

SHORT NOTES

Ducks as botanists

DURING the shooting seasons of 1957-58 and 1958-59 a number of Teal and Mallard were sent to the Trust for food analyses from one area in Kent, and were found to contain the seeds of Marestalk *Hippuris vulgaris* L. This plant is in fact only found locally in Kent in eight or nine places (Dr. F. Rose, pers. comm.), and it had not before been recorded from this particular area, so that this was probably a case of the botanist being beaten by the bird. In August, 1959, a visit was made to the area, and in company with the gamekeeper several fairly large patches of Marestalk were found, all of them being in seed. The plant had been noticed for the first time the year before, and was regarded as being a weed of no food value to wildfowl. Now it is being encouraged and a possible reflection of this is that the number of Teal and Mallard now using the area has increased; the birds sent in from this area in 1959-60 were still using Marestalk as part of their diet.

A similar problem of detection was posed by a Mallard shot in September 1958 over Milford Hope Island in the River Medway, Kent. More than 150 seeds of *Zostera hornemanniana* (= *angustifolia*) were found within the food tract and it was obvious from the almost perfect state and the position of the seeds that the bird had found them only a very short time before being shot. The distribution of *Z. hornemanniana* is not yet fully known, but there appears to be only one locality in Kent and this is approximately 20 miles from Milford Hope. It is also recorded from Essex, the nearest locality being approximately 12 miles away from the island. Although these distances represent probably less than half an hour's flying time, the state of the seeds and the fact that a number were found at the mouth end of the oesophagus suggested that the bird had been feeding immediately prior to being shot, and that there was therefore a growth of *Z. hornemanniana* close to or on the Medway islands. A search of this area has not yet revealed any *Zostera*, but as it is extremely difficult ground to cover, there may well be a patch eluding us, though not the birds.

I am most grateful to Professor H. Godwin and Miss C. Lambert for confirming the identification of *Zostera hornemanniana*, and to Dr. F. Rose, E. G. Philp, and the Botanical Society of the British Isles Distribution Map Scheme for information on the distribution of *Zostera hornemanniana*. I am also indebted to Dr. J. G. Harrison and those members of the Kent Wildfowlers' Association who sent in these particular birds.

P. J. S. Olney.

A curious nest site of a Mute Swan

ON 11th May, 1960 I noticed a Mute Swan *Cygnus olor* sitting on a large mound of seaweed at the edge of the channel in the Ythan river at the Inches, Newburgh, Aberdeenshire. The tide was out. I investigated and much to my surprise found a warm egg in the nest. The nest was composed entirely of seaweed *Fucus* spp. and mussel shells *Mytilus edulis* and was about two feet in height and diameter. There was a similar mound 100 yards downstream. At high water both these nests would have been covered with about five feet of water.

The following day when Dr. G. M. Dunnet and I went to photograph this unusual nest site, one egg was lying at the base of the nest and another

one in a pool of water several yards downstream. Later that day, with an ebbing tide when the top of the nest was just visible as a small island in a large expanse of water, the female was standing on the nest and pulling at bits of seaweed in a desultory manner with her mate looking on. After a week both birds lost interest in the nest. They made no attempt at breeding elsewhere.

Elizabeth A. Garden

Continuous musical note produced by the primaries of gliding Mute Swans

WHILST at Blagdon Reservoir, Somerset, on 2nd April, 1956, I observed two Mute Swans *Cygnus olor* gliding on to the reservoir from a considerable height. Against a light breeze the descent lasted about 25 seconds and not until immediately prior to alighting could I detect any movement of their outstretched wings. I was particularly interested as the birds' primaries made a pleasing and continuous musical note which throughout appeared to remain at an even pitch, though the sound intensity decreased as the birds descended. On numerous occasions I have heard the fluctuating notes made by swans flying, but never before, or since, have I heard a noise like this.

Bernard King.

A Greylag family homing on foot

EARLY in April, 1960, my Greylag gander (full-winged) which came from Slimbridge in July, 1958 disappeared with one of my two full-winged Greylag geese, which have been here (Sandhurst, Kent) since 1954, but after an absence of about a week they both reappeared, only to depart again a few days later. Soon I located them on a friend's farm just under two miles away where they had settled in near one of his small ponds. I decided they had considered the population of my own pond (about 25 geese of various sorts, mostly Canadas, and about 100 duck) too congested for breeding, though in 1959 they had nested and reared 3 out of 4 successfully hatched.

On 12th June, at about 7.30 a.m. when I went to feed my birds, I was astonished to see a couple of greylags walking outside my perimeter wire. I immediately recognised them as "Yellow" the gander and "Green" his mate from their chicken rings and to my utter amazement a two- or three-day old gosling was with them.

I immediately telephoned my friend who after, inquiring of his man, said they had been seen on his pond on Thursday, 9th June, with two small goslings, but no one had seen them since.

The plain facts therefore, are that this pair of geese had come home on foot over 2 miles of rather enclosed country, including crossing a stream, usually at this time of year only a few feet wide, but with rather high precipitous banks five or six feet high, taking some fifty to sixty hours for the journey and losing one of their two offspring on the way.

Is there any other possible explanation of how they travelled? Is there any record of geese having carried their young as for instance woodcock have been proved to do? I would have said quite impossible for a number of

reasons. Why did they decide to move from a very suitable habitat, good grazing, a pond with some cover and a small island? Certainly they are fed corn here as well as having pretty adequate grazing, whereas at my friend's farm they only have grazing plus perhaps a little corn robbed from his chickens.

Airborne of course, there would be not the slightest difficulty in finding the way back but on foot—well quite remarkable is the least one can conclude. The gosling showed no signs of distress after his long trek. They could certainly have heard my Canadas honking and used that as a beacon, but what was the urge to make the journey?

G. L. Reid

Tuberculosis in Eiders

DURING the past five years I have had 173 Eiders *Somateria mollissima* from the Ythan Estuary, Aberdeenshire, post-mortemed. Four of these birds were suffering from avian tuberculosis. Details of the post mortems are as follows:

8/2/55 Ad. ♂

Post mortem examination showed the bird to have died in poor condition. It was affected with avian tuberculosis. There was a very large tubercular lesion involving the right coracoid and clavicle and the muscles around them. Small lesions were in the spleen and the intestines, and there was tuberculous material in the sternal, left anterior thoracic and abdominal air sacs. A few acanthocephala were in the small intestine.

12/2/57 Ad. ♀

Post mortem examination showed the bird to have died in good condition. It was affected with tuberculosis. Tuberculous ulcers were in the intestines and a large lesion was on the surface of the gizzard, the lining of which was ulcerated. A full bacteriological examination failed to show any organism of significance. There were a large number of acanthocephala of varying sizes, in the lower half of the ileum. No parasites were in the gizzard or the kidneys.

26/11/57 Ad. ♂

Post mortem examination of the bird showed it to be emaciated as a result of advanced tuberculosis and aspergillosis affecting chiefly the left lung and the left abdominal air sac. A large mass of tuberculous material was also present in the pericardial sac attached to the tip of the left ventricle.

28/4/60 Ad. ♂

Post mortem examination showed the bird died in poor condition and was affected with tuberculosis. There were typical lesions in the liver and spleen and there were numerous acanthocephala in the intestines. A bacteriological examination was negative.

None of these birds showed any evidence of having been attacked by a predator.

I have also had cases of tuberculosis in three other species: Common Gull (*Larus canus*), Black-headed Gull (*L. ridibundus*) . . . "one intestinal

nodule was almost as big as a thrush's egg," and Cormorant (*Phalacrocorax carbo*), in which the bone marrow was involved.

I am most grateful to Dr. J. E. Wilson, Mr. R. H. Duff and Mr. J. W. Macdonald of the Ministry of Agriculture and Fisheries Veterinary Laboratory, Lasswade, Midlothian, for carrying out the post mortems.

Elizabeth A. Garden.

Pre-dusk gathering of Goldeneye

IN North Somerset, after years of consistent counting, it was found that Goldeneye *Bucephala clangula*, usually are to be found in their largest numbers during March and early April, although on present standards it is exceptional for fifty or more Goldeneye to be counted on any one occasion.

It was also discovered, especially at Blagdon Reservoir, and then in more recent times at Chew Valley Reservoir, by Stephen Chapman and others, that the species revealed a marked tendency to gather, sometimes on the deepest waters, about an hour or so before dusk, and there to stay in close association—they form into long and irregular lines or bunch closer together, until the oncoming darkness prohibits further observations. For how long these 'rafts' of Goldeneye remain as described is still unknown, but on the few occasions I have made dawn visits to the areas where they have been seen to gather the previous evening the birds were well scattered and, perhaps in consequence, the total numbers were below the pre-dusk counts.

On searching through the British ornithological literature at my disposal, I have failed to find data of a similar nature, although from the following details by James W. Campbell it is evident this communal behaviour is not confined to Somerset. Campbell states (1953—personal comm.) 'There seems to be a tendency with Pochard (*Aythya ferina*), Tufted Ducks (*A. fuligula*) and Goldeneye, to collect an hour or so before dusk and then I think shift at flight time. I first became interested in this in Benbecula where several times in the dusk large lots of Pochard and Tufted came into a loch and then shifted on their own accord. Apart from Abberton Reservoir, Essex, I've never been in a district with large numbers of Goldeneye. At Abberton my experience was the same as yours; large counts in late afternoon with the birds concentrating in an area, although there was there a marked tendency at all times for Goldeneye not to scatter as much as they do in some places.' In a recent letter (1960), Campbell further comments 'I still have no solution re the 'disposal' of these late p.m. gatherings.

It would be advantageous to further the knowledge of communal behaviour by Goldeneye, and other species of 'diving-ducks,' of which little is as yet apparently known. Readers who have ready access to areas where Goldeneye regularly gather may, in consequence, be able to furnish observations of a more detailed nature.

Bernard King.

Male Teal displaying to shore roosting females

WHILE on a visit to the Clevedon marshes, Somerset, on the 21st April, 1951, and in company with W. L. Roseveare, a party of at least 150 Teal *Anas crecca* were observed swimming on the outgoing tide, as well as a few roosting on a small and shallow bank which the tide had left uncovered.

As the light conditions were good it seemed worthwhile to make a sex count of these Teal, and for this I used a x 30 telescope. I soon discovered, however, that a small party of drakes appeared to be displaying amongst themselves. For instance, every time the tide drew the birds away from close by the shallow bank they immediately returned, either by swimming back quickly or by scurrying low level flights across the surface of the water—then the 'normal' displays began over again. But observations of a more prolonged nature revealed after all that the behaviour was directed towards twelve shore roosting birds, ten of which were female Teal—in fact the drakes ceased displaying as soon as the former birds finally departed to feed along the tidal edge.

Bernard King.

Great Skua attacking ducks

ON 24th November, 1960 off Stert Point, Somerset, I witnessed a series of attacks by a Great Skua *Stercorarius skua* on a number of ducks, mainly Wigeon *Anas penelope* but also Mallard *Anas platyrhynchos* and Teal *Anas crecca*.

It was high water at the time with a heavy and confused sea running. The Great Skua came into the area between Stert Point and Stert Island from seaward and landed on the water where it rested for 40 minutes.

There were several hundred duck present in the area mainly in small groups of up to 50 birds. I then noticed a group of 28 Wigeon on the water quite close to the Skua. Whilst I was watching, the Wigeon took wing, and the Skua immediately went after them with surprising acceleration and appeared to single out the last bird in the flight and relentlessly pursued it with great vigour. After a short chase the Wigeon, which I assume was becoming exhausted, took to the sea again.

At this point the Skua broke off the attack and climbed to about 100 ft., and at this height patrolled over the area very slowly, until another group of ducks took wing, whereupon the Skua would dive rapidly from the patrol position and pursue the group as before.

The 'patrolling' and 'attack' performance was repeated many times, and in all lasted 8 minutes.

The Skua then flew off and landed on Stert Island.

J. V. Morley,
Warden, Bridgwater Bay Nature Reserve.

Feral North American Ruddy Ducks in Somerset

IN the autumn of 1957 a few (probably less than ten) full-winged young North American Ruddy Ducks *Oxyura j. jamaicensis*, which had been reared by their parents in the Rushy Pen at Slimbridge, flew away. One was discovered at Villice Bay, Chew Valley Reservoir, north Somerset, in November of the same year. During the subsequent winter the number present at Chew Valley increased to four and an equal number, presumed to be the same birds, were also observed over long periods on the nearby Blagdon Reservoir. In addition, single *jamaicensis* were occasionally reported to me from the reservoir at Barrow Gurney. It is reasonable to suppose that at least five Ruddy Ducks,

all of which assumed adult male plumage in the early spring of 1958, were present in north Somerset during 1957-58. This small group was augmented in later years by odd immatures and it is curious that up to the time of writing (autumn 1960) no authentic reports of full-winged female Ruddy Ducks have been made.

I believe that two independent groups have now become established at Chew Valley and Blagdon, consisting of four and three males respectively. They appear reluctant to take flight and even in the presence of predators prefer to "break contact" by diving and retiring to their favourite reedy areas, from which they seldom stray during the summer months. Only in the early days of their stay at Chew Valley did I see them fly frequently, usually in low level flights of short duration. Often these were immediately followed by one or more of the birds rearing up off the water and flapping their wings with amazing rapidity, for periods of up to thirty seconds.

In spite of the absence of females of the same species the males are sufficiently stimulated during the spring and summer to display among themselves, though the displays comprise little more than swivelling round with bills depressed and tails tilted well forward. The Somerset birds occasionally associated with other ducks and sometimes appear to display to them. This feral behaviour may differ from that of wild Ruddy Ducks, because Richard H. Pough (*Audubon Water Bird Guide*, p. 116) mentions that "they seldom associate with any other birds except Coots (*Fulica americana*)."
The behaviour of one isolated male on the catchment water, a small pool alongside Chew Valley Lake, on 14th June, 1960 is particularly worth mention. Every time female Mallard *Anas p. platyrhynchos* swam near it the male Ruddy went into the full courtship display, tilting the tail far forward, bouncing its bill on its puffed-out breast, and splashing up water with both feet. Only once in the course of the ten minutes the male was in the area did it cease displaying to female Mallard and then only to display to a drake Mallard in an advanced state of eclipse: other males were ignored.

Bernard King.

A rare water-beetle found by a Mallard

A drake Mallard *Anas platyrhynchos* shot in the Pett Levels, Sussex, on 27th November, 1959 was found to contain a single male of the rare water beetle *Graphoderus cinereus* L. This extremely uncommon Dytiscid is only known at the present date from one locality in Hampshire, at least 60 miles from the Pett Level area. The almost perfect condition of the beetle and its presence in the oesophagus indicate that it could only have been ingested some minutes before the bird was shot. It is most unlikely that the bird would have held the beetle within the oesophagus for any length of time, certainly not for the time it would take to fly 60 miles. It seems therefore certain that the beetle originated from the area in which the bird was shot and that the Pett Level must be considered as a new locality for this beetle. The rest of the meal consisted mainly of the winter buds of Frog-bit *Hydrocharis morsus-ranae* L. and various insects, including *Noterus clavicornis* Degeer, *Haliphus* sp. larvae, *Polycentropid* larvae and Odonata larvae.

I am most grateful to J. Balfour-Browne for identifying this beetle and for details of its distribution. I am also indebted to Dr. J. G. Harrison for obtaining this bird.

A note on the discovery of this beetle was published in the *Ent. mon. Mag.* 96 : 56 in 1960 by J. Balfour-Browne.

P. J. S. Olney.

Eating of metal by ducks

1. A female adult Tufted Duck *Aythya fuligula* shot on 30th January, 1960 over a gravel pit near London, described as being in poor condition, was found to have a $1\frac{1}{2}$ " long nail through the gizzard wall which actually penetrated to the skin of the back (photograph). Where the nail had pierced the back there was local inflammation of the skin and some suppuration. From the position of the nail and the fact that the sharp pointed end was on the outside of the gizzard, it was obvious that the nail had been swallowed and had then worked its way out through the gizzard wall. There was no sign at this stage of any internal haemorrhage and it appeared that the nail had been there for some time. When shot the bird was apparently flying as fast as its companions.

2. A Mallard *Anas platyrhynchos* of about 8 weeks, one of a large number of hand-reared birds, was picked up dead during July 1960 before it had been put out on water. When examined it was found to have eaten a $1\frac{1}{2}$ " piece of wire and 37 copper tacks (photograph). Only one bird was known to have died in this way, though previously a bird had been found dead after having eaten the brass heads of several cartridge cases. It seems likely that the only time copper tacks had been used was during the electrification of the building in which the ducks were kept, and that many years later some of them left behind had been found by this unfortunate duck.

3. A Falkland Island Flightless Steamer Duck *Tachyeres brachypterus* which died at Slimbridge in September 1959 had been ill for several days and had taken no food but drank large volumes of water.

At post mortem examination the bird was found to be in poor condition with a reduced pectoral muscle and depleted visceral fat. The left posterior thoracic and abdominal air sacs contained a foul smelling blackish fluid while the left lung showed severe caseating pneumonia. The probable cause of this condition was three pieces of wire which had penetrated the wall of the gizzard and damaged the liver and small intestine. The longest piece, 6 cms., had damaged the small intestine, which developed a series of adhesions and an associated foreign body capsule 3 cms. x 1.5 cms. Two more pieces of wire, each 3 cms. long, were found in the liver encased in a black material and had presumably come from the gizzard.

A second bird of this species, which died of inanition, had the shaft of a fish hook embedded in the wall of the gizzard and surrounded by a black material. The piece of metal probably came from an eel fed to the bird.

4. A first winter European Scaup *Aythya marila* drake which had been reared at Slimbridge had a piece of wire, 1.5 cms. long, embedded in the wall of the gizzard. One end protruded into the lumen of the organ and the other end pushed the outer surface of the gizzard into a conical shape. This bird died of renal and cardiac disease.

Small pieces of wire have occasionally been found in the gizzards of several other species, especially the European Eider *Somateria mollissima*.

In each case where tissue had been penetrated it would appear that the wire was ingested, and for a time acted as grit since considerable wear had occurred on the pieces. Then the wire moved into such a position that the muscular activity of the gizzard forced it into the wall of the organ and, in the case of the Steamer Duck, right through the wall into other organs.

It seems probable that most of the metallic objects found in these birds had been selectively ingested, though why they should have been remains an enigma. Possibly the smaller pieces were taken as a form of grit, but the larger pieces are quite unlike the normal grit or food of any of the birds concerned. It may be that the shiny appearance of such objects is an attraction. Perhaps the same reasons are involved which cause some birds to ingest lead pellets, with subsequent fatal results (Olney, P. J. S. 1960. *Eleventh Ann. Rep.* : 123-134). Whatever the reasons are, it seems to be extremely unwise to leave metallic objects about where wildfowl can find them.

We are most grateful to J. Moller and Dr. J. G. Harrison for obtaining the first two examples and to R. Young for supplying details of the second bird mentioned.

P. J. S. Olney and J. V. Beer.

A cheap form of semi-permanent binding for journals

THE reference library at Slimbridge continues to grow and more than fifty journals are regularly received by subscription or exchange. At the moment we have no funds for permanent binding of the quite long runs we have accumulated. Yet some form of binding is essential to prevent the separate parts being lost. The solution we have adopted has always roused the interest of visiting scientists, who are also faced with the problem, so it is thought worthwhile setting the details out for wider circulation.

The binding material is polyvinylchloride electrical tape (in our case obtained from Gordon & Gotch (Sellotape) Ltd., London). This is available in a number of pleasing colours and is strongly self-adhesive.

Two parts of the journal are laid spine to spine, the first face down, the second face up. They are then hinged together by running a strip of two inch wide tape down the length of the joint, one inch on each side. A third part is hinged to the back of the second in the same way, and so on. Finally a strip of tape is run down the back of the pile of parts, overlapping the front of the first and the back of the last part. At least half an inch should overlap to ensure firm attachment; if the pile is more than one inch thick, two widths of tape will be needed for the spine. The number of parts that can be bound together in this way depends on their thickness and the relative rigidity of their covers, but four or six make a firm volume in most cases. If desired, cardboard covers can be added, but this is not usually necessary. The tape should not be stretched when applying or it will tend to creep back in time.

The volumes may be neatly labelled by stencilling an abbreviated title on to white card and covering with transparent Sellotape to keep it clean. The

cards are then fixed to the spine of the volumes by further strips of narrower ($\frac{3}{4}$ ") polyvinylchloride tape.

Binding a volume in this way costs less than ninepence, compared with fifteen shillings or more using conventional methods.

The method was first used two years ago and experience has shown that the binding lasts well and easily stands up to the amount of use that journals receive in a research unit. The smooth surface of the tape prevents the collection of dust and gives a clean cool appearance to the library shelves. It is worth noting that the method in no way prevents subsequent permanent binding of the journals, since only the covers are involved in the process of attachment.

G. V. T. Matthews.

11th Annual Report—Correction :

p. 115. In the paper 'The Shelduck population in the Bridgwater Bay moulting area,' it was stated that nine Shelduck in flightless moult were present on Swanscombe marshes, Kent in July, 1959. Mr. C. D. Jolly informs us that this was not so, the birds being advanced juveniles, not adults.

