

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 associate 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, *Halipus* 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 1½" 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 1½" 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.