

THE NORFOLK BIRD AND MAMMAL REPORT

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NORFOLK BIRD REPORT - 1960

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NORFOLK MAMMAL REPORT - 1960

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Norfolk Bird Report

1960



INTRODUCTION

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

Winter

January-February: As in the previous year, the only cold spell occurred in mid-January and was of too short a duration to bring any unusual visitors. In the Breydon area were up to 400 white-fronted geese, with 80 bean-geese in the Yare valley. Among the latter was a single lesser white-front—the fifth fully authenticated county record. At Cawston, a ferruginous duck arrived Feb. 17th, remaining until early May. On the North coast, brent geese peaked at 1,500 birds. A drake red-crested pochard stayed at Bayfield Lake until Jan. 23rd. Three days later one was shot nearby. A Siberian herring gull was at Blakeney Point on Jan. 4th. Single black guillemots were in Wells harbour on Jan. 1st and off Blakeney Point five days later. Notable wildfowl concentrations on The Wash included 200 velvet scoters in mid-Jan. and 430 eider-ducks during Feb.

March: The first spring migrants were chiffchaffs at Cley on 2nd followed by garganey at Hardley on 12th and Sandwich terns and wheatear both at Cley on 27th. An avocet reached Cley on 19th. March was also the time of the wildfowl. At Gore Point, 17 long-tailed ducks were found on 20th. On The Wash, red-breasted mergansers peaked at 60 birds and there were 200 eider-ducks. In the Breck, Narford Lake had 22 goosanders on 13th.

Spring

April: The first two paragraphs are from the 1960 Report of Cley Bird Observatory.

The month opened with a spoonbill and the pair of water pipits present since late 1959 were in full nuptial dress. Sandwich tern numbers built up to a maximum of 350 by 19th. The 3rd saw the arrival of an avocet, sand martins, redstart and white wagtails. There were swallows on 4th, willow warbler on 5th and the first sedge warbler on 7th. 2 avocets appeared on 6th.

Pride of place must go to the kite on 8th; 6 male yellow wagtails arrived the same day. The first nightingale was heard on 10th with common sandpiper on 13th. Migrants on 16th included ring

ouzel, cuckoo, whitethroat, tree pipit, whinchat and another avocet. The next day, the first house martins and reed warbler appeared. The first blackcap followed on 18th, then whimbrel and firecrest on 19th. There were bee-eaters at Cley and Blakeney on 21st (2 remained at Blakeney till 26th with one lingering till May 2nd). 2 lesser whitethroats appeared on 22nd with the first little tern next day. A swift came in on 25th and there were common terns next day.

Elsewhere, an osprey appeared at Hardley on 23rd and a hoopoe at Thornham on 25th. The 28th was distinguished by an ortolan bunting at Blakeney and 2 cranes at Brancaster.

May: The first three paragraphs are from the Cley Observatory Report.

A little shearwater, male Kentish plover and "red" curlew-sandpiper certainly gave distinction to May-day; and 5 Demoiselle cranes which came from the east were undoubtedly, from their imperfect secondaries, escapes from captivity. 2 tired collared doves were in the plantation on Blakeney Point on 4th when the first wood sandpiper arrived.

Another influx of summer migrants on 5th brought the first red-backed shrike. Interesting waders at this time were 2 avocets on 6th and a dotterel next day. A wader influx on 9th included "black" spotted redshank, ruffs, both godwits, grey and Northern golden plovers. In addition there was the first spotted flycatcher. Of interest on 13th were red-footed falcon, little gull, black-tailed godwits and ruffs. 30 turtle doves moved east on 14th.

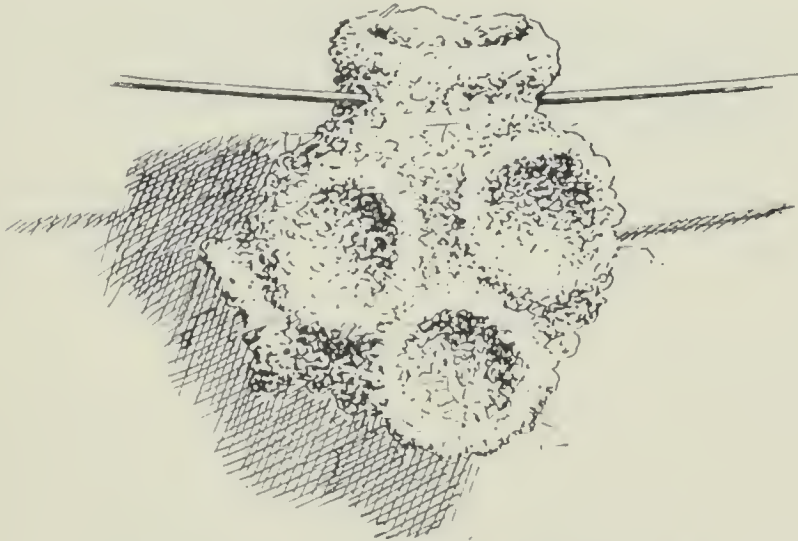
Quality was considerable on 15th with tawny pipit and lesser grey shrike at Salthouse, while next day a male woodchat shrike arrived. A hoopoe was seen on 19th and another woodchat was on the Point on 20th. 2 black redstarts and 3 marsh-harriers were seen on 21st and a subalpine warbler was trapped next day. On 26th a third woodchat appeared and there were 3 little stints.

Other vagrants during May included a crane at Breydon on 4th and 8th and an Alpine swift at the same place on 12th; a white-winged black tern at Edgefield lake on 14th; an icterine warbler singing at Scolt Head on 20th; a fourth woodchat at Thornham on 26th and a Temminck's stint at Hickling on 30th. Hoopoes appeared at five localities. A particularly interesting event was a late pair of snow buntings at Thornham on 25th.

A watch for departing waders was again kept at Scolt. On five evenings during the second half of the month, parties of turnstones headed north over the sea excitedly calling. The 21st was the best evening when groups of 63, 17 and 15 departed within an hour.

A very striking movement of black terns took place during the second week. At Cley there were 50 on 9th and a total of 162 on

10th, these passing eastward non-stop till mid-morning when most halted to feed, all departing at sunset. Next day 100 behaved similarly, but declined rapidly in the early afternoon and the peak came on 12th with 372 passing east. There were only 30-40 next day. At Breydon on "Godwit Day" (the 12th), 67 black terns crossed the estuary in the eve, all heading eastward. At Hickling, 200 had congregated in Heigham Corner by the 13th; 80 made a brief stay at Cawston Manor lakes and the same day 70 appeared over artificial lakes at Edgefield.



Remarkable House-martin's nest at Buxton

Summer

June: At Cley, late migrants continued to pass through. 6 black terns, 3 little gulls and 6 little stints all appearing on 3rd. The following day, Arctic waders included red knot, 8 reeves and 12 grey plover. A male red-headed bunting on 5th was in perfect summer plumage and probably not an "escape"; a "red" curlew-sandpiper, spoonbill and Kentish plover also appeared. Spotted redshank and wood sandpiper arrived next day. An adult spoonbill joined the first on 12th.

June's most noteworthy visitor was a roller near Acle on 4th with a hoopoe at Sea Palling the same day. The 12th was distinguished by a night heron at Hoveton Great Broad. A hobby was found dead near Reepham on 15th. Spoonbills in ones and twos visited Breydon, Hickling and Cley.

Unusual nest sites reported included a blackbird's in a bicycle basket in a Wymondham college cycle shed; a wren's in the sleeve of a gardener's jacket at Blakeney and another wren's under a bicycle seat at Coltishall. A pair of robins bred successfully in a busy joinery shop at Saxlingham Thorpe. At Corpusty, goldcrests

nested in a thick ivy-covered willow in preference to nearby yews. Sheld-duck nested in a haystack at Blakeney Downs. Moorhen's nested in a police launch on the Wensum at Norwich.

At North Walsham, a house-martin's nest was built in a very unusual and precarious situation. It was fixed to a television aerial wire which runs along the end of a house at a good height. The structure was not attached to the wall at any point and was built and balanced on the wire alone. Two more remarkable house-martin's nests were on a Buxton house. Each nest was constructed round a thick wire running under the eaves. The first nest cluster contained five cups and the other three cups. The lower cups acted as counterbalances and reached their final position by swinging below the supporting wire when they became too heavy. Both structures were hanging clear of the wall.

The nesting season was prolonged. A great tit at Sprowston had five eggs by Feb. 21st and a full clutch of nine a week later. Blackbirds were still breeding in mid-August and on 19th, at Blakeney, there were eggs in two nests and young in three others. A brood of spotted flycatchers at Corpusty did not leave the nest until Sept. 8th.

680 pairs of Sandwich terns and 1,700 pairs of common terns nested on the coast, but very few young reached the free-flying stage. High tides, strong winds and carpets of foam spelt disaster at the end of June. 200 pairs of black-headed gulls returned to Scoulton Mere, probably as a result of the reduced numbers of coypus and Canada geese there. 376 pairs of nesting herons were counted compared with 430 pairs in 1959. Collared doves extended their range and bred at both Yarmouth and Hunstanton. Stonechats nested successfully at Horsey. Black redstarts reared young at Yarmouth, but the pairs which took up residence in the centre of Norwich were unsuccessful. In Breckland, a pair of curlew reared two young at Brettenham Heath. In Broadland, bearded tits had a very good season but no marsh-harriers reared young. No Montagu's harriers bred in the county. This is extremely disappointing. Although both species are protected by law, it is still very dangerous for these (or any other) birds of prey to hunt outside a nature reserve.

The little ringed plover was a most welcome and long overdue addition to the county list of breeding birds. Two pairs of adults with three young were found in a partly flooded gravel pit. The site was discovered from the air and the same observer is endeavouring to plot more of the hidden gravel workings not appearing on ordnance survey maps.

July: July's most unusual bird was a black guillemot found exhausted at Winterton on 16th. It had been ringed as young in Sweden less than a month previously. 2 avocets arrived at Cley

on 9th where there was a large westward migration of Sandwich and common terns on 15th. Several halted to rest on Arnold's marsh where 2 first summer common terns with white foreheads were distinguished. This is a rare plumage phase here, most immatures appearing to remain near the African coast in their first year. The month closed with a spoonbill flying westwards at Cley and one, almost certainly the same bird, stayed at Holme for the first half of Aug. Swifts departed in large numbers at this time and a drifting, screaming, spiral of over 500 was watched high over Norwich.

A vigorous campaign to reduce the wood-pigeon population was in full swing between mid-July and the end of Sept. During the first three weeks of July, 14 rabbit clearance societies in the county claimed to have destroyed 25,816 wood-pigeons' nests, 16,105 eggs and 5,795 young. In the Holt area alone, during July, 7,500 nests and a similar number of eggs were destroyed, together with 3,200 young.

Autumn

August: The first two paragraphs are from Cley Observatory Report.

The 3rd brought a Sabine's gull to Arnold's marsh. On 6th, at Blakeney Point, an icterine warbler was discovered in company with willow warbler and whinchat. The 10th saw 14 greenshanks and the next day brought a hobby and an increase in Arctic skuas including 10 pale phase adults all moving east. Sandwich tern numbers suddenly rose to 150 on 13th and on 15th, 50 gannets passed west. On 15th, 22 curlew-sandpipers and a black-tailed godwit moved westward.

The 19th was a big day of westward Arctic wader passage including 60 curlew, 30 bar-tailed godwits, 30 knot, 9 ruffs, 4 curlew-sandpipers (the first juveniles), golden plovers, 6 greenshank, turnstones, grey plovers and 5 little stints. A pectoral sandpiper arrived on 28th and at least 27 black terns, including a party of 17, were recorded. A little gull and 3 spotted redshank were new on 29th. On 30th, a strong eastward passage of gannets took place with skuas, razorbills, Manx shearwaters and fulmars. 2 purple sandpipers arrived with other Northern waders and 8 grey wagtails were seen. The 31st brought yet another large-scale passage of Arctic waders with bar-tailed godwits, whimbrel and knot (100 of each) predominating. An adult dotterel was on the Eye Field.

Wader passage reached peak numbers at the end of the month when Rush Hills at Hickling had attracted 36 ruffs and 12 black-tailed godwits. At Breydon on 31st seventeen species of waders had collected at high water including 17 black-tailed and 27 bar-

tailed godwits, greenshank and curlew-sandpipers. On the North coast at Scolt over 1,300 bar-tailed godwits passed westward during the three day period commencing on 30th. The most noteworthy Passerine was a hoopoe at Brinton from 21st to 23rd.

September: The first five paragraphs relate to Cley/Blakeney.

Northern waders in full strength again on 1st, including 15 ruffs. A juvenile dotterel joined the adult on 2nd and the first barred warbler arrived with an early redwing. Next day 35 little stints arrived from the sea. A tree-creeper was on the Point on 4th. A pomatorhine skua accompanied the now familiar sea-bird and wader passage. A wryneck appeared on 5th and a little gull passed through. 3 great skuas and a long-tailed, and a red-necked grebe were seen next day while a second barred warbler appeared. An ortolan arrived on 7th with a Temminck's stint to be followed on 9th by a fall of redstarts, whinchats and pied flycatchers. Another icterine warbler arrived on 12th with pied flycatchers and 12 little stints. The third barred warbler of the autumn was present on 13th and the next day was notable for a flock of 30 turtle doves at Morston.

A pectoral sandpiper 15th-22nd was joined by a second bird for the last 4 days of its stay. Sea-watching was prolific on 16th with eastward movements of 250 gannets, 30 razorbills, 10 Manx shearwaters, 4 sooty shearwaters, Arctic and great skuas and 2 little gulls. Another wryneck appeared with the first bluethroat and 60 tree pipits were watched arriving from the sea. The 17th saw 200 more gannets passing to the east with one great, one long-tailed and 4 Arctic skuas, a sooty shearwater, 14 little stints, 10 wood sandpipers and 2 curlew-sandpipers. There were 3 ortolans and the first rock pipits of the autumn.

An immature Mediterranean black-headed gull was at Salt-house on 18th. The first snow bunting arrived on 19th and a Richard's pipit was chasing skylarks on the beach.

The 20th was a wonderful sea-watch day though weather conditions made observation all but impossible at times with sheets of rain and a full gale backing from S.E. through N.E. to N.W. Among the birds seen were 30 sooty, one great, one Balearic and several Manx shearwaters, 2 Leach's petrels, many gannets and skuas, little gull, kittiwakes and a great many waders. It was during this period also that the largest Sept. arrival of small Scandinavian passerines took place with at least 7 bluethroats, many redstarts, a black redstart, robins, blackcaps, garden warblers, pied flycatchers, whitethroats and wheatears. It was interesting to note a complete absence of whinchats and willow warblers.

Other species of special note at this time included a dotterel on 21st; 3 Lapland buntings, an invasion of 150 ruffs and 100 little stints on 22nd; 3 black redstarts and a firecrest on 24th; a barred

warbler (fourth of the autumn) with one bluethroat on 25th and, on 27th, a red-breasted flycatcher, the first brambling and a very early waxwing. The 28th brought a big fall of song thrushes and redwings with robins a close third. 9 ring ouzels arrived on 29th with 2 merlins, a peregrine (attacking 2 herons), 30 siskins and 1-2 bluethroats. Redwings and song-thrushes were still arriving on 30th.

After a highly successful season, bearded tits became restless and began "breaking out" from the breeding areas. They appeared in a number of localities during the autumn. Interesting birds of prey included 3 single honey-buzzards in the North, whilst an osprey stayed almost a month in the Aylsham-Cawston district. 1960 was a remarkable year for siskins with no less than 300 at Kelling on 22nd and 350 at Winterton on 23rd. A Mediterranean black-headed gull stayed at Winterton from 24th till Oct. 9th and a grey phalarope was at Brancaster from 16th till 21st. Other highlights included icterine warbler at Holme on 11th and at Holkham on 23rd; a Pectoral sandpiper at Wisbech S.F. on 17th/18th; tawny pipit at Gore Point on 25th/26th and firecrest at Blakeney on 27th.

October: The first two paragraphs relate to Cley/Blakeney.

The month opened with the arrival of many Continental robins and goldcrests, the first great grey shrike, another red-breasted flycatcher and a little bunting. A pectoral sandpiper stayed from 2nd-8th; also on 2nd, 20 long-tailed tits headed west over Blakeney Point. There was a little owl on the Point on 6th with a pomatorhine skua next day.

Very great numbers of lapwings travelled west on 13th. Starlings took over the fly-lines from the lapwings on 15th and a great grey shrike was in Walsey Hills. The 16th saw yet another big arrival of robins, redwings and song-thrushes with the first 3 hooded crows. There were 1-2 long-eared owls on Blakeney Point with redstarts, blackcap and chiffchaff. Salthouse had spoonbill, black redstart and the first shore-lark. Redwing were heard calling overhead after dark on 18th, heralding a very large immigration of this species on 19th when they were accompanied by blackbirds and fieldfares and on 20th by song-thrushes. Many skylarks also came in on 21st.

There was an influx of rough-legged buzzards on the East Coast early in Oct. and they were reported in the county at Somerton, Cley, Holme and Hunstanton. A spoonbill stayed in the Breydon area from 8th till early Dec. A firecrest at Ludham on 17th was of particular interest. Notable waders included a grey phalarope at Hickling Broad 11th-20th and a peak of 90 ruffs at Wisbech S.F. Late summer visitors included reed warbler at Cley and spotted flycatcher at Holme both on 23rd; and swifts at Wells on 20th and 26th and at Cley on 27th.

End of Year

November: A grey phalarope was at Holme on 6th. A herd of 62 Bewick's swans arrived from the south high over Cley on the morning of 8th and departed towards the west. The same day a Greenland white-fronted goose arrived among the feral grey-lags on Cley marshes and a German-ringed Continental hedge-sparrow was trapped there on 13th (ringed on Heligoland a month previously). A very late cuckoo stayed at Haddiscoe 14th-17th. The 20th was distinguished by a rough-legged buzzard which stayed at Cley till the end of the year and by the arrival of 6 waxwings at Wiveton. Unusual numbers of shags arrived off Cromer with a peak of 43 on 27th.

December: Hirundines remained remarkably late. The last swallow was at Gorleston on 2nd; sand martins were identified at Cromer on 1st and one remained at Happisburgh till 25th; the last house-martin was at Horsey on 8th. Wader highlights were an avocet on Arnold's marsh on 2nd and a grey phalarope off Sheringham on 4th. On 25th, a water pipit returned to Cley. The year ended with some interesting wildfowl totals: 70-80 gadwall in the Breck, 900 pintail on the Pymore to Denver stretch of The Washes and 250 shoveler on Denver Washes.

* * * * *

Varieties reported included melanistic pheasants at Castle Acre and at Riddlesthorpe Heath; all white blackbirds at Sprowston and Necton and pied ones in Norwich and at Mundford and East Harling. At Hellesdon, were 2 unusual house-martins; one was all white and the other creamy-brown. A pallid robin at Caister Hall was sandy above with a pale orange breast. An all white moorhen was caught at Reedham. Freak gulls caused much confusion. All white common gulls were seen at Wells April 13th and at Scolt May 11th. An all white black-headed gull was in Yarmouth harbour Dec. 3rd and 10th. A large gull originally considered glaucous, in Yarmouth harbour from Nov. 16th till Feb. 1961 was all white with the exception of narrow black bands on both wing surfaces. The wings were comparable with those of a greater black-back, the bill was yellow with red at the angle and the legs and feet were pink. The iris was blue with a yellowish orbital ring. 245 species of birds were recorded in the county during the year.

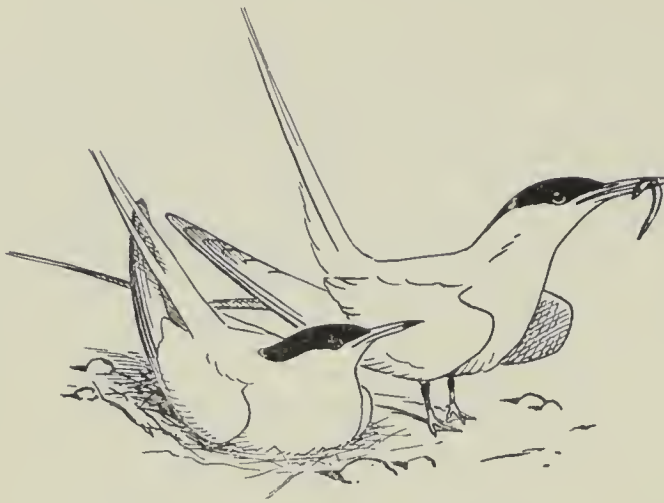
We are indebted to R. A. Richardson for the cover drawing of stone-curlews and for other illustrations; also to R. P. Bagnall-Oakeley, Dr. K. J. Carlson and J. High for their photographs; to the Cambridge Bird Club (in particular G. M. S. Easy); to the Great Yarmouth Naturalists Society for light-vessel notes; to the Trinity House Depot at Yarmouth; to *British Birds* and to all other contributors.

Records for the 1961 Report should be sent **by the end of January** to Michael J. Seago, 33 Acacia Road, Thorpe, Norwich, NOR 71T. Records should be in Check List order rather than in diary form.

Attention may be drawn to the following papers affecting Norfolk published recently:

“ The Mute Swan census in England and Wales, 1955-56 ” (*Bird Study*, Vol. 7, pp. 208-223); “ Observations from a light-vessel on Passerine immigration into The Wash in autumn 1956 ” (*British Birds*, Vol. 53, pp. 435-443); “ Four Invasions of Waxwings during 1956-60 ” (*British Birds*, Vol. 54, pp. 1-30); “ Waxwings feeding on apples and their rate of berry consumption ” (*British Birds*, Vol. 54, pp. 39-41) and “ Autumn drift migration on the English East coast ” (*British Birds*, Vol. 53, pp. 325-352 and 379-397).

Notes on Breeding Birds of the Norfolk Nature Reserves



SCOLT HEAD ISLAND
(The Nature Conservancy)

WARDEN: R. CHESTNEY
ASSISTANT WARDEN: K. G. SPENCER

The breeding season for the terns was disappointing. The fine, warm, spells during the early summer ended on 25th June when winds became northerly and the temperature dropped rapidly. Winds reached gale force by the 28th and 165 dead common tern chicks were found. Two days later the Wardens found the ternery covered in eighteen inches of foam extending to the dunes. After the foam cleared, 437 dead common tern chicks were found. They were all that remained of some 400 broods. Many other chicks died as a result of shortage of food, including birds which had reached the free-flying stage.

On 2nd July it was found that 130 common tern chicks had survived and there were 50 clutches of eggs. Some eggs were flooded out by high tides and many were eaten by black-headed gulls. Only 15 common terns hatched from the surviving clutches.

During the second and third weeks of July there was the almost annual build-up of common terns. A peak of 3,000 was reached on the evening of the 18th.

The first Sandwich terns arrived 8th April. On 8th May, eight pairs were on the point of nesting and 2 nests were found that evening. They were soon deserted, however, and there were no other attempts at nesting. The largest group of Sandwich terns during the nesting season totalled 40, on 18th June. During the last week of July, up to 450 Sandwich terns, including 40-50 juveniles, stayed at Scolt.

Records for the whole of the Island are summarised below:

	<i>Number of nests or pairs of birds</i>
Mallard	15 nests
Sheld-Duck	150-200 pairs
Canada Goose	2 nests
Red-legged Partridge	3 nests
Partridge	3 nests
Pheasant	1 pair with chicks
Oystercatcher	90 nests
Ringed Plover	140 pairs
Redshank	40 pairs
Black-headed Gull	30 pairs
Common Tern	520 nests
Arctic Tern	1 nest
Little Tern	21 nests
Sandwich Tern	2 nests
Cuckoo	3 young reared
Yellow Wagtail	1 nest



BLAKENEY POINT
(The National Trust)
WARDEN : W. EALES

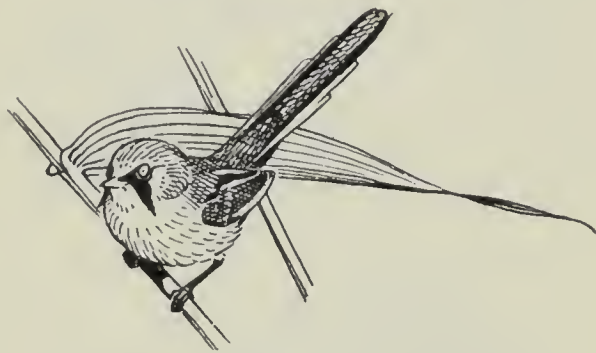
For the second year in succession, Sandwich terns did not nest on the Point, but common and particularly little terns arrived in good numbers. Several chicks had reached the free flying stage by the end of June but there then developed a storm and thick foam covered the greater part of the nesting ground. Practically all the tern chicks were destroyed and eggs covered. It was the worst instance of foam destruction in the Warden's experience. The Sandwich terns nesting near Wells suffered similarly and over forty young birds were washed-up dead at Blakeney Point. Sixteen of them had been ringed.

Although the terns' breeding season was disastrous, other birds did well, particularly ringed plovers and redshank. Nesting away from the outer beaches, they escaped the high tides and foam. A pair of reed buntings nested successfully among the terns, in a clump of marram.

The experimental wiring-off of a small area of the nesting ground was a success. The birds became very tame and allowed themselves to be photographed at distances down to ten feet. Remarkable numbers of people visited the Point, as many as 450 coming on a single day.

The following is a summary of nests marked:

Sheld-Duck ..	42 <i>estimated</i>	Redshank	54
Red-legged Partridge ..	3	Common Tern	918
Oystercatcher	78	Little Tern	97
Ringed Plover	84	Swallow	2
Reed Bunting	1		



CLEY AND SALTHOUSE
(The Norfolk Naturalists Trust)

WARDEN: W. F. BISHOP

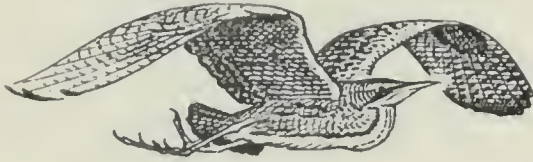
The spring and early summer were fine and warm and breeding ducks had a very good season. The birds left the marsh early, however, because of dry conditions and the Big Pool was completely dry for the first time in 25 years.

Mallard and teal numbers were maintained, whilst shovellers increased to at least 20 pairs. More spectacular was the increase in gadwall and over 12 pairs summered. Garganey arrived Mar. 18th and three pairs remained throughout April. Two pairs of pintail bred successfully. Sheld-duck had a good nesting season and with an increase in the rabbit population were able to occupy rabbit burrows once more.

Among breeding waders, redshanks had a good season. Many early clutches of lapwings' eggs were taken by carrion crows. Ringed plovers increased to about 20 pairs. Only two stone-curlews' nests were found—in the vicinity of Cley Hall Farm.

Terns had a disappointing time. The few common terns' nests on Arnold's marsh were washed out June 29th by very high tides. One pair reared young on the North Drain marshes. Little terns continue to decrease. No nests were found and only a very few young were noted.

Bearded tits had an excellent year. At least 25 pairs bred and young birds were abundant at the end of the summer. An increase in coypus has resulted in a decrease in bitterns. No nests were found, but a young bird still showing down was seen in July. One pair of herons nested in The Hangs wood rearing three young.



HICKLING

(The Norfolk Naturalists Trust)

WARDENS : E. PIGGIN assisted by G. E. BISHOP)

1960 was another record year for bearded tits and it is estimated that 60 pairs nested round the Broad and Heigham Sounds. The first nest, with five eggs, was found near Whiteslea April 20th and between then and the second week of July many others were discovered. Bearded tits prefer nesting in thick sedge, but due to the depredation of coypus they were forced to seek other nesting sites. Some nests were under clumps of lesser reed mace; others were reported in great pond sedge.

As in 1959, there appeared to be a similar autumn movement of bearded tits away from Hickling. One October morning, a party of 15 climbed to a great height until they were lost to view. Shortly after, they swooped downwards with great noise and excitement.

Ringed plovers bred—for the first time—on Rush Hills. The nest, containing four eggs, hatched June 28th. Other breeding birds of interest included three pairs of common terns, twelve pairs of great crested grebes, fourteen pairs of herons and 15–20 pairs of shovelers. Up to five pairs of gadwall and four pairs of garganey were on Rush Hills wader ground during the spring and early summer. The first garganey arrived March 16th.

Bitterns began booming March 4th; at least six males were present. It is disappointing to record that no marsh-harriers were reared. A pair nested near Ball's Dyke, but the cock disappeared. When the hen left the nest for food, the two eggs were pecked, apparently by carrion crows. This hen remained all the summer, but no further cock appeared until early November. No Montagu's harriers were reported.

Over 400 mute swans were resident on the Broad; nine nests were found. Single pairs of Canada geese and feral grey-lag geese nested on Heigham Sounds.



HORSEY
(MR. JOHN BUXTON)
KEEPER : G. CREES

Bearded tits again nested in numbers round Horsey Mere. 25 pairs were estimated. The first nest was found April 23rd but the young died, probably through lack of food during a cold, wet spell. Towards the end of September parties of bearded tits appeared to be "breaking out" from the Horsey reedbeds. Groups of five to fifteen were frequently watched flying high before disappearing from view.

Two male and three female marsh-harriers arrived in the spring, but none paired and no nest was found. The harrier breeding grounds at Horsey, formerly covered with sedge so thick that it was difficult to walk through, have been so cropped by coypus that no areas of thick sedge remain. No Montagu's harriers were seen.

Bitterns began booming March 23rd. A nest found in Starch Grass May 20th contained four eggs, but only two hatched. A second nest near the boat-house contained four eggs June 13th. All hatched successfully. There were at least six booming males.

No oystercatchers or short-eared owls bred. A pair of water-rails with small young were watched May 16th. A nest, with eight eggs found in Starch Grass June 4th was unsuccessful, however. Stonechats made a welcome return and a pair nested—for the first time since 1937—at Horsey Gap. Five young were reared. In the late autumn, a family party of stonechats could always be found at Horsey in fields of sugar-beet being lifted. Abundant insects were doubtless the attraction.



SCROBY SANDS
(ROBIN H. HARRISON)

The first visit in 1960 was made on June 6th. 320 pairs of Sandwich and 270 pairs of common terns were found. The sands had changed little during the winter; the highest parts lying at the north-east and south-east corners of the island. A high-water survey July 8th, with spring tides, revealed that these corners were three feet above high water.

On June 16th, 130 young common and 121 young Sandwich terns were ringed. 327 Sandwich terns' nests were counted in five groups, the largest containing 115 nests. Many eggs were on the point of hatching. Three days later, there were scores of young terns on the sands. A further 28 common and 2 Sandwich tern chicks were ringed—a record number for Scroby.

The fine, warm, weather of early summer ended abruptly on July 1st when a north-west gale caused abnormally high tides. Heavy seas pounded the sandbank. Three days later, the sea had moderated sufficiently to allow landing. Not a single chick or egg had survived. Thick white foam covered even the highest points.

Adverse weather prevented any further landing until July 23rd. Although numbers of adult common and Sandwich terns were seen, no further nests were found. 150 kittiwakes were on the island and great numbers of greater black-backed gulls were quarrelling over the carcasses of common seal pups.

CLEY BIRD OBSERVATORY
(WARDEN : R. A. RICHARDSON)

Once again the routine daily census of all birds in the Observatory area was maintained throughout the year and no efforts were spared to ensure that visitors fully enjoyed their bird-watching

*Wryneck*

holidays by keeping them supplied with up to the minute information and assisting them with identification problems.

1,271 birds of 85 species were ringed (748 being trapped and 523 as nestlings) and a selection of recent recoveries may be found among those which follow the Ringing Progress table. Two species appear for the first time in this table—little stint and carrion crow, while others worthy of mention are icterine, subalpine and barred warblers, bluethroats, bearded tits, black redstart, red-breasted flycatcher and woodchat shrike.

Information was supplied to Dr. David Lack continuing his research into migration by means of radar, and the Observatory also took part in the red-backed shrike enquiry and the Road Deaths investigation organised by the B.T.O. which also published full reports of the spring and autumn migrations at Cley in the bulletin *Bird Migration*.

We joined the Council for Nature and suggested that it should approach the Federation of Rabbit Clearance Societies with a view to suspending gassing operations in districts where sheld-ducks are incubating in the burrows. This has been done.

All friends of the Observatory will have noted with satisfaction the even tighter controls on bird ringing and trapping techniques recently introduced and it is again our proud record that among the many birds handled by us there was not one casualty. What a contrast with the not far distant days when regional reports consisted largely of "obituary notices" of rare and unusual birds.

We are grateful to Norfolk County Council for continued access to the Walsey Hills trap site and to the National Trust to use mist-nets on Blakeney Point at migration times. It is also a pleasure to record our appreciation to all those interested people whose goodwill and generous support have made possible another full year of enjoyable study.

Details of hotel and cottage accommodation in the Cley district may be obtained from R. A. Richardson, Hill-top, Cley, Holt, Norfolk.

NORFOLK BIRD REPORT FOR 1960

Species	1960	Total since 1949	Total Recoveries	Species	1960	Total since 1949	Total Recoveries	Species	1960	Total since 1949	Total Recoveries
Little Grebe ..	1	3	3	Barn Owl ..	3	25	25	Melodious Warbler	..	2	2
Manx Shearwater	..	1	1	Little Owl ..	..	8	8	Icterine Warbler	..	5	5
Fulmar ..	..	52	52	Tawny Owl ..	..	24	24	Blackcap ..	..	175	175
Heron ..	7	40	6	Long-eared Owl ..	..	6	6	Barred Warbler ..	..	9	9
Bittern ..	..	4	4	Short-eared Owl ..	..	10	10	Garden Warbler	..	90	90
Mallard ..	2	20	4	Nightjar ..	..	4	4	Whitethroat ..	..	747	747
Teal ..	..	2	2	Swift ..	..	26	26	Lesser Whitethroat	..	48	48
Wiggon ..	..	3	3	Kingfisher ..	..	2	2	Subalpine Warbler	..	2	2
Scaup ..	..	8	8	Green Woodpecker	..	2	2	Willow Warbler ..	..	541	541
Eider ..	..	1	1	Great Spotted Woodpecker	..	3	3	Chiffchaff ..	..	13	13
Shield-Duck ..	..	7	7	Woodlark ..	..	4	4	Wood Warbler ..	..	4	4
Brent Goose ..	..	1	1	Skylark ..	..	16	16	Goldcrest ..	..	11	11
Mute Swan ..	1	2	2	Shorelark ..	..	189	189	Firecrest ..	..	19	19
Sparrowhawk ..	..	1	1	Swallow ..	..	469	469	Spotted Flycatcher	..	3	3
Montagu's Harrier	..	2	2	House Martin ..	..	17	17	Pied Flycatcher	..	83	83
Kestrel ..	5	21	1	Sand Martin ..	..	11	11	Red-breasted Flycatcher	..	4	4
Common Partridge	..	1	1	Carton Crow ..	..	4	4	Dunmooch	..	536	536
Water Rail ..	1	5	5	Rook ..	..	60	60	Meadow Pipit ..	..	370	370
Spotted Crane ..	..	1	1	Jackdaw ..	..	23	23	Tree Pipit ..	..	24	24
Corncrake ..	..	1	1	Magpie ..	..	12	12	Rock Pipit ..	..	8	8
Moorhen ..	..	33	33	Jay ..	..	17	17	Pied/White Wagtail	..	72	72
Oystercatcher ..	1	62	1	Great Tit ..	..	34	34	Grey Wagtail ..	..	4	4
Lapwing ..	6	77	1	Blue Tit ..	..	32	32	Yellow/Blue-headed Wagtail	..	6	6
Ringed Plover ..	..	2	2	Marsh Tit ..	..	7	7	Waxwing ..	..	2	2
Turnstone ..	..	23	23	Coal Tit ..	..	36	36	Great Grey Shrike	..	4	4
Snipe ..	4	2	1	Willow Tit ..	..	18	18	Woodchat Shrike	..	2	2
Jack Snipe ..	2	2	2	Long-tailed Tit	..	25	25	Red-backed Shrike	..	105	105
Woodcock ..	2	5	1	Bearded Tit ..	..	75	75	Starling ..	..	484	484
Wood Sandpiper	..	4	4	Nuthatch ..	..	5	5	Greeninch ..	..	906	906
Common Sandpiper	..	5	5	Treecreeper ..	..	12	12	Goldfinch ..	..	49	49
Redshank ..	3	44	1	Wren ..	..	26	26	Siskin ..	..	3	3
Knot ..	..	3	3	Black-bellied Dipper	..	119	119	Linnnet ..	..	10	10
Purple Sandpiper	..	3	3	Mistle Thrush ..	..	1	1	Twite ..	..	2	2
Little Stint ..	10	10	1	Song Thrush ..	..	4	4	Lesser Redpoll ..	..	3	3
Dunlin ..	11	20	1	Redwing ..	..	52	52	Bullfinch ..	..	11	11
Ruff ..	..	10	10	Ring Ouzel ..	..	9	9	Chatswinch ..	..	10	10
Grey Phalarope ..	..	2	2	Blackbird ..	..	80	80	Brambling ..	..	24	24
Stone Curlew ..	3	10	6	Wheatear ..	..	3	3	Corn Bunting ..	..	5	5
Common Gull ..	34	258	1	Whinchat ..	..	147	147	Ortolan Bunting	..	1	1
Black-headed Gull	..	1	1	Redstart ..	..	5	5	Rustic Bunting	..	1	1
Common Tern ..	10	111	1	Black Redstart ..	..	1	1	Reed Bunting ..	..	254	254
Little Tern ..	6	17	3	Nightingale ..	..	16	16	Lapland Bunting	..	7	7
Sandwich Tern ..	244	752	3	Luluthroat ..	..	3	3	Snow Bunting ..	..	175	175
Razorbill ..	..	4	4	Robin ..	..	30	30	Tree Sparrow ..	..	1	1
Little Auk ..	..	2	2	Grasshopper Warbler	..	151	151	House Sparrow ..	..	137	137
Guillemot ..	..	5	5	Red Warbler ..	..	10	10	House x Tree Sparrow Hybrid	..	1	1
Stock Dove ..	1	34	2	Sedge Warbler ..	..	118	118	GRAND TOTALS	..	1,271	15,656
Wood Pigeon ..	1	14	4	Aquatic Warbler	..	7	7				
Turtle Dove ..	8	54	4								
Collared Dove ..	..	4	1								
Cuckoo ..	1	17	1								

Species Total: 1960—85; Since 1949—150

SELECTED RINGING RECOVERIES

(Notified in 1960)

Attention may be drawn to the *Cambridge Bird Club Report*, 1959, pp. 25-26, for a summary of Welney starling recoveries, including 31 abroad.

	<i>Ringed</i>		<i>Recovered</i>	
Heron	Denver	Sluice. 1.6.58 (as young).	(as	Rijpwetering (Zuid-Holland), Netherlands. 5.4.59.
Heron	Denver	Sluice. 27.4.59 (as young).	(as	Near Kirklington, York. 16.7.59.
Heron	Denver	Sluice. 4.5.59 (as young).	(as	Cockerham, Lancs. 5.10.59.
Mallard	Jagaretfurbundet, Sweden.	Stockholm, 3.7.59.		How Hill, Ludham. 15.1.60 (trapped and released).
Mallard	How Hill, Ludham.			Recoveries notified from Denmark (7) and Netherlands (3).
Mallard	How Hill, Ludham.	14.1.60		Legowo near Pruszcz (Gdansk), Poland. 19.11.60.
Mallard	How Hill, Ludham.	18.1.60.		Near Smedsbyn, Boden (Norrbotten), Sweden. 21.8.60.
Mallard	How Hill, Ludham.	15.2.60.		Saleby, near Lidköping (Skaraborg,) Sweden. 23.10.60.
Mallard	How Hill, Ludham.	19.2.60.		Hohenstein, near Oldenburg, (Schleswig-Holstein), Germany. 8.10.60.
Mallard	Pori, Finland.	9.6.58 (as young)		Narborough. 16.12.59.
Teal	Le Sambuc (Bonches-du-Rhone), France.	18.12.58.		East Somerton. 10.12.59.
Gadwall	Sandringham.	4.8.60 (as hand reared young).		Schinnen (Limburg), Netherlands. 19.11.60.
Sheld-duck	Slimbridge, Glos.	4.5.55.		Terrington. 20.8.59.
Mute Swan	Kew, Surrey.	28.12.57.		Near Ludham. 9.9.59.
Sparrowhawk	Signilskar, Aland Is., Finland.	3.9.57 (as young).		Woodbastwick. 24.12.57.
Marsh-Harrier	Hickling Broad.	24.6.58 (as young).		Walberswick, Suffolk. 3.7.60.
Coot (3 birds)	Abberton Reservoir, Essex.	1.3.55, 25.2.59 and 14.8.58 respectively.		Hickling Broad. 2.1.60.
Snipe	Gooderstone, Swaffham.	12.6.60 (as young).		Jublians (Mayenne), N.W. France. 6.8.60.
Woodcock	Rijs (Friesland), Netherlands.	21.11.55.		Riddlesworth. 21.1.56.
Woodcock	Holme.	11.10.59.		Huelgoat (Finistere), France. 13.12.59.
Curlew	Le Zoute (West Flanders), Belgium.	15.5.59.		Terrington marshes. 13.12.59.
Redshank	Scolt Head.	25.5.60 (as young).		Baie de Pernerff near Damgan (Morbihan), France. 29.10.60.
Dunlin C 822205	Amager, Denmark.	22.7.59.		Terrington marshes. 18.8.59 (caught and released).
Dunlin	Amager, Denmark.	10.9.53 (as young).		Blakeney. 22.12.54.
Dunlin	Amager, Denmark.	9.8.51.		Scratby. 17.3.54.
Dunlin HkiP20985	Pori, Finland.	6.9.58.		Terrington marshes. 18.8.59 (caught and released).
Dunlin	Revtangen (Rogaland), Norway.	30.9.56.		Brancaster Staithe. Jan. 1958.

Dunlin	Ottenby, Oland, Sweden. 16.7.53.	Bacton. 10.2.58.
Sanderling S78933	Norwick, Shetland. 3.9.59.	Thornham. 1.11.59 (caught and released).
Ruff	Cley. 30.8.59.	Naryan Mar in delta of Pechora river (Archangel), U.S.S.R. 3.6.60.
Common Gull	Island of Fehmarn, Baltic coast of Germany. 15.7.57 (as young).	Burnham Market. 3.8.60.
Common Gull	Hollnos, Sweden. 3.7.59 (as young).	Breydon. 29.8.60.
Black-headed Gull	Hauho, Finland. 25.6.59 (as young).	Witton near North Walsham. 22.1.60.
Black-headed Gull	Bravik near Norrköping, Sweden. 9.9.59 (immature).	Bradwell. 10.3.60.
Kittiwake	Farne Islands. 18.7.58 (as young).	Lynn Well light-vessel, The Wash. 26.5.59.
Kittiwake	Farne Islands. 27.6.56 and 7.7.58.	Brancaster. 4.6.60.
Common Tern R70400	Scolt Head. 2.7.60 (as young).	Cartaya (Huelva), Spain. 27.10.60. Caught and released.
Sandwich Tern	Stiffkey. 21.6.58 (as young).	Freetown Bay, Sierra Leone, Jan. 1960.
Sandwich Tern	Stiffkey. 21.6.58 (as young).	Aguilas (Murcia), S.E. Spain. April 1960.
Black Guillemot	Island of Tistlarna, west coast of Sweden. 22.6.60 (as young).	Winterton. 16.7.60.
Shore-Lark 58838	Salthouse. 29.12.59.	Still present 5.2.60.
Bearded Tit	Cley. 29.12.59.	Nesting where ringed. 8.5.60.
Bearded Tit	Cley. 5.2.60.	Feeding fledged young where ringed. 14.5.60.
Wren	Gibraltar Point, Lines. 27.4.58.	Buxton. 11.4.59.
Wren	Abberton, Essex. 23.1.59.	East Harling. 12.5.59.
Song Thrush	Cley. 17.12.58.	Braga (Minho), N.W. Portugal. 22.1.60.
Song Thrush	Cley. 17.10.59 (as migrant).	Paterna de Rivera (Cadiz), south Spain. June 1960.
Blackbird	Cley. 16.11.58.	Forsnas, Osterbymo (Ostergötland), Sweden. 25.7.59.
Blackbird	Cley. 15.10.59 (as immigrant).	Clonmel (Co. Tipperary), Eire. January 1960.
Blackbird	Cley. 15.10.59 (as immigrant).	Fla, Hallingdal (Buskerud), Norway. 11.4.60.
Blackbird	Scolt Head. 1.9.59.	Near Rambouillet (Seine-et-Oise), France. 25.10.59.
Blackbird	Bankeryd (Smaland), Sweden. 25.8.58.	Suffield. 11.1.59.
Blackbird	Ytterby (Bohuslan), Sweden. 22.6.53 (as young).	Taverham. 26.1.58.
Whitethroat	Cley. 29.4.59.	Lagos (Algarve), Portugal. September 1959.
Whitethroat	Bradwell-on-Sea, Essex. 2.5.59.	Syleham. 6.5.59.
Spotted Flycatcher	Cromer. 6.7.59 (as young).	High Kelling, Holt. 8.8.60.
Hedge Sparrow H9887385	Heligoland Observatory, Germany. 10.10.60.	Cley. 13.11.60 (trapped and released).
Starling	Sheringham. 23.1.59.	Salzwedel (Sachsen-Anhalt), Germany. 9.7.60.

Starling K98496	The Hague, Netherlands. 5.2.59.	Aylsham. 10.1.60 (trapped and released).
Starling	Alvsjö near Stockholm, Sweden. 16.5.59 (as young).	Inner Dowsing light vessel. 21.3.60.
Starling	Near Batetsk, Novgorod area, U.S.S.R. May 1959 (as young).	Inner Dowsing light vessel, 2.4.60.
Starling	Ribatschi (formerly Rossitten), Kaliningrad District, U.S.S.R. 2.7.59.	Poringland. 15.11.59.
Starling	Ventes Ragas, Lithuania, (for- merly Windenburg). 26.7.58 (as young).	Norwich. 3.1.60.
Starling	Minsk, U.S.S.R. May 1956 (as young).	Great Witchingham. 31.1.57.
Starling	Ristikula, Estonian S.S.R. 2.6.58 (as young).	Potter Heigham. 12.1.59.
Starling	Welney, Oct.—Nov. 1957.	2 in Germany, one in Poland and 3 in U.S.S.R.—all in breeding season.

These six recoveries indicate that the starlings in the large winter roosts may be of mixed origin.

Reed Bunting K11947	Blakeney Point. 11.9.58.	Nesting at Scolt Head. 12.5.60.
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*Hoopoe*

CLASSIFIED NOTES

The Wash and Fen records, which have been highly selected, have been taken from the draft of the Cambridge Bird Club Report. Important records from Wisbech Sewage Farm, part of which is on the Lincolnshire side of the county boundary, have also been included. Fuller details of these records, and many others, may be found in the *Cambridge Bird Club Report* for 1960.

The number preceding the name of each bird refers to the *B.O.U. Check-list of the Birds of Great Britain and Ireland* (1952) where the scientific name may be found. All records refer to 1960, unless otherwise stated. Where no initials appear after a record, details have been supplied by many observers. No plumage descriptions are given of rarities accepted by the Rare Birds Committee of *British Birds*.

1 Black-throated Diver: North coast: Singles (and once 2) on 7 dates, Holme-Cley, up to March 5th and from Aug. 21st when one still in breeding plumage. East coast: One, Winterton, Sept. 26th (JLFP). Wash: 8 winter records of 1-2 birds at Hunstanton and Snettisham (CBC).

2 Great Northern Diver: North coast: 1-3 on 8 dates, Holme-Cley, up to May 6th and from Dec. 24th. Wash: 4 winter records of singles at Hunstanton and Heacham (CBC).

4 Red-throated Diver: Inland records only are given—all of single birds. Holkham lake, Jan.-Feb. 22nd; Gt. Witchingham, dead, Jan. 31st (GB); Blickling lake, March 13th (CDR) and in Breck at Wretham Park, Jan. 31st (HRB) and Narford lake, Nov. 6th (DW).

5 Great Crested Grebe: Summer counts of *adults*: Broads: Upton, 2; Hickling/Heigham Sounds, 24; Burnt Fen, 4; Rockland, 42; Alderfen, 2; Ranworth Inner, 34 and Filby, 20. Breck: Narford, 5; Narborough G.P., 2; Mickle Mere, 18 on April 10th (GMSE) and Thompson, 4. Fens: Welney G.P., 2. Other waters: Hardley flood, 6 and bred (one pair) for first time; Sea Mere, 6-9, Blickling lake, 5 and Holkham lake, 4.

Wash: Maximum of 55, Hunstanton-Snettisham, March 20th (CBC).

6 Red-necked Grebe: North coast: 2 at Holme, Jan. 31st (CBC). Singly at Wells, Jan. 8th and Blakeney, Aug. 31st (HH) and at Cley, Sept. 6th, 22nd and 23rd. Wash: Hunstanton, one, March 5th (CBC).

7 Slavonian Grebe: North coast: 1-2 on several dates at Brancaster, Wells, Cley and Sheringham up to April 8th and from Sept. 3rd. Wash: Scarcer than usual and only ones and twos reported (CBC).

8 Black-necked Grebe: North coast: 1-2 at Brancaster, Wells and Blakeney up to March 8th and from Oct. 25th. Wash: Recorded up to March 6th and from Nov. 13th with maximum of 15 on March 6th (CBC).

12 Leach's Petrel: North coast: Cley, 2 east, Sept. 20th.

16 Manx Shearwater: North coast: Holme, 2, Sept. 16th (CBC). Cley, one, March 27th (EAC); 2, April 24th; one, Aug. 30th; 1-3, Sept. 9th, 12th, 13th 15th, and 18th; 10 on 16th and several on 20th. Single *mauretanicus* seen well off Cley, Sept. 16th and 20th. Broads: Hickling, an exhausted bird, Aug. 30th (EP).

17 Little Shearwater: North: One of the Madeiran race (*P.b. baroli*) freshly dead on beach between Cley and Blakeney Point, May 1st (CJRT, RMN). The seventh British and third county record. See *British Birds*, Vol. 54, p. 39.

19 Great Shearwater: North: Cley, one, Sept. 20th (BRS, RJJ, NP). The fourth county record.

21 Sooty Shearwater: North: Cley, 4, Sept. 16th; one on 17th and 30-40 west on 20th. Prior to 1960, there were only 6 county records.

26 Fulmar Petrel: Recorded Weybourne to Happisburgh with maximum of 71, Weybourne-Cromer, on April 30th. No details of breeding successes. First birds (4) returned to breeding cliffs, Dec. 17th and 28 at Cromer by end of month (CDR).



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Fulmar petrels began colonising north Norfolk in 1940, but it was not until 1947 that successful breeding took place and five young were reared. 1957 was a record year with 26-28 chicks reared between Weybourne and Sidestrand. Breeding has also taken place at Mindesley. Fulmars began prospecting Happisburgh cliffs in 1956, but breeding has yet to be proved there.

J. Hugg



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J. High

Fulmars do not desert the breeding cliffs until the end of August and begin returning as early as the first week of December. A fulmar ringed in June 1956 at Cromer was recovered in a fishing net off south-west Norway in July 1958. Blue-phase birds are occasionally recorded.



27 Gannet: Coastal records in March and from May to December inclusive. Peak numbers Sept. 16th/17th when 300–350 off Cley and 90–100, Holme–Snettisham.

29 Shag: Unusual numbers. North coast: Recorded all months July–Dec. with 9 off Cley, Sept. 26th; 14 at Cromer Pier, Nov. 12th, 22 there on 19th and peak of 43 on 27th (CDR). Wash: Hunstanton–Heacham, maximum of 12, Feb. 7th (CBC).

30 Heron: Details of heronries as follows:

Borders of Wash: Snettisham, 11 nests. *Fenland:* Islington, 85 and Denver Sluice, 36 (AEV). *Breckland:* Thompson Water, 3 (AWK); Narford Lake, 7 (AEV, DW) and Diddlington, 2 (CRK). *Mid-Norfolk:* Kimberley Park, 22 (PRB). *Broads area:* General McHardy's wood, 4; Whiteslea, 4; Heigham Sounds wood, 6 (EP); America wood, Earsham, 15 (JWM); Fishley Carr Acle, 8 and Upton, 5 plus (RJ); Wickhampton, 31 (ETD, MJS); Buckenham, 42; Mautby, 15 and Ranworth, 43 (MJS); Ranworth marshes (Horning Hall), 3 (RB); Heron Carr Barton Broad, 4 (DS) and Belaugh Broad, 2 (RECD). *North:* Melton Constable, 8 (RPB-o); Holkham Park (Obelisk wood), 7; Gunton Park, 8 (*per* MJS); Wiveton Hall, 4 (CO) and Cley (The Hangs), one (WFB). Total 376 nests. None nested in Wretham Park (AEV).

36 Night Heron: Broads: An adult, Hoveton Great Broad, June 12th (CDJ). See *British Birds*, Vol. 53, pp. 159–160 regarding suspicion of night herons being escapes from Edinburgh Zoo. A colony established in Holland in 1946 may, however, be the source of the post-war records.

38 Bittern: North: One male booming at Selbrigg Pond. A new locality.

42 Spoonbill: Broads area: Breydon, singles on April 22nd–24th and June 4th; 2, June 25th (PRA) and one, Oct. 8th–Dec. 5th. Hickling, singles on May 30th and June 10th; 2, June 18th–25th. North coast: Cley, one, April 1st; one June 5th–12th when joined by a second bird, the 2 being last seen on 21st; one west July 31st and one, Oct. 16th. Holme, one, July 31st–Aug. 14th (CBC).

47 Garganey: First, Hardley, March 12th (MRR). A drake at Breydon, April 16th (PRA) and a pair on Sea Mere, May 13th (CG). Breeding season records from Cley (2 pairs), Horsey (one pair, May 14th), Cantley reservoir (2 pairs) and Hickling (4 pairs). Breck: 2 drakes, Thompson Water, May 28th (BSN).

49 Gadwall: Breck: Counts include 60 at Mickle Mere, Feb. 13th (CAEK); 30 at Thompson Water, April 10th (GMSE); 46 at Narford

Lake, Dec. 7th (DW) and 70–80 at Little Cressingham on 31st (GJ). Continues to increase in North/East Norfolk and breeding proved for first time at Hardley (MRR).

50 Wigeon: Fens: Ouse Washes, maximum of 5,000 in Welney area, Feb. 28th (CBC). Summer records include 4 at Hickling Broad, May 11th–20th with a drake till June 21st (GEB).

52 Pintail: East coast: Decreasing at Breydon and largest party was 27, March 13th (RHH). None bred there. Fens: Ouse Washes, maxima 1,200 in Welney area, Feb. 28th and 900, Pymore–Denver, Dec. 31st (CBC).

53 Shoveler: Largest numbers: Breck: 50 at Narford, Feb. 7th and Dec. 7th (DW). Broads: 50 at Hickling, March 26th (GEB). Fens: 250 on Denver Washes and 200 on Welney Washes, Dec. 31st (CBC).

54 Red-crested Pochard: North: The 1959 drake remained at Bayfield lake till Jan. 23rd. On Jan. 26th a drake was shot near Holt and has been preserved (RPB-O). See 1959 Report, p. 118 and *British Birds*, Vol. 52, pp. 42–56.

55 Scaup: Wash: Hunstanton, maximum of 50, Dec. 10th (CBC).

56 Tufted Duck: Breeding records only are given. Fens: 3 broods, Stow Bardolph (AEV). Breck: One brood, West Acre (DW); one brood, Didlington and 2 broods Cockley Cley (CRK); one brood Sturston Carr and 2 broods, Buckenham Tofts (GJ) and one brood, Thompson Water (AWK). North: One brood, Kelling Hall lake (RPB-O).

57 Pochard: Breck: Maximum of 50, Narford, Feb. 7th (DW). Only reported breeding at Rockland Broad where 2 pairs successful (JES, MJS).

58 Ferruginous Duck: One, Cawston Manor lakes, Feb. 17th–May 5th (CAW and other observers). See 1956–59 Reports.

60 Golden-eye: North coast: Maxima: Wells 40 on Feb. 17th; Burnham Overy, 50 on Feb. 24th (HH); Scolt, 46 on March 21st (RC) and a late duck there May 24th/25th. Breck: 2–3 at Narborough G.P. and Mickle Mere up to March 13th and from Nov. 6th. Wash: Hunstanton–Snettisham, maximum of 50, Feb. 28th. One with injured wing at Snettisham G.P. from Aug. 1st and one June 4th may have been same bird (CBC).

61 Long-tailed Duck: More than usual. East: One, Winterton, Nov. 7th (PRA). North: 1–5 at Titchwell, Brancaster, Wells, Blakeney and Cley up to Feb. 17th and from Oct. 10th, with 17 at

Gore Point, March 20th. Wash: Hunstanton-Snettisham, 18 winter records with maximum of 4 birds.

62 Velvet Scoter: East: Records include one dying at Yarmouth boating lake, March 13th (*per* RMB), and one, Breydon, July 24th (RHH). North coast: Recorded Jan.-April, Sept. and Nov. No party exceeded 12 in number except 50 at Wells, Feb. 17th and 30 there, March 18th (MH). Wash: Hunstanton-Heacham, recorded up to March 13th and from Oct. 22nd; over 50 and 100 on several occasions and 200, Jan. 17th (CBC).

64 Common Scoter: North/East coasts: No flock exceeded 300 Wash: 2,000 off Heacham, Jan.-March and during Dec. with maximum of 2,500 on Jan. 30th (CBC).

67 Eider-Duck: East coast: Yarmouth harbour entrance, 1-2, June 29th, Sept. 4th-Oct. 19th and Dec. 4th.

North coast: Brancaster-Thornham area: present all year, with 10-40 until Aug., when numbers reduced; 30 again by end Nov. and 17 during Dec. At Scolt, 4 considered flightless May 17th; 11 in a similar condition June 21st and 12 on 24th (RC, KGS). Up to 10 at Cley/Salthouse; 13 at Wells; 5 at Burnham Overy; 60 at Sheringham, Oct. 11th (PDK) and up to 50 at sea 5 miles off-shore at Wells and Burnham, July-Sept. (RPB-O).

Wash: Heacham/Hunstanton: over 300, Jan.-Feb. with 430 on Feb. 7th and still 200 on March 5th; 90 on Dec. 29th (CBC).

69 Red-breasted Merganser: East: A drake Yarmouth harbour, Dec. 10th (PRA, RWC) and 3 off Winterton next day (RCM). North: Late birds at Scolt, May 25th (one) and June 28th-July 2nd (2). Autumn records from Sept. 21st. No party exceeded 12. Wash: Hunstanton-Snettisham, 30-40 frequent in winter and maximum of 60, March 18th. A late bird at Snettisham G.P. June 12th (CBC). Fens: 2 on Ouse Washes at Welney, Dec. 31st (CBC).

70 Goosander: Recorded on coast at Cley, Wells, Holkham lake and Scolt and inland at Horsey Mere and Gunton Park up to May 1st and from Sept. 21st. No party exceeded 9. Breck: Thompson Water, 3 on Nov. 6th (CAEK); West Mere, Tottington, 2 on Dec. 27th (GJ); Narford lake, 17 on Feb. 7th; 22 on March 13th; 11 on Dec. 7th and 13 on 28th when 16 at nearby Narborough G.P. (DW, JSC). Fens: Welney Washes, maximum of 10, Feb. 28th (CBC).

71 Smew: North: A red-head, Jan. 5th-8th and a drake on 12th at Cley. Breck: One, Mickle Mere, Feb. 13th (CAEK). Fens: One, Welney Washes, Feb. 28th (CBC).

73 Sheld-Duck: Evening moult migrant records at Scolt: First signs June 19th when 3 flew N.W. 6 departed in a similar direction on 21st, 6 again on 25th and 3 on July 15th—possibly to a Wash assembly point. Real migration flights on July 7th—when flocks of 25, 31 and 21 heading east during evening (KGS).

76 White-fronted Goose: Breydon area: Late arrival and first party of 27, Jan. 15th, increasing to 100 by 22nd and then to a peak of 400 by the end of Jan. Last noted March 10th (RHH). North: Cley, an adult of the Greenland race, *flavirostris*, Nov. 8th–Dec. 4th.

77 Lesser White-fronted Goose: East: One in the Yare valley, with bean-geese, Feb. 4th, 7th and 13th (MJS). The fifth fully authenticated county record.

78 Bean-Goose (*A.a. arvensis*): East: Yare valley, 48 Jan. 9th increasing to 80 by Feb. 4th. This number remained till Feb. 13th, but none seen subsequently (MJS).

Pink-footed Goose (*A.a. brachyrhynchus*): Breydon area: 17, Jan. 24th; 39 very early arrivals, Aug. 18th; 27, Oct. 22nd–29th and 19, Dec. 18th–31st (RHH). North coast: 33, Stiffkey, Dec. 31st (HH). Wash: 1,200 off Wolferton, Jan. 24th and 300, Snettisham, Feb. 7th (CBC).

80 Brent Goose: North coast: Blakeney harbour, maximum of 7–800, Jan.–Feb. declining to 200 in March and last (12) on April 24th. 8, Sept. 2nd and 4 on 18th; 400 during Nov. and peak of 1,250 by end of year. Brancaster harbour, maximum of 400, Jan.–Feb.; 200 in March and last 2, April 11th. First return (30) on Nov. 7th, 300 by Nov. 30th and 550 by end Dec. Wells harbour, up to 160 in January, 300 on Feb. 1st declining to 180 by 17th and 30 on March 18th. 357, Dec. 22nd onwards (HH).

Wash: Hunstanton, maximum of 100, Feb. 27th and 60, Nov./Dec. (CBC).

85 Whooper-Swan: North: Cley, one, Jan. 6th joined by another next day; Blakeney, 2, Oct. 15th/17th (HH). Breck: West Mere Tottington, 2, Dec. 25th (GJ). Fens: Hilgay Washes, 2, Dec. 3rd; Welney, 2 on 31st; Wisbech S.F., 3, Jan. 10th (CBC). Wash: Heacham–Snettisham, maximum of 8, Jan. 10th (CBC).

Records received of herds of swans claimed as whoopers during the period Nov. 7th–9th have been withheld. In our view these birds were Bewick's travelling westward to the Washes. The first Bewick's reached the Ouse Washes Oct. 29th (CBC). Bewick's swan is now much more common than the whooper swan and there have been many cases of misidentification in recent years. The best identifying features of Bewick's are its relatively short, thick, neck

and its small head with short, shallow bill. The calls of Bewick's and whoopers vary and identification by voice alone is not recommended to inexperienced observers. See "Bewick's Swans in the British Isles in the Winters of 1954-55 and 1955-56" (*British Birds*, Vol. LII, pp. 393-416).

86 Bewick's Swan: North coast (Holme, Blakeney and Cley) and East coast (Breydon). Recorded up to March 25th and from Oct. 30th. Maxima: Cley, 62 arrived from the south and departed westwards, Nov. 8th; Breydon, 12 on March 19th (DVB), 9 on Nov. 8th, 15 on Dec. 11th (PRA) and 12th (RIH). Breck: Thompson Water, 7 on Jan. 17th (GJ). Also recorded inland at Sea Mere where 13, Jan. 24th (CG, MJS). Fens (Ouse Washes): Welney-Denver, 77 on Feb. 21st and 44 on Dec. 31st. An injured bird summered (for the third year) at Welney Washes (CBC).

91 Buzzard: North: One, injured, at Castle Acre, July (HB). Singles at Brinton, March 20th (RPB-O) and Scott, June 13th (KGS).

92 Rough-legged Buzzard: Unusual number towards end of year. East: 2, Somerton, Oct. 2nd (JES). One shot mid-Nov. "within 6 miles of Norwich" was examined by FEDD-B. North: Cley/Salt-



house, one, Oct. 19th, Nov. 20th, 27th and from Dec. 16th-31st. Kelling, one on several dates, Dec. 12th-31st (RPB-O, WFB). Holme, one, Oct. 18th (AJH). Wash: Hunstanton, one over the golf course, Oct. 16th (CBC).

93 Sparrow-Hawk: Practically non-existent in many areas. Keeper's "gallows" watched regularly in north Norfolk by RPB-O have shown none for a long time.

95 Kite: North: Cley, one, April 8th (WFB).

98 Honey-Buzzard: North: An immature found trapped at Gresham had to be destroyed, Sept. 17th. Skin preserved at Norwich Castle Museum. A much darker bird on several occasions between Sept. 20th-Oct. 28th at Selbrigg. Watched on Oct. 1st,

digging out a wasps' nest (RPB-O). Holkham, one in from the sea, Sept. 19th (RJJ).

99 Marsh-Harrier: Broads: No successful nests. Many records for coastal marshes, between Thornham and Cley, Feb.–May and Aug.–Oct. including 3 at Cley, May 21st.

100 Hen-Harrier: North coast: Scolt, pair, Jan.–March with the female till April 22nd and one, Oct. 2nd–31st. Cley/Blakeney/Morston, singly on many dates, Jan. 24th–April 21st with one north out to sea May 2nd; singly Oct. 19th, Nov. 12th and 14th. Otherwise only recorded on Wash at Snettisham (Feb. 14th–CBC) and at Hickling Broad (Oct. 26th).

102 Montagu's Harrier: None bred. Singly on 9 dates on North coast at Scolt, Morston, Blakeney, Cley and Kelling and inland at Haddiscoe and at the 1957–58 Breck breeding site between April 29th and Sept. 9th. Wash: One, Terrington, Aug. 5th (CBC).

103 Osprey: Broads area: Hardley, one on April 23rd (MRR). Aylsham–Cawston area, one, Sept. 17th to mid-Oct. (FBE).

104 Hobby: North: Singly at Blakeney, May 6th and July 1st (HH), at Cley, Aug. 11th and at Holme, Sept. 16th (CBC). Broads: One at Rockland, May 13th (PDK, PAGR). Breck: Singly at Thompson Water May 28th (BSN) and at Narborough, Aug. 16th (CRK). Also inland near Reepham where one found dead June 15th (*per* EGH) and skin in Norwich Castle Museum.

105 Peregrine Falcon: Coastal records from Hunstanton, Holme, Scolt, Blakeney and Cley; in the Breck at Stanford and on the Ouse Washes at Denver.

107 Merlin: Coastal records from Sandringham, Scolt, Cley, Blakeney, Horsey and Winterton.

108 Red-footed Falcon: North: Cley, a female eastward May 13th (RAR, AJ, GT, RC).

117 Quail: A dead female Brancaster Staithe, May 15th (RC) is now in Bolton Museum. Calling at Binham, May 17th and June 13th (RS) and July 1st (HH); 2, Happisburgh, June 15th–25th (GWC); heard at Haveringland, May 20th (RPB-O); 2 calling in separate localities at West Barsham, Aug. 5th (JSA) and one calling at Ditchingham on same date (MS).

119 Crane: North: 2 at Brancaster, April 28th/29th (RC, RAR). East: One at Breydon, May 4th and 8th (RHH).

- 121 Spotted Crake:** North: One, Blakeney, Aug. 19th (HH).
- 124 Little Crake:** North: The 1959 Brinton bird observed Jan. 6th, 8th and 13th (RPB-O). See 1959 Report, p. 121.
- 131 Oystercatcher:** Breeding records: North: 10 nests Cley area, 78 at Blakeney Point, and 16 on south side of harbour, 7 at Stiffkey, 7 at Wells, 2 at Burnham Overy and 90 at Scolt. East: Single nests at Breydon and on arable land at Runham.
- Large numbers: North: Thornham high tide roost, 3,500 on Oct. 26th; Holme, 3,500 on Aug. 10th, 4-5,000 on Sept. 7th and Nov. 20th. Wash: Snettisham low tide counts include 3,000 on Oct. 16th and Dec. 27th; Hunstanton, 5,500 on Nov. 19th (CBC).
- 134 Ringed Plover:** Broads: A pair bred at Hickling—a new site. Wash: Records seldom exceeded 50 but increase towards end of Aug., with 600 at Terrington on 23rd and 200 at Snettisham on 28th (CBC).
- 135 Little Ringed Plover:** Fen borders: 2 pairs, with 3 young, at one site between July 20th and Aug. 3rd. First county breeding record.
- Fens: Wisbech S.F. maximum was 2, Aug. 23rd and 29th (CBC). North: Singly at Blakeney, Sept. 23rd and at Stiffkey, Oct. 3rd (HH). East: One, Cantley reservoir, Aug. 10th (MJS).
- 136 Kentish Plover:** North: Cley, singly on May 1st and June 5th. Fens: One on Cambs/Norfolk boundary, April 18th (CBC).
- 139 Grey Plover:** Wash: Nene-Ouse mouth, 800 on May 10th and 400 on Aug. 7th (CBC). Autumn maxima: North: 80 at Blakeney, Sept. 16th-27th and 90 at Stiffkey, Oct. 3rd (HH). East: 70 at Breydon, Oct. 1st (PRA).
- 140 Golden Plover:** The larger flocks include: 300, Holme, March 20th (CG); 300, Beeston, Jan. 6th-20th (WGB); 220, Hingham, Nov. 11th (ALB); 2,000, Cawston, Nov. 30th (*per* WFB) and flocks of 300 and 500 at Horsey, Dec. 10th (GC).
- 142 Dotterel:** North: Cley, one, May 7th (WFB); an adult and a juvenile, Aug. 31st-Sept. 7th (CO); one, Sept. 21st (AHD).
- 143 Turnstone:** Larger numbers: North: 80 at Wells, Feb. 17th and 80 at Blakeney, May 10th. Wash (E. side) 150, March 12th and Oct. 16th (CBC).
- 147 Jack Snipe:** Autumn arrival from Sept. 15th at Cley where marked arrival 28th/29th. First at Winterton, Sept. 28th (JLFP).

151 Whimbrel: North/East coasts: Spring passage from April 3rd (RHH) and autumn return from July 9th. Heaviest passage during Aug. when 110–120 at Scolt on 4th (RC) and 100 at Blakeney next day (HH) and 100 west at Cley on 21st. Last, one at Blakeney, Oct. 23rd (LL-E). Wash: Nene-Ouse mouth, maximum of 200, May 9th and 150, Aug. 26th (CBC).

154 Black-tailed Godwit: Records from usual North coast, Broads localities and Breydon between March 6th and Oct. 19th. Largest parties: 16 at Stiffkey, May 16th (HH); 8–12 at Hickling, Aug. 28th–30th (EP) and up to 17 at Breydon, Aug. 11th–Sept. 1st. Wash: Winter records from Wootton (15, Jan. 16th) and Lynn Channel (one, Feb. 28th–CBC). Fens: Up to 13 in autumn at Wisbech S.F. (CBC).

155 Bar-tailed Godwit: East/North coasts: Spring records at Breydon include 22, April 24th (GRS) and 24, May 4th (RHH). Heavy westward passage at end of Aug. when 100 at Cley on 31st. At Scolt over 1,300 westward Aug. 30th–Sept. 1st (RC). Wash: Hunstanton, maximum flying out at high tide 906 on Feb. 27th. Snettisham, 1,000 on Jan. 10th (CBC).

156 Green Sandpiper: Recorded all months except Jan. Winter records from Wells, Gooderstone, Southburgh, Cranworth, West Acre, Helhoughton, Hunworth and Breydon.

157 Wood-Sandpiper: North (Holme–Cley) and East (Horsey, Hickling, Breydon and Cantley): Spring passage of 1–3 between May 4th and June 10th. Autumn return from July 23rd till Sept. 24th. Maxima: 4, Cantley, Aug. 24th–29th; 7 at Cley, Aug. 27th and 10 there Sept. 17th. Fens: Wisbech S.F., maximum of 10, Sept. 4th (CBC).

162 Spotted Redshank: North coast (Holme–Cley), spring passage of singles March 16th–June 7th. In autumn, 1–4 on many dates Aug. 6th–Oct. 3rd with 5 at Cley, Sept. 23rd and odd birds until Nov. 28th. Broads: Horsey, one, Aug. 28th (GC). Hickling, 1–3, May 7th to June 9th and 1–2, Aug. 29th to Sept. 7th (EP, GB). East coast: Breydon, one, Jan. 13th (GRS), singly on 7 dates, Sept. 6th–Dec. 17th with 6 on Oct. 1st (PRA). Wash: Winter records include singles at Snettisham, Dec. 4th and at Hunstanton on 29th (CBC). Fens: Wisbech S.F., maximum of 20, Sept. 26th (CBC).

165 Greenshank: Spring passage from April 14th (maximum 6 at Breydon on May 12th). Main autumn return throughout Aug./Sept. with maxima of 14 at Cley, Aug. 10th; 15–20 at Holme, Aug. 10th–28th (CBC) and 20 at Blakeney, Sept. 5th (HH). Late birds through Oct. and until Nov. 19th.

169 Knot: Wash/North coast: Flock roosting at Thornham at high tides and feeding at Snettisham estimated at 27,000–35,000 on several occasions, Oct. 31st–Nov. 20th (CBC).

170 Purple Sandpiper: North coast (Thornham–Cley): Records of 1–6 birds in all months except Jan., May–July and Oct. Wash: Hunstanton, recorded up to April 3rd and in Nov./Dec. with maximum of 7 on Feb. 28th (CBC). East coast: Yarmouth harbour, one filmed Sept. 27th (RWA).

171 Little Stint: North coast: Spring passage at Cley and Salthouse: 1–3, May 11th–26th, 6 on June 4th when displaying and singing, decreasing to 3 on 6th, singly 19th and 27th. Autumn passage Aug. 14th–Oct. 23rd with following peaks at Cley: 35 on Sept. 3rd; 24 on 16th; 50–60 on 21st and over 100 from 22nd till end of month. At Holme, peak of 22, Sept. 18th and at Wells, 25 on 25th (NA, HPC). East: Breydon, one May 10th (MJS) and in autumn 1–5 from Sept. 1st–Oct. 16th (PRA). Cantley, 3 on Sept. 6th (MJS). Broads: Hickling, 3, June 26th; singly on Aug. 3rd, 4th and 15th with 6 on Sept. 27th. Fens: Wisbech S.F. maximum of 14, Sept. 18th (CBC).

173 Temminck's Stint: Broads: Hickling, one, May 30th (EP). North: Cley, one, Sept. 7th (WFB).

176 Pectoral Sandpiper: North coast: Cley, one on Aug. 28th (RAK) and Sept. 15th–22nd was joined by a second bird for the last four days of its stay. One again at Cley, Oct. 2nd–8th (WFB, AHD). Fens: Wisbech S.F.: one, Sept. 17th–18th (CBC).

179 Curlew-Sandpiper: North/East coasts: Spring: Singly at Breydon, April 25th (PAGR) and at Cley, May 1st and June 5th. Autumn passage Aug. 5th–Oct. 5th when peaks of 22, Aug. 16th and 10, Sept. 15th at Cley; up to 4 at Holme, up to 2 at Breydon and singly at Cantley. Fens: Wisbech S.F., maximum of 12, Sept. 17th (CBC).

181 Sanderling: North coast: Largest flocks reported at Holme and Thornham where 300 on Oct. 9th (CBC); and at Scolt where 200 on May 11th/13th, 250 on 16th and 150, Dec. 19th (RC, KGS).

184 Ruff: North coast (Holme–Salthouse), Hickling Broad and East coast (Breydon and Cantley): Winter records from Wells where 2, Jan. 25th (HH) and Cley where one throughout Jan./Feb. Spring passage from early March with maxima of 9–10 at Hickling, May 9th/10th and 11 at Cley (including 3 males in breeding plumage), May 10th. Autumn: First peak end Aug. when maxima of 36 at Hickling (Aug. 30th) and 15 at Cley (Sept. 1st). Heavy movement began at Cley, Sept. 19th reaching 100 on 21st and 150 from

22nd till end of month; still 24 on Oct. 2nd. This movement coincided with similar arrival of little stints and were doubtless Arctic birds. Fens: Wisbech S.F., maximum of 90, Oct. 16th (CBC).

185 Avocet: North coast: Blakeney, one, March 19th (co) and 2, Sept. 27th (HH). Weybourne, one, April 3rd. Cley, 2, April 6th; one from 16th–20th; 2, May 6th; one, July 9th/10th and a late bird, Dec. 1st–10th.

187 Grey Phalarope: North: Singly at Brancaster, Sept. 16th and 21st (RC); at Holme, Nov. 6th (CBC) and at Sheringham, Dec. 4th (EMCE). Broads: Hickling, one, Oct. 11th–20th (EP, GEB).

189 Stone-Curlew: Breck: Largest autumn gathering 13 at Weeting, Aug. 7th (CNA, HPC). North: High proportion of nests on arable land are destroyed and birds forced to desert by agricultural processes: 2 nests, South Creake (sugar-beet singling); one, Barningham (spraying) and 2 Langham and Cockthorpe (rolling). Most nest again hence tendency for birds of the farm-lands to stay late—several early Oct. this year (RPB-O).

193 Arctic Skua: North/East coasts: One at Cley, Jan. 6th/7th. Autumn passage from last week July till Oct. 26th with stragglers till Nov. 6th. Maximum, 35 off Cley, Sept. 6th.

194 Great Skua: North coast (Holme–Cley): Autumn passage of 1–3 birds, Aug. 26th–Oct. 17th. Late birds at Holme Nov. 6th (2) and 27th (12–CBC).

195 Pomatorhine Skua: North coast: Cley, singly on 7 dates, Aug. 24th–Oct. 7th. Weybourne, one, Aug. 28th (HR).

196 Long-tailed Skua: North coast: Cley, singly on Sept. 3rd, 5th, 6th, 9th and 17th.

198 Greater Black-backed Gull: Largest numbers: East: 780 at Breydon, Nov. 8th (PRA). North: 700 at Stiffkey, Oct. 10th (HH).

199 Lesser Black-backed Gull: North: Cley, 100 moving west, Jan. 4th (RAR). An unusual winter number.

200 Herring-Gull: North: Blakeney Point, an adult of the Siberian race *heuglini*, Jan. 4th (MFMM).

202 Glaucous Gull: North coast (Scolt–Cley): 8 records of singles up to March 14th and from Oct. 24th.

205 Mediterranean Black-headed Gull: North: A first winter bird at Salthouse, Sept. 18th (DKB, ICTN). East: A second year bird, Winterton, Sept. 24th (MJS, SFS), 25th (PDK), 26th (GRS) and again on Oct. 9th (MJS).

207 Little Gull: North coast (Holme-Cley): 2, Feb. 10th; singly May 11th-14th; 2-3, June 4th and 2 on 16th; 1-2 on 14 dates between Aug. 21st and Sept. 20th; 1-2 on 4 dates Oct. 10th-30th and one, Dec. 22nd. East: Yarmouth, one dying, Dec. 10th (PRA, RWC).

208 Black-headed Gull: Number of *pairs* at breeding localities: North: Scolt, 30 but no young reared (RC); Burnham Overy, 15; Stiffkey, 63 and Morston-Blakeney saltings, 180 (HH). Broads area: Alderfen, 226 (ETD, MJS), Surlingham, 15 (EAE). Inland: Scoulton Mere, 200 (GJ). Fens: Wisington B.F., 400 (CBC).

209 Sabine's Gull: North: Cley, one, Aug. 3rd (RGH).

211 Kittiwake: North/East coasts: Summer counts: Scroby, 150 on July 23rd (RHH). Scolt, 60, July 18th; 80, 21st; 100, 24th and 74 on 28th (RC, KGS).

212 Black Tern: First spring birds May 7th and an exceptional eastward passage between then and May 14th. The following selected records are for this period: Breydon: 6 flights totalling 67 during eve of 12th (MJS). Hickling Broad: 10 on 8th, 30 on 9th and 22 on 10th whilst on 12th/13th frequent parties of 15-20 moving east and at least 100 passed on each of these days; by the late eve of 13th, 200 had collected (GEB, EP). Rockland Broad: 30 on 9th, 20 on 10th, 12 on 11th, 20 on 13th and 17 on 14th (MJS, PDK). Stourton Water, Cawston: 80 on 14th and same day 35 over farm pond at Holt and up to 70 over artificial lakes at Edgefield (RPB-O). Cley: 3 on 8th, 50 on 9th, 162 on 10th, 100 on 11th, 372 on 12th, 30 on 13th and 12 on 14th (CO). Scolt: 22 on 9th and 12 on 12th (RC).

Autumn passage began July 24th, but apart from 27 at Cley on Aug. 28th, no party exceeded 17. Last, Cley, Oct. 9th.

213 White-winged Black Tern: North: Edgefield lake, one with black terns May 14th. Photographed by RPB-O and although not suitable for reproduction they readily confirm identification.

217 Common Tern: First, Cley, April 10th. Last (Common/Arctic) at Holme, Nov. 6th (CBC) and at Blakeney, Nov. 7th, 11th (PNK) and 16th (HH). Breeding records include: North: Scolt, 520 nests and Blakeney Point, 918 nests. East: Scroby Sands, 270 nests. Broads: Ranworth, 9 pairs summered, 5 nests with eggs and 4 young, June 22nd; Hickling and Ormesby, 3 nests each. At Surlingham Broad, 3 pairs summered.

Late summer build-up noted at Scolt during second half July with maximum of 3,000 on 18th (RC) and at Holme where 2,000, Aug. 12th and 2,500 on 28th (CBC).

218 Arctic Tern: North coast: Recorded from April 29th. One pair nested, unsuccessfully, at Scolt.

219 Roseate Tern: North (Scolt-Blakeney): 1-2 on several dates, May 14th-Aug. 29th. None known to have bred.

222 Little Tern: Recorded April 15th-Sept. 26th. Breeding records of *pairs* include: North: Hunstanton-Holme, 13 (CBC); Scolt, 12; Burnham Overy, 4; Wells, 2; Stiffkey, 5; Blakeney Point, 97 and 10 on south side of harbour. East: Up to 50 pairs along 4-5 miles of shore between Hemsby and Horsey, May 28th (GRS), but comparatively few breeding successes.



White-winged Black Tern

223 Sandwich Tern: Recorded March 27th-Oct. 31st when 2 at Holme (CBC). Breeding records: Scolt, 2 nests; near Wells, 3-400 pairs and Scroby Sands, 327 pairs. Few young reared. Spring peak at Cley was 500 on May 1st prior to departure to breeding grounds. Influx of 450 including 40-50 juveniles at Scolt end July (RC).

226 Little Auk: Wash: Snettisham G.P., one caught, Jan. 17th (CBC). North coast: Cley, 2 west, Nov. 6th. 3 picked up dead inland after gales, Dec. 4th: at Bale, Snoring and Swaffham (RPB-O). East: Waxham, one, Oct. 18th (JLFP, REP) and parties totalling 40 off Winterton, Nov. 7th (PRA).

229 Black Guillemot: North: Wells harbour, one Dec. 31st, 1959, and Jan. 1st (HR). Cley, one, Jan. 5th. East: Winterton, one exhausted July 16th (DELH, JES) died 2 days later. It had been ringed as young in Sweden June 22nd.

230 Puffin: East: One dying, Gorleston beach, Jan. 11th (*per* MJS). North: Singles at Cley, Jan. 6th and at Blakeney and Burnham Overy, Aug. 31st (HH, MEY).

234 Wood-Pigeon: East: Yarmouth, large flock coming in from sea at dawn Nov. 18th and another flock of 4-500 observed from a fishing boat a mile off-shore there on 26th (RHH). Over 5,000 nests

claimed as destroyed by North Walsham & District Rabbit Clearance Society in an area of 20,000 acres.

Collared Dove (*Streptopelia decaocto*): Breeding season distribution: North: Gunton, 2-8 with turtle-doves at duck farm June 14th-July 28th (EAS). Cromer, at least 6 pairs bred prolifically. Overstrand (originally Site A), one May 6th (TMC). Cley, one July 19th-28th (RAR). Aylmerton, one pair end of June. East: Yarmouth, single pairs bred successfully at 2 sites. West: Hunstanton, one pair bred successfully.

Other interesting records: 2 very tired birds in pines, Blakeney Point, May 4th (PG); 3, Burnham Market, Sept. 3rd (AM); 18 together, East Runton, Sept. 15th (KMN); up to 8, Overstrand, Oct.-Nov. (IFK) when one at Caister (WJW) and 2 Brancaster (RC).

237 Cuckoo: A very late juvenile at Haddiscoe, Nov. 14th-17th (RWC).

246 Little Owl: Blakeney Point, one, Oct. 6th.

248 Long-eared Owl: Only one breeding record received: at least one pair nested successfully Salthouse Heath. Fens: Dead bird at Welney in spring (CBC). 1-2 in *Suaeda* bushes, Blakeney Point, Oct. 16th.

249 Short-eared Owl: North/East coasts: Records each month, up to 4 together, but no breeding records.

255 Swift: First in spring at Breydon, April 23rd (RHH) and at Breydon, Cley and Blakeney on 25th. Ten records during second half of Sept. and following relate to very late birds in Oct.: Wells on 20th and 26th; Cley on 3rd and 27th; Blakeney Point on 3rd; Scolt on 6th and Wisbech S.F. on 1st (CBC).

256 Alpine Swift: East: Breydon, one, May 12th (MJS). Tenth county record.

259 Bee-eater: North: Cley, one westward April 21st (RAR) and 2 at Blakeney later same day (WFB, DMM) which remained till 26th, with a single bird on May 2nd (HH).

260 Roller: East: One, Acle New Road marshes near "Stracey Arms," June 4th (RHH). First county record since 1938.

261 Hoopoe: East: Singly at Horsey, May 10th-12th (AB, GC); at How Hill, Ludham, on 11th (MRB); at Glandford on 19th (RH); and at Sea Palling, June 4th (*per* EP). North Singles at: Thornham, April 25th-27th (RC); Bircham, May 14th-19th (RC) and at Burnham Deepdale on 15th (RC, KGS); Brinton, Aug. 21st-23rd (*per* MS).

265 Wryneck: North: Burnham marshes, one, Sept. 2nd (RPB-O) and Blakeney Point, singly on 5th and 16th. One calling at Bawdeswell April 4th-7th (Q. E. GURNEY *per* RPB-O).

273 Shore-Lark: North coast: Recorded at usual localities between Scolt and Salthouse up to April 22nd (maximum 24 at Cley, Feb. 22nd) and from Oct. 2nd (maxima 14 at Cley and 19 at Scolt end Dec.).

274 Swallow: Twelve Nov. records with latest at Holkham on 13th and at Blakeney on 16th. Also one at Gorleston, Dec. 2nd (PRA).

276 House-Martin: Twelve Nov. records and following relate to Dec.: Cromer on 1st (CDR) and 2nd (sw), California and Hingham on 2nd (RWA, ALB), Thorpe on 4th (AGH), Wymondham College on 5th (MG, PRB) and Horsey on 8th (AB).

277 Sand-Martin: Exceptionally late: 2, Cromer cliffs, Dec. 1st (RPB-O) and one at Happisburgh till Dec. 25th (MNM).

281 Hooded Crow: Scarce in North coast areas particularly at end of year when increase noted on East coast and 80 at Caister, Dec. 1st-5th (PJLH). Breck: 14 at Bodney, March 17th (GJ) is only record.

294 Long-tailed Tit: North: Unusual numbers on coast, particularly in Oct. On 16th, flocks common between Thornham and Heacham and next day 7 at Blakeney Point. Several "retraps" at Cley of ringed birds proved that 3-4 parties were involved in what appeared to be a limited circulation through the Cley district. Wash: 2 flocks flew out from Snettisham high over the sea, Oct. 13th (CBC).

295 Bearded Tit: Broads area: Breeding records from Hickling/Heigham Sounds/Horsey area (at least 85 pairs), Barton (3 pairs) and Waveney valley (at least 2 pairs). Wintering birds still present at Rockland, March 20th, Ormesby, April 18th and Surlingham on 22nd.

North: Cley, 25 breeding pairs. At Titchwell, 20-25, Feb. 21st (CG). At Thornham, one seen and others heard Jan. 2nd and recorded again from Oct. 9th when 20. 6-10 moved to Holme Broadwater by 16th, 12 by 22nd and 1-4 by end of year (RC, CBC). At Brancaster, 4-8 between Nov. 14th and 28th (RC). At Burnham Overy 2 on Sept. 24th (III). At Selbrigg/Hempstead Pond, parties up to 8, late Nov. and Dec. (RPB-O).

Wash: Snettisham G.P. one, Oct. 30th (CBC).

302 Fieldfare: Still 100 at Marham, April 20th (DW) and single stragglers at Scolt (KGS) and Cley May 13th and at Holme on 15th (CBC). First in autumn one at Holme, Sept. 16th (CBC).

304 Redwing: Autumn: an early one, Blakeney Point, Sept. 1st. Main arrival (North/East coasts) began Sept. 28th. Second wave from Oct. 16th and by end of month, and in Nov., very large numbers in Breck. At Cranworth, 3-5,000 roosting in one wood (ALB).

307 Ring-Ouzel: North coast (Scolt, Wells, Blakeney, Cley, Salthouse and Cromer): Spring passage, March 13th-May 20th with maximum of 6, Salthouse Heath May 20th. In autumn, recorded Sept. 19th-Nov. 1st with maximum of 9 at Cley, Sept. 29th. Fens: Wisbech S.F. one, Oct. 1st (CBC).

311 Wheatear: Late autumn birds include 3 at Weybourne, Oct. 28th and singles at Holme on 29th, at Hunstanton, Nov. 6th and again at Holme on Nov. 20th. Also at Breydon, Nov. 3rd-5th and on 20th.

317 Stonechat: Autumn/winter records of 1-5 birds along North coast (at 6 localities) and on East coast at Horsey, Winterton, Gorleston and Haddiscoe. Maximum 7 at Winterton, Oct. 2nd (JLFP). Fens: Denver, one, Dec. 25th (CBC).

One pair bred successfully at Horsey. Another pair summered at Hemsby (DELH, JES), but no proof of breeding.

320 Redstart: North: Pairs during June at West Runton, High Kelling, Bayfield, Glandford, Letheringsett (HH) and Weybourne (RAR). Breck: Bred at Merton, Little Cressingham, Stanford and West Tofts (GJ, CRK).

321 Black Redstart: Norwich: First noted May 10th in St. Andrew's Church area and a nest, with 6 eggs, found June 6th. No young reared. The presence of a second pair suspected (EWM and other observers). Birds remained in area till Oct. 22nd (ETD). Another pair arrived in the city centre June 15th and quickly began nest building. No eggs laid although male stayed till 21st (MJS). Yarmouth: 2 males singing May 4th-18th (RHH) and a pair reported to have reared 4 young (*per* RWC).

Migration: North coast: (Hunstanton-Salthouse), 1-3 birds at usual sites April 1st-May 23rd (when 3, Blakeney Point) and from Sept. 7th-Nov. 16th (with maximum of 3 Blakeney Point, Sept. 24th). Elsewhere, singles at Rackheath, March 26th (PADH), at Horsey on 28th (GC), at Marham, Oct. 29th (DW) and at Briston, Nov. 1st.

- 322 **Nightingale**: Spring arrival from April 10th (co).
- 324 **Bluethroat**: North: Scolt, one, Oct. 6th (RC). Cley/Blakeney Point, 1-2, Sept. 16th-22nd with 8 on 20th and 1-2 on 29th (3 ringed). East: Winterton, one, Sept. 23rd (JLFP).
- 333 **Reed-Warbler**: An early bird at Cley, April 17th. Last, Oct. 23rd:
- 340 **Icterine Warbler**: North: Scolt, a male singing, May 20th (RAR, RC) was ringed; Blakeney Point, a first-winter bird Aug. 6th/7th (PW, CO) was ringed; Holme, one, Sept. 11th (CBC); Cley, a first winter bird on 12th (DW, LM, RAR) and Holkham, one on 23rd (RJJ).
- 344 **Barred Warbler**: North: Holkham dunes, one Aug. 2nd and Burnham Overy, 2 on 15th, RPB-o). Blakeney Point, singles, Sept. 2nd-4th (ringed-co), 6th and 13th (co) and 18th (HH). Cley, one, Sept. 25th-29th (ringed-co). All juvenile birds.
- 351 **Subalpine Warbler**: North: Blakeney Point, a first summer male ringed May 22nd (co). Third county record.
- 356 **Chiffchaff**: Early spring records include 2-3 at Cley throughout March from 2nd (co) and one at Westwick on 13th. October records include Thornham and Cromer on 16th and Blakeney on 17th and 30th.
- 357 **Wood-Warbler**: North: Breeding season records: West Runton woods, 4 pairs; Upper Sheringham woods, 2 pairs; Glandford woods, one singing; Hempstead woods, 2 singing and High Kelling, 2 (HH).
- 365 **Firecrest**: North: Blakeney Point, singly on April 19th (DAW) and Sept. 24th (BLS). Blakeney, one, Sept. 27th (HH). East: Ludham, one, Oct. 17th (JLFP, REP).
- 366 **Spotted Flycatcher**: North: A late bird at Holme, Oct. 23rd (CBC).
- 368 **Pied Flycatcher**: North/East coasts: Spring: Singly inland at Corpusty April 22nd (JML) and at Cawston, May 4th-8th (CAW); 10 at Horsey on 10th (GC); 3 at Cley, on 12th and singles there 14th, 20th/21st (co) also one at Scolt on 20th (KGS). One at Blakeney, May 12th and 2 there on 31st (HH).

Autumn peaks: 15 at Cley, Sept 9th (co) and 15-20 at Holme on 16th (CBC).



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Twenty-five heronries were occupied in the county in 1960 with a total of 376 nests. The largest heronries are at Islington, Buckenham and Ranworth. The previous year's figure was a record one of 430 nests, including the high total of 134 at Islington.



In the winters between 1956-57 and 1959-60 there were four successive invasions of waxwings to Norfolk, a series unprecedented since records have been kept. These studies of Waxwings in north Norfolk indicate their main foods: guelder rose berries, apples and *Cotoneaster* berries. The apple (in the upper right plate) was $2\frac{1}{2}$ inches in diameter and was eaten in four short visits. Another waxwing ate some 390 *Cotoneaster* berries (roughly the equivalent of its own weight) in $2\frac{1}{2}$ hours (photos: R. P. Bagnall-Oakeley).



370 **Red-breasted Flycatcher**: North: Blakeney, one, Sept. 18th (HH). Blakeney Point, a first winter bird ringed Sept. 27th and a second bird there, Oct. 1st.

374 **Richard's Pipit**: North: Cley, one on Sept. 19th (RAR). Observer familiar with species.

375 **Tawny Pipit**: North: Salthouse, one, May 15th–18th (CBC and many others). Gore Point, one, Sept. 25th/26th (CBC).

379 **Water-Pipit** (*A.s. spinoletta*): North: Cley, the Dec. 1959 bird proved to be a male and was joined by a female in Feb. Both assumed full summer plumage before departing April 3rd. One reappeared in the identical place, Dec. 25th (CO). Blakeney, one, Jan. 20th–March 30th, when in summer plumage (HH).

381 **Grey Wagtail**: Breeding season records: East Bilney, one nest (JHS); Hilborough Mill and Narborough Mill, single pairs but no nests (DW); Horning Lock, one nest (CA); Brinton, Letheringsett and River Bure above Corpusty—single nests at each locality (RPB-O). Usual winter records.

382 **Blue-headed Wagtail** (*M.f. flava*): North: Pair, Salthouse marshes, June 27th and July 12th (HH). Fens: Welney, a male, July 8th (CBC).

383 **Waxwing**: East: One dead, Caister, Feb. 18th (HD). North: Hempstead, one, Jan. 29th (HH), Cley, one, Sept. 27th and Oct. 22nd with 2 there, Nov. 20th and later at Wiveton where 6 Dec. 1st–11th, 4 from 12th–23rd and one till end of year. Holt, one, Nov. 27th and Thornage, 4 on 29th (RPB-O). Blakeney, 2, Dec. 29th–31st (HH).

384 **Great Grey Shrike**: Singles as follows: East: Waxham, Oct. 18th and 27th (JLFP) and at Horsey (probably same bird) on 31st (GC). North: Blakeney/Morston, Jan. 20th–Feb. 15th (HH). Salthouse Heath, Feb. 4th. Blakeney Point, Oct. 1st/2nd and Cley on 15th. Salthouse Heath, Dec. 29th–31st. Holme, 2–3, Oct. 2nd and one, 30th–31st (CBC). Holkham Meals, Oct. 24th (LL-E) and Brancaster Common, Dec. 17th (RC). West: Necton–Little Dunham Road, Nov. 1st (WGB).

385 **Lesser Grey Shrike**: North: Salthouse Heath, one, May 15th/16th (ECJS). A convincing verbal description, stressing the conclusive point of the black forehead, given to RAR at the time.

386 **Woodchat-Shrike**: Unusual number in May on North coast: Salthouse Heath, one, 16th/17th (ECJS, DMB and others); Blakeney Point, one, 20th–22nd (ECJS, CO); Thornham, one, 26th (CBC) and Cley, one, 26th (CO-ringed).

388 Red-backed Shrike: Spring arrival from May 5th. Breeding season distribution: Wash: Hunstanton, 2 pairs (CBC). North coast: total of 11–12 pairs at 7 localities. Breck: only one pair reported (GPD). Broads: One pair (*per* EF). Central: 2 pairs bred at usual site near Norwich (RJ).

391 Hawfinch: North: Records from Hempstead, Wiveton, Cley, Blakeney, West Runton, High Kelling, Holkham Park (where 12, Jan. 2nd–RP), Brinton, Holt and Weybourne. West: Gooderstone. Breck: Merton (one pair bred). Central: Norwich (Newmarket Road).

394 Siskin: A remarkable year with records from 54 localities up to April 24th and from Sept. 19th. The largest flocks only are given: North: 300 at Kelling, Sept. 22nd. East: 350, Winterton Decoy wood, Sept. 23rd (JLFP). Breck: 30, Watton, Jan. 10th and 60, Saham, Feb. 21st (GJ); Narford, 30, Oct. 2nd and 30–40 on 16th (GMSE, AEV). Central: Flocks of 30–40 totalling well over 100 birds at Runhall, Coston, Thuxton, Hardingham and Reymerston area during Feb. (EQB).

396 Twite: North coast: Autumn records from Oct. 9th. Maxima (Oct.), 50 at Blakeney; 200 at Thornham and 200 at Holme (CBC). East coast: Breydon, up to 30 from Oct. 16th.

401 Bullfinch: Continues to increase in many localities. Parties of 25 at Salthouse Heath (EF) and at Selbrigg and 15 at Holt (RPB-O).

404 Crossbill: North: 5–6 pairs bred in Kelling area (RPB-O). Breck: Records from 5 localities. Wash: Wolferton, 3, Jan. 10th and 4, June 26th (CBC). Central: One over centre of Norwich, April 24th (PDK).

408 Brambling: Recorded up to April 6th and from Sept. 23rd. Largest flock was 400 at Ladyswood, Marham, Dec. (DW). Up to 12 in centre of Norwich, Feb. 23rd–26th (JTF, MJS).

413 Red-headed Bunting: North: Cley, a male, June 5th (PN, SJ, WFB) was considered wild but it should be remembered that these birds, mostly males, are imported into Great Britain and other West European countries in enormous numbers each year as cage birds.

416 Ortolan Bunting: North: Blakeney, a male, April 28th and one, Aug. 26th (HH). Blakeney Point, one, Sept. 7th. Cley, 3, Sept. 17th (WHD).

420 Little Bunting: North: Cley, one, Oct. 1st (ES).

421 Reed-Bunting: Flock of 70 at Swannington, March 13th (ETD) is an unusual number inland.

422 Lapland Bunting: North coast (Holme-Cley), parties of 6-9 till end Feb. First in autumn, Sept. 21st at Holme and Cley. Maximum at end of year 20 plus at Morston.

423 Snow-Bunting: North/East coasts: Recorded up to March 28th with a late pair at Thornham, May 25th (PDK) and from Sept. 19th.

425 Tree-Sparrow: Largest numbers: Fens: 500, Wisbech S.F., May 2nd (RTS, WA). Wash: 1,000, Hunstanton cliffs, Oct. 16th and many headed out west across mouth of Wash (CBC).

The following, not mentioned in the Classified Notes, were also recorded in 1960 (breeding species in italics): *Little Grebe*, Cormorant, *Mallard*, *Teal*, *Canada Goose*, *Mute Swan*, *Kestrel*, *Red-legged Partridge*, *Partridge*, *Pheasant*, *Water-Rail*, *Moorhen*, *Coot*, *Lapwing*, *Common Snipe*, *Woodcock*, *Curllew*, *Common Sandpiper*, *Redshank*, *Dunlin*, *Common Gull*, *Razorbill*, *Guillemot*, *Stock-Dove*, *Turtle-Dove*, *Barn-Owl*, *Tawny Owl*, *Nightjar*, *Kingfisher*, *Green Woodpecker*, *Greater spotted Woodpecker*, *Lesser spotted Woodpecker*, *Wood-Lark*, *Skylark*, *Carrion-Crow*, *Rook*, *Jackdaw*, *Magpie*, *Jay*, *Great Tit*, *Blue Tit*, *Coal Tit*, *Marsh-Tit*, *Willow-Tit*, *Nuthatch*, *Tree-Creeper*, *Wren*, *Mistle-Thrush*, *Song-Thrush*, *Blackbird*, *Whinchat*, *Robin*, *Grasshopper-Warbler*, *Sedge-Warbler*, *Blackcap*, *Garden-Warbler*, *Whitethroat*, *Lesser Whitethroat*, *Willow Warbler*, *Goldcrest*, *Hedge-Sparrow*, *Meadow-Pipit*, *Tree-Pipit*, *Rock-Pipit*, *Pied Wagtail*, *White Wagtail*, *Starling*, *Greenfinch*, *Goldfinch*, *Linnet*, *Redpoll*, *Chaffinch*, *Yellowhammer*, *Corn-Bunting* and *House-Sparrow*.

SELECTED 1960 LIGHT-VESSEL NOTES

R. A. RICHARDSON

- Leach's/Storm-Petrel:** One, Inner Dowsing, Sept. 24th.
- Heron:** One, Inner Dowsing, Oct. 20th.
- Sparrow-Hawk:** One eating small passerine, Outer Dowsing, Sept. 17th.
- Kestrel:** One, Cross Sands, Sept. 7th.
- Moorhen:** Several, Haisboro', Oct. 20th and singly there Nov. 13th and Dec. 29th.
- Lapwing:** Hundreds, Smith's Knoll, Oct. 19th/20th. 20-30, Lynn Well, Nov. 7th and flocks of 60-70 there, Dec. 30th. Several, Haisboro', Nov. 20th and Dec. 29th. A few, Newarp, Nov. 17th/18th.
- Golden Plover:** One, Outer Dowsing, Sept. 16th.
- Common Snipe:** One dead, Haisboro', Nov. 20th.
- Curlew:** One, Newarp, Nov. 25th/26th and a few there, Dec. 11th/12th.
- Long-eared Owl:** Singly Inner Dowsing, Oct. 10th and Smith's Knoll, Oct. 6th.
- Skylark:** Hundreds at Newarp, Jan. 25th; 200 at Dudgeon, Feb. 27th and 300 there next day. Autumn records, Sept. 9th-Nov. 21st with peak numbers, Oct. 18th-25th.
- Hooded Crow:** Smith's Knoll, Oct. 29th and Haisboro' next day.
- Rook:** Several west, Haisboro', Oct. 26th.
- Jackdaw:** 6, Lynn Well, Oct. 31st.
- Fieldfare:** Recorded Inner Dowsing, Haisboro' and Cross Sands on seven dates, Oct. 7th-26th.
- Redwing:** Several, Haisboro', Oct. 20th, 22nd and 23rd. Several, Smith's Knoll, Oct. 21st/22nd.
- Blackbird:** Recorded Haisboro', Newarp, Smith's Knoll, Dudgeon and Cross Sands, Oct. 18th-27th and Nov. 19th. Peak numbers Oct. 19th/20th when hundreds at Smith's Knoll.
- Robin:** One, Inner Dowsing, Sept. 30th.
- Pied Flycatcher:** One, Inner Dowsing, Oct. 16th.
- Brambling:** Several, Newarp, Oct. 18th/19th.

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Norfolk Mammal Report

1960

INTRODUCTION

THIS is the seventh annual report on Norfolk mammals. From somewhat simple beginnings we have been able to build up quite a lengthy list of contributors, and their reports now cover most of the county, with the possible exception of the Fens. Our records are thus more adequate, and the general inferences which can be drawn are probably more accurate. In effect, we now take regular sampling from a large number of annual observations, and draw much safer conclusions. Unlike the Bird Report, which is concerned with about four hundred or more species and the more frequent occurrence of rarities, the Mammal Report deals with relatively few species and is more concerned with changes in populations, the inter-relationships of predator and prey, the effects of disease, and the widespread impact of Man.

With only about forty species of mammals to consider, we have been able, therefore, to deal more completely with the annual status of even quite common creatures. This has made it possible for useful information to be supplied by those who might otherwise have regarded their observations as trivial. All records become significant when set alongside those of others, and the conclusions that have been drawn in this report owe a good deal to the regular observations of school children, as well as to the work of more skilled and observant naturalists.

It is noteworthy that a stricter care is developing in the way in which our observers submit their reports. We now get more frequent numerical details and records of dates and ecological data than we did several years ago. Information becomes of increasing significance if it can be related to these. For example, two extremely wet years—1958 and 1960—with an intervening dry year, gave an invaluable opportunity for studying the effects of weather on populations of common mammals. The effect on the breeding populations of Hare and Mole has been most noticeable. More people are taking an interest in the analysis of road casualties. Intensive daily observations and numerical records of the species killed on a particular stretch of road over a whole year are invaluable. Comparison of these shows interesting possibilities in estimation of the relative abundance of certain hedgerow inhabitants. It is already clear that there are “accident black-spots” for

certain species. Weather and season can also be shown to play a part in the production of higher mortality rates.

Normally rarities do not occupy our attention to any great degree. It is usually impossible to locate any mammalian newcomers again once they have been identified, so that others may gather, as do the bird-watchers, to add a new species to their tally. This does not mean that the mammal-watchers are none the less delighted when some new or infrequently seen animal can be included in the year's report. 1960 gives us the opportunity to record the Lesser Horseshoe Bat, only once before taken in the county many years ago. The other outstanding and important record is of a relative newcomer, the Muntjac, which has made spasmodic and sometimes uncertain appearances in the county since 1951. Whether it is becoming established is unknown, and observations in woodland with a dense bramble component in the shrub layer might well produce evidence of its presence on a breeding basis.

It is becoming increasingly important to keep a vigilant watch on the status of our mammals, either to encourage a stricter protection or an increased but humane control. Most of our mammals are so well established that complete extermination is unlikely or impossible. Nevertheless, the widespread use of seed dressings, and particularly the chlorinated hydrocarbons, has done much damage already to some species. Myxomatosis continues to have an impact on the rabbit population, and an inevitable effect on its predators. Fortunately sporting and naturalist interests are now so strong in the county, that Man himself is ensuring the continued existence of some species. Mammals find protection in Nature reserves and the increased forest areas. Education through the press, radio and television is having a most valuable influence in mitigating the more extreme forms of cruelty and influencing more and more people towards a desire to protect wild life. Toleration within limits now makes it much more likely than heretofore that badgers, otters, deer, and other of our larger mammals will be seen by those prepared to take the necessary trouble.

Our thanks are once again due to all whose observations have made this report possible. May we ask for increased records of our relatively little known bats; for regular numerical records of casualties from known stretches of road; for more detailed observations of common mammals; all of which will assist in giving a better impression of changes in status. Volunteers are also badly needed to undertake special studies of some of our less frequently observed residents such as the otter, the water shrew and the yellow-necked mouse. Records for the 1961 report should be sent by *the end of January*, 1962 to F. J. Taylor Page, 77 Surrey Street, Norwich NOR 85B.

CLASSIFIED NOTES

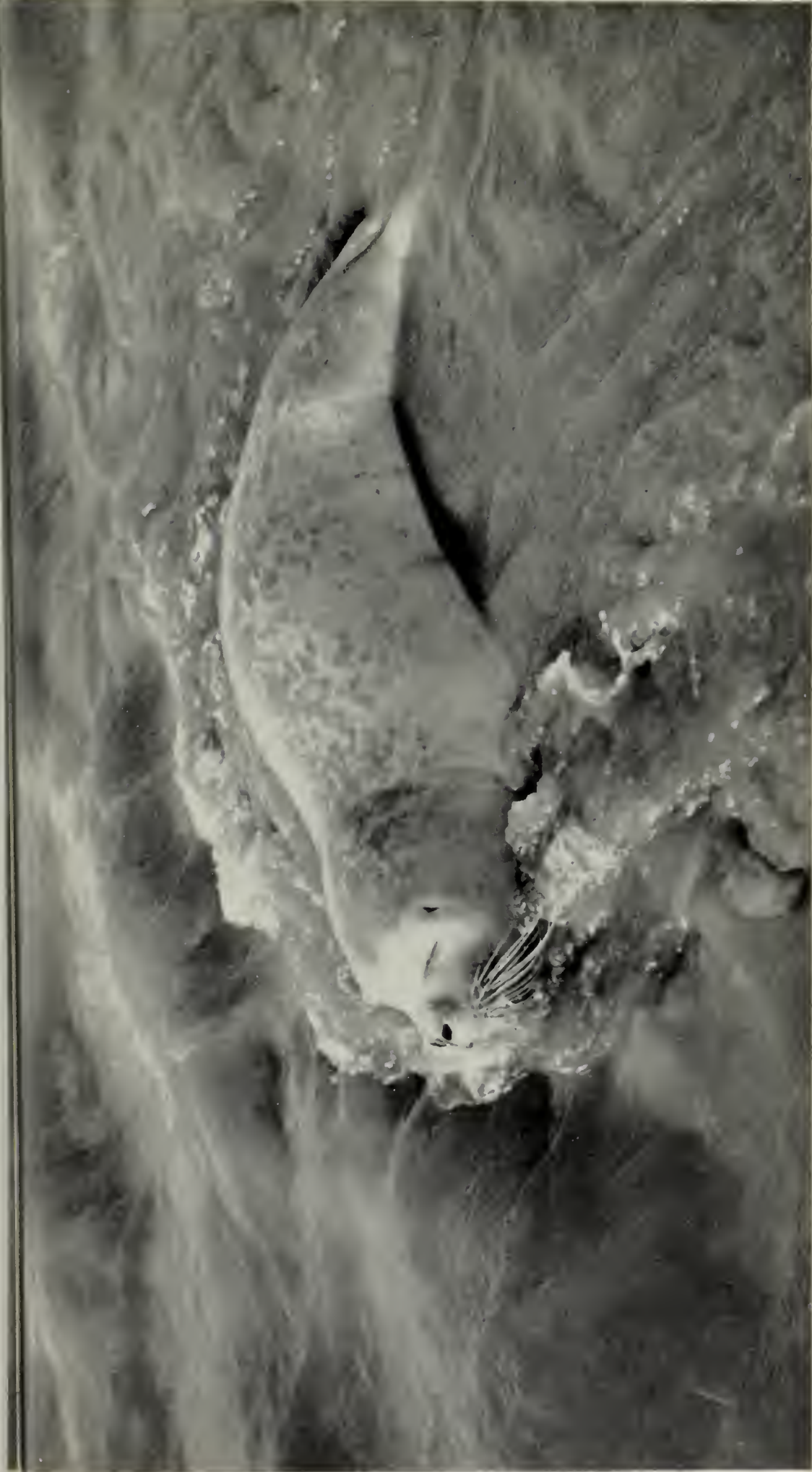
Hedgehog (*Erinaceus europaeus*)

The population of adult hedgehogs in the county was probably quite high after the good breeding season of 1959. The very wet conditions which prevailed in the latter months of 1960 from mid-June might have been expected to have reduced the second litters of the year. Nevertheless, road casualties which are a valuable indicator of population fluctuations, showed an increase over the whole year of about 30 per cent in north Norfolk compared with the 1959 figures (RPB-O). On the other hand in some areas where numerical records were kept there were indications of a corresponding decline. The greatest mortality was among immature animals and occurred in October and November when the volume of traffic was considerably lower than in the summer months. Unfortunately we have not yet developed a very adequate system of obtaining detailed observations, but the following will indicate the type of records which we should like to have from many other areas.

On the Watton-Brandon road, March 1st-Dec. 31st, 78 dead hedgehogs were counted (GJ). From April to December in the Beetley-East Dereham area 29 (DM), and during the same period on the Reepham road between Attlebridge and Norwich 8 (MES). The numbers counted on the road between Saxthorpe and Norwich averaged 1 per 12 miles per week (RPB-O). Almost all of these were run over in four separate short stretches of road of less than two hundred yards each, and in every instance these were where woodland came down to the road on both sides and served as crossing places. They were, in fact, "accident black spots". Here the highest mortality was in June and July, exceeding slightly the figure for October and November which gave the highest rate for north Norfolk as a whole. Over the whole county, hedgehog occupies fourth place in the total casualty list, an indication that despite this annual reduction in population in recent times, numbers are apparently remaining high.

A further reduction on a smaller scale appears to be due to the susceptibility of these animals to poisoning by metaldehyde used in slug killing mixtures. Many taking the poisoned slugs as food die within a day or two.

An interesting sidelight which came to our notice this year was provided by the old churchwarden accounts from Necton, where it was recorded that in 1663 payment was made for 37 "urchins", and similarly in 1668, 36. Even to-day the gamekeeper exerts further control. During the year at Elveden 163 were killed as compared with 212 last year (VAH). 7 were noted on a gibbet at Brettenham in June (JCT).



Copyright

Large herds of common seals frequent The Wash where they breed on the sandbanks. The Blakeney colony is over a hundred strong. At Scroby, 200 had assembled on the sandbank in early July following a period of north-westerly gales.

H. Auger



Copyright

J. F. Peake

Left: Whiskered bat in Grime's Graves where this species has probably been an inhabitant continuously since Neolithic times. *Right:* Noctule bat. An increasing number of reports suggests that the status of Norfolk bats is improving.



Copyright

W. J. Woodston

Two unusual places for hibernation were recorded. The first was an island to which the animal must have swum a distance of twenty yards. The other was beneath a low thatched roof in a ruined farm building, and reached only by climbing the crumbling structure of the wall.

Common Shrew (*Sorex araneus*)

Regular observation is very necessary if the correct status of this mammal is to be assessed. Reports of frequency and infrequency in different parts of the county may probably be correlated with the way in which shrews appear to build up their populations in small areas very strongly over a few months after which there is a rapid decline. Two such areas were described, one at Brinton with much open ivy-covered ground, and another at Hempstead with a plentiful cover of low vegetation. Both became infested with common shrews during June and July. They were noticed hunting insects which were at the time temporarily abundant. At Brinton, at least thirty were active in an area approximately 20 ft. square, feeding on a small species of crane-fly which had settled from dancing swarms during a cloudy spell. They were quite indifferent to the presence of human beings (RPB-O).

Apart from these accounts of bursts of activity, reports of shrews are less common than heretofore, and one is led to think that they have suffered a decline, particularly in farming areas and close to human habitations.

Pigmy Shrew (*Sorex minutus*)

Superficial observation without trapping evidence suggests that there is no longer any reason to believe that the populations which seemed to exceed those of Common Shrew in a few places in the county, have been maintained. Though still common at Holt (RPB-O), Blofield (GT) and Ellingham (ECS), there are no longer as many as in 1959. Shrews are rarely found dead on the roads. This could, however, be associated with the fact that carrion crows haunt the roads at first light and easily remove such tiny prey.

Water Shrew (*Neomys fodiens bicolor*)

It is possible that some shrew-like animals seen away from water could be individuals of this species, and all shrews handled should be examined carefully for the fringe of hairs round the edges of feet and toes, and forming a keel below the tail. Observations are infrequent, but irregular records have been made in streams at Kelling and in the Glaven valley (RPB-O). One was watched feeding on sawfly larvae at Holt. Several new stations were recorded. A belated one from Caister Castle moat, recorded in 1959 (DAJB) was added to two others in 1960, one at Walsey Hills (RAR) and one

killed on the road at Woodbastwick (GT). The mapping of the distribution of water shrew shows that we have no records at all from central, south and south-west Norfolk.

Mole (*Talpa europaea*)

There has been considerable uncertainty this year as to what has been happening to the mole. From observations based upon the amount of surface workings, and the numbers trapped by mole-catchers, it seems that in general the wet year favoured moles, but flooding in the valleys affected local populations adversely. Surface workings became particularly numerous on the lighter lands (RVE). Soil improvement in the Brecklands has increasingly encouraged this mammal, and activity is frequently on a considerable scale. This is always greatest in the spring and early summer (JAH). In a part of Breckland tunnelling had taken place in areas covered by *Polytrichum* moss (JCT). Hundreds were caught by two keepers on the Merton estate (RDG). In contrast to this, local mole catchers at Corpusty took only twelve during the whole of 1960. It is possible that crop spraying is affecting the worm population, and this may lead to seemingly dramatic movements of moles on a large scale. Migration to dry pastures from the waterlogged Glaven valley was noted in the autumn. One dry, sandy-loam field at Saxlingham, where moles are rarely seen, became heavily infested during September soon after the post-harvest rough cultivation. A mass departure occurred soon after, though there was no apparent reason (RPB-o). Information concerning such movements would be of particular interest.

At Kelling, twelve out of thirty moles trapped in one field had an extensive area of yellowish-orange fur on the belly. Two were completely orange-yellow on the under side (RPB-o). A completely golden coloured specimen was captured at Merton c. 1958 (RDG). This was not recorded at the time.

Bats

Our record of bats is enlivened this year with the capture and identification in the hand of two Lesser Horseshoe Bats (*Rhinolophus hipposideros*). This is the first report we have had since one was taken at Happisburgh in 1914. The possibility of the spread of this species in the south of the county was suggested in the Report for 1959, but it had not been expected quite so far eastward. It is still hoped that the colony of Serotine Bats (*Eptesicus serotinus*) will eventually spread northwards into the county, and naturalists in the Reedham and Yarmouth areas might reasonably expect to find a colony of this large bat in a roof top or hollow tree.

The increase of the records of bats is encouraging, and is not without significance that the status of our bats may be improving once again. Unfortunately most naturalists are inexperienced in the

recognition of bats and while the Long-eared Bat (*Plecotus auritus*) is commonly recognised—we had two records, one at Hales (MR) and one at Blofield (GT)—all small bats are usually stated to be Pipistrelles (*Pipistrellus pipistrellus*), and all large bats are thought to be Noctules (*Nyctalus noctula*). “Safe” records of the latter were made at Marham, where four were identified circling round the air traffic control tower (DW); at Corpusty (JL); at Fowlmere in the Breckland (PB); and in north Norfolk (RPB-O). Pipistrelles seem to be widely dispersed in local colonies throughout the county. A large colony exists in the fifteenth-century Caister Hall (DAJB).

Two Whiskered Bats (*Myotis mystacinus*) hibernated in the domed roof of the ice house at Brinton Hall (RPB-O). A few still remain throughout the year at Grimes Graves (FJTP).

Rabbit (*Oryctolagus cuniculus*)

Although it is the opinion of the Ministry of Agriculture that the rabbit population in Norfolk is lower than it has ever been, due to the activities of the Rabbit Clearance Societies and renewed waves of myxomatosis, there is no doubt at all that the many reports received indicate that an immune strain of rabbit is established in many areas, and pockets of these are increasing and spreading.

In the earlier part of the year there had been a building up of populations, particularly in scrub and forest areas where action against them is difficult. Breeding continued without interruption, and burrows were seldom made. Individuals appeared to wander widely, and once again road casualties were high. On the Watton-Brandon road over a period of 209 days, 406 dead rabbits were counted (GJ). Deteriorating weather and myxomatosis resulted in checking breeding, and there was a marked decline in numbers in the autumn. Many dead and dying rabbits were reported in the last three months of the year in very many places, but even so, whereas in the years immediately following 1954 the disease almost entirely exterminated the rabbit population, now there are few places in the county which still report this mammal as a rarity. An albino variety was reported from Shotesham and North Walsham, and a black variety from East Carleton and Binham.

Hare (*Lepus europaeus occidentalis*)

The peak population reached in many parts of the county over the period 1954-59, showed a major decline everywhere for the first time this year. One estimate put the reduction at as much as 60 per cent (RVE), but attributed it to last year's drives and shoots. The bags then obtained reflected, however, the very considerable numbers of hares everywhere, despite the reduction due to the effects of wet conditions to which hares are very susceptible. At Thompson, the number shot during each season from 1954 to

1960 is as follows: 26, 68, 139, 171, 81 (a wet year), 178 (a dry year) and 103 (a wet year) (RDG).

Comparative figures from Elveden on our southern boundary are 1,080, 948, 1,627, 3143, 2,493, 3810 and 4,836. Alongside the bags of rabbits, these figures are striking: 19,839, 8,601, 401 (Myxomatosis), 1,864, 4,968, 5,427, 8,993 (VAH).

Road mortality during the winter months of 1960 was low, as it was in the winter of 1958. For several roads around Holt where casualties have been noted for a number of years, the winter mortality has clearly reflected the success of the previous summer breeding season. Thus in the winter months (November to February) following the wet summer of 1958, the figure of 1 per 30 miles of road per week was recorded, but after the very fine 1959 summer, the corresponding winter mortality rose to 1 per 6 miles per week. After 1960's wet summer (but dry May and June), the winter road toll was 1 per 28 miles per week (RPB-O).

Bank Vole (*Clethrionomys glareolus*)

This seems to be one of our less well-known mammals, and is possibly sometimes confused with Field Vole. Our map records show that the known distribution is confined almost entirely to the eastern half of the county, but doubtless trapping experiments would give interesting records in hedgerows and ivy-covered banks elsewhere. Several were caught by cats at Blofield, and the tails of a few were discovered in a kestrel's nest in Blofield Church tower (DT). Bank voles were also noted nibbling houseleek, and feeding on dittander blanching under pots at Wheatfen (EAE). Others were found in an apple store at Aylsham (CLM). Analysis of owl pellets in the Holt area showed a marked preponderance of bones of this species (GS). It is probable that with the decline in the number of certain predators such as stoats, bank voles may increase noticeably in population status.

Field Vole (*Microtus agrestis*)

There has certainly been an increase in Field Voles. They became more abundant in 1960 than for several years, and were especially noticeable in areas of coarse grass and rank vegetation on the margin of flood water or just above it. Several were seen in very wet ground at Hockham in December (EAE), and at Corpusty (JL) and Hales (MR), as well as in marshy pasture beyond the river wall at Heigham Sound (RAD). They were exceptionally numerous round Brinton Lake and on Thornage water meadows.

Signs of a vole plague on Thetford Heath were noted in September (JCT), but decreases were reported at Calthorpe Broad (RT) and Horsey (AB). Voles were not reported on any road casualty list this year.

Water Vole (*Arvicola amphibius amphibius*)

Continued locally quite common in spite of the high coypu population in the Bure above Corpusty (JL), in the Yare valley dykes at Buckenham (GT), and in the wall of the River Thurne at Heigham Sound (RAD). Most of the Broadland marshes support a few, but elsewhere the numbers have decreased noticeably and reports are few. Three were caught in the Spring, far from water, when they fell into holes dug by builders at High Kelling. Two of these were black (RPB-O). This black variety is also reported from Corpusty (JL), Bawdeswell (QEG) and Hethersett (HWB). It is locally common in the Broadland marshes and resembles very closely the sub-species *A.a. vela* found in Scotland north of the Clyde and Tay. It is known, however, that the skull of the black form found in Norfolk more nearly resembles the skull of *A.a. amphibius*, and it is unlikely that our East Anglian black water voles are a surviving remnant of *A.a. vela*. The dominant black mutation appears to be an ancient one, but its survival significance is unknown.

Long-tailed Field Mouse (*Apodemus sylvaticus*)

As with many of our smaller mammals, observations made are spasmodic and variable. Regular and systematic trapping records would be extremely useful, but for the present we have to rely on occasional sight records and reports of catches of cats. *Apodemus* is rare on the road casualty lists because all small mammals which are killed at night by traffic tend to be eaten by carrion feeders which patrol the roads at daybreak. Undoubtedly many mice are killed on the roads as well as being killed by their natural predators.

The general impression gained is of some increase in numbers late in the year, but that distribution was likely to be patchy and very local. In the Breck at Thetford and Cavenham Heaths the species was abundant in clumps of *Calluna* where the old flowering shoots appeared to be eaten. These were left much scattered round the plants (JCT). Many were taken in traps at Great Moulton, where one was also observed sitting up and "singing" (HR). Numerous nests were ploughed up at Binham (RS), and some woods round Holt contained unusually large numbers (RPB-O).

Yellow-necked Mouse (*Apodemus flavicollis*)

Once again this species has been captured and identified at Ellingham (ECS). We can be fairly certain that it exists elsewhere in the county, particularly in the south, but until some experimental trapping is carried out we cannot be sure of its range.

House Mouse (*Mus musculus*)

Larger numbers were reported in stacks in a few places. Sometimes hundreds were present in stacks at Horningtoft, and con-

siderable quantities of dead ones were brought into the local school to feed a barn owl during February and March. The owl ate six at a time and showed definite preference for them (CM).

Harvest Mouse (*Micromys minutus*)

In comparison with last year, more records have come in for 1960 and suggest that there has been a good breeding year. More appear to have been seen in marsh and fen borders, and along river margins in north and east Norfolk (EAE). Increased numbers were noted in stacks by threshing crews at Holt and Melton Constable (RPB-O), and Booton (RM), Horningtoft (DM), Binham (RS) and Tuttington (RAD).

Black Rat (*Rattus rattus*)

Undoubtedly the work of rodent operators in recent years has been effective in reducing this species to the point of extinction. Records had been regular in the past from Yarmouth and King's Lynn, but several years have passed since one was taken or reported.

Brown Rat (*Rattus norvegicus*)

An appreciable increase everywhere. Control of rats ceased during the periods when foot and mouth disease and fowl pest were rife. Some time afterwards, many places were reported as having almost staggering infestations (JP). This may also be associated with the fact that considerable numbers of dead carcases of coypu have been left unburied during the period of heavy control this year, and sugar beet hales have been longer at the roadside and in field owing to the wet conditions. After threshing, many more were found dead on the roads (DM). Increases on the mainland have led to larger numbers on Scolt Head Island than ever before. Their food comprises carrion, mussels and marram seed (RC). On Breydon marshes, considerable numbers of lapwing and redshank eggs were taken (RHH). In the north Norfolk marshes, some hunt along the tide lines at last light. Large infestations moved into the regular spawning places used by toads. The practice of eating the toads has become a regular habit. It has occurred now for several years, and the rats arrived before the toads as if in anticipation of their coming (RPB-O).

On the roads, casualties among rats were greater than for almost any other mammal with the exception of the rabbit in Breckland areas where it once again holds the record. The most vulnerable places were near grain stacks, sugar beet hales and farm buildings. During the extremely wet part of the year many migrated from marshland areas to the uplands (HJC).

Red Squirrel (*Sciurus vulgaris leucurus*)

It may be surprising to many to learn that red squirrel is very widespread in Norfolk and for some years the population has been high. Reports now suggest that though still common, the red squirrel has commenced a decline from the peak of a cycle of abundance. It is known that squirrels can contract a disease resembling myxomatosis but so far this has not been reported in Norfolk. Some have, however, been found at Swaffham dead or dying without apparent cause (DFM), and a few have been found dead elsewhere. In forested areas squirrels figure in the road casualties, but compared with other animals, they manage to avoid death successfully, possibly because they are diurnal in habit.

An unconfirmed report of Grey Squirrel (*Sciurus carolinensis*) was received from South and East Raynham, but as this was in November it is possible that an error of identification was made and that it was a Red Squirrel in winter coat.

Coypu (*Myocastor coypus*)

Throughout the county the infestation of coypu has reached pest proportions. On July 15th the Minister of Agriculture announced that control of coypus should be brought within the sphere of Rabbit Clearance Societies, and there is now virtually a war being waged against the animal. Extensive operations are in progress over a wide area (rve). Already vast numbers have been trapped and shot. At Watton 680 were taken on the upper reaches of the River Wissey and the River Thet during the latter months of the year. The Ravingingham, Yare Valley and Hedenham Societies accounted for 2,015 between Feb. 6th and March 15th.

Coypu by no means confines itself to water. It has been found wherever food supplies were abundant and any form of damp cover existed. The damage done was serious, not only to crops but to river banks. Despite the fact that coypus are ill-equipped to dig, burrows were found where there was little cover. Holes up to twelve or fifteen feet in length contained not unusually six or eight packed in head to tail. Sometimes they have been found huddled together beneath dense undergrowth, usually on platforms of dry vegetation.

Although some advantage is gained by their clearance of reed beds in Broadland waterways and the increase of areas attractive to various types of wildfowl, the damage in general now far outweighs the usefulness. For example, large areas of the osiers at Burgh Castle used in basket making, and the sedges and reeds at Hickling used in thatching, have been ruined. Penetration of the coypu into the breeding areas of some of our Nature reserves led to concern for the continued existence of some of our rare birds such as the bittern, owing to the damage caused to nesting sites. Roots

of Water Dock and Great Willow Herb, and the rhizomes of Yellow Iris have been much used as food. Some coypus have acquired a taste for Swan mussel (*Anodonta cygnea*) and hundreds may be eaten in a few months. Special feeding places are often used, and very large piles of shells accumulate there.

The mild winter of 1960 failed to control their spread, which is now mainly in a southerly and westerly direction. Existing colonies have rapidly increased. Where roads passed through areas of abundance, casualties were high. The Acle New Road, for example, had a mortality rate of about 6 per night during the weekends of the summer months. It appears to have a total rate of about 400 per year.

Fox (*Vulpes vulpes*)

Despite the setback caused by the disease which affected the fox and its distribution in the latter part of 1959 and early 1960, there was an undoubted increase following the decline. One estimate placed the population in certain areas well above what it was three years ago. Except in the hunting country it is never likely to become high, as the preservation of game and foxes do not go together. The largest numbers are to be found in central Norfolk where toleration exists even though no compensation is given for damage done. Woodlands with thick cover helped the survival of the fox elsewhere. At one time Horsford and Stratton Strawless woods probably harboured more than anywhere else in the county. Forestry Commission clearances have made much of the area unsuitable, however, and possibly accounted for the wanderings of foxes into the Broads and coastal areas of eastern Norfolk where they had not been seen for many years. First records of this kind came from Forncett (MJS), Marham Fen (DW) and Reedham (RHH).

The disease which affected foxes, now attributed to a form of poisoning caused by the animals eating dead or dying victims of the effects of seed dressings, probably accounted for the death of a fair number of Norfolk foxes along with several hundred in east and central England. Carcasses were found at Acle, Lynford, Watton, Harford and parts of north Norfolk. A form of madness appeared to affect some foxes and led to fighting. A fox brush minus the fox, and a vixen minus the brush were seen at Beccles (EDP).

Badger (*Meles meles*)

On the whole Norfolk does not provide good soil conditions which would tend to encourage badgers to build sets. However, in recent years, and where disturbance is trivial or lacking, the badger has tended to increase encouragingly in the county, particularly in central and north Norfolk, where in damp oakwood conditions on the clay soils abutting on to sands, small populations

have been steadily building up. Private woodland, where an interest in the preservation of the badger as a worth-while mammal now exists, has also helped. In some places the growth of new woodlands has assisted in binding the soils. In at least one place the excavated material is a very light sub-soil. Enquiries have shown that little or no damage attributable to the badger has been experienced. Travellers by night in the Bintree-Foxley area, in the Sandringham area, on the A11 and in the Sandringham-Holt area might now well expect to see a badger on the road. It is hoped that every care will be taken to avoid a casualty.

Otter (*Lutra lutra*)

Movements of otters are difficult to assess in these days. Coy-pus have taken to using otter runs, and where once otters were regularly seen, they now seem to be scarce. None were killed by the otter hunts at Aylsham (ss) or at Horsey (AB), and none have been seen at Seamere (CG), Caister (DAJB), Woodbastwick (HJC) and Castleacre (HB). Decreases are said to have occurred in several other areas. The work of the River Board in clearing dead trees appears to be a contributory cause in reduction in the main rivers of the county.

On the other hand, otters are not easy creatures to observe, and mammalogists must be prepared to put themselves to some trouble in order to find them. A large specimen was watched by Mr. Eric Simms on the mud above high water mark at Brancaster in the early morning of Sept. 30th. Two regularly hunted through Brinton lake, where they fed upon pike and moorhens. Spraints were frequently left on the boathouse staging (RPB-O).

At Langley a large specimen from the River Chet was said to have attacked a man, and later one weighing 26 lb. and measuring 48 in. in length was killed (EDP). Others were taken or observed at Acle (HFA), Surlingham (EAE) and in the Glaven valley (RPB-O). A dog otter just over 4 ft. in length and weighing 21 lb. was a road casualty at Melton Constable on Aug. 2nd. A few were reported fishing in the fresh marshes and creeks at Scolt Head (RC).

Stoat (*Mustela erminea stabilis*)

Whether the return of the rabbit will re-establish the stoat in anything like the numbers formerly observed remains to be seen, but 1960 probably marked the end of a most noticeable decline. In Breckland as a whole the stoat is rarely seen nowadays, although near Brandon alone about 200 were formerly shot every season when rabbits were numerous. A few stoats have been found dead this year, but although some attribute this to starvation, it is more likely attributable to their feeding on animals that have been victims of the use of seed dressings.

The fact that stoats used to be regular road casualties and are now killed only very occasionally indicates how scarce they have become. This year, however, there have been slight increases reported from Elveden (VAH), and in many parts of north Norfolk (RPB-O), at Calthorpe (GT) and Breydon (RHH). Elsewhere the population is at low ebb.

Weasel (*Mustela nivalis*)

Although weasels were also reported as more scarce in many parts of Great Britain, in Norfolk the population has certainly been maintained, and reports even suggest that they are increasing. They were frequently seen on the roads and mortality proved not to be high, although 36 were counted on the Cawston-Aylsham road (RM). 11 were counted on a gibbet at Brettenham (JCT). One old gamekeeper volunteered the information that weasels had a better chance of survival than stoats because both parents cared for the young. Among stoats only the female provides the food and is responsible for moving the family to places of safety.

A violent fight between a weasel and stoat was watched during March in a lane near Corpusty. It lasted over ten minutes, and the participants were frequently locked together and rolled over and over in a mass like a furry ball. There was a great deal of hissing and squeaking. The stoat eventually carried off the limp body of the weasel (RPB-O).

Domestic Cat (*Felis domesticus*)

For many years now, farmers have been encouraging cats to become feral or semi-feral in order to keep down rats and mice. The cats have usually disappeared and returned some months later with a nearly-grown family, to tide over the bad weather. Regularly in the copses behind the houses on the A11 at Cringleford in years gone by families have been reared. This is no uncommon thing, for about 1870 an overcoat was made lined with the fur of cats shot in Trimmingham woods. One was shot there in April (DAJB).

Seals

The number of Common Seals (*Phoca vitulina*) fluctuates considerably at Scroby Sands. On the first visit of the Great Yarmouth naturalists on June 6th, well over 150 were hauled out. On the 16th, the shore population had dropped to 40, but on July 3rd, following a week of north-west gales, about 200 had sought shelter from the heavy seas. In spite of the bad conditions, 25 pups were present, the last week in June and the first week in July being the peak period. The population dropped again by July 10th, probably due to the presence of a group of wireless enthusiasts who set up a radio station that week-end. The behaviour of the seals

there at night was described for the first time. The seals appear to keep up an almost incessant barking and growling, interrupted periodically by the high-pitched whining of the pups (PGT, WJW, RHH). 132 seals were counted on Aug. 16th (EDP).

Not only the weather but a need for a wide search for food appeared to account for the variability in the number of seals recorded. Some were seen up the River Yare several miles inland (EDP). At Blakeney, about 100 were counted, and in the Wash an estimated and more or less stable population of approximately 2,500 was reported (EDP).

In previous years, the Grey Atlantic Seal (*Halichoerus grypus*) has had a fairly good breeding season. 4 pups survived the storms and were observed by the R.A.F. on Nov. 24th. 8 more were present on Dec. 16th. The peak time for calving appears to be two weeks later than in the Farne Islands. A tail-tagged animal was seen at Scroby on May 15th but it was impossible to approach closely. One 3-week-old male marked at Staple Island 1.12.60, was found alive at Cley 31.12.60. It had what appeared to be gunshot wounds in the hind limbs. It was seen again at Cley on the first day of 1961 and its condition was not good (GH).

With a view to keeping a check on marked seals, we have been asked by the Hancock Museum, Newcastle-upon-Tyne, to give the colour markings used. They are: Farne Islands, Yellow; Orkneys, Red; Rona (Pale Green).

Deer

Red Deer (*Cervus elaphus*)

Thetford Chase continues to harbour quite a number of grown stags, a few with good heads. There was a strong rut in September despite the bad weather. Continuous and intensive felling in various parts of the woodlands keeps them on the move, but a tendency to follow a more or less circular route through the forest such as occurs in other parts of Great Britain seems to be maintained and counting is therefore uncertain and difficult. The hinds are very strong. Three have been shot to keep numbers in balance. The calving was, however, not as good as expected (DW, FJTP).

During the rut in late September, a large buck frequented the Horsford area, together with two smaller black ones, remnants of the once larger herd there. Considerable disturbance over about 400 acres doubtless prevented the re-building of this herd, feral members from Dudwick deer paddock (FEDB). In woods east of Castle Rising, a small herd has developed. Three bucks were seen in July. One was completely white, and two others were typical fallow. Slight damage by browsing was noted (RH). In February, 12 of the Houghton Park herd died suddenly. No cause could be assigned. We know very little about disease in deer but it is no

unknown thing. In days gone by it was always recorded as "died of a murrain".

Roe Deer (*Capreolus capreolus*)

With the appointment of a deer forester in Thetford Chase, a better safeguard has been developed for the welfare of the roe deer which in times past have been the victims of deer drives, snaring and indiscriminate shooting. About 20 maimed or poorly developed animals have been removed in many parts of the forest. In addition 27 bucks have been shot by the St. Hubert Club, of which 6 were above the usual average for antlers though not outstandingly good. Thetford Chase is now less suitable in many places for roe. Much of it is high forest and much clear felling is going on. This is tending to move the deer outwards and reports were received from the more marginal plantations where roe had not previously been seen. Very few fawns were seen during May and June (FJTP, DW).

Reeves's Muntjac (*Muntiacus reevesi*)

For several years now we have had isolated reports of muntjac being seen or killed in the county. The first record in 1951 was from Walsingham. Others followed at Lowestoft in 1952 and Thetford Chase in 1953. Some unconfirmed reports which were very probably of muntjacs were received in 1958 and 1959, but in 1960 an undoubted muntjac was shot at Holkham Hall late in the year. It is very likely that this species is spreading slowly into Norfolk. Unsuspected, it built itself up into a breeding species in Huntingdonshire two years ago and it is possible that from this stock that stragglers are moving across country into our own county. We can reasonably expect further reports in the near future (FJTP).

Whales

Porpoise (*Phocaena phocaena*)

Four strandings (one in April and three in June and July) were reported from Scolt Head (RC), and one was observed close inshore at Cley in October (PB).

Dolphin (*Lagenorhynchus albirostris*)

One was found dead on the shore at Waxham, Dec. 24th (CG). We are anxious to keep records of all strandings. Will those living near the coast please be sure to send in full details, not only for our own Report but also for the national records at the British Museum of Natural History.

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