

NORFOLK

Bird & Mammal

Report

1969



Norfolk Bird Report · 1969

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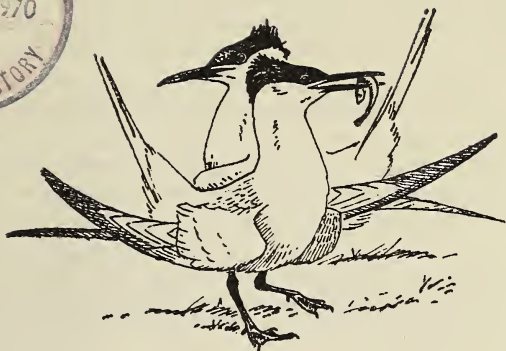
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Norfolk Bird Report 1969



Editorial

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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.

The weather in 1969 will be remembered for both the wet spring and the driest autumn for many years. January, after a cold wintry beginning proved generally to be very mild. February was extremely cold; snow covered the ground for 21 days. March saw a continuation of cold weather and April proved to be rather cool and wet. May was the wettest for many years but June was very sunny with 252 hours recorded at Morley.

July was both sunnier and wetter than normal, but August was the complete opposite being drier and much duller than normal. The most striking feature of September was the almost complete absence of rain. The dry weather continued to October (making both months the driest on record); it was also extremely warm. After a mild beginning, winter really began in November and December was the coldest for seven years and the fifth coldest since 1925.

Review of the Year: After an absence of well over a century as a breeding species, a small colony of black terns attempted nesting on Welney Washes; unfortunately, no young reached the free flying stage. In the south-east, ten ageing male black redstarts were located at the Yarmouth stronghold; at Scolt record total of 3850 pairs of Sandwich terns bred successfully.

Long distance vagrants and passage migrants were again features of the year. From the Arctic came remarkable numbers of curlew-sandpipers and also 2 Sabine's gulls. North European wanderers included Caspian tern (the fourth year in succession at Cley), grey-headed wagtails and Arctic redpoll. From Asia beyond the Urals came 4 yellow-browed warblers and 15 Richard's pipits. Among East European wanderers were 6 red-breasted flycatchers, 12 barred warblers, red-footed falcon, little crane and white-winged black terns.

A collared flycatcher arrived from Central Europe and from the South came a rock thrush. Even more exciting was Cory's shearwater (the fourth county record) from the Mediterranean and cream-coloured courser (*the bird of the year*) from North Africa. North American vagrants again featured: ring-necked duck, long-billed dowitcher and pectoral sandpiper.

Equally welcome were Savi's warbler, great reed warbler, golden oriole and lesser grey shrike which provided red-letter days to fortunate observers despite the fact all breed in north-west Europe. A total of 258 full species was recorded in Norfolk during 1969. Collared flycatcher and rock thrush were additions to the county list.

Operation Seafarer, a census of breeding seabirds organised by the Seabird Group, took place throughout the summer of 1969. The aim has been to obtain a comprehensive account of the numbers and distribution of breeding seabirds around the coasts of Great Britain and Ireland. Special record cards and Guides were distributed to observers and details of the county totals appear in the Classified Notes. Thanks are due to all who took part in this enquiry.

Beached Bird Surveys: During 1969 a survey was carried out at regular intervals along the 3½ miles of tideline between Wolferton Creek and Heacham. A total of 349 dead birds was found of 29 species. Of these 45 were oiled, most of them being found during Jan. when oil was reported on the north Norfolk coast. Among oil victims were 2 black-throated and 18 red-throated divers, 2 great crested grebes, slavonian grebe, 3 razorbills and 8 guillemots. Over 80 per cent of the waders were found in Feb. during a cold spell when up to 10 degrees of frost was recorded. On the 9th The Wash resembled an Arctic region with ice 4 feet thick in places extending from Snettisham to Wootton marsh. This meant a very much smaller feeding area was available for the thousands of sea birds in The Wash. Most affected were waders and during the month 5 oystercatchers, 3 turnstones, 4 curlews, 108 redshank, 35 knot and 22 dunlin were found dead. This pack ice remained on The Wash until the 17th when it was broken by spring tides but snow remained until the 26th.

The year's casualties were as follows: 4 black-throated divers, great northern diver, 22 red-throated divers, 6 great crested grebes, slavonian grebe, 2 gannets, cormorant, 5 shelduck, 6 wigeon, 3 scaup, 3 scoter, 3 red-breasted mergansers, water-rail, 12 oystercatchers, 4 turnstones, 10 curlew, bar-tailed godwit, 128 redshank, 45 knot, 42 dunlin, 5 great black-backed gulls, 3 herring gulls, 4 common gulls, 50 black-headed gulls, 2 kittiwakes, 2 common terns, little tern, 4 razorbills and 18 guillemots (RB).

Between Feb. 25th and April 13th the 16 miles of shoreline extending from Yarmouth south beach to Eccles was regularly patrolled and a total of 459 birds of 32 species was found dead. The list was made up as follows: great northern

diver, 6 red-throated divers, 7 fulmars, 8 gannets, 3 mallard, wigeon, velvet scoter, scoter, anatidae sp., brent goose, 3 coot, moorhen, 115 lapwing, 3 woodcock, redshank, 2 sanderling, 5 great black-backed gulls, 5 herring gulls, 15 common gulls, 5 black-headed gulls, 18 kittiwakes, 9 laridae sp., 130 razorbills, 54 guillemots, 17 puffins, 17 auk sp., wood pigeon, skylark, 3 carrion crows, rook, jackdaw, 3 corvidae sp., 7 song thrushes, 4 redwing, 7 starlings and fieldfare (PRA & MT).

B.T.O. Common Bird Nest Census: The Cranworth study area featured in previous Reports was again covered in 1969 and a total of 378 pairs of 51 species was recorded (wood pigeon, rook and house sparrow are all excluded from the census). This showed a drastic reduction compared with the previous year's figure of 449 pairs. This was partly due to hedge-cutting during the breeding season and also to the non-arrival of some summer migrants (notably white-throats).

The number of *pairs* was as follows: mallard 7, red-legged partridge 7, partridge 1, pheasant 11, moorhen 15, lapwing 3, snipe 1, stock dove 7, turtle dove 8, cuckoo 1, little owl 1, tawny owl 1, great spotted woodpecker 1, skylark 11, swallow 6, house martin 1, carrion crow 1, jackdaw 3, great tit 3, blue tit 11, coal tit 1, marsh tit 1, willow tit 1, treecreeper 2, wren 18, mistle thrush 1, song thrush 19, blackbird 43, robin 16, sedge warbler 8, blackcap 5, whitethroat 5, lesser whitethroat 1, willow warbler 3, chiffchaff 2, goldcrest 4, spotted flycatcher 5, hedge sparrow 34, pied wagtail 1, starling 16, greenfinch 7, goldfinch 5, linnet 6, redpoll 2, bullfinch 5, chaffinch 27, yellowhammer 22, reed bunting 3 and tree sparrow 13 (ALB).

B.T.O. Ornithological Atlas: At this, the end of the second year of recording for a ten kilometre square distribution map of birds breeding in Norfolk, the organisers are well pleased with the great many hours of field work the "Atlas people" have put into recording. The completed maps are to be published in 1973, so there is still plenty of time for everyone to try their hand at this type of recording, especially in the areas which have not yet been very well covered.

Of the 32 squares which constitute the eastern half of the county, 29 had some attention during the year; in these there is an average of about 70 species recorded. The maximum number of species proved to breed in any square is 85, although 104 were recorded there. Again this year, new localities for lesser spotted woodpecker, corn bunting and hawfinch were found by Atlas workers as they become familiar with specific areas.

So far as the West is concerned, 1969 was a year of steady progress, with good results in most of the squares covered, but still with 3 squares almost untouched (between Dereham and Fakenham) and a few other squares underworked. This is perhaps especially true of TF84 which has all the shore-nesting birds covered in returns from Scolt Head, but with very few passerines. For this reason it is surprising that the first bird to reach 100 per cent in squares covered, turned out to be mallard, and not blackbird as one might expect. Only 2 other species have so far achieved the 100 per cent in squares covered—these being swallow and house sparrow—and only 5 others have been recorded in 26 of the 30 squares: pheasant, moorhen, house martin, song thrush and blackbird.

It is interesting to note that in the East, a number of new volunteers have come forward. In the West, however, we have only two new recruits and no new volunteers! Surely there are more than 20 resident bird-watchers in the vice county? Fortunately, this is augmented to a certain extent by visitors from outside.

Thanks are due to everyone who is giving so freely of their spare time. If you can assist in any way during the next season kindly contact the joint organisers:

J. G. Goldsmith, Castle Museum, Norwich, NOR 65B (East Norfolk) and
A. L. Bull, Four Winds, Foxley, near Dereham (West Norfolk).

Road casualties along a five-mile stretch of the A47 between Yarmouth and "Stracey Arms" totalled 66 birds as follows: 39 moorhens, 2 mute swans, 13 black-headed gulls, 2 starlings, 6 house sparrows, and single red-throated diver, rook, lapwing and barn owl (RHH).

These figures may be compared with casualties on a 4½ mile length of B road between Stoke Holy Cross and Caistor: 1 black-headed gull, 17 hedge sparrows, 7 starlings, 1 mallard, 2 spotted flycatchers, 12 moorhens, 4 pheasants, 11 robins, 7 greenfinches, 1 goldfinch, 2 bullfinches, 7 chaffinches, 2 linnets, 84 house sparrows, 10 wrens, 1 goldcrest, 32 song thrushes, 60 blackbirds, 1 fieldfare, 1 mistle thrush, 1 rook, 1 carrion crow, 7 sand martins, 1 swallow, 2 whitethroats and 1 blackcap (RM).

Colour-ringed herons: At the Denver heronry the Nature Conservancy is carrying out a programme of research which includes colour ringing young herons. Large plastic rings are fitted on both legs which should be visible as the birds circle above a heronry. Readers locating any of these marked birds, especially away from Denver, are requested to inform Ian Prestt at Monks Wood Experimental Station, Abbots Ripton, Hunts. without delay. An important part of this work is to follow the survival and behaviour of birds hatched from eggs containing known amounts of toxic chemicals; it may also help to answer such questions as whether herons return to breed at their colony of birth.

During the 1970 season, three colour-marked Denver birds have been found apparently breeding amongst the 40 pairs in the Hemingford, Hunts., colony some 30 miles from Denver.

Acknowledgements: Thanks are due to R. A. Richardson for the cover drawings, for other illustrations and for his Cley district migration summary; also to R. P. Bagnall-Oakeley, Dr. K. J. Carlson and M. D. England for photographs; to Holme Bird Observatory for access to their records; to the Norfolk Naturalists Trust wardens; to R. H. Harrison (Breydon); to the National Trust (Blakeney Point); to the Nature Conservancy (Scolt Head and Stiffkey Binks); to J. Buxton (Horsey); to the Cambridge Bird Club (particularly G. M. S. Easy); to Great Yarmouth Naturalists Society; to Heacham & West Norfolk Natural History Society; to D. A. Dorling for compiling the annual record cards; to J. T. Fenton, Mrs. M. Dorling, P. D. Kirby, Mrs. S. F. Seago, Christopher Seago and Miss P. A. Warminger for valuable assistance and to all other contributors.

Recording: Records for the 1970 Report should be sent by the end of January to Michael J. Seago, 33 Acacia Road, Thorpe St. Andrew, Norwich, NOR 71T. Contributors are requested to submit notes in Check-List order (giving serial numbers based on the 1952 B.O.U. Check-List). In order to minimise the work involved, records will not normally be acknowledged. The names of all contributors will be included in the Report.

It is requested that records of rarities and of unusual movements should be reported to the Editor (telephone Norwich 34351) without delay.

The Godwits of Cley

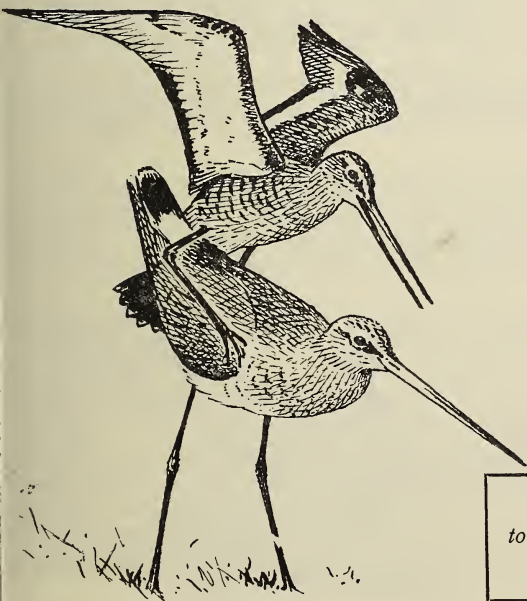
by R. A. Richardson

(Incorporating observations by W. F. Bishop and voluntary watchers.)

Readers of the 1968 Report may recall that in 1964 one or two pairs of black-tailed godwits attempted to breed at Cley for the first time on record but that the outcome was inconclusive.

Nothing similar happened until 1968 when two pairs nested and succeeded in hatching young, none of which survived for long, due it is thought to the activities of stoats.

In spite of these setbacks it was confidently predicted that godwits, which had become very attached to the Cley Reserve, would try again in 1969, a belief which brightened a long and dreary winter.



*It will be found useful to refer
to the 1968 account in conjunction
with the present one.*

During March a close watch was kept for godwits to arrive from winter quarters and on March 28th (six days later than in 1968) the first bird, a male, was wading belly-deep and feeding hungrily in the Pool.

Stressing the importance of the fullest documentation of events I immediately applied for permission to act again as "godwit biographer" for the N.N.T. and so began another three months of study.

It was tempting to try and recognise this newly-arrived male as one of the 1968 birds. He was just beginning to assume the ruddy, tiger-striped plumage of the breeding season and was at first thought to be the rejuvenated "Droopy" (male B) sporting a normal tail acquired during the previous autumn's moult. Later events, however, suggested that he was "Lucifer" (male A) and although it was never possible to be certain his instant familiarity with the terrain was proof enough that he had been to Cley before and not merely as a fleeting visitor.

For a week he fed alone, probing deeply into the muddy bed of the Pool and extracting small dark pill-like mollusca which he swallowed with a jerk of the head. Often he paused to listen expectantly and cock a searching eye at the sky, but not until April 4th was his patience rewarded by the arrival from the west of a female.

Even before she could alight the male rose into the air and escorted her excitedly along the marshes in "wing-quivering" display.

They became "Pair C".

April 6th saw the male in "tail display" for the first time and on the following day a second male appeared—a slim and rather lighter red bird which was at once challenged by the pair and banished to the meadows well away to the south-west of the Pool.

On April 8th the pair visited one of the 1968 nesting territories, the male dispossessing his rival and chasing off a carrion-crow; while later in the day they reacted aggressively to a sound recording of last season's flight song by alighting a few yards away and glaring at the Hide where the recorder and I were concealed. All this showed beyond any doubt that Pair C considered themselves to be well and truly "at home".

Three new godwits on non-stop passage-migration headed eastwards on April 10th and it was at this time that the pair began to spend much more time out on the breeding grounds.

Mating ceremonies were seen for the first time on 11th and 12th despite the discouraging gale-force wind and cold rain showers; and on 14th male C was watched nest-scraping in the second of last year's territories and about four hundred yards from the Hide, his mate inspecting and improving the work as it progressed.

Male C was seen in song-flight on April 16th, provoked no doubt by the continued presence of the un-mated male.

Many "scrapes" were made during 17th/18th, the female, apparently on her own initiative, spending a long time in one tussock hollowing out the centre to such a depth that, on sitting down, she disappeared from view. The male joined her as soon as he saw what was happening and assumed the trance-like posture as described last year. The female then stood up in the nest in a strained and uncomfortable-looking attitude, blinking her eyes and with the male still prostrate beneath her tail. Once again she sank down out of sight for a few minutes before both birds flew away. I had almost certainly seen the laying of the first egg.

Male C was in fine fettle on April 19th/20th, harrying the "spare" male and such improbable competitors as garganey, whimbrel, stock-dove and white wagtail.

The morning of 21st brought a frenzied and puzzling resurgence of nest-making, the pair running about from one tussock to another until I began to fear that an accident had befallen the incomplete clutch of eggs which I felt confident was in the nest.

On the 22nd the female spent thirty minutes brooding quietly before accompanying her mate to the Pool. She was restless, however, and refused to feed, returning instead to snuggle deeply into the nest where I left her at the end of the day's watching.

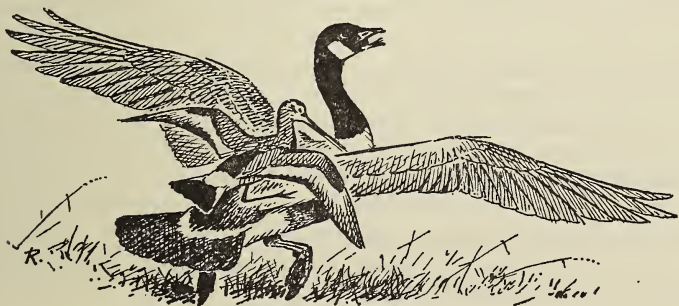
It seems likely that incubation (which takes about 24 days) commenced on or about April 24th, for on that date the male was watched at long range in murky weather repeatedly vacating the nest to engage in aerial combat with a pair of pestering crows which had moved in to sit about watchfully on convenient gateposts. From a human standpoint the female, feeding away in the Pool, seemed stupidly oblivious to the frantic notes of her harassed mate and completely disinclined to assist him in these unequal encounters. It was worrying to see the ease with which he was allowing himself to be lured from the eggs to which he was afraid to return for fear of betraying their whereabouts to the loitering crows.

On this day too his dilemma was aggravated by the establishment of a rival pair ("D") when a small, tangerine-coloured female came in and was quickly claimed by the spare male.

Seven "stranger" godwits passed by later in the day, halting briefly beyond the East Bank before resuming their journey.

Pair C's incubation continued fitfully on 26th with frequent interruptions by crows and great black-backed gulls which, as described in 1968, pass westward along the marshes in an endless stream. Nest-relief frequently took place immediately after such joint sorties against the black-backs, the off-duty bird taking over from its mate which went away to bathe and feed without returning to the nest.

Yearling Canada geese which lounged near the nest were sent floundering ignominiously away by well-directed prods in the nether regions, male C actually riding for a few yards on the back of one enormous outraged gander.



Although WFB succeeded in destroying a crow on April 28th the persistent pair was still very much in evidence and it was with considerable relief that I saw female C settle into her nest just before nightfall.

After so many hours of intensive watching one was bound to detect the slightest deviation from the godwits' daily routine and as I walked to the marshes the following morning *both* males came overhead in vociferous song-flight even before I had left the village and at least a mile from their breeding place. Together they encompassed the Reserve at an altitude of two hundred feet, filling the air with their songs. At first I was thrilled as always by that wonderful sound but, having asked myself why such an unprecedented thing was happening, I could not get to the Hide quickly enough to examine Pair C's nest-site through the telescope. There was no movement in the tussock nor watchful head to reassure me, though the male did approach at one time, only to fly off to meet his mate returning from the distant marshes at Wiveton.

I returned despondently to the Hide after lunch, only to find Pair C asleep beside the Pool and confirming all too clearly that they had lost their eggs.

WFB and I decided that the time had come to pay our very first visit to the nest which, due to the backwardness of the season, was found to be in very short grass and quite open to the sky. It was empty of course but completely undisturbed and with no trace of egg-shell or yolk in the lining. Only a crow could have done the job so neatly, presumably returning four times and removing each egg to a favourite sucking place which we tried unsuccessfully to find. No godwits showed up until we had returned to the coast road when the two males reappeared to chase each other half-heartedly beside the "Round Pond".

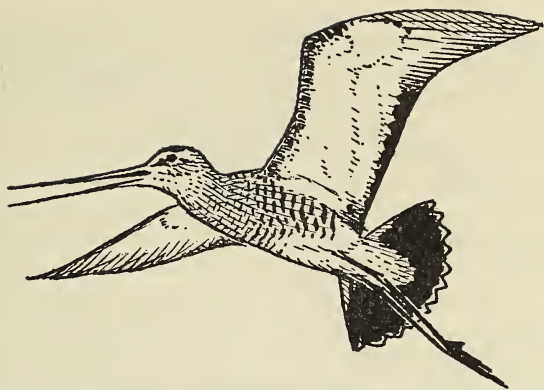
For the next four days the luckless Pair C were restless and undecided on the best course of action. They spent a lot of time away in the Wiveton marshes, returning periodically to assert their badly-shaken dominance over Pair D which still showed few signs of nesting.

On May 3rd however things looked like getting back to normal when both males were in song-flight and chasing each other. Male C also evicted a party of migrant bar-tailed godwits from the Pool, indulged in a little tail-display and made a couple of new nest-scrapes, which included one in the centre of the low clay-and-shingle island in the pool, an ill-considered and atypical site more suited to the ringed plovers and oystercatchers which were already in residence.

Pair D, after being dilatory for so long, at last decided on May 5th to nest on the opposite side of the Reserve at a spot conveniently overlooked from the roadside Observation Hut. Male D made at least two "scrapes", one of which was enlarged by his mate; then followed successful copulation, the first observed with this pair.

Meanwhile Pair C were once again spending most of their time at the Pool, the male occupying the "scrape" which his mate had accepted presumably as a "frustration nest" as made by the Speyside ospreys when disaster overtakes their eyrie. To my surprise, however, she appeared to lay an egg in it on May 6th but two days later confusion reigned for a time when human visitors lost their way and ended up peering through the windows of the Hide from the *outside!*

By May 8th three or four stranger godwits had taken up temporary abode in the Reserve and, although only non-breeding immatures, were chivvied from one marsh to another by the resident pairs.



At mid-day on May 11th WFB, after watching from the roadside Hut, followed male D back to his nest which was found to contain one egg; and by 14th both pairs were at last incubating full clutches, each of four eggs.

Pair C's curious nest, being so exposed and right in front of the Hide, provided unique opportunities for studying the birds' breeding behaviour and by the end of the season no British godwits' nest had ever been watched so closely by so many people.

The second week of May was comparatively uneventful in the godwit world. Pair C had obviously accepted the proximity of the Hide and its inhabitants and, provided one kept out of sight, it was possible to carry on a normal conversation without upsetting them. It was a delight to just sit with one's eye to the telescope and enjoy the enchanting picture, filling the field of view, of a godwit on its nest. Many were the occasions when I tried to penetrate beyond that inscrutable eye in which the reflection of the Hide could clearly be seen. That the sitting bird was happy I had no doubt, watching the comings and goings or drowsing contentedly in the rare gleams of sunshine. A fly basked on the black and copper plumage until the feathers were ruffled by a sudden breeze or the bird reached forward to retrieve an errant blade of grass, half rising to tuck it carefully into the nest. . . .

This contemplative mood came to an abrupt end on May 16th when rain began to fall and continued unremittingly for hours on end, cascading into the Hide through the perished roofing-felt and drenching watchers and record books alike.

Male C relieved his mate at noon and sat as if petrified throughout the afternoon, becoming progressively wetter as the minutes dragged by. Huddled in the nest, with white eyelids tightly shut and swallowing the raindrops as they trickled down his bill, he was the epitome of dejection. His mate became long overdue and at last he could bear it no longer, staggering to his feet, stiff-legged and saturated, before flying off to find her. She came back at once but after pecking about round the nest for several minutes, refused to sit and went away.

Clearly we had an emergency on our hands and one of the visitors who was with me in the Hide sportingly agreed to brave the deluge and summon WFB. I decided not to wait and, seizing an old newspaper, waded waist-deep through the Main Drain and out to the island.

The four eggs were almost afloat and the faithful male had been trying to brood them in an inch of water!

I placed the eggs on my woollen cap on higher ground nearby and set to work with balls of newsprint to soak up the water. The island had been made of non-porous clay which prevented the rain from seeping away and when WFB arrived we hurriedly made some small channels to drain the surplus into the Pool. The job took nearly an hour and after refurnishing the nest with a lining of drier grass we withdrew to the Hide to await developments with fingers crossed.

Male C was soon back and walked hesitantly across to the nest. At first he was suspicious of its new appearance, picking up a piece of debris in his bill and flying with it to the "mainland". Then he returned and without further ado settled down and began to revel in the unaccustomed luxuriance.

On the following day rain fell in torrents throughout the afternoon until puddles of standing water were again visible round the nest. There was no alternative but to try once again to rescue the eggs and for fifteen minutes we struggled to raise the nest by adding a layer of soil beneath the lining. Still undaunted the female accepted the innovation and resumed her duties as though nothing had happened.

Pair D's nest had also been flooded but routine incubation continued after "restoration".

To me it was quite incredible that these birds were prepared to tolerate such gross meddling and I was filled with admiration for their tenacity.

May 18th was certainly brighter but not without its blustery showers, male C holding his bill up at an angle with eyes tightly shut to counter the stinging hail-stones; but the worst of the weather had passed and thereafter pair C were able to incubate in peace.

Not so pair D however, for early on the morning of May 21st WFB noticed that the female was declining to sit in the nest which was found to contain only one egg. A second egg was lying nearby but the other two had disappeared, presumably to a nocturnal predator. On the following day the nest was empty and abandoned and, although male D was keen enough to try again (even usurping part of Pair C's territory) they gave it up as a bad job and had departed by midsummer.

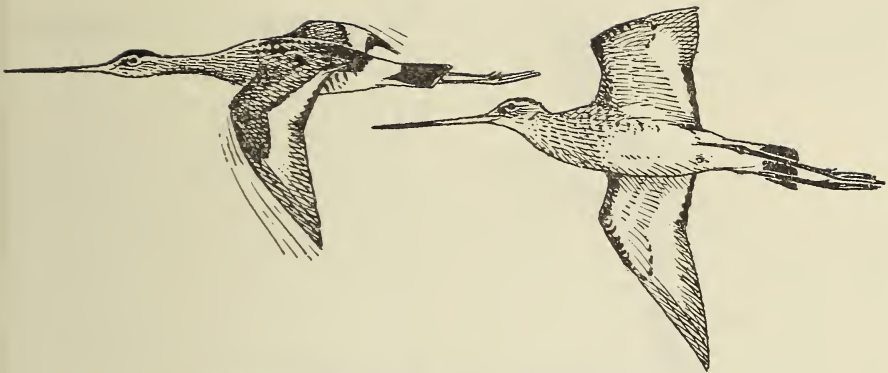
My impending absence from the county for the first half of June made it imperative for substitute watchers to be enlisted and, at the eleventh hour, this was done. The few enthusiasts who did volunteer kept valuable records until Pair C's hatching date of June 3rd came and went, but when no chicks appeared and it became obvious that the eggs were addled the watchers were withdrawn.

I returned from Fair Isle nine days later to find the Hide deserted but poor Pair C, with pathetic devotion, still trying to coax a spark of life from their decomposing eggs which were then belatedly removed.

That, then, is the end of another disappointing story for by the middle of July all our godwits had moved away and the marshes lay strangely silent under the summer sky.

What will 1970 have in store for us?

N.B. It was later disclosed that a pair had successfully reared two young at a new site in west Norfolk.



AMENDMENTS TO BEHAVIOUR NOTES

A further three hundred hours of watching have inevitably added to the knowledge gained in 1968 and the more important corrections are given below.

The Pursuit Display

The phenomenon described under this heading last year should more accurately be called the "beckoning display" as the male flies *ahead* of the second bird and leads it on as if saying "follow me".

The neck is extended further than depicted in the illustration on page 285 of the 1968 *Report* and a revised drawing is reproduced here.

True "pursuit display" is reserved for enemies and rivals as already described and often takes place at a great height when another godwit is involved.

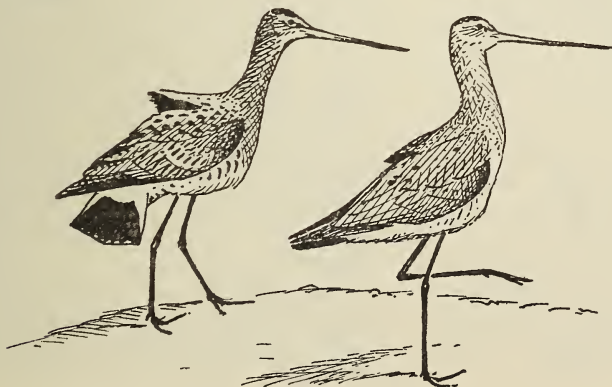
The Song Flight or Orbit Display

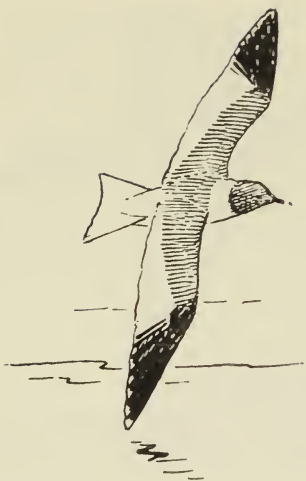
During this ceremonial the tail is fanned in the normal position, *not* screwed from side to side, except on rare occasions. The bird frequently orbits in silence for several seconds before resuming his song.

The Mating Ceremony

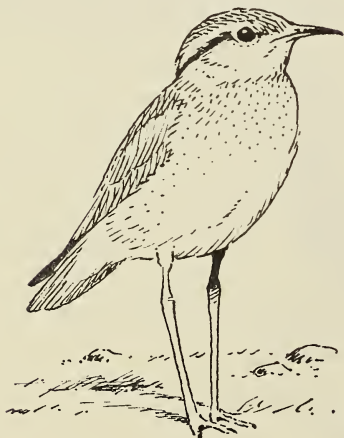
The female begins her "invitory walk" with a subdued wickering which ceases as soon as the male responds. She too raises her mantle plumage though to a lesser degree.

The male often fails to grip the female's "wrists" with his toes while mounted and this leads to instability and an abortive attempt, the female throwing him off impatiently at the crucial moment, especially in the early days of their relationship.





ARCTIC *and* SAHARA *vagrants*



Cream-coloured Courser

(report by P. R. Allard)

WHILST SEARCHING for a Richard's pipit in a partly harvested sugar beet field at Blakeney on 18th October a visiting ornithologist spotted a cream-coloured courser arriving from the direction of the saltings. Within a very short time a small army of bird-watchers had seen this stranger and by the weekend coaches were arriving from the Midlands and the London area.

It seemed quite content in its surroundings, finding an abundance of food. Against the light sandy soil it was very inconspicuous, running at speed in an almost endless series of dashes. Occasionally it concealed itself by crouching in small depressions in the ground. Curiously the very first Norfolk record was at nearby Morston 122 years ago. The courser remained in this area until mid-day on 29th – a day of strong north-westerly winds. That afternoon in East Norfolk a tractor driver harvesting beet at Ormesby East End noticed an unusual bird arriving from the north at 1530 hours. This was soon identified as a cream-coloured courser and, as in North Norfolk, the news quickly spread. Within days this desert stranger was attracting observers from as far away as Devon, Gloucestershire and Yorkshire. It seems fairly certain that these records relate to the one bird, but it is interesting to note that a flock of ten cream-coloured coursers was found at Wellerlooi in the northern part of the province of Limburg in the Netherlands on 12th September 1969. This appears to be the first time that more than three together have been seen anywhere in Europe.

The Ormesby courser favoured two partly harvested sugar-beet fields close to the sea; one morning it appeared in a farmyard only to be disturbed by an

over-keen photographer. As the days passed, it became more tame despite constant disturbance. By 9th November it could be approached to within two feet following the arrival of much colder weather. During this period it was fed with maggots which it took readily and was last seen alive on the 15th. On 20th November it was found dead in the field where it was first seen at Ormesby East End. The skin is preserved in Norwich Castle Museum.

It appeared to be an immature bird with a narrow black superciliary stripe above which was an inconspicuous white line, the right side being slightly more pronounced than the left. The short tail had a black sub-terminal band. It was predominantly sandy in appearance, with a few wavy brown lines on the lesser wing-coverts and black primaries. In flight the entire underwing showed black. The blackish down-curved short bill was pinkish inside when the bird was trapped, and the long legs scaly-white. The flight was fairly rapid with regular wing-beats. Often when disturbed it circled the feeding area at a height flying in the manner of a greenshank. Its feeding habits were similar to those of a golden plover: running rapidly a few yards then pausing before seizing a grub, worm or insect. When caught for ringing it weighed 117 gm. The feathers were sufficiently unabraded to rule out the possibility of it being an escape. The following measurements were taken: wing 161 mm., tail 59 mm., bill 22 mm. and tarsus 58 mm.

Being a desert species, the cream-coloured courser's migratory movements are not fully known, but its range extends over a large area from the Canaries and Cape Verde Islands across the Sahara east to Egypt and south to Lake Chad and the Northern Sudan. It is also found in eastern Ethiopia and from Somaliland to central Kenya. Some coursers wander erratically north and west which may

well account for the latest Norfolk observations and also for the three previous county records including one shot on Thornham beach 3rd October 1934.

Sabine's Gull

(report by H. Ramsay)

TWO DAYS AFTER a strong northerly gale had pushed large numbers of Manx shearwaters, gannets, fulmars and skuas close to land at the mouth of the Wash, an unusual gull was noticed sitting on the basket-shaped top of the marker post on the south groynes of Hunstanton beach. The stranger was identified as an adult Sabine's gull in full summer plumage. From Aug. 25th to Nov. 21st this delightful bird attracted the attention of galleries of interested spectators.

During its stay our distinguished visitor was not seen to wander very far from its chosen beat. This was along the shore line south of Hunstanton pier, to the groynes and beach beyond the Heacham boundary. The hub of its existence was the sewage outlet 920 yards from shore, where competition for "delicacies" with allied species was always keen. Yet even at this range, in good light, the distinctive wing pattern made the gull easy to pick out of the common throng as it hovered and dipped in the manner of a black tern.

As the tide receded the Sabine's would move to the beach where it could be watched at close range. In the air its delightful buoyancy and the striking contrast of black, white and grey triangles on the wings singled it out from the host of commoner gulls. In flight the Sabine's showed no marked difference in size to a black-headed gull. It would fly along the water's edge investigating, occasionally lifting on spread wings, before dipping to the white surf to pick up morsels. At other times it would join the screeching

multitude of black-headed, common and herring gulls in a cacophonous medley of beating wings over a tide-uncovered food spot. Here it would compete with its larger congeners, becoming dashing and piratical, and seemingly having taken lessons from brother skua in far away Arctic reaches. On one occasion a herring gull was cheekily robbed of a shore crab it was about to gorge, on another a small dog retreated without dignity when swooped on by a furious Sabine's. It was in hither and thither dashes of this kind that the not too conspicuous forked tail was seen to advantage. And once the voice of the gull was heard, a high pitched grating call, used in defiance to an aggressive herring gull.

Afloat on the sea or settled on a beach pool the bird became a buoyant swimmer with a high carriage reminiscent of a phalarope. Also, like the latter, but without the dizzily, quick movements, it would leisurely spin on the water, dipping its bill daintily to the surface. After feeding thus, or upon resting the gull often bathed, plunging the head vigorously downwards, then throwing the head back and half opening the wings to cascade the water over its back.

On shore its size (noticeably smaller than black-headed) and the short legs were at once evident. Additionally the dark mantle and hood were diagnostic, reminding one of a black tern in winter plumage. On the few occasions it was seen to walk, its gait could be described as less than jaunty, resembling the sedate dove rather than the dashing sanderling. Also dove-like was the profile of the head and the slight bill. When at rest on a post it adopted the sloping, head-down stance of a tern.

During the bird's stay there was a marked change in the appearance of the head. In the first few days the hood was completely slate grey, apart from a few small specks of white in the forehead. By Sept. 4th the gull

seemed to be balding having gone completely white in front. As time went on the extent of the white increased, but even by mid-Nov., at the end of its stay, there was still a large area of dark grey at the back of the head to the nape, which, in certain attitudes gave a completely black-headed look. Another change was noted in the colour of the tip of the bill. When first seen this showed an almost imperceptible lightness. By Sept. 22nd the typical bright yellow area of the adult had been assumed.

On a number of occasions the Sabine's gull was watched flying inland for a few hundred yards, where, in company with many common and black-headed gulls it settled to rest on a stubble ridge overlooking The Wash. That the bird fed on these occasions became apparent when, on Sept. 26th it was seen to eject a pellet which was collected and examined. It contained 12 barley grains and 70 complete beetles as well as many wing cases. The beetles were identified by entomologists at the British Museum, as being mainly *Sitoria lineatus* – a common weevil – plus one specimen each of *Amara plebeja*, *Amara alnea* and *Glischrochilus hortensis*.

Birds of Norfolk (1967) accounts for 18 occurrences of Sabine's gulls, since when there have been records at Cley in Sept. and Oct. 1967 and Oct. 1969, at Bacton Sept. 1967 and at Holme 1968. All the records are of single birds, and almost all of them refer to immatures. None of these birds was known to have extended its stay to more than two days.

Sabine's gull is an Arctic breeder in Spitzbergen, Greenland, Siberia and Canada moving southwards after the breeding season through the North Atlantic, so that almost all the British records are of birds in autumn and winter. Little is known of the wintering area of the species, which makes the prolonged stay of the Hunstanton bird all the more interesting.

WADER studies on the WASH

by C. D. T. Minton, *Wash Wader Ringing Group*

THE WASH is the most extensive area of mudflats and saltings in the British Isles and probably carries a larger Wader population than any other estuary in Western Europe. In the 1950's, considerable effort was put into ascertaining the Wader population there at different times of the year, to locating the high-tide roosts and the associated tidal movements, and to studying the visible Wader migration. During the last ten years attention has turned to more detailed studies based on ringing, and during the last three years it has become probably the leading Wader ringing station in the world. Most of the recent work has been carried out in the Norfolk half of the Wash and it therefore seems appropriate to review here some of the results so far obtained.

The **Oystercatcher** population on the east side of the Wash normally numbers about 5,000 in winter, and around 1,000 in summer. Most of these birds are of Norwegian origin, with a few also coming from Scotland, the Faeroes, and local breeding areas on the Norfolk coast, especially Scolt Head. This contrasts with Oystercatchers on the west coast of Britain which are mainly from Scotland, the Faeroes and Iceland. In late August 1969, one from Heacham was reported far to the east of any previous recovery – in Northern Russia, at an inland site east of Arkhangel, and close to the most north-easterly breeding area of the species. This is the first British-ringed Oystercatcher to be recovered to the east of Norway and fits in well with the Russian-ringed bird found at Salthouse in 1967 (see N.B.R. 1968 p. 334).

Both the adult and young Oystercatchers mainly arrive on the Wash in August. Many stay to moult and winter but some pass through to France and even to North Africa. During the early autumn up to a thousand Oystercatchers may move to the south side of the Wash but these return to the east side for the winter. There seems to be little interchange with the large flocks on the Lincolnshire side of the Wash, which roost at Skegness at high tide. The spring departure to Norway takes place very early – in late February and early March. One and two-year birds remain on the Wash throughout the summer – starting their annual wing moult as early as the end of May – and do not return to their natal areas to breed until later years.

The **Curlew** is spread relatively evenly around the Wash with a fairly stable population of around 10,000 from August to March, falling to about a tenth of that number during the summer. These birds breed in Scandinavia (mainly Finland), Russia and the Low Countries, and return to the same wintering area on the Wash each year. There seems to be no significant passage of Curlew through the Wash, only one bird being recovered on another British estuary (the Severn). There is no indication that any British-breeding Curlew winter on the Wash.

There is strong evidence that all three races of the **Redshank** occur on the Wash. Many of those visiting the Wash in late summer to moult are from the British population – local birds and birds from eastern England (e.g. Yorkshire) and Scotland. Some subsequently move on to northern France or other British estuaries for the winter. The Icelandic Redshank starts to arrive on the Wash in early August and subsequently stays to moult and winter – it can be distinguished from the other races by its greater wing length but there have also now been two recoveries in Iceland to support the measurement data. Continental Redshank (i.e. from Denmark) pass through the Wash in autumn and some reach down to North Africa for the winter. The winter population of around 5,000 Redshank is probably only about half the peak numbers reached in August and September.

The **Knot** situation on the Wash is still one of the most difficult to resolve in spite of the considerable numbers which have been ringed and the steadily increasing number of recoveries reported. So far it appears that birds of Greenland origin may be the predominant race on the Wash at all times of the year – in fact there is no direct evidence of Knot of Siberian origin ever visiting the Wash, except possibly the single recovery in Poland in late July. Many of the Knot which moult on the Wash in August–October subsequently move to western Britain for the winter and if these are of Greenland origin this is a rather unusual circular migration. At the same time as these Knot move off they are replaced in late October and November by others which one can only speculate have already moulted further to the east and may possibly be of Siberian origin. They bring the mid-winter population up to perhaps 100,000 in some years, making the Wash second only to the Dutch Waddenzee as the major wintering ground of the Knot in the world.

Some Knot also use the Wash as an area to fatten up before onward migration. In the autumn it is mainly the young birds which pass on southwards – all five recovered in West Africa within five weeks of ringing were juveniles. One made the 3,000 mile journey to Liberia in only eight days. In the spring also there is a considerable weight increase as the birds come into summer plumage prior to departing in the first half of May. Those which stay to summer – perhaps as many as 5,000 on the whole Wash – do not usually go into summer plumage, and start their annual wing moult at the end of May. They are probably mainly one-year old birds.

Although **Dunlin** are widespread on the Wash they are not as numerous as the Knot, having mid-winter numbers of about 25,000, with possibly twice that number at the peak in August. The majority of the Dunlin on the Wash at any time of the year are of the northern race (*alpina*), which comes from northern Scandinavia and Russia. The different races of the Dunlin can be separated by measurement of the wing and bill lengths, the northern race being the larger. The northern adults start to arrive in autumn in late July and all have arrived by late August. The annual wing moult is carried out on the Wash and some then move on to winter in western Britain or south to Iberia. This habit of Dunlin and Knot in moulting at an intermediate place between their breeding and wintering areas is unusual in birds and does not appear to have been previously shown to happen elsewhere in waders. The young Dunlin of the northern race mainly arrive in September, well after the adults, and like their parents some stay to winter while others pass on southwards and westwards.

The small numbers of southern Dunlin (*schinzii*) which pass through the Wash in the autumn are probably of Baltic origin. They could be of British or



Copyright R. P. Bagnall-Oakeley
 An adult Sabine's gull remained at Hunstanton almost thirteen weeks and was watched by scores of observers.



Copyright R. P. Bagnall-Oakeley
 An autumn vagrant from the Sahara, this cream-coloured courser visited Blakeney and Ormesby East End attracting a remarkable amount of attention.

Little terns and their eggs are now protected by special penalties following their addition to Schedule I of the Protection of Birds Act 1954.

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Black-tailed godwit at nest, Ouse Washes, May 1969. After well over a century with only isolated records of nesting in England, this species began colonising the Fens in 1952; by 1969 the population on the Cambs and Norfolk Washes had increased to 41 pairs.

Icelandic origin but there are no recoveries to indicate this. They do not moult, and pass on rapidly to winter quarters in West Africa, all having passed through the Wash by the end of August. They are closely followed by the juveniles – mainly passing through in August, but some lingering until early October.

The situation in the spring is not yet fully explored, but it appears that many Dunlin do not leave the Wash for their breeding grounds until mid-May. Many stay to summer – in contrast to the Knot, they *do* go into summer plumage – but it is not known which races are involved, nor is there any direct evidence yet that these are first year birds. One thing is clear however, and that is that Dunlin tend to return to exactly the same local area of the Wash year after year – whether this area is used for the autumn moult or as a main wintering area. There is almost no interchange between populations inhabiting areas only five miles apart – in contrast to Knot, for instance, which seem to move much more freely between the various coasts of the Wash.

The **Sanderling** has received particular attention in the last two years, since prior to that very little was known about the species. The peak autumn numbers of up to 2,000 occur in late July – concentrated in the Snettisham area – but by early September numbers have dropped to no more than about 300, the normal wintering population on the east side of the Wash. In spring the population builds up again towards the end of April with the main passage in mid-May (when up to 1,000 have been recorded at Heacham), and continuing right up to the end of the month. Very few now summer.

It is now becoming apparent that two different types of Sanderling visit the Wash. The one (slightly larger in size and greyer in appearance than the intensely rusty-brown of the other when in summer plumage) pauses on the Wash in the early autumn only long enough to replenish its fat reserves for the next stage of its journey. Some individuals can double their weight, and theoretical calculations and practical ringing results both indicate that these birds then fly direct to West Africa (between Morocco and Ghana) in one hop. Having moulted and wintered in this area, they then return to the Wash in one hop in May, again put on a considerable amount of extra fat, and then depart for their Arctic breeding grounds in another long flight.

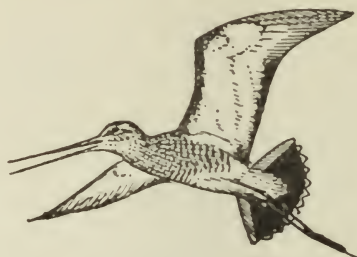
The other type of Sanderling arriving on the Wash at the same time in the autumn immediately commences its wing moult, does not put on weight, and subsequently stays to winter. It changes into summer plumage the following April, puts on weight and departs before the main passage of the other type of Sanderling, which has wintered further south.

It is not yet clear whether these two types of Sanderling correspond to the populations from the two distinct breeding areas – Greenland and Siberia. No distinct races of the species are accepted, and it will be particularly interesting therefore if this study eventually leads to the conclusion that the two types do correspond to birds from different geographical areas.

* * * * *

This article is intended to indicate the general patterns of behaviour of some of the species of wader which inhabit the Wash. Much detail remains to be filled in and many of the conclusions stated above ought really to be couched in more cautious terms since some of the evidence is still slender or lacking in volume. Nevertheless, it is already abundantly clear that the Wash is used, for one reason or another, by a significant proportion of the world populations of several species, and that any interference with the present status (such as a

barrage scheme) could significantly affect the world population of some waders. The Wash is not only a wintering area for waders – although this is what it is so well known for – it is also variously used as a moulting ground, as a vital feeding and resting place on spring and autumn migration, as a summering area for non-breeding birds, and as a breeding area. May the status quo be preserved!



Black-tailed godwits on the Ouse Washes

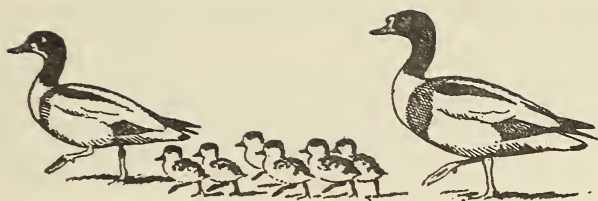
Black-tailed godwits have been breeding regularly for the last 18 years on the Ouse Washes in Norfolk and Cambridgeshire. The colony has built up from a single pair in 1952 to some 41 pairs in 1969. The 1952 breeding pair nested in Norfolk and the nest containing four eggs was found May 11th; these disappeared later in the month, probably taken by carrion crows but the birds nested again in Cambridgeshire. Young were seen on July 6th.

The gradual build-up of the nesting population is given in the following table; it relates solely to the Norfolk part of the Washes:

<i>Year</i>	<i>Total pairs</i>	<i>Pairs hatching</i>	<i>Year</i>	<i>Total pairs</i>	<i>Pairs hatching</i>
1952	1	0	1961	2	1
1953	2	0	1962	3	2
1954	1	0	1963	6	5
1955	1	0	1964	6	3
1956	2	0	1965	5	3
1957	2	1	1966	2+	?
1958	5	4	1967	?	2
1959	1	0	1968	8	8
1960	1	1	1969	8+	2

Accurate recording was not possible in 1966, 1967 and 1969 due to flooding. 1966 was exceptionally wet and some pairs nested in the surrounding land. Fluctuations in the numbers nesting in Norfolk are caused by favoured washes being too wet and under these conditions the birds have moved south across the county boundary.

"Breeding losses have been due to various causes, the most common being predation by carrion crows, jackdaws, brown rats, stoats, trampling by grazing cattle and flooding. The onset of nesting is to some extent controlled by the water level, but generally the first eggs are laid in mid-April with new clutches continuing up to mid-May. Exceptionally early nestings were shown by the finding of newly hatched young on 21st April 1961 (a laying date of about 28th March) and newly fledged young on 21st May 1969 (a laying date of about 20th March)." This summary is largely extracted from *British Birds* (62, pp. 259–270).



Reserves

Breydon Water (Local Nature Reserve)

Lapwing and redshank nested as usual on the adjoining marshes, together with 3 pairs of oystercatchers and a pair of gadwall. The first brood of shelduck reached the estuary on 27th May. Single spoonbills put in an appearance in May and September. Up to 8 avocets were frequent visitors between 23rd March and May 6th and from July 12th to September 8th; another stayed between November 23rd and 30th.

Among other highlights were bitterns, bearded tits, hobby, Kentish plover, 2 little gulls in breeding plumage and curl bunting. Exceptional numbers of redshank collected at Breydon from mid-August onwards reaching a peak of 648 on December 27th. Wildfowl maxima included 1,231 wigeon, 704 shelduck, 135 pintail, 7 goosanders and 238 white-fronted geese.

Cley Marsh (Norfolk Naturalists Trust)

1969 was an excellent breeding year for ducks with increasing totals of gadwall and shoveler. Bitterns were fed during severe weather, but there was no indication of breeding despite birds appearing in the spring. Bearded tits had a good breeding season and were present all year.

The migration section of this Report covers movements through the area and a special article describes the fortunes of the black-tailed godwits.

Blakeney Point (The National Trust)

An oil slick came ashore at the end of April just before the terns arrived. This near disaster was averted by all-round help, but it so happened the month of May started cold and it was not until the 15th that the terns returned in strength.

Common and little terns both had a successful year with 1,200 and 200 pairs respectively, but Sandwich terns were thwarted by high tides and departed most

probably to Scolt. 3 pairs of Arctic terns had favourable results with 5 chicks reaching the flying stage.

Common gulls returned to their usual sites and 2 pairs nested for the fifth year in succession rearing 4 young. 120 pairs of oystercatchers nested. Ringed plovers with 143 pairs and redshanks with 29 pairs were both well up on the previous year and most birds on the Point had a good breeding season except for black-headed gulls (only 4 pairs recorded). Roseate terns were frequently observed displaying.

A short-eared owl was present in the ternery during the breeding period; on occasions it was pursued across the harbour to the mainland by over 1,000 common terns! Many hundreds of Sandwich terns passed through during late July and early August; at high tides up to 3,000 (with many kittiwakes) gathered on the outer ridges. The terns departed rather early, but one common tern chick stayed till 7th Nov.; it had hatched as late as 5th Aug. There appeared to be a scarcity of Arctic and great skuas in the autumn, doubtless due to a shortage of whitebait. Hence the early departure of the terns.

Stiffkey Binks (Holkham National Nature Reserve)

All terns had a successful season with the Sandwich numbering 96 pairs, but this number was very low compared with the 1967 figure of 700 pairs. 130 pairs of common and 25 pairs of little terns nested; also 20 pairs of ringed plovers. Oystercatchers showed a slight increase: 25 pairs compared with 20 in 1969. There was no report of Arctic terns. 15 pairs of nesting black-headed gulls should not be compared with the 500 of the previous year as this figure includes the adjacent salt marsh as well as the Binks proper.

Scolt Head Island (The Nature Conservancy)

A record total of 4,500 people visited the ternery during the breeding season which was a considerable success. Sandwich terns numbered 3,850 pairs. The clutch size was the lowest on record since 1950 with only one nest in every ten having two eggs. However, the mortality rate among the chicks was very low and an estimated 3,500 reached the fledgling stage. In two nights a rat destroyed 80 clutches of Sandwich terns' eggs before being caught.

Common terns were slightly down on the previous year's number with 500 pairs nesting. Despite predation by a short-eared owl and a weasel that went uncaught 300 chicks reached the flying stage. 72 pairs of little terns nested and due to the absence of human disturbance there was a high breeding success. A pair of Arctic terns reared a single chick, and a second pair was present from mid-July. 500 pairs of black-headed gulls nesting in the ternery area reared some 1,050 young and a further 150 pairs attempted nesting at Plover Marsh. This high breeding rate contributed to the robbing of Sandwich terns of fish to feed their own chicks. Two roseate terns were present between May and July and one was feeding a young bird in the harbour for 4 days from Sept. 11th.

Three pairs of kittiwakes built nests and one bird laid a solitary egg which failed to hatch due to wind-blown sand. The usual influx of non-breeding kittiwakes arrived in mid-May reaching a thousand. The number of young shelduck raised was as low as 20. The totals of 120 pairs of breeding oystercatchers and 160 pairs of ringed plovers were slightly down on the previous year, but redshank increased slightly to 45 pairs. Wood pigeons again nested with 15 pairs using *suaeda* bushes for nesting sites.

Holme Nature Reserve (Norfolk Naturalists Trust)

The first bird indicating successful nesting was a mallard accompanying her brood on 29th May. 11 nests of little terns were found, but predators and high tides resulted in destruction of all the eggs. 2 pairs of redshanks and the same number of ringed plovers nested successfully on the wader pool. One of the latter's nests found on the beach near The Firs was roped off. Although repeatedly disturbed and threatened by tides—which on one occasion came within three inches—the eggs hatched. Several broods of shelduck were reared and 22 young assembled on Broadwater.

Migratory records at the Reserve are covered in the relevant section of the report.

Snettisham Pits Wildfowl Refuge

(Snettisham Holdings Company)

(Warden: R. Berry)

Pink-footed geese again wintered in the area, reaching a peak of 843 in mid-Feb. Maximum duck numbers were attained Dec. 29th when over 300 arrived including 139 tufted, 98 pochard, 39 goldeneye, 33 scaup and 4 red-breasted mergansers.

Among breeding birds were 12 pairs of ringed plovers (46 young fledged) and 35 pairs of common terns (only 18 young fledged).

Autumn migratory movement was at a peak between Oct. 28th and Nov. 2nd when totals of 8,800 fieldfares and 14,000 starlings passed over the pits.

Welney Wildfowl Refuge (Wildfowl Trust)

Black terns ceased to nest regularly in Norfolk before the middle of the last century, but some nested at Feltwell Fen after floods in 1853, and in 1858 a nest with two eggs was found at Sutton Broad.

The Ouse Washes attract variable numbers of passage migrant black terns in spring and unusually large groups appeared in 1966. That year severe flooding towards the end of April "destroyed the eggs of most ground-nesting species and as the water gradually receded, several black terns built nests but failed to lay. Most then moved on, but a few remained and two nests with eggs were found on May 18th in Cambridgeshire. The two nests were about 15 feet apart on the edge of open water and constructed of dead *glyceria* stems. The eggs hatched on June 15th and three young were successfully reared".

In 1967 "an attempt was made to reproduce similar conditions by embanking the area and pumping water on from the river Delph; there was, however, only a very small passage of black terns that spring and none remained to breed". No attempt at nesting was made in 1968, but in the wet spring of 1969 a total of seven nests was found including four at the Wildfowl Trust Reserve on the Norfolk stretch of the Washes. "Most of the seven nests were built on floating mats of filamentous green alga, although one was on exposed bare mud close to water". All four Norfolk nests hatched young. However, none reached the free flying stage as the flooded washes dried up rapidly leaving the young helpless to any predator.

Successful nesting of black terns on the Ouse Washes "seems to a large extent dependent on the availability of floating vegetation on water-covered areas of a suitable depth. A high priority aim of the management programme being devised will be to provide these conditions annually".

This summary is mainly extracted from "Godwits, Ruffs and Black Terns on the Ouse Washes" (*British Birds* 62 pp. 259-270).

Hickling Broad (Norfolk Naturalists Trust)

During the opening months of the year, 2 marsh and 2 hen harriers regularly patrolled the Reserve. Shelduck, ringed plovers and ruffs all returned before the end of March.

During April the wader grounds attracted a succession of migrants including black-tailed godwit on 4th, the first black terns and spotted redshank on 23rd, greenshank on 24th and both common and little terns next day. Turnstones were abundant on Rush Hills May 1st followed by over 50 black terns on 3rd, spoonbill on 9th/10th and black tern again on 28th.

Mid-summer wanderers included spotted redshank and wood sandpiper June 14th, a Montagu's harrier June 30th and a female marsh harrier. Bearded tits had a good breeding season and eruptive behaviour was noted Sept. 18th. Four pairs of bitterns summered (with 2 pairs at nearby Starch Grass) and among other breeding birds were 10 pairs of tufted ducks, 2 pairs of little terns on Rush Hills, 8 pairs of common terns, 4 pairs of garganey and single pairs of ringed plover and shelduck.

During Aug. and Sept. passage waders were often abundant and included greenshank, ruffs, little stints, spotted redshank, golden plover, wood and green sandpipers; also little gulls on 4 dates. Two marsh harriers reappeared early in Oct. remaining until the year end. They were joined by a hen harrier Nov. 18th when ruffs were still at Dreary's Pool. A male hen harrier arrived Dec. 27th.

Horsey (John Buxton)

An early boom from a bittern was heard on Feb. 4th, but snow closed in shortly after and the cold kept them quiet until almost mid-March. Two or three marsh harriers and an occasional hen harrier were present throughout the winter. As breeding time arrived the marsh harriers dispersed, although a fine cock was seen at intervals well into May and a female marsh harrier made less frequent appearances. No breeding took place.

Five booming bitterns were present and there were 30 pairs of bearded tits which have spread well into the reed marshes. A flooded reed marsh at Mere Farm was a great attraction and many snipe remained to breed – a comparatively new occurrence. Passage waders used this area up to May including ruffs and reeves, green and wood sandpipers, black-tailed godwits and grey plover. 2 pairs of oystercatchers nested including a pair on arable close to Horsey Mill.

Highlights of the year were 4 barnacle geese (with a white-fronted goose) and a merlin all at the end of Jan. Black terns passed through during the spring and autumn. On 2nd Dec. a great grey shrike appeared and a goosander was on Waxham Cut.

Other NNT Reserves

Bitterns and marsh harriers both visited **Alderfen Broad**, but nesting black-headed gulls were much less numerous.

After unsuccessful breeding attempts in earlier years, 2 pairs of pochard and a pair of tufted ducks reared young at **Barton Broad**. Two pairs of black terns raised hopes by staying several weeks in spring and a pair of common terns failed to rear young. The provision of a suitable tern raft is desirable here due to rapid changes in water levels. Over 30 great crested grebes returned in early March, but only half this total remained after early May and by the end of June only a single young grebe had been seen. Herons were more successful and 17 nests were occupied; 2 bitterns continued booming until July. The high total of 3 pairs of kingfishers summered.

Great crested grebes returned early to **Ranworth Broad** and 7 were present by the end of January. The heronry contained a total of 16 nests, but the colony of common terns was reduced to 30 pairs and 52 young reached the free flying stage. A wildfowl count December 27th produced 650 wigeon, 65 shoveler, 90 teal, 32 tufted, 9 pochard and 350 mallard; six days earlier a party of 18 shelduck made a brief stay.

Common terns again frequented **Surlingham Broad** during the summer, but have yet to breed successfully. Bitterns remained absent; in fact none was found in any part of the Yare valley.

A dozen pairs of bearded tits nested in **Starch Grass** and a pair of bitterns bred. A female marsh harrier spent the summer here, but failed to attract a mate.

In **Breckland**, at **East Wretham Heath**, both Ring Mere and Lang Mere had high water levels in spring and summer. Great crested and little grebes were frequently observed and a pair of pochard and 4 pairs of tufted duck reared young. During August the muddy margins at Lang Mere attracted passage migrant greenshank and common sandpipers.

Five pairs of stone-curlew reared young at **Weeting Heath**; towards the end of September a gathering of 22 birds assembled in the rabbit enclosure. At least 8 pairs of wheatears were located. As noted elsewhere, grasshopper warblers were almost abundant at **Hockham Fen**, where the breeding species included woodcock and goldcrests.

Curlew began nesting at **Roydon Common** sixty years ago and this year 2 or 3 pairs bred, together with shelduck and grasshopper warblers. At **Lenwade Water**, breeding birds included kingfishers, a small colony of sand martins, 3 pairs of great crested grebes and a pair of tufted ducks.



Migration

Cley and Salthouse

Regular observations were maintained and among the year's highlights were Savi's warbler, rock thrush, long-billed dowitcher, little crake and Caspian tern. Monthly summaries appear below:

January

Hen harriers were recorded over the reserve and on Salthouse heath, and a sparrowhawk was noted on 23rd. The same day, 2 bean geese arrived being joined by a third at the month-end. 30 white-fronted geese headed east on 15th with another 13 on 23rd. 16 shorelarks were present on 25th.

February

An early avocet arrived on 14th with glaucous gull and marsh harrier on 22nd/23rd. 4 little auks were found dead on the beach with puffins and razorbills on 23rd. Shorelarks peaked at 21 on 22nd, 11 white-fronted geese headed west on 14th and 4 red-breasted mergansers were new on 22nd.

March

Glaucous gulls were frequent visitors with 2 together on 11th. The marsh harrier which arrived on 22nd Feb. was last seen on 8th. Notable were 26 shorelarks on 2nd. A chiffchaff was singing on 16th (not the bird which wintered in the reedy ditch by the coast road).

Sea-fog and easterly winds on 15th forced back a great number of emigrating birds to the Norfolk coast. The majority were blackbirds and song thrushes with a few robins. 70 Bewick's swans moved east on 21st and the first black tailed godwit arrived on 28th. At least 3 water pipits and a number of Scandinavian rock pipits were identified amongst a strong passage of pipits on 30th.

April

The month began with a black redstart at the Point. An Iceland gull along the foreshore was of interest on 2nd and the first garganey appeared next day. 7 bean geese arrived on 4th, 2 hen harriers and a great grey shrike (on Salthouse Heath) on 6th were followed by an avocet and 2 more hen harriers on 7th when the first yellow wagtails, greenshank and common terns were noted.

The 8th saw another black-tailed godwit arrive while the male of the resident pair repeatedly chased and chived carrion crows. A sparrowhawk was new. Sand martins arrived on 9th and 3 new black-tailed godwits passed east on 10th when a chestnut and white ruff was on the marsh. The first little terns arrived on 13th with glaucous gull, hen harrier and great grey shrike still present on 14th. A second-summer Mediterranean gull was new on 16th and the first 5 whimbrel headed west.

A buzzard flew east on 19th and a spotted redshank was new. The first swallow arrived. The 20th produced the first sedge warbler with a scattering of willow warblers, the first green sandpiper, 3 white wagtails and a late jack snipe. The first black tern arrived on 21st during a period of south-east winds which also produced a male red-footed falcon on 24th and was followed by an enormous adult female peregrine. An early swift passed through on 22nd. New on 25th were common sandpiper and spotted redshank. Turtle dove arrived on 26th with 6 white wagtails, the first house martins, also a bittern and an influx of Greenland wheatears. The 27th saw the first reed warbler; whinchat and blackcap arrived next day when a cream and chestnut ruff was displaying to several reeves on the 14-acre marsh.

May

Seven late hoodies on the Eye field on 1st were of interest. 6 black terns flew east on 3rd when a late fieldfare was on the beach. More black terns came through next day when a total of 80 passed eastwards; other birds included spoonbill, 5 little gulls, osprey, merlin, Montagu's harrier, red-footed falcon, and little stint. An immature purple heron spent two days on the marsh from 5th and on 6th another late fieldfare was on the beach. One or two marsh harriers were over the reedbeds during this period with a female Montagu's harrier on 10th, hobby on 11th and the first red-backed shrike on the heath on 13th. A very unexpected visitor on 9th was a male rock thrush on Salthouse heath; also the first nightjar.

Turtle doves were passing west during this period: 120 on 14th and 54 on 15th. A Savi's warbler was in song on 15th in the identical territory occupied in 1967/8. A hen Montagu's harrier passed east on 16th with male grey-headed and blue-headed wagtails on view from the East bank next day.

Further migrants included wryneck on 20th, gull-billed tern west on 21st and 25 black terns, again eastward, on 23rd with 30 more on 24th. Waders during this period included avocet on 24th, 2 little stints and Temminck's stint on 25th. Another hobby was over the reserve on 27th with quail calling by Walsey Hills on 28th. Over 200 turtle doves passed west in small parties during the early morning of 29th. 2 avocets were on the North Pool and North Drain marshes on 30th and the month ended with 8 avocets heading east without stopping.

June

Five avocets on 2nd with 2 the following day on Arnold's marsh were perhaps from the party of 8 seen May 31st. A male golden oriole was singing at Kelling on 5th. A marsh harrier passed through on 12th when a little ringed



plover was by the North Drain. A Savi's warbler was seen carrying food on 23rd/24th, but no nest was found. 2 ruffs were new on 26th and by 28th a few curlews began to trickle west, also 2 bar-tailed godwits.

July

A "black" spotted redshank remained several days from 3rd frequently catching sticklebacks. 2 quail with 6 young were by Cley Hall farm on 7th and the Savi's warbler was again singing on 11th. The first green sandpiper returned on 14th and 2 roseate terns were on Arnold's marsh the same day. The second Mediterranean gull of the year passed over Arnold's marsh on 27th.

August

The first great skua of the autumn was seen on 2nd, also 4-5 Arctic skuas and Manx shearwaters with several black terns. The 3rd saw more black terns arriving.

During this period, up to 1,000 terns (mainly Sandwich, but many common, several little, 3-4 black and an adult roseate) were resting on Arnold's marsh between fishing sorties. On the evening of the 6th a Caspian tern joined them—the fourth year in succession this rarity has been recorded here.

An icterine warbler was new on 8th and another Mediterranean gull passed west on 11th. Bittern, 3 little gulls and little stint were noteworthy on 14th. A juvenile white-winged black tern stayed between 10th and 16th. A barred warbler was of interest along the East Bank on 18th with a little ringed plover on 19th and a second bird on 30th. 2 little gulls were new on 21st when parties of up to 24 curlew-sandpipers were heading west. A purple sandpiper was on the beach on 22nd when sea-watching produced many Arctic skuas, several great, pomarine and 3 long-tailed skuas, 20 sooty and 50 Manx shearwaters. The month ended with a bittern and flights of curlew-sandpipers.

September

A wryneck was on the beach on 1st with a steady stream of gannets and Arctic skuas offshore. Marsh harrier was new on 3rd followed by a hobby over

the beach on 5th. 2 dotterel moved west on 6th with glaucous gull and pomarine skua offshore. An early snow bunting came on 7th, also little gull. Another marsh harrier was seen on 8th/9th, the latter date also producing a barred warbler in Walsey Hills; it stayed 3 days. 10 little stints were noteworthy on 10th.

Highlight of the month was a little crane in Snipe's marsh from 13th to 24th. A spotted crane was by the Pool Hide on 16th with another on 29th/30th. Light N.E. winds and sea-mist on 17th resulted in a "fall" of migrants including many redstarts, robins, wheatears, 6 bluethroats, ortolan and Lapland bunting, 4 or more wrynecks, pied flycatchers and 3 early shore-larks. Hen harrier came on 17th and osprey and dotterel on 18th. Another little gull was present on 22nd with an early jack snipe. Another dotterel came on 23rd also wryneck and an influx of ruffs. A red-necked grebe was present at the month end.

October

A spotted crane by the Big Pool on 1st stayed till the 7th. A glaucous gull was offshore on 2nd and a marsh harrier passed through next day. Grey phalarope by the Beach road was a highlight on 4th; also a purple sandpiper there. Shorelarks increased to 7 on 6th and short-eared owls were coming in off the sea. Sea-watching on 9th produced a Cory's shearwater and a Mediterranean gull with a swift the same day. All 3 divers were inshore on 13th, also first Brent geese. Single merlins were seen on 14th and 17th with long-tailed duck on 16th and a smew was in the North Drain on 17th/18th. Waxwing was new on 19th and shorelarks increased to 50. An immature Sabine's gull was offshore heading west on 25th when another late swift appeared and the 27th saw Iceland gull and glaucous gull. 7 little auks on 28th were followed by a long-billed dowitcher at Weybourne on 30th.

November

The dowitcher was seen from the North Hide on 2nd remaining here till 4th. Bittern was noted again on 11th and 16 little auks were inshore on 5th. Small numbers of ruffs remained all-month. 3 white-fronted geese on 24th were followed by 23 Bewick's swans heading west on 25th.

December

Three whooper swans and 13 pink-footed geese passed west on 11th and a great grey shrike had returned to the heath on 19th. 5 whooper swans were new on 20th. Bewick's swans again headed west on 27th when 32 were seen and the year ended with 5 white-fronted geese on the marsh.

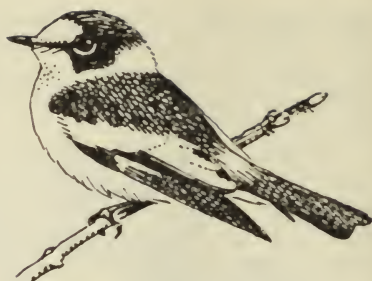
Blakeney Point

(*R. G. H. Cant*)

Trapping commenced April 26th when the highlight was a wood warbler, followed by black redstart next day. Whitethroats, blackcaps and garden warblers were all scarce spring migrants, but tree pipits and willow warblers were both plentiful. Late bramblings and a single pied flycatcher appeared in May.

Sunny days and clear nights throughout the greater part to the autumn meant empty bushes on the Point. However, the year's ringing total was a record one of 805 birds. Black redstart and stonechat were added to the ringing list which now comprises 3,120 birds of 57 species. Among the 1969 totals were 11 wrens, ring ouzel, 11 whinchats, 14 redpolls, 195 reed buntings, 7 lesser white-throats and 130 willow warblers.

Collared Flycatcher
(the first county record)
at Holme, 4th May



Holme

Although 1969 was not so spectacular as the previous year at Holme, a succession of interesting migrants was recorded. Spring highlight was a male collared flycatcher which was joined by a male pied flycatcher before departing. Amongst autumn vagrants were barred, icterine and yellow-browed warblers, bluethroat, wryneck and Richard's pipit.

At Holme Bird Observatory a total of 1,736 birds of 79 species was ringed. The grand ringing total since 1962 is of 13,145 birds of 122 species. Amongst those ringed in 1969 were 3 curlew-sandpipers, 2 black redstarts, nightingale, 129 robins, 7 grasshopper warblers, icterine, yellow-browed and 2 barred warblers, firecrest, collared flycatcher and 22 bullfinches.

January

Six shorelarks were found on 5th, but only one stayed; 3 skeins of white-fronted geese totalling 37 headed west during the month and 3 jack snipe were noted.

February

Following deep snow and sharp frosts, 300 wigeon, 50 shelduck, 10 golden-eye and scaup were noted whilst 3 short-eared owls were hunting regularly in the area. A single shore-lark remained.

March

Fourteen shore-larks joined the single bird on 22nd and 7 stonechats passed through during the month. Also noteworthy was a male hen harrier on 2nd and 3 corn-buntings.

The first spring migrants (garganey and wheatear) arrived on 30th.

April

Among noteworthy migrants were single firecrests on 2nd and 26th, black redstart on 4th with 2 on 5th, and singles on 6th, 9th and 26th; sparrow-hawk on 8th/9th, male red-headed bunting and merlin on 26th, and Temminck's stint on 29th.

Black-tailed godwit was new on 7th. Little terns began arriving on 11th. Blackcap was new on 4th with chiffchaff and sand martins on 8th, yellow wagtails on 10th and willow warbler next day. A big fall of migrants was recorded on 26th including 60 willow warblers, 8 chiffchaffs, 12 tree pipits and 25 yellow wagtails whilst swallows were moving west all day (up to 120 an hour), together with smaller numbers of house and sand martins.

May

The 3rd produced a wryneck, ring ouzel, 5 black terns and little gull. Highlight on 4th was a male collared flycatcher—the first county record; it stayed 3 days. Six late fieldfares appeared on 5th, one staying until 8th. A marsh harrier passed through on 10th and at this time waders included 15 whimbrel, greenshank, common sandpiper, sanderling, turnstones and spotted redshank. A large westerly passage of turtle doves took place on 13th together with swallows and swifts. An influx of 50 willow warblers on 14th was followed by a second marsh harrier and a spoonbill arrived to stay 10 days. New on 16th was another little gull, with marsh harriers on 18th, 24th and 25th. A quail was of interest on 23rd when a late black tern appeared followed by 3 more next day.

June

A fairly quiet month, but the 14th was a red-letter day with a red-footed falcon. 15 turtle doves headed west on 19th and red-backed shrike was of interest on 29th.

Whimbrel began moving west from 10th, common sandpipers returned on 14th, spotted redshank on 15th, lapwings on 16th, greenshank and green sandpiper on 21st.

July

The first Arctic skuas of the autumn arrived on 25th and large eastward movements of common and Sandwich terns east were recorded on 30th.

August

The first autumn pied flycatcher arrived on 1st and an immature little gull was new on 3rd. 8 black terns came in on 8th and a wryneck and early fieldfare arrived on 13th. A barred warbler stayed four days from 15th and 30 pied flycatchers were also in evidence. 8 black terns moved west on 15th. A second barred warbler arrived on 30th staying until 8th Sept. North-west gales on 23rd resulted in 12 great and 20 Arctic skuas, 20 gannets and a red-necked grebe.

Waders at this time included 150 whimbrel westward on 6th, several wood sandpipers including 3 on 14th, up to 14 spotted redshanks from 9th and one or two little stints and curlew-sandpipers from 30th.

September

A third barred warbler stayed briefly on 5th, and a marsh harrier passed through on 6th. Snow buntings arrived on 7th when 1,000 swallows were roosting in the reeds. A juvenile red-backed shrike appeared on 12th with the first bramblings next day. Following two days of N.E. winds with mist, the 15th produced 20 robins, 12 redstarts, 10 pied flycatchers, 10 garden and 4 willow warblers and 4 spotted flycatchers. A further fall occurred on 17th when 40 redstarts, 20 garden warblers and 12 tree pipits were new together with 2 bluethroats, wryneck and an icterine warbler. The 2 bluethroats and the icterine remained the following day and the first rock pipit came in on 19th. A scarce visitor was a grey wagtail on 20th and another barred warbler stayed two days from 21st. Other interesting migrants were wryneck, another bluethroat and 2 Lapland buntings with an icterine warbler on 22nd. 5 wrynecks arrived on 25th and two bluethroats were present. At sea on 27th were Manx shearwater, 2 great and 2 Arctic skuas.

Single dotterel were notable on 10th, 3 wood-sandpipers on 17th, 25 spotted redshank to the west on 7th and over 20 greenshank on 6th. 1–2 little stints and unusual numbers of curlew-sandpipers passed through with up to 20 on many dates during the month. Ruffs peaked at 9 on 15th.

*Four bluethroats were seen between
17th and 25th September.*



October

The 5th produced a small influx of tits and thrushes; 20 blue, 6 great, 6 coal and 8 long-tailed tits and a ring ouzel. The first redwing appeared on 6th and 11th, 6 siskins and 20 bramblings were present. A grey phalarope was at sea on 12th and a great grey shrike appeared; also 2 ring ouzels, 4 redstarts, and a garden warbler. New on 14th was a great spotted woodpecker and 4 shorelarks came in on 16th with black redstart. Highlight of the 18th was a yellow-browed warbler; also sparrow hawk, 10 shorelarks and 150 twites. Another ring ouzel appeared with grey wagtail and 5 little gulls. The first Brent geese were seen on 19th when a woodlark was identified. A Richard's pipit was on the golf course on 20th, also 15 shorelarks. A great grey shrike was present on 27th. Among Oct. waders were 2 black-tailed godwits on 18th, 2 curlew-sandpipers on 5th and 9 ruffs on 12th.

November.

Velvet scoter, gannet, 3 great skuas, immature glaucous gull, Arctic skua and 150 kittiwakes were all recorded on 3rd. A little auk was found alive on 5th, but later died. The following day saw a big movement of fieldfares from the east; also 3 whooper swans. A Mediterranean gull appeared on 9th, Lapland bunting on 16th, hen harrier on 22nd, and 77 Brent geese on 23rd. The same day a Leach's petrel was over the sea.

December

Seven whooper swans headed west on 12th and were followed by 85 Bewick's swans next day. A hen harrier arrived on 21st.

Dersingham Decoy

(R. Berry)

The decoy pond was frozen for the first two weeks of the year, but the N.W. pipe was kept open by hand and a regular evening flight of up to 100 mallard was maintained. Later in the month following a thaw over 100 teal arrived. Over 500 pink-footed geese were in the decoy area at this time.

Heavy snow and severe frost during Feb. greatly affected wildfowl, but at Wolferton over 4,000 wigeon and mallard could be seen.

During the breeding season a record total of 34 pairs of mallard, 2 pairs of shoveler and 3 pairs of gadwall reached the decoy. The dry summer and autumn resulted in very low water levels in the decoy and on two occasions pumping was necessary.

Autumn catches were disappointing despite a dog trained as a piper. The first ducks to be caught using a dog were on July 16th when the catch was 6 teal and 10 mallard. By the end of Aug. 180 mallard, 60 gadwall and teal were day roosting, some fighting at dusk to feed on adjoining stubbles. The piper was used regularly and although up to 58 ducks were decoyed into the pipe mouth, only small numbers entered the catching area.

By Sept. 11th 300 teal and 169 mallard were roosting during the day. The 29th brought a maximum of 495 teal, 223 mallard and 29 wigeon. Wigeon were a regular feature by early Oct. with up to 40 most days; 15 were caught. A major disturbance invaded the decoy area at this time when a dragline was used to re-shape one of the main drains running within thirty yards of the pond. Although over 500 ducks arrived at the decoy each morning, when work started on the drain all left. The lead of ducks was lost apart from 41 mallard which lingered until Oct. 28th when they were joined by 63 teal. As a result only 80 ducks were caught and ringed during Oct.

Over 100 teal and 200 mallard remained until Nov. 18th when the first hard frost of the winter covered the decoy in a thin layer of ice. During the month the hundred ducks that stayed managed to keep part of the pond ice-free. Dec. was also cold with ice most days resulting in only 90 ducks being caught. The area was by no means short of wildfowl however and on the Wash near Wolferton over 2,000 mallard, 1,000 wigeon and 1,000 shelduck were present.

The year's ringing total was 1,436 ducks as follows: 993 mallard, 402 teal, 21 gadwall, 15 wigeon, 4 shoveler and a scaup. Of this total, only 126 were caught using the decoy dog. In addition over 1,300 passerines of 45 species were trapped in mist nets and ringed including a firecrest Oct. 29th.

Selected Ringing *Recoveries*

When a wild bird is ringed it becomes an individual, identifiable from all others by its ring number, and, on recovery, certain details of its life and movement will come to light which otherwise would remain hidden. In order to include some of this extra information, and to make the annual list of recoveries into a readable account, the Ringing Report for 1969 is presented in a rather different form from previous years.

Numerous recoveries that follow well-established patterns, such as those for the Mallard and Teal, Dunlin, Black-headed Gull, Common and Sandwich Tern, Blackbird and Starling, are summarised, although the more interesting ones are mentioned in full. The space thus saved has been used to elaborate and comment on other recoveries where this adds interest to the Report.

Certain technical terms have been used, and the following may not be familiar to readers: a "recovery" is a report of a ringed bird, normally found dead; a "control" is a report of a bird handled alive and released by another ringer, and this may occur within a few yards of the ringing locality or many hundreds of miles away; a "pullus" is a nestling.

Shag

Isle of May, Fife 20.6.68

Holme (found dead) 10.4.69

Heron

Recoveries of pulli came from all parts of E. Anglia and Lincs. One was killed on a trout farm, and another apparently taken by a fox. There are 5 movements of more than 120 miles:

Wickhampton (pullus) 6.5.67

Zwartsluisje, Z. Holland, Netherlands 5.4.69

Wickhampton (pullus) 29.5.68

Dunkerque, Nord, France (shot) 15.10.69

Wickhampton (pullus) 27.5.69

Tenbury, Worcs. early August 1969

Ranworth (pullus) 11.5.69

Freneuse-sur-Risle, Eure, France 1.12.69

Denver (pullus) 30.5.68

Hebden, Skipton, Yorks. 27.3.69

Mallard

Autumn and winter ringing at Dersingham yielded recoveries from Germany (1), Netherlands (3), Denmark (3), Sweden (1), Finland (2) and U.S.S.R. (2). Most had been shot or taken in decoys.

Fano, Jutland, Denmark 1.8.68

Holkham (shot) 6.12.69

Teal

Birds ringed during the autumn and winter months at Dersingham and Cantley were reported from Ireland (3), France (1), Denmark (2), Finland (1) and U.S.S.R. (1). Autumn movement is clearly indicated in one of the Irish recoveries:

Dersingham (male) 28.9.69

Lough Ree, Athlone, Ireland (shot) 7.11.69

Selbjerg Vejle, Jutland, 26.7.66

Kimberley 17.1.69

Garganey

Migration commonly takes this species to S.E. Europe and the Middle East. The Turkish recovery is from the Dardanelles area.

Dersingham (male) 3.9.67

Sultanky, Ipsala, Turkey 27.3.69

Frodsham, Cheshire (male) 8.8.68

Salters Lode, Downham Market 7.9.68

Gadwall

Dersingham (male) 30.8.68

Camargue, Bouches du Rhone, France 23.11.69

Wigeon

Two recoveries showing possible origins of wintering birds:

Kholmogory, Arkhangel, U.S.S.R. 8.8.68

Snettisham 2.2.69

Estloten, Nyland, Finland (imm. female) 4.6.67

Blakeney (shot) 23.1.69

Shoveler

Dersingham (male) 8.1.68

St. Guenole, Finisterre, France 12.1.69

Tufted Duck

Dersingham (male) 29.8.68

Downpatrick, Co. Down, N.
Ireland (shot) 30.1.69Nakskov, Lolland, Denmark (ad.
male) 12.5.66

Barton Broad 24.4.69

Sparrowhawk

This bird was recovered alive 70 miles off Gt. Yarmouth, but died shortly after being brought ashore:

Hulsingland, Sweden (pullus) 7.7.69 North Sea 12.9.69

Kestrel

The first mentioned bird was skinned and sexed female:

Osterley, Middlesex (pullus) 3.6.68 Rackheath (found dead) 27.11.69

Snettisham 17.6.69 Yokefleet, Yorks. 10.8.69

CootHaarlemmermeer, Netherlands
6.1.68Near Ormesby Broad 10.3.69
(road casualty)**Oystercatcher**

Eight pulli ringed at Scolt in various years were recovered in Lincs. (1) and on the Norfolk coast (7). One was six years old when found dead.

Klepp, Rogaland, Norway (pullus) Snettisham 15.9.69
9.6.69**Ringed Plover**

East Frisian Is., Germany 16.6.66 Snettisham 2.3.68

Grey Plover

Snettisham 21.11.68 Carentan, Manche, France 1.12.68

Turnstone

There have now been several British ringed Turnstones recovered in Greenland on both east and west coasts. This is from the east.

Heacham 13.4.68 Norajik, Angmagssalik, Greenland
12.7.68**Snipe**

Cantley (juv.) 2.9.67 Martlesham, Suffolk (shot) 15.2.69

Black-tailed Godwit

Few of this species have been ringed in this country. The age of this individual is noteworthy:

Terrington (full-grown) 18.8.59 Butley Creek, Suffolk (controlled)
21.8.68**Spotted Redshank**

The second recovery in France for a British-ringed bird; there are others from Denmark and Malta.

Cantley (1st year) 24 and 26.8.69 Mézières-en-Brenne, Indre, France
(killed) 4.10.69**Dunlin**

Movements between Norfolk and the shores of the Baltic in both directions are now common owing to systematic ringing. The following long-lived bird was found dead on the pipe-laying barge Hugh W. Gordon:

Ottenby, Sweden (adult) 1.8.58 Off Gt. Yarmouth 12.4.69

Sanderling

Many more Sanderling are now ringed than previously, and two recoveries were received from abroad:

Snettisham (adult) 27.7.68 East Frisian Is., Germany 29.11.68

Snettisham (adult) 12.8.68 Keta, Ghana 5.11.68

Herring Gull

A recovery showing the origins of a wintering bird:
Klokkarholmen, Norway (pullus) Titchwell 26.12.66
20.6.66

Common Gull

Among the following is a bird that lived for close on 19 years. All gulls and terns are long-lived species if given the chance.

Heligoland, Germany (pullus) Winterton (found dead, oiled)
21.6.49 23.3.69

Kakrarahu Is., Estonia (pullus) Swaffham (dead) 22.10.68
28.5.68

Khaapsalu, Estonia 31.5.68 Hunstanton (dead on shore)
26.12.69

Snettisham 20.3.69 Flemlose, Fyn, Denmark 17.8.69

Black-headed Gull

Movements between Norfolk and Sweden (1), Finland (2) and Netherlands (1) were typical, and do not merit full details. Two pulli ringed at Scolt in 1966 were recovered at Trinit  -sur-mer, Morbihan, France (dead on road) on 22.2.69 and at Cartagena, Murcia, on the Mediterranean coast of Spain on 12.1.67.

Common Tern

Several Scolt-ringed pulli were reported from the Norfolk coast and one from Stilton, Hunts. One foreign recovery was notified:

Scolt (pullus) 6.7.69 Sines, Baixo Alentejo, Portugal
(captured by fishermen) 8.9.69

Sandwich Tern

During 1967-9, pulli were reported from France (1), Germany (1), Liberia (1), Ivory Coast (1) and Ghana (4). Two others merit full details:

Scolt (pullus) 14.7.67 Contarina, Rovigo, Italy
ca. 30.9.69

Scolt (pullus) 6.7.65 Forvie, Aberdeen (sight record in colony) 10.6.68

Guillemot

Farne Is., Northumberland Blakeney 2.5.69
(pullus) 30.6.67

Puffin

Farne Is., Northumberland Winterton (dead, oiled) 13.4.69
(pullus) 11.5.61

Turtle Dove

Boughton (full-grown) 4.9.66 Vielle St. Giron, Landes, France
14.9.68

Collared Dove

Recoveries of this species have indicated a very marked westerly movement that agrees with the observed spread of the species.

Hunstanton 17.12.67 Ballinlough, Co. Cork, Ireland
(cat) 6.11.69

Barn Owl

A movement of 60 miles, as given here, is very unusual for the species.
Geddington, Northants (pullus) Ashill, Watton, 17.10.68
17.8.67

Swallow

A South African ring was added to the bird when controlled:

Earlham (juv.) 23.8.69

Skidderspruit, Pretoria, Transvaal
2.11.69

House Martin

Ringling has not yet shed much light on the movements of the House Martin.

Alford, Lincs. 3.7.66

Potter Heigham (dead) 23.5.68

Sand Martin

1969 produced the best set of foreign recoveries to date. The first mentioned reached us after a Moroccan tribesman had given the ring to a Belgian tourist who then notified the British Museum! Richard Toll, where French rings are used, is a research station on the Senegal River.

Leziate (adult) 9.6.68

Djebel Masker, Moyen Atlas,
Morocco June 1969

Caistor St. Edmunds (adult) 1.7.68

Richard Toll, Senegal (controlled)
3.4.69

Richard Toll, Senegal 4.4.69

Sparham (controlled) 19.7.69

Blue Tit

Leziate (pullus) 3.6.69

Peakirk, Northants (controlled)
31.10.69

Bearded Tit

Ringling suggests that the Bearded Tit has migratory habits, so that it appears in winter in places where it does not breed, but later returning. The first recovery here suggests an autumn movement; all were controlled:

Walberswick, Suffolk 24.9.67

King's Lynn 21.1.68

Walberswick (juv. male) 14.7.68

Cantley 1.7.69

Minsmere, Suffolk 12.7.67

Brancaster 27.10.68

Fieldfare

Three breeding season recoveries have been received:

Boughton (adult) 14.12.68

Nokia, Hame, Norway 24.5.69

Rackheath (male) 10.2.69

Eidsvoll, Akershus, Norway
26.6.69

Rackheath (male) 11.2.69

Haltdalen, Sor Trondelag,
Norway 7.6.69

Earlham (full-grown) 27.11.66

Sézanne, Marne, France 30.12.69

Holme 22.10.65

St. Leonard des Parcs, France
(shot) 12.11.69

Song Thrush

Holme 5.10.66

St. Martin de Seignaux, France
26.2.69

Redwing

Leziate 8.12.68

Woolwich, Kent 6.3.69

Leziate 25.1.69

Hetlvik, Bergen, Norway 22.10.69

Ring Ousel

Holme 20.10.68

Hateville, France 24.11.69

Holme 15.9.68

Fosso della Moletta, Anzio, Italy
25.3.69

Blackbird

Northern breeding grounds are indicated among the following, and a remarkable multiple recovery is given in full. Other reports concern birds ringed or recovered in Scotland (1), Ireland (1), France (3), Netherlands (1), W. Germany (1), Denmark (2) and Norway (3).

- Kirkkonummi, Uusimaa, Finland
5.4.68
Signilskar, Aland, Finland 26.3.68
Earlham 31.12.66
Isle of May, Fife 7.10.65
- Robin**
Holme 15.9.69
- Blackcap**
Blakeney Point 28.4.69
- Willow Warbler**
Boughton 3.7.69
- Goldcrest**
The first British recovery from Norway:
Happisburgh (1st year) 28.10.68
- Starling**
Birds found in Norfolk in Feb. and Mar. 1969 came from Netherlands (1), Denmark (3) and U.S.S.R. (1). The Haisboro' Light Vessel provided two previously unpublished recoveries in Oct. 1968 from Latvia (ringed 15.5.66) and from Birmingham (ringed Feb. 1968). Listed in full are an unusually distant movement, and a Scandinavian recovery of an apparently British-bred bird:
Norwich (male) 15.2.69
Hunstanton (juv.) 2.8.67
- Linnet**
Blakeney Point (adult) 30.4.68
Cantley (adult male) 6.7.69
- Redpoll**
Several autumn-ringed birds from W. Norfolk have been trapped and caged in Belgium in recent years (see Norfolk B.R. 1966-7-8). No such recoveries were reported in 1969, but there are two during the breeding season in the Midlands, and two others concerning birds summering in E. Anglia:
Leziate (juv.) 18.8.68
Leziate (juv.) 28.9.68
Boughton (pullus) 3.8.66
Wassenaar, Netherlands 1.11.66
- Chaffinch**
Boughton (1st year male) 31.12.68
- Brambling**
Dersingham 21.10.68
- Hindringham (cat) 3.12.69
Binham 3.3.69
Martinkyla, Uusimaa, Finland
20.7.69
Stiffkey 10.12.65 and 7.2.66
Sandnessjoen, Nordland, Norway
(Lat. 66° N.) 12.9.68
Ile d'Ouessant, France (controlled)
21.10.69
Burford, Oxon. 26.6.69
Uckfield, Sussex (controlled)
16.8.69
Akeroya, Ostfold, Norway
(controlled) 26.4.69
Berezovka, Karelian U.S.S.R.
20.6.69
Tofte, Hurum, Norway 17.4.69
Thorpe, Chertsey, Surrey 15.9.68
Lit et Mixe, Landes, France
(captured) 3.11.69
Warsop, Notts. (controlled) 20.4.69
Wyboston, Beds. (controlled)
6.7.69
Wicken Fen, Cambs. (controlled)
24.5.69
Wolferton (controlled) 29.6.69
Langserud, Varmland, Sweden
(found with injured leg) 23.11.69
Cozoules, Dordogne, France
28.12.69

Classified notes

These Notes are based on *Birds of Norfolk* (1967) where fuller details regarding status, distribution, migration and ringing recoveries may be found. Important records for Wisbech Sewage Farm (part of which is on the Lincolnshire side of the county boundary) have been selected from the files of Cambridge Bird Club. Fuller details of Wash and Fen records may be found in the *Cambridge Bird Club Report* for 1969.

The order used is that of the *B.O.U. Check-List of the Birds of Great Britain and Ireland* (1952) and English names follow current practice. Observations refer to 1969, unless otherwise stated. To save space, all but the most essential initials have been omitted. Records are of *single* birds unless otherwise stated.

2 Great Northern Diver: East Coast: California, Feb. 3rd and Sea Palling, dead, April 13th. North Coast: usual autumn/winter records.

6 Red-necked Grebe: East: Yarmouth, dead, Feb. 27th.

Broads: Rockland, Dec. 1st.

North: Noted at Holme (4), Wells, Cley/Salthouse (2), Weybourne and Sheringham up to Jan. 26th and from Aug. 17th until mid-Dec.

Wash: Hunstanton Aug. 23rd and Snettisham G.P. 1-2 Sept. 27th to Oct. 9th.

7 Slavonian Grebe: East: Yarmouth, an oiled bird Jan. 18th later released at Ormesby Broad.

North: 1-3 at Holme, Wells, Blakeney, Cley and Weybourne until end Jan. and from Oct. 12th onwards with a single at Bayfield Hall Dec. 20th.

Wash: Hunstanton to Snettisham, ones and twos until April 5th and from Oct. 12th.

8 Black-necked Grebe: East: Breydon, Jan. 25th.

Wash: Hunstanton, Jan. 26th and Feb. 26th.

12 Leach's Petrel: North: Gore Point, Nov. 23rd.

16 Manx Shearwater: East: Winterton Ness, Sept. 28th.

North: Apart from two dead at Blakeney Point, May 3rd (RGHC), all records relate to autumn movements between July 7th and Nov. 24th. Largest movement Aug. 23rd during north-westerly gale when 67 (including 50 together) east off Weybourne and 36 east off Cley.

Wash: Most impressive numbers Aug. 23rd when 295 passed Hunstanton in 2 hours and 3 north at Snettisham. A bird of the Balearic race *mauretanicus* into Wash at Hunstanton Aug. 23rd (GMSE).

20 Cory's Shearwater: North: Cley, Oct. 9th (DFM). Fourth county record.

21 Sooty Shearwater: East: Waxham, 2, Aug. 24th and Yarmouth, Sept. 21st.

North: Weybourne, 14, Aug. 23rd and one Nov. 29th; Cley, 20 Aug. 23rd and one on 25th and Wells, Sept. 20th.

Wash: Hunstanton, 2-3 Aug. 23rd.

26 Fulmar: *Operation Seafarer* survey revealed a mid-summer total of 146 pairs, as follows: Happisburgh-Sidestrand Church 22, Sidestrand-East Runton 33,

East Runton–Sheringham 18, Sheringham–Weybourne 60 and Hunstanton 13 (where one young reared leaving nest Sept. 5th).

First birds returned to breeding ledges Nov. 29th (Weybourne) and Dec. 19th (Hunstanton).

27 Gannet: Autumn counts include 100 off Hunstanton, Aug. 23rd and 100 off Weybourne on 29th. One released at Yarmouth, Dec. 31st had head and beak enmeshed in fishing nets.

26 Cormorant: Maximum of 20 in Wash (Lynn Channel), but East Coast peak of 90 at Breydon, Feb. 15th.

29 Shag: Autumn/winter records from Wash (up to 4 Lynn waterfront with 5 roosting on Hunstanton cliffs), Ouse Washes (1–2), North Coast (up to 7) and East Coast (singles).

Inland records during Feb. from Wicklewood, Wymondham, Kimberley and Raynham.

30 Heron: Details of heronries as follows:

Borders of Wash: Snettisham 21 nests.

Fens: Islington 51 and Denver Sluice 32.

Breck: Didlington 12, Shadwell 9 and Narford 12.

Mid-Norfolk: Kimberley Park 15 and near Lyng 5.

Broads Area: Whiteslea 4, Heigham Sounds 9, Wickhampton 46, Hoveton Great Broad 1, Buckenham 30, Strumpshaw 8, Mautby 5, Ranworth 16, Ranworth marshes (Horning Hall) 16, Heron Carr Barton 17, Belaugh Broad 8, Fishley Carr Acle 5, Martham Ferry 4 and Wheatfen 5.

North: Holkham Park (Obelisk Wood) 9, Cley 4 and Wiveton Hall (Bob Scott Wood) 2.

South: Earsham (America Wood and Holy Grove) 6.

County total 353 nests at 26 sites.

None nested at Gen. McHardy's Wood Hickling. Upton site not counted.

31 Purple Heron: North: Cley immature May 5th/6th.

38 Bittern: Breeding birds restricted to Broadland and a full summary will appear in 1970 Report. Recorded on North coast at Titchwell, Holme, and Cley and in Breck at Stanford (and Sturston).

42 Spoonbill: East: Breydon May 11th to 19th and Sept. 1st to 3rd. Gorleston heading to sea Sept. 19th and near Reedham May 16th/17th and July 20th.

Broads: Hickling, May 9th–11th.

North: Cley, May 4th and Holme between 14th and 24th.

45 Mallard: Fens: Welney Washes, maxima 3,000 Nov. 8th and 2,800 Oct. 25th. Breck: Narford 2,000 Jan. 16th.

46 Teal: East: Hasingham 400 Jan. 18th. Fens: Ouse Washes (Norfolk) maximum count of 1,350 March 12th.

47 Garganey: Spring arrival from March 7th on Ouse Washes and subsequently at 10 other localities.

49 Gadwall: Breckland counts include 100 at Stanford, Sept. 1st and 350–400 there in early Oct. when 200 at Buckenham Tofts, 350 at Mickle Mere Nov. 2nd, 60 at Bodney, Dec. 14th, 80 at Thompson, Sept. 28th and 60 at Didlington, Jan. 9th.

Elsewhere, unusually high total of 384 at Gunton Park (near Cromer) Nov. 16th and breeding records on Wash at Wolferton and Lynn Point. In Fens (Ouse Washes) no party exceeded 8.

50 Wigeon: Maximum counts: Breck, 100 at Bodney Jan. 5th where 80 Dec. 14th, 160 at Stanford in Dec. and 100 at Shadwell, March 17th. East: Breydon, 1,231 Feb. 23rd and 1,200 Dec. 26th. Wash: King's Lynn-Hunstanton, 1,300 Jan. 8th. Fens: Welney, 6,500-8,000 Feb. 26th, 2,500 Nov. 24th, 7,000 on 29th, 9,500 Dec. 13th, 12,500 on 20th and 15,000 on 27th.

51 American Wigeon: North: Cley, Nov. 4th (DIMW).

52 Pintail: Maximum counts: Breck, Little Cressingham and Stanford 12-14 in Dec. East: Breydon, 135 Feb. 15th. Fens: Welney, 150 Feb. 26th, 270 March 10th and 200 Dec. 27th; Ouse Washes (Norfolk) 500 Jan. 26th and March 12th.

53 Shoveler: Largest assemblies in Fens and at Welney 200 Feb. 26th, 300 March 10th, 250 Sept. 6th and 40 Nov. 24th. Total of 460 on Ouse Washes (Norfolk) March 12th and 47 drakes April 23rd.

55 Scaup: Usual N/E coastal records of up to 28 (at Breydon), with largest number on Wash at Snettisham where 210 March 1st. Interesting inland observations on Ouse Washes (1-2 Feb. 20th and March 20th) and in Breck at Fowl Mere (pair May 26th).

56 Tufted Duck: Breeding records: Breck (record total of 58 broods): Lang Mere 4, Buckenham Tofts 9, Fowl Mere 3, Bagmore 3, East Wretham Meres 14, Merton 2, Stanford 4, Snetterton-Shropham area 12, Thompson 3, Gooderstone 3, Shadwell 1, Tottington West Mere 1, Tottington floods and Lexham 1.

Elsewhere in county nested in Fens (Wimbotsham G.P. 1 and Wisbech S.F. 6), Central (Marsham Bolwick 1 and Lenwade G.P. 1), Broads (How Hill 1, Barton 1 and Hickling 10) and in North (Selbrigg Pond 1).

Larger winter counts: East: (Breydon 60), Central (Blickling 51) Breck (Stanford 60, Fowl Mere 62 and Snetterton 70), Fens (Welney 200 and King's Lynn to Downham Relief Channel 157) and Wash (Snettisham 102).

Ring-necked Duck: East: Lower Yare valley area, drake, April 23rd to June 2nd (CRG, PRA). Second county record.

57 Pochard: Breeding records: Breck (record total of 31 broods): Stanford 4, Buckenham Tofts 9, Tottington West Mere 2, Snetterton-Shropham area 4, East Wretham Meres 9, Lang Mere 1, Thompson Cross Common 1 and West Tofts Mere 1.

Elsewhere nested in Broads area (Cantley 2 broods and Barton 2) and in Fens (Wisbech S.F. 1).

Maximum winter counts: Fens (400 at Welney) Wash (105 at Snettisham) and Breck (150 at Fowl Mere).

60 Goldeneye: As usual largest gatherings on Wash where up to 72 at Snettisham and 100 at Hunstanton. In North counts include 60 off Scolt, in East 28 at Breydon, in Breck ones and twos, in Fens (Lynn-Downham Market Relief Channel) 18 and in Central 15 at Taverham G.P.; in addition a drake summered at Lenwade G.P.

61 Long-tailed Duck: Wash (mainly Hunstanton area) recorded to April 5th and from Sept. 27th with 15 in Jan., 17 in Feb., 12 in March and 10 in Dec. Elsewhere, 1-4 along North coast up to March 9th and from Oct. 5th. East: California Jan. 15th and Winterton Nov. 6th.

62 Velvet Scoter: Wash/North coasts: apart from 9 off Cley Oct. 25th no party exceeded 7.

64 Scoter: Wash maximum 300 at Snettisham Jan. 25th and 300 at Heacham Feb. 22nd. Inland: Seamere 2, April 15th and Barton Broad 7, May 30th.

67 Eider: Largest assembly again on Wash where totals of 270 in Jan., 310 in March, 59 in May, 25 in June and 73 in Dec.

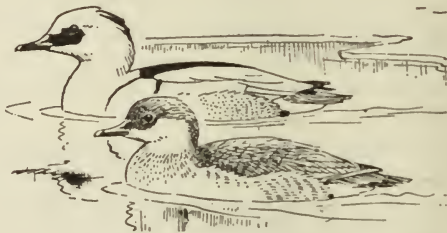
On North coast, at Scolt, 11 Jan.–March, 16 April to Aug., 22 Sept.–Nov. (apart from 90 Oct. 4th) and 30 in Dec. Only other notable record is 50 off Thornham Oct. 5th.

East coast: Yarmouth April 20th, Aug. 29th and Sept. 21st–26th and Winterton 5 Oct. 13th.

69 Red-breasted Merganser: Largest parties on Wash where maximum of 25 Nov. 23rd.

70 Goosander: Winter records from 30 localities. No party exceeded 7 apart from 22 at Holkham Lake and 20 at Neap's Bridge, Middle Level drain in Fens.

71 Smew: North: Salthouse Jan. 11th, an early bird at Cley Oct. 17th–19th and another Nov. 18th, Holme Nov. 16th. Inland: Blickling, Dec. 19th.



73 Shelduck: Wash: Between King's Lynn and Hunstanton 1,800 Jan. 8th and between King's Lynn and Wolferton 1,700 also 85 juveniles June 15th when 300 young in Vinegar Middle. Off Lynn Point 150–200 juveniles Aug. 21st.

Fens: Wisbech S.F. 180 juveniles July 26th. East: Breydon record total of 704 Dec. 28th.

76 White-fronted Goose: East: Breydon area, up to 250 till March 10th with first in autumn (24) Nov. 1st and 100 by Dec. 26th. North: Holkham, up to 84 till March 12th and up to 46 from Dec. 12th. Fens: Welney, up to 31 Dec. 13th–20th. Wash: Snettisham, 18 Jan. 8th and 28th.

77 Lesser White-fronted Goose: East: Yare valley, adult, Jan. 11th.

78 Bean Goose (*A. a. arvensis*): East: Up to 40 in usual locality till Feb. 15th and 42 from Dec. 19th onwards. North: Holkham 7 Jan. 14th to March 4th, Cley, 2 Jan. 23rd till 29th when 3 till 31st and 7 on April 4th.

78 Pink-footed Goose (*A. a. brachyrhynchus*): East: Breydon area, 7 Feb. 7th–16th and 60 on passage March 1st. North: Holkham, Jan. 12th to Feb. 28th with 5 March 1st and 3 on 15th and another Dec. 12th. Fens: Welney 22, Feb. 26th. Wash: Wolferton/Snettisham area, up to 843 from Jan. 1st to April 4th (26 then present); 63 returned Nov. 16th and 397 by Dec. 2nd. Over 200 battling north in a blizzard low over the centre of King's Lynn 19.15 hrs. Feb. 7th were lit up by street lighting.

79 Snow Goose: North: Holkham, 2, Dec. 12th onwards. See 1968 Report p. 318.

80 Brent Goose: East Breydon, counts include 20 Feb. 22nd, 8 March 20th–23rd and 7 Dec. 28th.

North: Brancaster, up to 700 with last 2 April 20th and first in autumn (26) Oct. 13th peaking at 650. Wells, up to 400 till March 23rd and 316 in Dec. Blakeney, 1,250 maximum Jan. 4th–20th, an early arrival (1) Aug. 10th and 800 from early Dec.

Wash: Mainly Hunstanton up to 113 till March and up to 196 from early Dec.; less regularly at Terrington Marsh (38) and Snettisham (103).

81 Barnacle Goose: North: Holkham 2 Feb. 16th to March 15th. Cley, Jan. 1st and Sept. 27th/28th. East: Horsey 4 end Jan.

85 Whooper Swan: Small herds up to 16 (with 25 at Welney) at usual haunts up to April 13th and from Nov. 6th.

86 Bewick's Swan: Recorded up to April 22nd and from Oct. 4th at 30 localities. Following summary largely restricted to principal wintering areas: In Fens, Ouse Washes (Welney) counts include 110 Jan. 26th, 70 March 12th, one Oct. 4th, 68 Dec. 13th, 95 on 20th and 293 on 27th.

In S.E. Norfolk the levels at Breydon, Halvergate, and Burgh Castle again favoured, but main concentration at Norton and Low Thurlton using floods on the Suffolk side of the Waveney for roosting. Counts include 79 Jan. 25th, 85 Feb. 15th, maximum of 148 March 1st, 71 April 2nd and 45 on 7th (when 70 at Halvergate).

Among spring departure records were 15 at Holme March 6th, 83 at Snettisham and 60 at Weybourne on 20th, 45 at Seamere on 21st and 30 at Breydon April 7th.

Winter arrival noted at Cley Nov. 12th (19), Brancaster Dec. 7th (14), Breydon on 12th (32), Holme on 13th (54 and 31) and Snettisham same day (50).

Further reading: "Bewick's Swans in Britain and Ireland during 1956-69" (*British Birds* 62 pp. 505-522).

91 Buzzard: Spring/Autumn records from Winterton (3 together April 13th), Rackheath (2), Breydon (8 passed over in an hour March 28th) Shadwell, Stanford, Wells, Cley, Roydon Common and Snettisham. At Yarmouth one washed ashore Dec. 27th.

92 Rough-legged Buzzard: East: Winterton Jan. 2nd. West: Roydon Common March 3rd. Fens: Ouse Washes Feb. 22nd. Wash: Snettisham/Dersingham Feb. 24th, March 22nd and Dec. 13th/14th and 31st. Breck: Tottington/Stanford Feb. 2nd and March 1st.

93 Sparrowhawk: Records from 45 localities but no known breeding successes.

94 Goshawk: North: Salthouse Heath Oct. 18th (PGL).

95 Kite: Ludham, 2, April 16th (RWC) with one at Worstead the same day (WJH *per* EAE) and one at Earlham on 22nd (MG).



98 Honey-Buzzard: Wash: Snettisham, Sept. 6th (RB).

99 Marsh Harrier: Broad: a female summered in the former breeding stronghold with up to 3 birds in autumn and winter.

North: Frequent records of singles in coastal areas in spring and autumn. Wash: Autumn migrants at Snettisham and Wolferton where one shot Aug. 23rd.

100 Hen Harrier: Recorded up to April 14th and from Oct. 10th at usual coastal localities including Wash and also in Broadland and in Brecks. Mostly singles,

but 3 (2 males) at Buckenham Tofts, up to 4 between King's Lynn and Snettisham and 3 (1 male) in Winterton-Horsey area.

A male was shot at West Acre March 26th.

102 Montagu's Harrier: Total of 7 coastal passage birds from April 27th.

Breck: One wandered widely between June 5th and end of Aug.

103 Osprey: Total of at least 11 at Snettisham, Cley, Lexham Hall, Stanford, Snetterton, Sparham, Antingham, and Hoveton and Wroxham Broads. Extreme dates April 24th and Oct. 20th.

104 Hobby: Total of 14 between May 7th and Sept. 21st at Breydon, Cley, Blakeney, Morston, Sandringham, King's Lynn, St. Helen's Well, and Lang Mere.

105 Peregrine: Total of 13 at Breydon, Winterton, Cley, Morston, Wells (chasing oystercatchers), Holkham, Brancaster, Scolt (feeding on starlings, redshank and knot) Wolferton, Welney, Narford and Norwich.

108 Red-footed Falcon: North: Cley April 24th and May 4th and Holme June 14th. West: King's Lynn by-pass May 7th (OL).

117 Quail: Summer records from Sheringham, Salthouse Heath, Blakeney, Bodham, Binham, Cley (pair with 6 young) Weybourne, Holme, Ringstead, Hockwold, Tittleshall (4-5 calling), Thetford area, Rushford, and Morley St. Botolph. Additional 1968 record: Hunstanton June 19th.

121 Spotted Crake: North, Holkham, Jan. 17th (OL) and Cley Sept. 16th and Sept. 27th to Oct. 7th and another Oct. 17th.

124 Little Crake: North: Cley immature Sept. 13th-24th. Only the second county record this century.

125 Corncrake: East: Ormesby calling for several days at end of April (*per PRA*), North: North Creake wired May 21st (JPM) and Blakeney Aug. 31st (HH).

131 Oystercatcher: Breeding records of *pairs*:

East: Breydon marshes, 3 (including one on south side) and Stokesby marshes, one.

Broads: Horsey 2, Neatishead, Repps and Wayford Bridge each one pair. North: Cley 6, Blakeney Point 120, Stiffkey Binks 25, Wells one, Burnham Overy 4, Scolt 120 and between Brancaster Staithe Harbour channel and Titchwell creek 20 (including 2 nests on golf course).

Wash: Snettisham-Wolferton 4 and Snettisham-Heacham 7.

Maximum count of 5,000 on east Wash in Jan., Feb. and Sept.

134 Ringed Plover: Breeding records of *pairs*:

East: Yarmouth North beach, one. Winterton-Horsey 8 and Hickling one. North: Mundesley one, Blakeney Point 143, Stiffkey Binks 20, Burnham Overy-Wells 3, Scolt 160 and between Brancaster Staithe harbour channel and Titchwell creek 76 (including one in a bunker on golf course and another in the rough between two fairways). Wash: Heacham-Snettisham 12, Snettisham-Wolferton 22 and Wolferton-King's Lynn 2. Inland: Quarles one pair in 1968/9 in sugar-beet and in Brecks at Tottington one pair.

135 Little Ringed Plover: West: At one site 3 pairs bred successfully (2 of the pairs considered double brooded) and 11 young ringed. Central: A pair fledged 2 young from 2 broods. Other breeding sites known in previous years not examined.

Passage migrants from April 10th (Cantley) 12th (Swanton Morley) and largest autumn assemblies at Wisbech S.F. (up to 9 from July 19th to Sept. 18th with one remaining till Oct. 18th) and King's Lynn B.F. (2 from end July to end Aug. with 7 Aug. 3rd).

136 Kentish Plover: East: Breydon Feb. 16th (TB).

140 Golden Plover: Central: Largest gathering near Foxley wood Feb. 20th where 1,200 singing and displaying, but only 250 next day. In Brecks 1,000 Marham in Jan. when 600 at Bodney and 500 at Little Cressingham. In Fens 1,000 on Ouse Washes April 23rd.

142 Dotterel: North: Cley 2 west Sept. 6th, Holme one on 10th and Cley on 18th and 23rd.

143 Turnstone: Wash: Holme-Snettisham 600 March 3rd is maximum count. Fens: Welney April 13th and May 4th and at Wisbech S.F. main passage Aug. to mid-Sept. with maximum of 30 Aug. 18th. Central: Lyng G.P. May 11th (BWJ).

Long-billed Dowitcher: North: Weybourne Oct. 30th (PRW) and at Cley Nov. 2nd-4th Third county record.

146 Great Snipe: Fens: Wisbech S.F. Aug. 21st-24th (JAWM).

147 Jack Snipe: Extreme dates April 22nd (Winterton) and Aug. 24th (Wisbech S.F.).

150 Curlew: Breeding: 12 pairs in Breck in Stanford-Tottington areas and 2/3 pairs in West at Roydon Common.

Wash: Wolferton largest count 2,000 Aug. 23rd.

151 Whimbrel: North: Peak autumn movements end July and early August with 150 at Morston July 24th-29th and 50 at Holme Aug. 6th.

154 Black-tailed Godwit: Breeding: North: Cley 2 pairs nested but no young. Wash: Pair reared 2 young. Fens: Ouse Washes (Norfolk stretch) 8 nesting pairs but only 2 pairs reared young due to flooding (see page 18).

Spring arrivals began March 10th when 17 at Welney and early autumn movements include 9 at Breydon July 27th, up to 20 at Wisbech S.F. and 20 at Terrington on Wash Aug. 27th.

155 Bar-tailed Godwit: East: Breydon, spring peak of 55 May 3rd. Wash: King's Lynn-Hunstanton 1,200 Jan. 8th with 600 off Wolferton March 23rd and 1,000 off Snettisham Oct. 7th.

157 Wood Sandpiper: Autumn coastal passage of small parties at usual sites with impressive totals at Wisbech S.F. where present June 17th-Oct. 9th with maximum of 37 Aug. 13th. Inland: Up to 6 at Cantley B.F. Aug. 10th-28th, 1-2 at Taverham G.P. Aug. 5th-13th and one in Breck at Sturston on 23rd.

159 Common Sandpiper: Winter records at West Walton (Feb. 9th), Swanton Morley (Nov. 12th) and Cley (Dec. 29th). In Fens, autumn passage at Wisbech S.F. July 30th to Oct. 18th with peaks of 60-65 Aug. 9th-19th and 75 on 13th. At Cantley B.F. up to 12 Aug. 10th to Oct. 1st.

162 Spotted Redshank: Spring/autumn coastal passage records (mainly ones and twos) from usual localities including Broads and Wash. Among larger groups between Aug. 24th and 8th Sept. were 9 at Cantley, 11 at Breydon and 14 at Holme. At Wisbech S.F. present from June 19th to July 3rd and July 19th to Oct. 11th with 12 June 26th and Aug. 18th and 29 on Sept. 24th.

Inland: 4 over Foxley at tree-top height Aug. 17th (ALB) and one at Tottington West Mere Aug. 9th where 3 Sept. 6th (CNA). Winter records at Brancaster and Snettisham.

170 Purple Sandpiper: North coast: Ones and two sat usual localities up to March 11th and from Sept. 17th; in addition up to 3 at Titchwell, 5 at Brancaster, 7 at Cley and 12 at West Runton.

Wash: Hunstanton 1-3 up to April 5th and from Sept. 2nd and singly at Heacham and Snettisham where one remained from Sept. 13th until found dead on beach Nov. 8th.

East: Winterton, Nov. 23rd.

171 Little Stint: Usual very small spring passage when one at Breydon May 4th with 2 on 19th, and 3 at Cley on 21st. Autumn coastal passage July 23rd to Nov. 15th, but only on a small scale. Largest party 16 Wisbech S.F. Sept. 24th/25th.

173 Temminck's Stint: North: Holme April 29th (HR), Cley, May 25th–28th and Stiffkey 3 May 29th–June 3rd (HH).

176 Pectoral Sandpiper: North: Holme Oct. 5th (JAWM) and Wells on 8th (DFM). Fens: Wisbech S.F. July 9th (OL), 10th, Aug. 7th and 21st (JAWM).

178 Dunlin: Wash: Hunstanton to King's Lynn 15,000 Jan. 8th.

179 Curlew-Sandpiper: Remarkable autumn passage was at peak during last week of Aug. and first week of Sept. Best series of counts at Wisbech S.F. where 22 Aug. 19th, 61 on 24th, 80 on 25th, 120 on 27th, 204 on 28th, peak of 400 on 29th/30th, 350 Sept. 2nd then steady decline to 110 by mid-Sept. and 15 at month end.

No impressive Wash counts received apart from 80 at Lynn Point Sept. 7th.

Maxima elsewhere include King's Lynn B.F. (10), Cley (39), Holme (17) and Breydon (32).

An interesting series of Sept. counts at Brancaster golf course where the birds (accompanied at times by oystercatchers, bar and black-tailed godwits, whimbrel, curlew and ruffs) became exceedingly tame: 63 Sept. 3rd, 74 on 4th, 66 on 5th decreasing to 42 by 7th, 28 on 8th, 17 by 11th, 9 on 15th and 3 by 24th (RK).

181 Sanderling: Wash: 300 wintered at Hunstanton. At Snettisham counts include 781 May 18th and 983 Aug. 13th.

184 Ruff: Fens: Wisbech S.F. passage birds from June 12th until Nov. 15th and 90 by July 3rd, 130 on 24th, 170 on 30th and peak of 200 Aug. 18th.

Ouse Washes (Norfolk) counts include 54 Jan. 17th, 200 March 8th and 111 on 12th. At Welney 25 Feb. 26th, 60 March 10th, 50 Sept. 6th, 45 Oct. 4th, 30 on 11th, 150 on 18th, 200 on 25th and Nov. 1st and 25 Nov. 8th and Dec. 13th.

N./E. Coasts: Usual passage records including 50 at Cley Sept. 27th and 34 there Oct. 9th; up to 7 at Cantley B.F. July 13th to Oct. 12th and 9 on Hunstanton G.C. Sept. 15th/16th. In winter 4–7 at Hasingham Jan. 26th–29th, 1–3 at Breydon, Dec. 7th–14th and 2 at Winterton on 18th.

185 Avocet: East: Breydon an exceptional year with singles March 23rd, April 4th and 26th and May 6th followed by 4 July 12th increasing to 5 on 19th, and to 6 on 20th with 2 on 26th and 3 between 27th and Aug. 9th; 8 were present Aug. 10th and 3 remained until 13th with 2 more Sept. 8th and a single bird Nov. 23rd/30th.

North: Cley, Feb. 14th and April 7th and 30th with 2 May 30th and 8 on 31st, 5 on June 2nd and 2 on 3rd.

Wash: Snettisham Jan. 12th, March 25th and 2 May 6th.

187 Grey Phalarope: North: Salthouse Oct. 4th, Cley Nov. 9th and Holme Oct. 12th. Wash: Hunstanton Oct. 7th (DFM) and 31st (DIMW).

188 Red-necked Phalarope: East: Yarmouth (harbour mouth) Sept. 3rd (DAD). Wash: Snettisham Sept. 5th (RB).

189 Stone-Curlew: Brecks: Spring arrival from March 14th (Mundford) and total of 12 nests known in Bodney, Mundford, Stanford, Tottington and Thompson areas. Autumn assemblies at Weeting (22) and at Gooderstone (41) till Oct. 15th.

North: Single pairs nested successfully near Wells, between Bodham and Weybourne and near Bayfield; also recorded at 4 other sites.

192 Cream-coloured Courser: North: Blakeney Oct. 18th–29th (PAL *et al*) and Ormesby East End from 29th (p.m.) until Nov. 15th. It was found dead on Nov. 20th and the skin is in Norwich Castle Museum. See page 12. The fourth county record.

193 Arctic Skua: N./E. coasts: Single spring record: one moving inland Horsey Warren April 20th.

Autumn passage from July 6th to Nov. 18th with most impressive numbers inshore during N.W. gale Aug. 23rd when 95 off Weybourne and 63 moving into Wash (and 6 leaving) at Hunstanton in 2 hours. Wash: Lynn Point, 3 moving S.S.W. inland Aug. 21st.

194 Great Skua: Wash/North coast: Autumn passage from Aug. 23rd to Nov. 29th. Frequently up to 3 together with 8 off Weybourne in N.W. gale Aug. 23rd when 12 off Holme and total of 57 passing Hunstanton in 2 hours; 12 at Weybourne Aug. 29th is also notable.

East: Yarmouth 2 (one oiled and dying) Sept. 4th (PGR).

195 Pomarine Skua: North: Wash (Hunstanton to Weybourne) total of 12 between Aug. 23rd and Oct. 9th with another Nov. 4th.

196 Long tailed Skua: North: Cley 3 Aug. 23rd (EMPA, KA, GED) and another Oct. 4th (EMPA, KA).

201 Common Gull: North: Blakeney Point, 2 pairs nested.

202 Glaucous Gull: North coast (Hunstanton eastwards and particularly Cley and Weybourne): Frequent records of usually single birds up to May 8th and from Sept. 6th.

Wash: Heacham March 28th.

East: Winterton Feb. 18th–March 29th with a second bird Feb. 25th and Breydon Oct. 3rd/4th.

Inland: Harford refuse tip Jan. 3rd (EAE).

205 Mediterranean Gull: Record total of at least 9 birds. East: Eccles/Sea Palling March 29th/30th (MPT), Waxham Sept. 29th (RAFC) and Eccles Nov. 10th (BWJ). North: Cley April 16th, July 27th, Aug. 11th and Oct. 9th, Blakeney Oct. 9th and 19th (DFM, PAL), Blakeney Feb. 27th to March 27th (HH), Weybourne Oct. 18th (RPB-o) and Gore Point Holme Nov. 9th (CAEK).

207 Little Gull: N./E. coasts (including Breydon): Observations in each month particularly in May and July–Oct. Mostly ones and twos but also parties up to 5. During N.W. gale Nov. 4th 5 off Holme, 7 off Cley and 3 off Salthouse. A further N.W. gale brought 6 to Holme Dec. 22nd.

Fens: Wisbech S.F., 3 between May 12th and July 2nd and up to 4 frequently July 3rd to Aug. 7th with another Sept. 29th.

Broads: Hickling 2 Sept. 4th.

Other interesting records from Holkham Lake April 29th and May 18th and Gunton Lake Sept. 1st.

208 Black-headed Gull: Number of *pairs* at breeding sites include: North: Scolt 650, South of Norton creek 28, Stiffkey Binks 15, Blakeney Point 4, Cley 400 and Salthouse 200.

Wash: Snettisham–Wolferton 44. East: Cantley B.F. 20, a great decrease. Broads: Mere Farm Horsey 30 and Hickling 6.

209 Sabine's Gull: North: Cley immature Oct. 25th (GED, EMPA, KA). Wash: Hunstanton adult Aug. 25th–Nov. 21st (PJC *et al*). See pages 13/14.

211 Kittiwake: North: Scolt 3 pairs built nests but single egg failed to hatch. Influx of non-breeders at Scolt began arriving mid-May reaching total of 1,000

mainly immatures by July 14th but only 50–60 present by 23rd. At Holme Nov. 4th during N.W. gale 832 headed west.

East: Counts include 141 Yarmouth harbour entrance June 28th and 60 at Winterton Aug. 11th.

212 Black Tern: Breeding: Ouse Washes 4 pairs nested at Welney but no young reached the free-flying stage (wr).

Small-scale spring passage began April 21st (Cley) and 26th (Stanford Water and Stokesby) continuing until mid-June. Noticeable movements restricted to May 3rd (when 50 at Hickling), 4th (80 east at Cley), 23rd (25 east at Cley and 16 east at Scolt), 24th (30 east at Cley) and June 12th (10 east at Scolt and 50 at Wisbech S.F.). Records from usual coastal localities, Broads, gravel pits and Breck meres (including Lang Mere where 4 June 11th).

Autumn passage until Oct. 21st and largest parties 18 at Wells, 24 at Thornham and 30 Wisbech S.F.

213 White-winged Black Tern: North: Cley Aug. 10th–16th. Fens: Wisbech S.F. Aug. 15th–27th.

215 Gull-billed Tern: North: Cley May 21st (OL).

216 Caspian Tern: North: Cley Aug. 6th (IL, IJ) and Weybourne Sept. 11th (JHMR, BST).

217 Common Tern: Numbers of *pairs* at breeding sites. Wash: Snettisham 32, and Wolferton Saltings 10. North: Titchwell 4, Scolt 500, Wells (Bob Hall's High Sand) 10, Stiffkey Binks 130, Blakeney Point 1,200 and Cley 31.

Broads: Ranworth 30, Hickling 8, Ormesby 10 and Barton one.

Inland: Wensum Valley G.P. 2.

218 Arctic Tern: North: 3 pairs nested on Blakeney Point and another pair at Scolt.

219 Roseate Tern: North: None bred, but ones and twos between Scolt and Cley May 14th to Sept. 14th.

222 Little Tern: Breeding records of *pairs* include: Wash: Snettisham, one. North: Thornham 18, Titchwell 5, Brancaster 7, Scolt 72, Burnham Overy to Wells 34, Wells (Bob Hall's High Sand) 12, Stiffkey Binks 25, Blakeney Point 200 and Cley 3.

East: Horsey area, 43 (40 young reared to flying stage). Broads: Hickling, 2.

223 Sandwich Tern: North, breeding colonies at Scolt (3,850 pairs and 3,000 young fledged) and Stiffkey Binks 96. At Scolt, many new arrivals by mid-July with peak of 8,000 on 16th–18th. At this time total of 18,500 Sandwich terns massed at Scolt (8,000 breeding adults, 2,500 fledglings and 8,000 non-breeders).

226 Little Auk: N./E. coasts: Small-scale invasion between Oct. 26th and Nov. 29th at Winterton, Weybourne, Cley and Holme with peak Nov. 5th when at least 16 inshore at Cley (and one on Wash at Snettisham). Inland: Postwick one dying Nov. 2nd.

Earlier in the year exhausted birds at Terrington St. Clement, West Rudham, Horsford and Cawston Feb. 19th–22nd (RPB-O).

227 Guillemot: East: Bird of the "bridled" variety at Winterton June 13th and at Yarmouth Dec. 22nd.

229 Black Guillemot: Wash: Hunstanton Sept. 30th (HI).

235 Turtle Dove: A wintering bird at Wells with collared doves, Jan. 2 (ALB). Early arrival from April 20th (Winterton) and large-scale westward movements at Cley (120 May 14th, 54 on 15th and 200 on 29th), south-westerly passage at Hunstanton (190 in 45 mins. May 13th, 65 in 30 mins. on 14th and 24 on 15th) and northerly movement at Winterton June 1st (66). Other concentrations at

Bodney May 18th (60), Snettisham on 27th (172) and Blo' Norton on 29th (100); also 300 at Bodney (OL).

Collared Dove: Feeding concentrations in Blakeney-Morston area (269 Nov.-HH), Yarmouth (50 at Clarke's mill and 101 at South Quay, Dec. 22-PRA) and Downham Market (130 Sept.). Daily counts have been maintained at Broom Hill, East Runton, since Oct. 1962. Monthly maxima for 1969 are as follows: Jan. 100, Feb. 86, March 83, April 67, May 66, June 74, July 58, Aug. 62, Sept. 53, Oct. 72, Nov. 80 and Dec. 72 (GRC).

241 Barn Owl: Reported from 53 localities.

A bird with the characters of the dark-breasted race *guttata* at South Wootton March 7 (SKSY).

246 Little Owl: Reported from 24 localities.

248 Long-eared Owl: Breeding records from Brecks (Lang Mere and Little Cressingham), North (Salthouse Heath) and Wash (Snettisham).

249 Short-eared Owl: Only confirmed breeding record from the Wash (Snettisham area) where total of 15 in Jan. Day-time roosts on Ouse Washes (6 Feb. 23rd) and Chedgrave (20 end Dec.). Elsewhere, no wintering party exceeding 8.

258 Kingfisher: Recorded at 68 sites during the year. One dead in centre of Yarmouth Dec. 18th.

261 Hoopoe: East: Gorleston March 29th (*per* PRA). North: Blakeney Oct. 22nd-28th. Wash: Hunstanton G.C. May 12th/13th.

265 Wryneck: Total of over 56 recorded.



Inland: Cawston May 5th and Horsford and Swaffham Sept. 17th.

East: Ormesby dead April 28th, Yarmouth Sept. 13th, Winterton-Horsey Sept. 12th, 17th and 19th with 5-6 on 20th. Caister 2 Sept. 20th and Waxham Sept. 29th.

North: Beeston Regis Sept. 17th, Sheringham freshly dead Nov. 22nd Weybourne Sept. 20th, Cley Sept. 17th 2-3 and singly on 20th/21st. Wells/

Holkham Aug. 30th, Sept. 1st, 9th, 13th, 19th, 20th (2) and 22nd. Holme May 3rd, Aug. 13th, Sept. 12th, 13th, 17th/18th (2), 21st and 25th (5).

Wash: Hunstanton Sept. 9th, 20th and 21st-24th (2). Snettisham Sept. 18th (3).

Further reading "The distribution of the Wryneck in the British Isles 1964-66" (*Bird Study* Vol. 15 pp. 111-126); also contains up-to-date European summary.

271 Woodlark: Breckland records from Ring Mere, Broom Covert, Shaker's Furze, Little Cressingham, St. Helens Well, Stanford and Tottington. Only other breeding season locality: Felthorpe.

Migrants at Hunstanton Feb. 8th, Cley (3) Sept. 13th and Holme Oct. 19th.

273 Shorelark: North coast: recorded up to March 30th and from Sept. 17th at Weybourne (50 Oct. 26th) Salthouse (21), Cley (25), Blakeney Point (12), Holkham (60 Dec. 20th), Scolt (15), Brancaster, Thornham (19) and Holme (20).

East: Horsey Oct. 11th; California 14, Ormesby 4 and Breydon 1 all Nov. 2nd and Waxham 2 on 30th.

Wash: Snettisham 3 Nov. 2nd and Heacham 3 Dec. 31st.

- 278 Golden Oriole:** North: Blickling April 13th (DM), Brinton Hall June 2nd (RPB-O), Kelling on 5th (WA) and Blakeney on 7th (HH).
- 285 Nutcracker:** North: Holkham Jan. 11th very tame and bedraggled (RPB-O).
- 294 Long tailed Tit:** Impressive Oct. coastal movements at Blakeney where flocks of 50 14th to 16th, 100 18th to 19th and 150 28th to 30th (HH) and at Old Hunstanton and Heacham on 17th where flocks of 10 heading south at a considerable height.
- 295 Bearded Tit:** Broads: Breeding records from Hickling-Whiteslea-Heigham Sounds area (over 80 pairs), Horsey Mere (30 pairs), Starch Grass (12 pairs), and Catfield Fen (few).
 East: Hardley 2 Nov. 23rd and Berney Arms 8 on 30th.
 North: Cley, over 20 pairs bred. At another site 3 pairs nested. Holme 10 arrived Oct. 10th.
 Brecks: Micklemere Jan. 5th.
 West: Snettisham Oct. 18th 4, and one Nov. 21st. King's Lynn B.F. 6-8 Feb. 16th.
- 299 Wren:** North: High Kelling, 60 roosting in a single nest-box (see *British Birds* 62: 157 for details).
- 300 Black-bellied Dipper:** A good year with a total of 6: Bintree Jan. 1st to March 16th and a second bird mid-Feb. to March 9th. Stanford Water Jan. 5th, 19th and Feb. 23rd and probably the same bird at Buckenham Tofts Jan. 25th. Hunworth Jan. 1st to March 15th with a second bird (singing) Jan. 20th to Feb. 15th, Weybread Dec. 17th-19th 1968 and first half of Jan.
- 302 Fieldfare:** Late birds at West Somerton May 11th, Stoke June 5th, Salt-house Heath on 15th, Edgefield on 19th, Cantley on 29th and Gaywood July 12th. Early autumn return at Cley Aug. 10th and Holme (14) on 22nd. Additional 1968 record: Hunstanton June 15th.
- 307 Ring Ouzel:** Coastal records (including Snettisham and Breydon) of 1-6 birds from April. 8th to Nov. 4th. Inland at Stanhoe April 16th and Surlingham on 24th.
- 310 Rock-Thrush:** North: Salthouse Heath, male, May 9th (EF, EL, DMcN, AGK). First county record.
- 317 Stonechat:** Breeding records: Breck: E. Wretham area 3 prs. East: Horsey area 3 prs.
- 318 Whinchat:** Breck breeding season records at Bridgham/Brettenham (5 males), Sturston, Smoker's Hole and Kilverstone.
- 321 Black Redstart:** Breeding: East: At Yarmouth singing first heard April 17th. By June 2nd 10 singing males located including one which sang regularly from the steam drifter weather vane on the Town Hall. 4 pairs bred successfully, a fifth pair had eggs, and 2 pairs may have nested. Autumn song recorded Sept. 5th to Oct. 17th (PRA). No other nesting records but a male at an industrial estate at Thetford April 22nd.
 Migrants 40 spring/autumn coastal records of 1-3 between March 15th and Oct. 26th; in addition 4 at Winterton March 29th.
- 324 Bluethroat:** A record Sept. total of at least 30. East: Winterton-Horsey 17th. North: Beeston Regis 18th, Weybourne 21st, Salthouse 19th-20th, Cley up to 6 between 17th and 28th, Blakeney Point 1-2 on 7th, 18th and 20th, Gun Hill 19th, Holkham 1-2 between 18th and 22nd, Titchwell 3 on 18th and Holme 1st and up to 4 between 17th and 25th.
 Wash: Hunstanton 2 between 17th and 22nd and Snettisham 18th.

- 329 Savi's Warbler:** North: Cley male singing May 15th to July 11th in same territory as in 1967/8.
South: Male singing at new locality July 4th.
- 332 Great Reed-Warbler:** East: Yare valley, June 18th to 30th (JFWB *et al*).
- 338 Aquatic Warbler:** North: Blakeney, Sept. 21st (KA, JFC, EJM).
- 340 Icterine Warbler:** East: Yarmouth Sept. 18th.
North: Weybourne Sept. 22nd, Blakeney Point Sept. 2nd and 20th, Cley Aug. 8th, Wells/Holkham Aug. 30th, Sept. 1st, 6th and 10th, and Holme Sept. 17th/18th and 22nd.
- 343 Blackcap:** Up to 4 lingered at Holkham/Wells until at least Nov. 5th with one at Gaywood King's Lynn Dec. 2nd and a pair at Thorpe next Norwich until Dec. 31st.
- 344 Barred Warbler:** Autumn total of 12 birds.
East: Caister on Sea Sept. 14th, Winterton 2 on 15th.
North: Cley, Aug. 18th and Sept. 9th–12th, Blakeney Sept. 16th, Holkham/Wells Sept. 1st and 20th and Holme Aug. 15th–18th, Aug. 30th–Sept. 8th, Sept. 5th and 21st–24th.
- 355 Greenish Warbler:** North: Holkham Sept. 6th (RJJ).
- 356 Chiffchaff:** Winter records from South Wootton Jan. 25th and Feb 1st. (SKSV) West Walton during spell of snow and frost Feb. 9th (CNA, HPC) and Salthouse until April 2nd (RAR).
- 357 Wood Warbler:** Breeding season records from 3 localities, but only known to have bred at one site. A migrant trapped on Blakeney Point April 26th (RGHC) and singles on 9 dates at Wells–Holkham between Aug. 16th and Sept. 18th.
- 360 Yellow browed Warbler:** East: Yarmouth Sept. 19th and Horsey Oct. 12th (PRA). North: Wells Oct. 11th–13th and Holme on 18th.
- 365 Firecrest:** East: Bacton Woods Witton caught and ringed April 14th.
North: Wells–Holkham, April 12th/13th and 28th and Sept. 21st, Holme April 2nd and 26th.
West: Dersingham Oct. 17th and 29th.
- 369 Collared Flycatcher:** North: Holme male May 4th–6th (HBO *et al*). An addition to the county list.
- 370 Red-breasted Flycatcher:** East: Yarmouth 2 Sept. 20th and Waxham 2, Sept. 19th. North: Holkham–Wells, Aug. 30th to Sept. 2nd and another on 14th.
- 374 Richard's Pipit:** Autumn total of 15: East: Winterton–Horsey Sept. 17th and 26th and Oct. 7th; Mundesley Oct. 23rd.
North: Weybourne Sept. 13th, 20th, 27th and Oct. 23rd; Salthouse Oct. 18th–25th; Cley Oct. 16th and Nov. 4th; Morston Oct. 17th–20th and Holme–Hunstanton Oct. 12th and 19th/20th.
Wash: North Wootton Sept. 29th.
- 375 Tawny Pipit:** East: Winterton–Horsey May 18th, Sept. 20th/21st and 2 Oct. 19th. North: Holme Oct. 5th and Salthouse on 19th.
- 379 Water Pipit:** East: Horsey 1–2 Nov. 23rd (PRA). North: Cley Jan. 26th with 3 March 30th (OL, RAR) and Titchwell Jan. 7th and March 7th (OL).
- 381 Grey Wagtail:** Known to have nested only at Taverham and at one site in Tas valley. Autumn/winter records from 22 localities and as in previous year a marked Sept. coastal passage including 4 at Wisbech S.F., 6 at Horsey and one at Holme all on 20th; 2 at Waxham and 2 at Cley on 21st and 3 at Hunstanton on 23rd.

382 **Blue-headed Wagtail:** (*M. f. flava*) North: Salthouse April 29th, Salthouse Heath May 4th, Cley 1-2 on 17th/18th and Holme on 24th.

382 **Grey-headed Wagtail** (*M. f. thunbergi*) North: Cley male May 17th and Holme 3 males Sept. 21st.

383 **Waxwing:** Jan. records from Thetford (one) and West Mere Tottington (15) and 1-2 at end of Nov. at Dersingham, Holt, Sheringham and Cromer.

384 **Great Grey Shrike:** Recorded at 24 localities up to April 6th and from Oct. 9th. Localities as follows:

Blakeney, Bodney (Smugglers Road), Brancaster Common, Burlingham, Cats Bottom (near Babingley), East Wretham, Holkham, Holme, Horsey, Ickburgh, Langham, Overy Staithe, Roydon Common, Rockland Broad, Salthouse Heath, Snettisham, Stanford, Sturston, Terrington, Tottington, Thetford, Threxton, Welney, Weybourne and Winterton.

385 **Lesser grey shrike:** North: Burnham Norton May 25th (JRC, PAD, TPI). Breck: Cockley Cley May 31st (RJJ).

388 **Red-backed Shrike:** Breeding season distribution: North: 7 pairs at 4 sites. Breck: 6 pairs at 5 sites and a male at another place. East: 2 pairs at main site. County total 15 pairs (and an additional single male).

391 **Hawfinch:** Recorded at Blakeney, Blickling, Didlington, East Runton, Haveringland, Holkham, Lang Mere, Stanford, Thetford, Wretham Heath (16 in Feb., 6 in Nov. and 3 in Dec.).

394 **Siskin:** Breckland Jan./Feb. counts include 70 at Stanford, 60 at Thompson, 25 at Merton and 80 at Saham Mere (GJ). Breeding season records from Frog Hill (May 23rd and June 1st) and St. Helen's Well (May 15th.)

398 **Arctic Redpoll:** North: Blakeney Point Dec. 28th (BE).

404 **Crossbill:** Very few Breck records. In North present in Holkham-Wells pines March, May and Oct.-Nov. In West bred at Wolferton.

406 **Two-barred Crossbill:** North: Blakeney Point, female arrived from sea, Sept. 15th (sc). The second county record.

415 **Girl Bunting:** East: Halvergate marshes, male in company with yellowhammers Feb. 23rd (PRA).

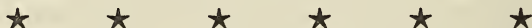
416 **Ortolan:** North: Wells Sept. 12th/13th (PDK), Cley on 17th and Weybourne on 19th (EMcE).

422 **Lapland Bunting:** East: Up to 4 on Halvergate/Breydon marshes until March 8th and autumn return from Sept. 20th when 2 at Winterton. North: Coastal records at usual localities from Sept. 21st including 12 at Scolt and 14 at Blakeney Point.

423 **Snow Bunting:** East: Larger counts include 80-100 on lower Bure marshes Feb. 1st, 150 at Halvergate March 8th and 200 at Breydon on 16th. Autumn arrival from Sept. 28th (Winterton).

North: Early autumn birds at Cley, Holme and Blakeney Sept. 7th building up to 100 at Brancaster, 150 at Holme, 200 at Cley, 60-70 at Scolt and 50 at Weybourne.

Wash: First 3 at Snettisham Sept. 13th increasing to 59 by 29th.



The following, not mentioned in the Classified Notes, were also recorded in 1969 (*breeding species in italics*): Black-throated Diver, Red-throated Diver, Great Crested Grebe, Little Grebe, Canada Goose, Mute Swan, Merlin, Kestrel, Red-legged Partridge, Partridge, Pheasant, Water-rail, Moorhen, Coot, Lapwing,

Grey Plover, *Snipe*, *Woodcock*, Green Sandpiper, *Redshank*, Greenshank, Knot, Great Black-backed Gull, Lesser Black-backed Gull, Herring Gull, Razorbill, Puffin, *Stock Dove*, *Wood-Pigeon*, *Cuckoo*, *Tawny Owl*, *Nightjar*, *Swift*, *Green Woodpecker*, *Greater Spotted Woodpecker*, *Lesser Spotted Woodpecker*, *Skylark*, *Swallow*, *House Martin*, *Sand Martin*, *Carrion Crow*, *Hooded Crow*, *Rook*, *Jackdaw*, *Magpie*, *Jay*, *Great Tit*, *Blue Tit*, *Coal Tit*, *Marsh Tit*, *Willow Tit*, *Mistle Thrush*, *Song Thrush*, *Redwing*, *Blackbird*, *Wheatear*, *Redstart*, *Nightingale*, *Robin*, *Grasshopper Warbler*, *Reed Warbler*, *Sedge Warbler*, *Garden Warbler*, *Whitethroat*, *Lesser Whitethroat*, *Willow Warbler*, *Goldcrest*, *Spotted Flycatcher*, *Pied Flycatcher*, *Hedge Sparrow*, *Meadow Pipit*, *Tree Pipit*, *Rock Pipit*, *Pied Wagtail*, *White Wagtail*, *Yellow Wagtail*, *Starling*, *Greenfinch*, *Goldfinch*, *Linnet*, *Twite*, *Redpoll*, *Bullfinch*, *Chaffinch*, *Brambling*, *Yellowhammer*, *Corn Bunting*, *Reed Bunting*, *House Sparrow* and *Tree Sparrow*.

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A. L. BULL
J. BUXTON
CAMBRIDGE BIRD CLUB
E. J. CAMPBELL
R. G. H. CANT
P. J. CARLTON
R. CHESTNEY
M. CHICHESTER
D. CLAYTON
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R. W. COLEMAN
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A. J. DAVISON
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G. DORMER
F. E. D. DRAKE-BRISCOE
K. DUGMORE
P. A. DUKES
G. E. DUNMORE
N. DYMOND
G. M. S. EASY
H. EDWARDS

E. A. ELLIS
M. D. ENGLAND
F. FARROW
P. FEAKES
M. FITCH
MISS E. FORSTER
E. FORTY
D. GALEY
MISS J. H. GARNIER
C. R. GOATE
J. G. GOLDSMITH
M. H. GOODLAD
C. GOSLING
A. J. GRIBBLE
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W. J. HAMMOND
H. N. HAMPTON
A. M. HANDLEY
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HEACHAM & WEST NORFOLK N.H.S.
MRS. M. HELLIWELL
T. A. HOBDAV
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H. HUNT
H. INSLEY
T. P. INSLIP
B. W. JARVIS
I. JENKINSON
G. JESSUP
R. J. JOHNS
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Norfolk Mammal Report 1969

Editorial

WE ARE PLEASED to present the sixteenth annual report on Norfolk mammals, in which it is most encouraging to note the rise in the number of contributors, reflecting the general trend towards more interest in our mammalian fauna. Our grateful thanks go to all who contributed to this report and set such a high standard of observation, including detailed descriptions and national grid references. The latter are vital to building up distribution maps.

The weather in 1969 had little effect on mammals, though we had two particularly dry months in September and October, and twice as much snow fell as usual. Overall it was also a few degrees colder than average. The introduction of British Standard Time probably had some small effect in the winter months in increasing road deaths among mammals in the early morning. This probably most affected rabbits and rats, as hedgehogs, normally the most vulnerable of mammals on our roads, would usually be hibernating at this time of year.

Another national event which will have its side effects was the recommendation of the Government's Advisory Committee on Pesticides that there should be restriction on the use of D.D.T. and certain other organo-chlorine insecticides. The news is welcome, though some feel that the recommendations do not go far enough.

Small mammals seem to receive very little attention nowadays, which is rather a pity, since they are some of the easiest mammals to catch and are as capable as any of increasing our knowledge. Members may be interested to know that should they like to pursue this aspect of mammalian study, Longworth traps are available on short loan from the Castle Museum. These traps incorporate a sleeping/feeding box and an entrance tunnel with a drop door to catch the animal alive. The only small mammals to receive close study this year have been bats—mainly the work of a small number of keen individuals. Bats would repay much closer scrutiny in the County as a whole.

Road deaths are often used as an indicator of mammal populations, and this year again we have two sets of figures for 5-mile stretches of road to compare: the A47 from Yarmouth to "Stracey Arms" (R.H.H.), and a minor road to the south of Norwich as far as the "Red Lion", Stoke (R.P.M.). Results for the two counts are tabled below:

	"Stracey Arms"				"Red Lion"			
Hedgehog	6	...	...	...	9
Common Shrew	—	9
Water Shrew	—	2
Mole	—	5
Pipistrelle Bat	—	3
Rabbit	19	...	...	...	57 (15 young)
Hare	25	...	...	...	2
Bank Vole	—	2
Field Vole	—	8
Wood Mouse	—	10
Brown Rat	80	...	...	...	57
Red Squirrel	—	3
Coypu	2	...	...	...	—
Weasel	—	3
Stoat	3	...	...	...	—
				<hr/>				<hr/>
Totals ...				135				170
				<hr/>				<hr/>

The "Stracey Arms" stretch covers open marshland, while the "Red Lion" section is through a fairly typical Norfolk arable area. Similarities between the two sets of figures are few—other than that the rat is the most numerous species in both, and that both end at a public house!

The *Handbook of British Mammals* is recommended to all serious students, though others — *The Field Guide to the Mammals of Britain and Europe*, *The Young Specialist Looks at Animals* and the *Observers Book of Animals* have their good points.

The Editors have already recorded their thanks to all who have contributed to this Report, but would like now particularly to thank R. P. Bagnall-Oakeley and Dr. E. A. Ellis for their extensive notes, and R. E. Stebbings for making all his bat notes available for inclusion. We also thank John Last for his attractive vignettes illustrating the Report, as well as S. C. Bisserrôt and S. G. Robertson for their excellent photographs, and finally Miss Norma Watt for turning an illegible scribble into accurate typing!

Records for 1970 should be sent to J. G. Goldsmith at the Castle Museum Norwich NOR 65B, during January if possible, so that an earlier start can be made in collating the next Report.

Classified notes

INSECTIVORA

Hedgehog (*Erinaceus europaeus*)

There was an encouraging increase in the number of reports of hedgehogs for 1969, perhaps as a result of special mention being made in last year's report. There are still, however, insufficient records to make a complete distribution map for the county. More records of individual road casualties, garden populations and contents of keepers' gibbets—in fact of any hedgehogs seen—are wanted. Additionally of course any information and comments on feeding or general habits are always welcome.

Over 65 were found on gibbets in two areas of Breckland during the year, including the carcasses of five young ones. The approximate ratio of males to females here was almost 3 : 1, this perhaps suggesting that males are more exploratory and therefore wander oftener into kept areas than females, since the sex ratio in embryos is recorded as being approximately equal.

Hedgehogs were reported from many suburban gardens—such as the pair in King's Lynn which raised five young, assisted no doubt by the milk supply left out for them nightly, 4–5 being an average number for a hedgehog litter. Young ones were also seen near Mousehold in September, where an adult escorted the youngster away from the observer and at Brundall a small one was seen in a garden during daylight hours in August.

Nests examined included a summer one under a cupressus tree in a Taverham garden, made with leaves and grass, and another, a winter nest, made from similar materials found in a neglected part of a Hickling garden. The occupant of this nest left after it had been discovered and was apparently the one killed on the road nearby a few days before Christmas.

Road casualties were found to be quite frequent until mid-November this year, following the usual two peaks, over 90% of these later casualties being of young animals. One live specimen noted at Stibbard was being shepherded off the road by a passing motorist. Some of them are enlightened! The road deaths tables show over one per mile per year and nearly two per mile per year respectively. If this trend is reflected all over the county one might expect Norfolk's 5,000 miles of road to claim an annual total of about 8,000 casualties.

Publicity has been given recently to hedgehogs adapting to approaching traffic by not curling up, but running away as fast as a rat. This evolution of behaviour is not new however, for one of the editors can recall seeing this some ten years ago. Counts of road casualties here might suggest that Norfolk hedgehogs are backward in developing this escape mechanism, but it is rather suspected that our hedgehog population density is still sufficiently high for them to be able to withstand a fairly high death-rate. Some were believed by their tracks to be active near Norwich very early in the year, and one was killed on the road at Stoke during January.

On June 28th a hedgehog was watched ambling through the grass of a Breckland road verge where it put up a Skylark. Within a few minutes four skylarks were hovering, singing continuously, four to five feet above the ground over the hedgehog. One bird swooped within six inches of the animal on three occasions. After five minutes the birds ceased to be agitated and the hedgehog

was lost sight of after having been traced by the movement of the grass. An intensive search of the area failed to produce either the hedgehog or a skylark's nest.

A hedgehog was thought to be responsible for the loss of a Black-tailed Godwit's nest at Cley in 1969, there being quite a large population of hedgehogs on this part of the north coast. On a point of diet, a recent paper by D. W. Yalden in the *Mammal Society Bulletin* for October 1969 showed that of 106 stomachs examined only 14 contained fragments of egg shell, 12 contained mammal remains (mainly rabbit) and 19 feathers. These animals were all trapped on East Anglian estates during the summer (perhaps using carrion as bait). His figures show that 20% of the food was composed of earthworms, slugs and snails and about 70% various insects, beetles being most important. There seems therefore little point in persistent persecution of these very useful creatures.

Mole (*Talpa europaea*)

As abundant as ever over most of the county again this year, although in central Norfolk in the chiefly arable areas it is reported as being only thinly scattered.

Mole fortresses were built up in plenty during the autumn; one 50 acre field at Sharrington had 11 such mounds in it. Two large ones were found at Larling, while others recorded near Norwich were frequently situated on the higher parts of river banks and dykes, as they also were at Hickling. Nests are often found beneath a small bush or tree, often a Hawthorn, which can only be presumed to give some extra weather protection. One particularly interesting fortress was found in early March on a large tussock sedge at Wheatfen Broad where it had been isolated from the nearest high ground for some weeks by flood water and ice-sheets. It is assumed that the stranded mole was able to live to a large extent off the fellow-refugees of various kinds while the emergency lasted.

Moles were very active as usual during late March and early April, throwing up new hillocks while extending their feeding territories and looking for mates. They were however not so active during the summer in water meadows at Corpusty even though the summer was rather dry. At Hillington moles were found to be active in the orchard, but not on the lawns. It is of course on lawns that their activities are least appreciated—this often occurs in spring. They do have their good points in cultivated areas, eating injurious grubs and draining the soil, though few consider this a good enough reason for sparing them. Moles were active on the river banks at Hoveton Great Broad between June and August, this area again being surrounded completely by water.

One mole which did not believe in having a conventional home was discovered in a scanty nest under a sheet of corrugated iron near Shotesham in May. It left very quickly by one of its underground tunnels when the sheet was lifted.

Records sent in of road casualties do not often include moles, though quite a few must be killed as shown by the careful study made to the south of Norwich. Moles were squashed on the road only during the months of May, July, September and November; possibly these were young inexperienced animals, though it is often suggested that lack of water will force a mole to the surface to search. Confirmation of one or both of these possibilities would be valuable.

Colour variations this year were reported as follows:—all or partially white ones from Cawston, Foulsham, Melton Constable, Kelling, and what was described as a 'colony' at R.A.F. Sculthorpe during the summer; a cream one came from Weybourne.

Several strings of moles on fences were recorded, including some at Edgefield and Shotesham, 22 at Caistor St. Edmunds, and the largest number (including

many very old ones) at Gunton comprising three separate strings of 70, 280 and 430! It would be interesting to learn of other strings in the county and over what period of time they have accumulated.

Common Shrew (*Sorex araneus*)

As usual this year with shrews (and indeed to a certain extent with all small mammals) not a great number of observers recorded any sightings at all.

Only at Foxley was the Common Shrew recorded as abundant; despite attention from the cats, they kept coming! At Corpusty it was very plentiful while at Horsford it is described as common; here again cats catch large numbers and lay them out in rows; a Grimston cat also caught numbers of them. Numbers of shrews were always present in the hedgerows at Hickling, but in the Northrepps area numbers were considered to be reduced. Owl pellets examined at Brinton showed average numbers, while some Ludham ones showed large numbers. Pellets examined from Hickling showed Common Shrew to be only half as numerous as Field Vole, but the Common Shrew to Pigmy Shrew ratio was about 2:1 which is rather higher than the normal recorded.

Only one is recorded as being taken in a Longworth trap here this year—at Costessey where it was the only shrew taken amongst 16 other small mammals in early September. Another caught alive, by hand, near Rackheath escaped after biting the finder!

All small mammals are difficult to find as road casualties except if one is walking or cycling. The study undertaken south of Norwich showed that four of the nine shrew deaths occurred in August and September, with one in March, and one each in June, July, October and November, probably showing, as with moles, inexperience and territory expansion taking its toll.

Pigmy Shrew (*Sorex minutus*)

Two Pigmy Shrews were reported seen at Watton this year and one, thought to be of this species, was brought in by a cat at Grimston, but proved itself to be faster than the cat's owner.

Remains of some were found in pellets at Ludham, but at Brinton the Pigmy to Common ratio dropped to 1 : 17, at Dunston it was 1 : 14, at Arminghall 1 : 6 and Rackheath 1 : 4—quite wide variations.

Two were found dead on woodland paths at Holt in November. It is usual for shrews to live a little over a year, so adults at the end of their normal span begin to die off with the first autumn frosts, and are then often found dead in the open without injury.

The Castle Museum staff will be glad to give any assistance they can to anyone having difficulty in determining the species of any shrew they find.

Water Shrew (*Neomys fodiens*)

Though the rarest of our three shrews, it is almost certainly more numerous and widespread than casual sightings suggest.

Records this year come from Hoveton Great Broad where it was inhabiting the marginal reed swamp during the summer. At Redgrave Fen one was found dead in October, and it was also recorded at Northrepps. At the Colney Lane Research Station, not far from the River Yare, one was found running round in circles—February 12th. One was also closely observed while swimming in an overgrown pond at Caistor St. Edmunds—September 27th.

All pellet samples examined contained some, ratios between Water and Pigmy ranging between 1 : 2 and 1 : 11. Road deaths in the study area to the south of Norwich showed two killed, in July and August.



Copyright

M. D. England

In 1969 only about 24 of the 41 pairs of black-tailed godwits nesting on the Ouse Washes (in Cambs and Norfolk) succeeded in hatching and some of those only at the second attempt. Over half the first nests were flooded out after exceptional rains in May.



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S. C. Bisserrôt F.R.P.S.

Serotine bat—one of the ten species of bat recorded in Norfolk. It was first found in 1962, since which time three additional records have been obtained. More bat observations are needed.



Copyright

S. G. Robertson

Short-tailed field voles are often abundant in grassland, forming a large part of the diet of weasels, owls and hawks. It tends to be under-recorded.

CHIROPTERA

Bats

1969 has seen quite an upsurge of activity with these, our least known mammals. This is mainly the work of few keen individuals, but the study of bats is a fascinating one and a branch of Natural History in which there are still many chances for the interested amateur to make valuable contributions to our knowledge of these nocturnal fliers.

New bats are still being added to the British list. For instance *Nathusius' Pipistrelle* (*Pipistrellus nathusii*) was discovered in a house in Dorset in October 1969. Several species of bat occurring on the continent have not been recorded in Britain, while others found in surrounding counties have yet to be identified here.

Any bats found, dead or alive, should be carefully examined and identified, the Museum staff being very willing to help in this way. Detailed information about roosts is also wanted, even if the species inhabiting it are unknown, as it is possible that the roost might be visited and identity checked. One report the Museum received in August was of "bats calling so loudly you could not hear the telly"—this only proved to be a Starling trapped in the roof though!

Pipistrelles (*Pipistrellus pipistrellus*) are by far the most common bat we have, and the most frequently reported one. The first flight record of the year comes from Heacham on March 15th. Road casualties occurred at Caistor in July, August and September, and at Ludham in September. They were recorded as present at Northrepps, frequent in the Foxley area, and fairly frequent at Wells. Quite a number of roosts were located in outhouses, houses, both new and old, as well as the more traditional churches, Intwood and Cawston being two mentioned, but bat species not determined.

At Wheatfen a roost of 53 was present in an outhouse, the bats entering through a crevice under a tile, this being early July, when they were emerging shortly after 9.30 p.m. and returning about 4.00 a.m. This was the first time in 20 years that any numbers have spent the summer there. At Corpusty too a small number chose an outhouse as their summer roost—here in the reed and plaster ceiling, while at Hickling some which may have been pipistrelles were in the thatch of old buildings.

A four-year-old chalet bungalow at Salhouse was used by 70 in mid-June—of 20 caught and examined here, 19 were gravid females. The bats took up residence at this site within two years of completion. On June 27th, 28 adult female pipistrelles were caught under the floorboards of an attic at Acle, this being only a small proportion of the total number present. Nine of these had young clinging to them, while a further seven were still pregnant, one weighing 8.0 grams. When weighed the young bats ranged from 0.9 grams to 3.2 grams (average, 2.3 grams) showing quite a difference in age, the average weight of an adult pipistrelle being around 5–6 grams. The wall of a house at Burgh St. Margaret held a few in early July, but these did not stop for long. A very young one was picked up at Frans Green July 17th and kept alive with milk for a week. At Geldeston a large colony of about 500 had their "maternity centre" in the cavity wall of a fairly new bungalow on the edge of the Waveney Marshes, causing a considerable amount of nuisance by the amount of droppings they produced. At Harleston near Diss some 250 bats were estimated to be present in the church; however the crack above the door where they were entering and



Long Eared Bat

leaving was discovered and blocked up. 80 corpses were cleared up the following week the bats having starved to death. Winfarthing, Tivetshall and Tibenham churches were examined during the summer and found to have bat problems, but the species again were not positively identified, although suspected of being pipistrelle. Two roosts were examined at the end of November at Oulton and Baconsthorpe and 11 and 5 were captured; here again males outnumbered females. At the end of December roosts at Great Bircham and Fincham contained one juvenile male and three females and a male. A mixed winter roost in an ice-house at Brinton contained seven pipistrelles.

The most outstanding report of the year as far as bats were concerned was of a ringed pipistrelle which was caught by a cat at Buxton, October 10th. This bat had been ringed in 1958 at Bury St. Edmunds, Suffolk, as an adult male. This means it was over 11 years old, which is a record for this species, and had moved 43 miles, which is the longest recorded movement in the British Isles.

Daubenton's Bat (*Myotis daubentoni*) was abundant over Hoveton Great Broad during the summer. Three were in the roost at Whitlingham (first reported in 1964) December 14th. Disturbance by people caused this roost to be abandoned for several years. Two Daubentons were amongst the 13 mixed bats hibernating in the Brinton ice-house. A Suffolk specimen of this bat was recorded to have lived for 18½ years; it would therefore seem likely that any good places for roosting will be used by the same individuals for a long time if there is little or no disturbance.

Whiskered Bats (*Myotis mystacinus*) still roost in limited numbers in the false roof of Brinton Hall. One which entered the house from the attic door was caught in a butterfly net and its identity checked before being released (R.P.B-O.).

Natterer's Bat (*Myotis nattereri*). The sole report of this species came from the previously mentioned ice-house at Brinton where three were found during the winter (R.P.B-O.).

A Barbastelle (*Barbastella barbastellus*) was found dead in the house at Calthorpe Broad in the autumn (H.D.).

Noctules (*Nyctalus noctula*) were the only other species of bat to be recorded in the county during 1969. A roost of 19 was found in a tree hole at Hardley, but an attempt to capture some to confirm their identity failed. A few were noted over the Corpusty water meadows in late June, and a few were also seen high over the river valley at Earlham in late August. A single one was flying over Lyng gravel pits, July 20th; up to six over Cantley beet factory settling pools, August 24th; and three over Wheatfen Broad, July 3rd. The Brinton ice-house contained a single specimen.

No other bats were recorded this year.

LAGOMORPHA

Rabbit (*Oryctolagus cuniculus*)

Rabbit populations on the whole continued their upward trend, with some local variations. To the north of one of the Breckland heaths numbers increased to an extent which necessitated some control. It was here that rabbits burrowed under wire netting enclosures protecting plants of Spiked Speedwell (*Veronica spicata*) and within a short space of time all plants had been stripped of their flowers. A further colony of Speedwell was discovered though, and the enclosures were to be reconstructed.

Progress towards recovery of numbers has continued at Grimston, Horsford, Caistor and many other areas, but slight decreases were noted for the Brecks and Hickling. Myxomatosis undoubtedly caused lower numbers later in the year and when vegetation begins to die back one might expect to see more.

Road casualties in north Norfolk are up by over 80% on last year and now reach as high as one per ten miles of road per week in October: numbers seen in car headlights confirm this increase. Road casualties to the south of Norwich on the other hand reached their highest of three per mile of road during July. Secondary peaks occurred in September and December—the latter probably showing specimens infected with myxomatosis, while the other two show young ones, unused to glaring car headlights. As might be expected hares outnumber rabbit road casualties in a marshland area, but rabbits are far more numerous in the arable area.

Myxomatosis did not occur solely in the autumn and spring this year. November produced the main wave of disease—perhaps a few weeks later than last year, and at least in the Norwich area it lasted less than eight weeks before all remaining ones were free from infection. However around Watton myxomatosis struck as early as June, and at Northrepps and Horsey it was recorded as occurring in spring. The now customary report of two of individuals recovering were received, although they become rather prone to death on the roads while they have it. Several found dead near Arminghall in February showed no sign of myxomatosis, but were very thin and looked rather "mangy"—possibly old ones dying with the shortage of food.

Since myxomatosis first reached the county in 1954 it has been accepted that the Rabbit flea (*Spilopsyllus cuniculi*) transmitted the disease, the fleas abandoning a dead animal for a passing live one. Confirmation that mosquitoes were carrying the myxomatosis virus came from Wheatfen in October when mosquitoes (mainly *Anopheles claviger*) were examined for the Nature Conservancy's research station at Monkswood.

Late breeding was recorded in November near Bunwell where four four-week old young ones were observed with their mother. With a species which can breed either very early or late in the year, recovery of numbers—even from a disease like myxomatosis—can be expected.

Colour variations reported for 1969 included several black ones in the Horsford area; a black juvenile in a hay field at Caistor St. Edmunds, May 28th, amongst many normal coloured ones; a black one at North Elmham; 12 "smoky-blue" ones shot during the year by a keeper in the Stanford-Tottington area; and three apricot-coloured ones at Little London.

A careful watch on the growing populations and the seasonal variation in the appearance of the now not so serious outbreaks of myxomatosis will be well worth recording.

Hare (*Lepus europaeus*)

Again this year a slightly confused picture regarding the current upward or downward trend in Hare population emerges; comparative game-bag figures for different areas are really needed.

"Average numbers" occurred in parts of central and most of north Norfolk, although on one north coast reserve where it used to be a common sight not one was seen by the warden during the year. Increases were noted chiefly in the damper areas of eastern Norfolk—Breydon and Hickling—but also at Corpusty.

Conflicting reports come from different areas within the Breckland region, where it is suspected that local shooting, forestry, rabbit population, and especially incidence of seasonal observation are responsible for this discrepancy.

Only two Mad-March-Hare displays were noted for the year, near East Wretham and East Carleton, both involving only two individuals, and both rather later than usual.

An interesting tendency for hares to move into woodland in winter has been noted in the north of the county, which is confirmed by the numbers taken when leaving pheasant coverts (R.P.B.O.).

Only one colour variant was reported during the year, from North Wootton, October 3rd. Its fur was a silver-grey above and white beneath, the grey being almost uniform on the flanks and sides but streaked with darker hairs on the back, while the tail had a normal black patch on top, like the tips of the ears.

RODENTIA

Bank Vole (*Clethrionomys glareolus*)

Only five contributors reported the Bank Vole this year. In the Watton area not so many were noted, but in the Wells pine woods it is common and one was watched there for some time, February 14th. Longworth trapping at Costessey in September produced six. Owl pellet analysis produced all fairly low percentages—between 2% and 5%. The only two Bank Vole road casualties were both in September.

Short-tailed Field Vole (*Microtus agrestis*)

These voles, although probably cosmopolitan in distribution, (wherever grassland is they are likely to be present), are under recorded. Around Breydon they were rather scarce, possibly due to the effects of a wet May, but by late in the year slightly higher than usual numbers were recorded in other parts of the county.

Longworth traps accounted for three at Costessey in September, while a Longworth set at the end of a Poringland garden during snowy weather in December, caught three all alive at once. Short-tailed Field Voles are usually noted to be somewhat trap shy, as well as being rather aggressive—even to the point of cannibalism—so this record must be considered a little unusual. Cats accounted for several at Caistor, while a Hethersett cat also killed one, June 3rd. Barn Owl pellets already referred to contained up to 50% Field Vole.

One research worker in the county is interested in obtaining samples of a parasitic nematode worm which inhabits the eye sockets of these voles, and would be glad of specimens anyone can supply for him. (T.D.).

Water Vole (*Arvicola amphibius*)

The Water Vole seems particularly to be a species for which the pattern of observers reflects the occurrences reported.

Numerous sightings come from the rivers, streams and dykes around Norwich, and other well watched places. Some places this year recorded a static population while others a slight increase, such as at Cley and Hickling. It is common at Corpusty, Shadwell and Hoveton.

In north Norfolk the proportion of black to brown examples is increasing again. On a tributary of the Glaven about one in ten are black.

One was watched at close range for a quarter-of-an-hour climbing the upper branches of a hawthorn about 12 feet from the ground and eating newly burst leaf buds.

Although most records relate to running water, or dykes in river valley systems, a pair was located at Foxley in a field pit about two miles from the nearest stream.

Wood Mouse (*Apodemus sylvaticus*)

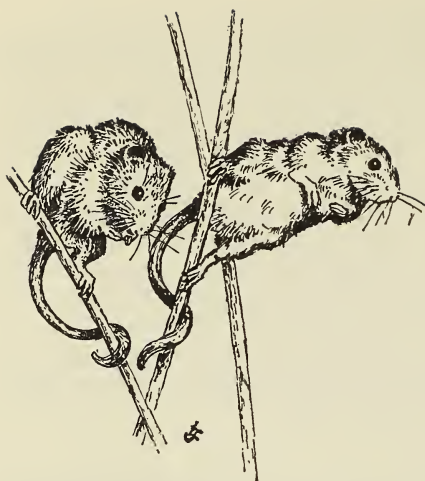
Only a dozen people had any reports on mice for 1969—yet these are surely some of our most common mammals?

The picture painted from four different areas was that the Long-tailed Field Mouse, or as it is more commonly known, the Wood Mouse, is replacing the House Mouse as an indoor pest during the winter. At Wheatfen, where the original House Mouse population was removed in 1946, none have re-occupied. At Brinton Hall all 19 mice caught were Wood Mice, and similarly with the mice in and around a house at Poringland.

At Hoveton Broad, some collecting nesting material during the day were quite fearless of being watched, and after blocking their entrance hole under a hut, were suspected of chewing holes in plastic sacks stored adjacent.

One was killed by a cat on Mousehold heath, and another was found dead in the middle of the Crostwick Starling roost, though their feeding habits in this situation are unknown.

There have been no reports of the Yellow-necked Field Mouse (*Apodemus flavicollis*) during the year.



Harvest Mouse (*Micromys minutus*)

This charming little creature, although easily overlooked, must be more frequent than the annual handful of records suggest.

A Foxley cat found one and brought it to the back door on the evening of December 11th, while autumn grass cutting around Brinton Lake produced only two nests (compared with 14 in 1952, 12 in 1956, followed by a decline to none in 1960-64). Late in the year an old muck heap being moved on a farm at Brooke produced numerous Wood Mice with some Harvest Mice. A keeper in the Brecks saw about half-a-dozen during the year, though other observers in the area reported none. One was watched on several occasions in the same hedgerow at Newton St. Faiths during October and November. Owl pellets from the sites previously mentioned produced the usual small numbers, up to 3%.

We still have much to learn of the distribution and habits of this shy creature.

House Mouse (*Mus musculus*)

Remarks made under Wood Mouse give most of the 1969 information for this species. Only additional records are of an increase in numbers at Northrepps, and of their being numerous at Grimston, "judging by the mess those caught had made of stored potatoes." It is still common in some houses, food stores and shops etc., in the north of the county where there are compact villages and towns, but less frequent than formerly in the country. One wonders if this is due in part to the failure of the House Mouse to spread effectively over any distance by themselves. Did they spread or repopulate areas in the past via man's furniture and food? Is man's modern draught-proofed, double glazed house unsuitable for occupation and his pre-packed frozen food unsuitable transport?

A few reports came from Norwich, but the only owl pellets to contain any came from Rackheath. A closer watch on distribution and numbers of this species is called for during the next few years.

Brown Rat (*Rattus norvegicus*)

Although rather too numerous for many game preservationists and farmers, the rat population in 1969 was not excessively high. Local poisoning programmes led to reductions of numbers for short periods of time. One Panxworth farmer claimed to have banished rats from his buildings by poisoning them in the open before they got amongst his stored crops. In the large Starling roost at Crostwick early in the year large numbers moved into the fir wood, burrowing in under the

inches of droppings even in the middle of the roost. Dead and dying starlings were present in large numbers daily, and these were dragged by the rats into the entrance of the burrows to be consumed, legs, wings, tail, sternum and beak being rejected, and left in gruesome heaps.

Other foods noted included carrots from Breckland fields, refuse from Broads' holiday craft at Hoveton and eggs. One large individual was watched "dribbling" a pheasant's egg for 75 yards along a narrow downhill woodland path at Gunthorpe, and a mallard's nest on marshes beside the Bure containing nine eggs was incubated for two weeks before three eggs were taken one day, two the next and all had been taken by a rat before the following weekend.

Ninety per cent of rats trapped on the Cley reserve during the year were males—again illustrating the tendency of males to wander a lot.

A monthly breakdown of the rat road deaths to the south of the City, totalling 57, is:—

JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
12	5	6	1	3	1	1	—	7	4	12	5

This seems to correlate best with the periods of cold—(early January and late November)—which is presumed to have made them need to move more in search of food. It has been casually noted by one or two observers that large numbers are often killed on just one or two nights in the year, but it is not yet confirmed if these dates are the same for the whole of the county.

Red Squirrel (*Sciurus vulgaris*)

Records of squirrels were plentiful in 1969, although more than half of these came from the Breckland forests, leading us to suspect that squirrel-watching is becoming a popular pastime. Places where they have not been recorded before—or at least for some time—included Rainthorpe, Bagmore, Wolferton, Anmer, Bodham, Felbrigg, Santon, Cranworth and Hoveton Great Broad (in alder carr). They have been noted occupying the newer pine plantations in the north as soon as they become of cone bearing age—this leading to an apparent decline in their surrounding more customary haunts. Northrepps recorded an encouraging increase for the year.

Two squirrels were seen fighting at Holkham, September 3rd; the only other report involving more than a single was at West Tofts where two were in an oak tree, March 1st. The most seen by any single person in a day was nine at Horsford in October.

A single record of feeding at a bird table was received from Cockley Cley where one visited regularly from the middle of December and was watched from five feet distant.

One was seen to run 60 yards across an open area from a deciduous into a coniferous patch near East Wretham in November, but another which appeared on a lawn at Caistor St. Edmunds, away from the normal area for them, ran into some trouble! It was chased by a cat and sought refuge up a convenient telegraph pole. The cat was shortly removed and the squirrel escaped.

Two colour variants were reported. An almost black specimen was seen at Walsingham, October 15th, and a "black" one observed near North Elmham.

Grey Squirrel (*Sciurus carolinensis*)

It is with some regret we record a further considerable advance of these undesirable aliens into our county. It was hoped that the fens to the west, the

Breck pine forests and the Waveney would be our fortifications, but they have broken through in the south-west, from presumed Euston Park stock.

Dated sight records were:— Kilverstone, March 3rd; Thompson, May 4th; Croxton, June 6th; Riddlesworth, June 20th; West Harling, September 12th; and Shropham, September 19th.

All records of sightings, and especially of any shot specimens are wanted so their advance can be recorded in detail.

Coypu (*Myocastor coypus*)

Although showing no signs of repopulation to the extent of the early 1960s, the frequency of reports of odd individuals and of small established populations seems to be increasing.

Most of the reports relate to numbers shot or trapped, so these are reports of animals no longer in existence. The trapping total for Hoveton Great Broad in 1969 was 28; 2 at Cawston; 6 near Wymondham; 1 at Larling; 1 at Scoulton; 1 at Neatishead; and many others.

Hickling, Horsey and near Breydon all reported a few; the latter two also report that these were trapped out during the autumn.

ARTIODACTYLA

Red Deer (*Cervus elephas*)

This, our largest mammal, is no longer doing as well as it used to in the Breckland forests. A buck was seen on Thetford Chase, February 9th and a hind on June 30th at Shouldham—this representing a new locality and a movement away from the more traditional areas. At Shadwell they were often seen in small numbers between 3–10, but an early spring observation here was of a herd of 32. Official Forestry Commission estimates put the number of Red Deer in the area as “around 30.” The Red Deer in Melton Constable Park are estimated at about 200.

A “switch” was shot near Bungay in the Waveney valley early in the year, the head being mounted by a Norwich taxidermist.

A careful watch should be kept for further straying individuals.

The British Deer Society now has an East Anglian branch with whom we hope to combine more closely in the future in recording our local deer.

Fallow Deer (*Dama dama*)

Three groups of deer have been commented on in reports this year. The Horsford herd was seen by many people at different times of the year, but never more than 11 together, though the herd probably comprises about 20 beasts. Six are known to have been shot this year. The numbers of fallow in the Brecks are put at between 20 and 30. Some fallow are present still in Melton Constable Park, these being of the “black” park type.

Sika Deer (*Sika nippon*)

The Japanese Sika is rather similar to the previous species with its spotted appearance; it has however antlers similar to Red Deer, not flattened ones like the Fallow. Sika Deer occur in Melton Constable Park, but what appears to be the second record of them outside a park in this county came from Horsford where two were watched from 30 yards in October (R.P.B-O.).

Roe Deer (*Capreolus capreolus*)

An estimate of the Breckland Roe Deer population given by the Forestry Commission was about 1,200. There were many reports of singles in this area, but one group of four was seen in open parkland at Buckenham Tofts, March 15th,

and a group of five at Shadwell, October 31st. Times of observations show that many are active at various times during daylight hours—even in the summer months. It is interesting also to note that more observations were made during the months of March and April than the rest of the year put together.

The Forestry Commission carried out selective culling all the while to maintain a good healthy stock. One buck obtained near Santon Downham was prepared as a skeleton at Norwich Castle. There it was discovered to have a skull malformation around a mis-shapen antler, as well as a healed hind leg which had been completely shattered at one stage.

Roe are still spreading out from their centres of population, so keep an eye for them or their slots (footprints) wherever you go.

Muntjac (*Muntiacus* sp.)

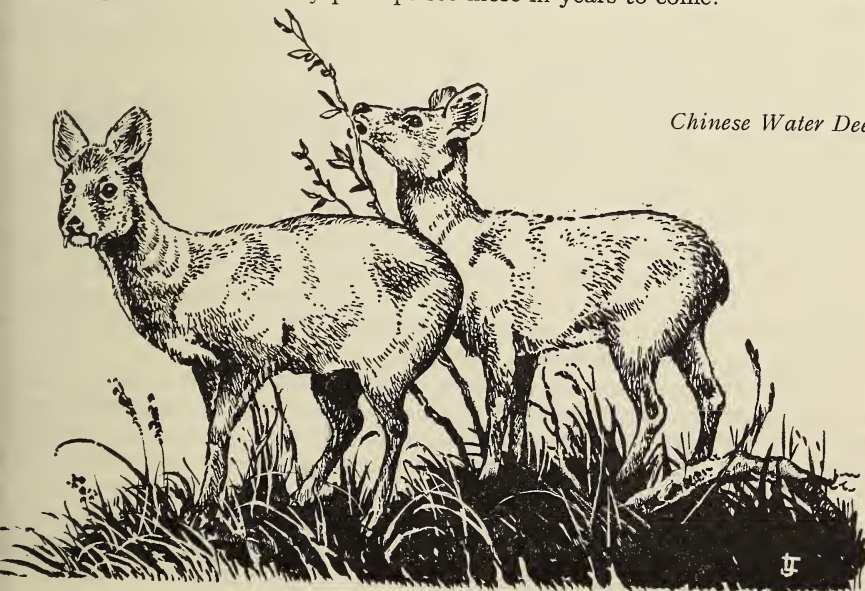
Five records of Muntjac for the year show that it is likely to occur almost anywhere in our area. Single specimens were seen on two occasions near Thetford (G.J.), and one was seen in car headlights at Shadwell in November running up and down a stretch of fencing trying to find a way through (J.G.R.). Swanton Novers in the north has some, though they are seldom seen, and a young male was reported trapped in a fox snare in Whiteslea Wood, Hickling; it was released apparently unharmed.

Any recently, or even long dead, specimens of Muntjac are wanted by Norwich Castle Museum.

Chinese Water Deer (*Hydropotes inermis*)

A brief history of these deer in Britain and the discovery of the first Norfolk specimen in the wild was included in last year's *Mammal Report*. Since then, one of completely unknown origin was discovered dead beside the A122 between Outwell and Nordelph on September 15th. It was a buck, and weighed 43½ lbs. (F.T.).

This is singularly interesting find and suggests that the species might be wandering after all. We may perhaps see more in years to come.



Chinese Water Deer

CARNIVORA

Fox (*Vulpes vulpes*)

Still common in North Norfolk, and frequent in most other parts of the county despite heavy control exercised by farmers and gamekeepers everywhere. In some of the less kept areas with plenty of woodland cover its status could almost be termed abundant now. In spite of this only 26 of the 56 people attending the annual "Mammal discussion group" in Norwich during February 1970, had ever seen a wild live one!

A keeper at Sall shot 70 foxes in his first year on a previously untended estate. Other reports came from Hoveton Broad where one was observed in the carr; Horsey, where a litter is now raised annually in the warren; Hickling, where a pair were filmed working the marshes; Northrepps; Shouldham; Little Dunham; Gressenhall; and Didlington.

Badger (*Meles meles*)

Probably more numerous than is generally supposed, but prevented from increasing and spreading by the gassing of any large mammal excavations which appear in kept areas, these being assumed to be all fox earths. It is not the lack of suitable woods with banks in which they can burrow, but more a scarcity of animals.

None were reported dead on the road this year, although one was seen in car headlights during the winter in the middle of the county. One large sett gassed and blocked during the year has since been partially re-occupied. Five occupied setts are known in various parts of north Norfolk (R.P.B-O.).

We hope to make Badgers the subject of a special section in next year's report, so *all* unpublished records of Badgers would be very welcome.

Otter (*Lutra lutra*)

An increase in the number of Otter reports for 1969 gives a picture perhaps not quite as dismal as for the previous year.

One was found dead on Titchwell marsh, March 1st, and two road casualties were recorded. The first was in January from an "Otter accident black spot" where, since the piping of a stream in 1963 which formerly went under a bridge at Thursford, four otters have been killed. This one was a dog otter weighing 19 lbs., another, also a male was killed at Hempstead Mill in February.

An otter was filmed in mid-February at Horsey as it playfully chased coots off the ice. There was no definite proof of breeding there in 1969, unlike Hickling where on July 3rd in the early morning a pair of otters with three cubs were observed swimming across the broad. At Hoveton too proof of breeding was lacking, though plenty of signs of their presence were noted.

Otters were regularly seen at Bintree on the upper Wensum. On the north Norfolk coastlands fairly frequent evidence suggests they are regularly though sparsely distributed around Cley and Salthouse. In May one was watched in the early morning near Salthouse fishing for eels in a roadside dyke (R.P.B-O.). In July at Cley four cubs and their parents were present on the reserve.

The concern expressed at the scarcity of the otter led in 1968 to a recommendation that otter-hunting should be suspended for five years. Is this voluntary ban being ignored in this county?

Stoat (*Mustela erminea*)

A good number of both Stoat and Weasel reports were received for the year indicating at least the frequency of sightings. Weasel outnumbering Stoat by almost 2 : 1. Localities where they were reported included Shadwell, Setch, Northrepps, Holkham, Lyng, Hickling, Tottington, West Tofts, Buckenham Tofts and East Wretham. Stoats were frequently seen on the Acle straights, and those killed had been feeding on the carcasses of other road victims.

A Stoat at East Carleton was tracked about $\frac{3}{4}$ mile in fresh snow, as it worked through a wood like a spaniel. It is not considered unusual for a Stoat to travel $\frac{1}{2}$ mile in search of food if it fails to make a kill near its lair. Apparently Stoats are very much creatures of habit and may be observed daily crossing a favoured stretch at the same time (within 20 minutes either way).

Four white individuals were reported from North Norfolk in late January and during February. Here the population is thought to be about the same or slightly increased on previous years.

A most exceptional report of a Stoat came from Whitwell where one ambitious animal was being mobbed by many small birds as it ran along the branch of a big oak some 40 feet from the ground.

Weasel (*Mustela nivalis*)

Fairly frequent to plentiful in most of the county, with slight increases over recent years being noted. The only area of the county where Stoats apparently outnumber weasels is in the Breydon area (R.H.H.).

Additional localised reports to those in the 1968 Report came from Ludham, Hickling, Northrepps, Drayton, Shotesham, Thetford, Stradsett and Wereham. In late August two were reported seen playing in the carr at Hoveton Broad. On September 29th, a terrific battle between a large rat and a weasel was witnessed in the road at Surlingham. Eventually the rat was overpowered and then dragged to the grass verge, still kicking. On May 5th, one was seen dragging a dead Mole across the main road at Heacham—Weasels of course normally feed on small mammals, but occasionally take larger prey. A rather small weasel was watched as it hunted around evergreen bushes in the snow at Caistor Hall wood late in the day, allowing quite a close approach to be made.

Weasels also seem to be increasingly taking advantage of other road fatalities. A Weasel family near Docking was reported to be living almost entirely off young House Sparrows which were collected from the road as fast as they were killed by passing cars. On one occasion when a car killed four sparrows, three Weasels were seen to come out from the verge and collect one sparrow apiece!

American Mink (*Mustela vison*)

Two records for the year. An unconfirmed report of one comes from the Brayden Wall at Horsey where an animal described as "a stoat and a half" was seen from the open marshes (J.J.B.). The other was captured after it had killed five chickens at Rockland St. Mary. It was a female measuring 32½ inches including the 8 inch tail, and a uniform dark brown in colour. This is the third Rockland/Surlingham record, and furthermore tracks suggestive of more of these creatures being present in the area have been found (E.A.E.).

During 1970 mink trapping by the Ministry of Agriculture, Fisheries and Food is to be phased out, leaving this rather difficult task of control to the landowners themselves.

Ferret (*Putorius furio*)

Last year's request for any occurrences in the county produced a single report of one found shot and long dead at Horsford at the end of December. Presumably they are not at all frequent as escapes into the wild in Norfolk.

Common Seals (*Phoca vitulina*)

Seals have featured in press headlines quite widely again during 1969, and the Wash Common Seals seem likely, until some legislation is introduced, to give them some measure of protection.

More than 800 baby seals were believed to have been killed during the summer in the Wash for their pelts; of these 532 died at the hands of professional "hunters". During the period July 5th-22nd, 30 dead seals were washed up between Snettisham and Heacham, and a further 17 alive. The live ones had of course been detached from the main herd by constant disturbance, while the dead ones persisted for several weeks on the beaches. It is of course unreasonable to suppose that the Wash herd can maintain itself.

Odd records for this species come from the north coast—especially Blakeney Point—during the summer and autumn but no counts of herds were received.

On Scroby Sands numbers were about the same as last year and again some bred, two newly born pups being washed ashore at Yarmouth and Caister-on-Sea during July.

A very interesting record came in of a probable Common Seal being present in the River Yare near Reedham during the late summer. It was seen by many people and apparently took little notice of holiday craft. This seems to be the fourth record of this kind of occurrence.

During November two independent reports of a Common Seal being approached very closely when ashore on Bacton beach were obtained. This specimen was blind in one eye, and thought to be ill.

Grey Seals (*Halichoerus grypus*)

Single Grey Seals were identified by a number of observers in the summer and autumn up to November 21st at several points on the north and east coasts. More information on distribution and numbers would be helpful.

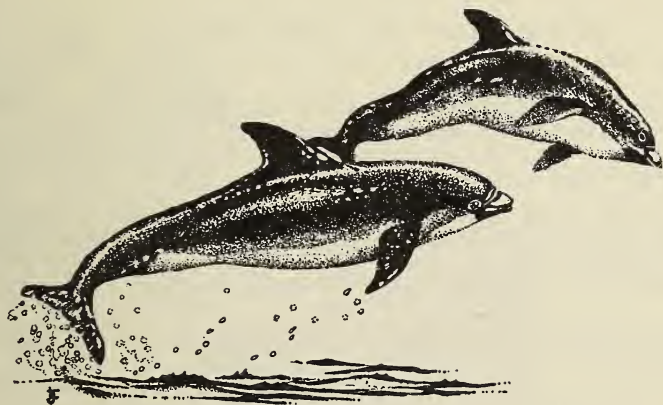
CETACEA

An encouraging increase of Porpoise records came in for 1969—bird watchers "sea-watching" in the autumn apparently see quite a lot.

Early in the year there were only three records of **Porpoise** (*Phocaena phocaena*)—one washed ashore at Yarmouth, February 20th, with a 3 foot gash in its side, and one at Horsey on March 22nd. A 4½ foot long cetacean washed ashore at Hunstanton, March 13th and reported in the local press as a young **White-beaked Dolphin** (*Lagenorhynchus albirostris*) could not possibly have been correct since a calf measures 4 feet at birth, which is usually in July. This must have been another Porpoise. The only other White-beaked Dolphin record of the year was of a skull washed up at Happisburgh.

Autumn records on the other hand are far more numerous. The first specimen was washed ashore in a considerable state of decomposition at Holme in late August. Two were off Hunstanton, September 7th, while schools (numbers not counted) and singles were recorded off Cley between September 5th and November 7th, apparently all moving eastwards.

The only other species recorded—which was only a “secondhand record”—was of a **Bottle-nosed Dolphin** (*Tursiops truncatus*) off Cley, October 19th.



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Flora of Norfolk

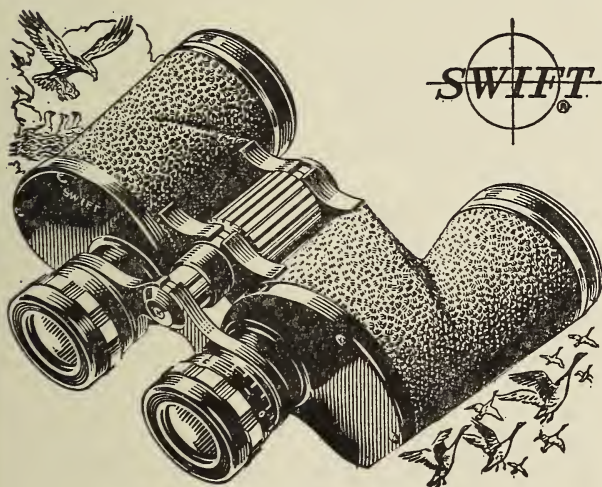
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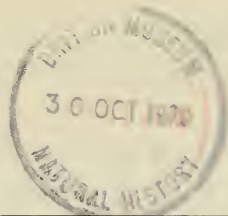
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Norfolk Naturalists Trust Properties

<i>Date Acquired</i>		<i>Acreage</i>		<i>Status*</i>
<i>On the Coast</i>				
1926	Cley Marshes	435	Gift	S.S.S.I.
1937	Duchess's Pightle, Burnham Overy..	1	Gift	—
1937	Great and Little Eye, Salthouse ..	10	Purchased	S.S.S.I.
1945	East End of Scolt Island	76	Purchased	N.N.R.
1955	The Eye, Salthouse	21	Purchased	S.S.S.I.
1965	Holme	400	Purchased, Gift & Agreement	S.S.S.I.
<i>Broadland</i>				
1928	Starch Grass, Martham	26	Purchased	S.S.S.I.
1930	Alderfen Broad	72	Purchased	S.S.S.I.
1945	Hickling Broad	816	Purchased	N.N.R.
1945	" "	500	Leased	N.N.R.
1945	Barton Broad	347	Half Gift & Half Purchased	S.S.S.I.
1952	" "			S.S.S.I.
1948	Surlingham Broad	253	Purchased	P.N.N.R.
1949	Ranworth Broad	124	Gift	N.N.R.
1949	Cockshoot Broad	12	Gift	N.N.R.
<i>Breckland</i>				
1938	East Wretham Heath	362	Purchased & Gift	S.S.S.I.
1942	Weeting Heath	343	Gift	N.N.R.
1949	Thetford Heath	250	Gift	N.N.R.
<i>Other Areas</i>				
1957	Thursford Woods	25	Gift	—
1960	Hethel Old Thorn	1	Gift	—
1961	Scarning Fen	10½	Gift	S.S.S.I.
1962	Hockham Fen (Cranberry Rough) ..	20	Purchased	S.S.S.I.
1963	Roydon Common	140	Purchased	S.S.S.I.
1964	Firs Marsh, Burgh St. Peter..	2½	Leased	—
1966	Stoke Ferry Fen	25	Agreement	S.S.S.I.
1968	Lenwade Water	37	Agreement	—
1968	Dickleburgh Pightle	1	Agreement	—

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

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

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

