also it is a very friendly little beast; two things that sometimes brings it into trouble. The pup will be swimming with its mother, usually on her back when up will spring one of those onshore squalls that happen so frequently during the summer. The pup gets parted from its mother and ends up on the Yarmouth beaches. The visitors will return to the beach as soon as the squall has passed and when they find the pup, they will play with it for a while and then, not being able to get rid of it, will call the Police. The pups are usually brought in to us and do present quite a problem, for not only do they wail all night, they are also, reluctant feeders. These young beasts we have to feed by inserting a stomach tube and then pump in a rather smelly mixture of cod liver oil, warm milk and animal fat (Normally butter). We return the common seal pups to the island as soon as possible. Something we cannot do with stranded grey seal pups, for we would be sending them to a certain death at the hands of strange cows who would reject and savagely maul them. With common seals it is a totally different matter. For one thing they appear to be much gentler creatures and another is the high infant mortality rate amongst the commons, up to 52% on Scroby. This leaves a number of cows, heavily lactating, who for sheer relief to themselves, will adopt a stray pup. Our method of returning the pups to the island is to give them to the fishermen, who, for the summer season have laid aside their nets for the more profitable business of taking visitors out to "Seal Island" to see the seals. Any fisherman, with a pup seal under his arm, telling the visitors that he is going to return the pup to the island is assured of a full boat in a very short time. Naturally the fare rises on these occasions. We have to be careful and see that the pups are distributed equally amongst the men, so that jealousies are not aroused.

The fishermen in Yarmouth have an *odi et amo* relationship with the seals. In the Autumn when the longshore herring are beginning to arrive, the grey seals are beginning to assemble on Scroby to breed. They feed on fish and being intelligent creatures, soon realize that the sound of a longshore fishing boat usually means an easily acquired meal of herring. At eventide the fishermen put out from the harbour and go to the fishing grounds where they shoot their nets, up to a mile of them. At one end will be a "Dan" buoy, whilst at the other will be the fisherman in his boat. Here he will ride out the night. The grey seals will see which end of the fleet of nets the boat is and they will go and wait at the other. As the night comes on, the plankton, on which the herrings feed, will rise in the water — So will the herrings. The fish get themselves lightly emeshed, by their gills, in the nets. The seals will then start feeding, going along the nets plucking out the plump fish. Alls well until the beasts catch their teeth in the meshes, then they back away in panic, tearing huge holes in the net. This is bad enough, but worst is to come, as all the fleet of nets will be shaken and most of the fishermans catch will drop out, leaving an understandably irate fisherman with torn nets and no fish to show for his nights work. One of the results of this sort of incident has been for the fishermen to call for a cull of seals, when they become too numerous and troublesome, a move that the most ardent conservationist finds hard to oppose. The problem of how many is "too numerous" has, in the past, led to protracted and heated arguments. Luckily this is now in the past and the situation is monitored by the Seal Research Unit at Cambridge. Unfortunately some fishermen take the law into their own hands and either borrow a shotgun from a friendly farmer or land on the

breeding beaches and clubs the pups to death. Both ways, are to my mind inhuman. The fisherman who has borrowed the shot gun sees a seal surface near his boat. Naturally the seal looks at the boat. The fisherman grabs the gun and fires at the beast's head and 200 to 300 light lead pellets fly towards the beast. At 45 yards range, they cover a 30" circle. None of the pellets are heavy enough to penetrate the seals skull and kill it. All that happens is that the beast gets about eighty pellets striking it in the face, some of which hit it in it's eyes and the beast is blinded. A blind seal dies horribly. It usually hauls out on the beach and will keep off the greater black backed gulls until hunger so weakens it and it is unable to fend them off any more. They will then start to eat the beast whilst it is still alive. During the 64/65 winter Inspector Bob Waters of the R.S.P.C.A. and I had to go to the island by R.A.F. helicopter, in order to destroy a number of wounded beasts that had been blinded by shotgun. The clubbing of pups, besides being illegal, is I feel an extremely cruel way of destroying beasts as it usually takes several blows before the animal dies. If a cull is necessary, let it be supervised and organised by the Seal Research Unit and let the killing be done quickly by expert rifle shots using high powered rifles or if pups have to be killed, let them be dispatched with a humane killer.

We have given the various fishing fraternities of our area talks, showing them how to identify common from grey seals, telling them of the breeding periods and feeding habits of the beasts. We have pointed out that the common seal feeds in the main on crustacea and molluscs, of which there is not a fishery in East Norfolk and also that they the fishermen make more by taking visitors out to Scroby to see the seals during the summer than they make from their autumn fishing. This has resulted in the Yarmouth boatmen being highly protective towards the common seals herds on Scroby, though less than enthusiastic about the greys. Still the December storms and Seal Patrols mounted by the Yarmouth branch of the B.S.A.C. normally takes care of the greys during their breeding season when they are most vulnerable.



Classified Notes

Insectivora

The mildness of previous autumns may have led us to believe that hedgehogs *Erinaceus europaeus* would be less in evidence during the colder days of late 1978 but many observers saw individuals engaged in late foraging. No doubt they were still attempting to build up reserves during a very difficult season. Those that failed to do so surely also failed to survive the severe winter that followed. One hedgehog was seen attacking a starling in Saxthorpe during the first part of December, which reminds us that although it is one of the insectivores, the hedgehog is in fact omnivorous and will take eggs, young and weakly adult animals. Most contributors spoke of a high number of road casualties. Our "roving reporter" based in Swaffham, who covers many parts of the county during the course of the year, counted 79 between 30th April and 14th December. This was about twice the number she counted during 1977. A regular traveller on the B1149 between Holt, Aylsham and the outskirts of Norwich noted 57 between 31st March and 4th December. Following a day of heavy rain and a warm, damp, misty night, he found 5 dead on the morning of 31st July. Other travellers along regular routes may find further interest if they note weather and road conditions at the likely times of these fatal accidents.

The Mole *Talpa europaea* is described as extremely abundant by contributors from Weeting, Buxton, Saxthorpe and generally in the west of the county. Most reports are of mole-hills, fortresses and corpses on keepers' gibbets, but one observer was able to watch a mole hunting in leaf litter at West Acre. A cream/gold variant was taken live at Stokesby during May and released a short while later. The abundance in Saxthorpe resulted in 12 being caught in one garden during early summer. Another made its home in a heated greenhouse and successfully eluded all attempts to catch it.

Many of us find dead Common Shrews *Sorex araneus* but only our pathologist member, Dr Ian Keymer, would be able to tell us that the one he found in Foxley died of acute pneumonia! There were only three reports of the Pygmy shrew *Sorex minutus* which is by no means a true indication of numbers or distribution. Obviously many corpses of shrews were found by members, especially during the late summer and early autumn, but were not reported due to the feeling that the finds were too trivial or possibly confusion between the species. It cannot be emphasised too often that everything is worth noting and it does seem true that the more you note the more you see. The single Water shrew *Neomys fodiens* was seen at Cley, the third report from the reserve in five years. Have they been seen by any significant proportion of the thousands of visitors or do these records demonstrate the elusive nature of our small mammals? Whatever the answer, it is good to know that the local population in that area is continuing.

Chiroptera

It is also good to see from correspondence that more members are trying very hard to make notes on bat distribution. The editor appreciates their efforts and also their frustration at seeing unidentifiable flying objects coming from and returning to unknown regions. Pipistrelles *Pipistrellus pipistrellus* were again the most frequently identified and reported species, being plentiful in widely scattered localities. At East

Tuddenham they were flying late into the autumn. At Hillside Avenue School, Thorpe, there was consternation at the succession of dying pipistrelles found under the verandah. One examined by Dr Keymer had died of pneumonia but the original cause remained undiscovered. There was an unusual number of bat deaths reported country-wide during the year and there appeared to be a link with a lack of insect food though this was not apparent with the specimen examined.

Noctules *Nyctalus noctula* were seen to fly at Ludham, Devil's Punchbowl, Shadwell, Buxton and Santon Downham. The Long-eared bat *Plectotus auritus* seems to be the bat species that provides the odd behavioural stories. At Itteringham one flew in and out through a window while at Sandringham one collided with a car. At the time of writing the editor has heard of a double tragedy of two Long-eared bats colliding with a moving car. Their mode of flight may make it more difficult for them to take swift avoiding action. Certainly they are the species most frequently reported as having been caught by cats.

Again, Long-eared bats are the most frequently recorded users of the bat-boxes that have been set up in Forestry Commission compartments as part of the national experiment. Pipistrelles are the only other species so far recorded in the Thetford Forest part of the experiment which, at the time of writing, is in its fourth season. A stable colony, dependent upon the boxes during the summer, has formed itself. A total of 138 individual bats have been ringed. Of the six widespread sites, Thetford is the nearest approach to the ideal and the number of recorded individual bats is much higher there than at any other of the sites, although some have recorded more species. Now that the colony has formed itself and data is being collected, it is to be hoped that means will be found to continue the experiment beyond its originally allotted span which was set at five seasons.

Lagomorpha

Myxomatosis effects rabbit *Oryctolagus cuniculus* numbers very variably in different areas. In spite of the outbreak of the disease during the previous autumn numbers at Weeting were still high. It is clear from reports from many other centres that an active policy is necessary to keep them under control. Prevention is always better than cure and rabbits do not respect abstract descriptions on deeds or even the more concrete barriers of boundary fences. An all-white rabbit was seen at Crostwick and a definite albino was sighted at Keswick. It is hoped that last year's suggestions for observations on rabbit colonies will produce some evidence when the sets of notes arrive next spring. The editor would be pleased to discuss proposals for simple observations with any member who has easy access to a rabbit colony so that regular visits can be made over an extended period.

There were fewer reports of Brown Hares *Lepus capensis* than had been received during the previous few years. The central area in which they had been reported as low in numbers appears to have spread. On the other hand, they have been more evident in parts of Breckland.

Rodentia

As late as 1974 a survey carried out by the Norfolk Young Naturalists and quoted in our 1975 report found a 4 to 1 ratio in favour of red as opposed to grey squirrels in Norfolk. Although even that particular research was limited in scope we have no comparable up-to-date data to compare with it, but reports suggest a very much more one-sided ratio now going the other way. The change from one species to another can be dramatically sudden. Until mid-summer, Red squirrels *Sciurus vulgaris* could be seen in Thorpe Woods and extensions even to the edge of the old city of Norwich,

but sightings stopped and an increasing number of Grey squirrels *Sciurus carolinensis* were seen by large numbers of people. In their usual fashion in parks and on the fringes of built-up areas they are becoming quite bold. The grounds of Keswick Hall, which could almost guarantee good views of reds, is now very definitely grey territory. Thetford Forest still holds our largest red colony, which at the moment seems to be stable. Other notable pockets remain at Sparham, Smallburgh and Walsingham. The wider range of food acceptable to the grey means that much denser populations are normal with consequent damage to a greater variety of vegetation.

Voles seem to have been at a low ebb later in the year. However, one observer tells us anecdotes of both species. He watched a Bank vole *Clethrionomys glareolus* crossing a particular clearing on Salthouse Heath by climbing along bramble stems at a height of some 5 feet above the ground. He also describes the "ostrich-like" behaviour of the Short-tailed field vole *Microtus agrestis* which hid, frozen, under the three blades of grass which crossed over the middle of its back.

The individual mammals seen most often during the year must surely have been Water voles *Arvicola terrestris* that were watched by hundreds of the visitors following the Nature Trail to the Broadland Conservation Centre on Ranworth Broad. They were on view for much of the season and learned to tolerate quite a high level of human activity, which enabled them to give particular delight to many of the parties of children that visited the centre. 15 other sites were reported.

The Wood mouse *Apodemus sylvaticus*, as widespread as ever, was less plentiful as the year came to an end though they did provide their usual crop of stories. An example follows: "The East Tuddenham population continues to provide interest. This year they decimated a row of peas so subsequent plantings spent about half an hour in paraffin — a certain preventative. However, when the few peas left were pulled up, I found that they had been acting as a nurse crop for a row of Thorn Apple plants". One in Thorpe Hamlet, Norwich, nested at the bottom of a broken dust-bin under the plastic liner through which it made a foraging hole. Removal of the sack by the refuse collectors did not disturb the prospective parents enough to make them seek alternative accommodation. They were found when the householder's son went to position the new liner.

The Yellow-necked mouse *Apodemus flavicollis* is now well-established as a Norfolk species in its main site between Ellingham and Ditchingham along the Waveney valley and also at Fornsett St. Peter. At the latter, at the close of the year, one was trapped after it had taken a fancy to feeding on a tablet of toilet soap.

8 sites for the Harvest Mouse *Micromys minutus* were submitted. A mammal enthusiast had the thrill of finding her first ever at Snettisham in November and only four days later finding another at Weeting. Both were dead. The other sites were: Calthorpe Broad, Brooke, Saxthorpe, Aldborough, Iteringham, Wymondham College and Griston. At Wymondham College the specimen was taken in a Longworth live trap.

Only five contributors mentioned the House mouse *Mus musculus*, but two of these spoke of high numbers. In Buxton, where they are common, "One in my larder, made a store of peanuts, ash keys (kept for planting), pieces of broken glass and three 1p pieces in a stoneware jar and plugged the top with chewed up paper, besides making a nest of shredded paper in the warm back of the freezer".

An unusual record of a Brown Rat *Rattus norvegicus* being killed by a weasel came from near Swaffham. One of our keenest regular contributors, Mrs. J. E. Gaffney, who travels extensively in the county, tells us that she found 107 road casualties during the year. This compares with 125 in 1975, 61 in 1976 and 52 in 1977. The monthly breakdown for 1978 was as follows: Jan. 11, Feb. 11, Mar. 15, Apr. 13, May 9, June 1, July 3, Aug. 4, Sept. 15, Oct. 17, Nov. 6, Dec. 2.

The cold weather we have just endured may have made us forget that it was preceded by a generally chilly year. The editor readily agreed that the rules should be broken to allow Dr. L. M. Gosling, Coypu Research Laboratory, to describe the total effect of the prolonged spell of cold weather upon the coypu population, so that his report, quoted in full, takes the cold year, 1978, and the very cold winter 1978/9 as a natural unit.

“During 1978 the coypu population continued to be affected by colder than average weather. The year started during a winter that was colder than any for seven years and ended with one that was the coldest since the exceptional winter of 1962/63. In spring 1979 the 13,000 coypus that were alive in early winter had been reduced by over 70% to some 3—4000 animals. This decline is expected to continue until July as the trapping effort depletes adults and juveniles remain in low numbers due to widespread mortality of young animals and almost universal abortion by adult females during the 1978/79 winter. This position will reverse during the summer when 80—90% of the surviving females are expected to litter within three months.

Since 1975 the trapping effort has deliberately concentrated on areas of high coypu density in an attempt to minimize the population increase that we know would occur in mild weather. As a consequence peripheral low density areas have been relatively neglected and some emigration has occurred. Lone males have been detected as far north as Grimsby and as far south as Foulness in recent years. However the recent discovery of a breeding colony to the south of Colchester and its proximity to the estuaries of the Stour and Blackwater adds a new dimension to this pattern of dispersal and one that is particularly significant because the colonists have survived the coldest East Anglian winter for 16 years”.

Cetacea

A member who has visited the coast regularly for a very long period of years and recalls seeing porpoises leaping from the water on numerous occasions, tells us that he has not seen them for 5 years. There are obvious difficulties when live cetaceans are glimpsed and most of the positive identifications are of washed-up corpses. Common Porpoises *Phocoena phocoena* were found dead on the tideline at Titchwell during May and at Holme in September. A white-beaked Dolphin *Lagenorhynchus albirostris* was washed up at Titchwell during March. A double disaster to the Bottle-nosed Whale *Hyperoodon ampullatus* occurred in August when a male drifted up the Nene as far as Wisbech. It was estimated at about 23 feet long. At the same time a 21 foot female was stranded at Laverton Marsh, Lincolnshire.

Carnivora

Although only one Red Fox *Vulpes vulpes* was seen on the Weeting reserve and on one central Norfolk estate fewer were killed than has been the case during recent years, other reports suggest that numbers in other districts are at the level that has become normal. A Badger *Meles meles* turning up at a long disused sett has provided some excitement in the east of the country. This does happen from time to time but is not necessarily an indication that old setts will be reoccupied permanently by breeding pairs. Our remaining occupied setts seem, in the main, to be at least tolerated and at best protected by the landowners concerned, and this is, of course, the only way we will be able to retain the species on our list.

The Otter *Lutra lutra* is our other large carnivore that needs not passive but active protection. Its wide-ranging habits should, in theory, enable it to recolonise old territories but it is extremely unlikely that the county population could ever regain any

large proportion of its old ground. The provision of safe areas should be able to safeguard survival at a low level but the combined pressures of conflicting usages together with drainage and riverbank maintenance would not allow more. We are fortunate to have the Headquarters of the Otter Trust on our border as the enthusiastic field officers naturally look to our local river systems. They are doing invaluable work in contacting riparian landlords and discussing the problems with them. They are encouraged by the generally favourable responses they are encountering.

Of the small carnivores, Stoats *Mustela erminea* were numerous at Weeting and on Scolt Head a family of six arrived on 12th July and during the week that followed wrought havoc among the tern chicks. Stoats are fiercely single minded. On 1st August, two were seen fighting in the middle of the village at Itteringham. On 1st March, an adult stoat in Flitcham was seen to carry a young rat from a shed to the stoat's hole some 80 yards away. It returned five times to carry off the rest of the litter. The whole operation took about 20 minutes.

The Weasel *Mustela nivalis* that seized a starling by the leg at Caister St. Edmund found itself being attacked by other members of the flock. Two of them lifted it from the ground for a moment. They dropped the weasel and it released its intended prey.

A Ferret *Mustela furo* that escaped from its cage in Old Catton and took refuge in a neighbouring drain was featured in the local press and was subsequently reclaimed by its owner. More typical was its hutch-mate which also escaped but was not recaptured. Another was seen crossing the road near Swaffham and in all probability continued its feral existence. Ferrets and Polecat/Ferrets that are seen in the wild can cause confusion especially when the observation is a short one. An American Mink *Mustela vison* was shot along the mid reaches of the Wensum.

Controversy over the culling of seals and their further troubles caused by oil pollution and even by the detergent used to alleviate the latter featured in the local and the national press. These are emotive issues and cause a great deal of ink to flow and loosen many purse strings. They are all aspects of wider issues. To what extent we can include members of seal colonies is another debate and is touched upon by Percy Trett in the article that follows these notes.

Common seals are more likely to be found straying up-river than greys, but it was a grey seal *Halichoerus grypus* that was reported to have been seen at Denver Sluice on 17th November.

Artiodactyla

Small numbers of Red deer *Cervus elephas* were seen at scattered localities. There is growing concern that our Thetford Forest herd has passed its peak and that the downward curves of numbers and quality of its individual members may continue. It is a tragedy that the Forestry Commission should be prepared to encourage a magnificent herd of wild Red deer in the interests of conservation in the days when the public at large took very little interest, to go on to open up the forest rides in order to provide a public amenity, and then to see this living monument to an enlightened attitude wickedly abused.

Roe deer *Capreolus capreolus* and Muntjac *Muntiacus reevesi* are more fortunate and the latter appears to be increasing in numbers.

Our other new small deer, the Chinese Water Deer *Hydropotes inermis* also seem to be doing well, apart from the set-back caused by the very cold winter. However, one that was found during the recent spring after it had probably succumbed during the freeze-up, provides a very good example of the less happy kind of report that is all too frequently received. "It had been wounded by a shot-gun earlier in its life. Among other horrors, it had pellets embedded in the skull and cartilage of the ear".

1973	East Winch Common	...	...	...	80	Gift	S.S.S.I.
1974	Sparham Pools	...	...	...	30	Agreement	---
1975	Pope's Drift	...	...	...	8	Agreement	---
1975	Wayland Wood	...	...	...	80	Purchased	S.S.S.I.
1977	Hockering Wood				200	Agreement	
1978	Syderstone Common				60	Leased	
1978	Lolly Moor				7	Purchased	

In addition, the Trust shares with the National Trust in the management of the coastal reserve at Blakeney Point (1,335 acres), and it manages Arnold's Marsh, Cley (29 acres) on behalf of the National Trust.

By arrangement with the Nature Conservancy Council, Scolt Head Island, Ranworth Broad, Hickling Broad and the Breckland Heaths now form part of the National Nature Reserves.

*Status: N.N.R. denotes National Nature Reserve
S.S.S.I. denotes Site of Special Scientific Interest

† In 1966 Cley Reserve was established as a Bird Sanctuary under the Protection of Birds Act, 1954.

THE NORFOLK NATURALISTS TRUST

Bird Watching



Excellent bird watching facilities are available from 1st April to 31st October at Hickling Broad National Nature Reserve, Cley Marshes Bird Sanctuary, Holme Dunes Nature Reserve (self-contained flat available all year) and Broadland Conservation Centre, Ranworth. Reduced rates for members, party bookings and extended periods.

For full particulars kindly forward stamped addressed envelope to **N.N.T., 72 The Close, Norwich, Norfolk NR1 4DF**

