

SHORT NOTES

British literature on European wildfowl — A correction.

Dr. J. M. Harrison has pointed out a misleading mistake in the list of British publications on wildfowl which appeared in the *Tenth Report*, pp. 162-175. The published entry: "J. M. Harrison and C. H. B. Grant (1953) *Turdus musicus* Linnaeus. The scientific names for the Bean and Pink-footed Geese. *Ibis* 95: 152" suggests that *Turdus musicus* is a possible name for a goose. This is not so. Harrison and Grant published consecutive but separate notes dealing with two of the most persistent and vexatious nomenclatorial disputes. It was not our intention to stimulate the fires by combining them. "*Turdus musicus* Linnaeus" should be deleted from the quoted entry.

Hæmorrhage from an œsophageal diverticulum causing death in a wild Mallard*

ON 25th August, 1959, a freshly dead immature drake Mallard, *Anas platyrhynchos platyrhynchos* Linnaeus was found on the Kent Sand and Ballast Water wildfowl reserve at Sevenoaks. It was in good condition, but had free blood in its mouth. Post mortem examination showed that there was rather over an ounce of free blood in the oesophagus and on dissection an oesophageal diverticulum was found at the level of the bifurcation of the trachea. The diverticulum was full of food, being about the size of a walnut, and had become firmly adherent to the root of the lung by inflammatory adhesions. There was a marked apex to the diverticulum in the area of attachment and there is no doubt that it was a traction diverticulum being slowly enlarged with each movement of respiration as the adhesions tugged on the apex.

When the food contents of the diverticulum were removed for analysis, an ulcerated area of the lining was immediately apparent, in which a blood vessel had become eroded, resulting in a fatal haemorrhage.



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DIVERTICULUM CONTENTS

Species	Number	Volume	% Volume
PLANT MATERIAL			
<i>Lolium multiflorum</i> Lam. (Italian Ryegrass)	seeds 371	1.3 ml.	59.1%
<i>Lolium perenne</i> L. (Perennial Ryegrass)	seeds 57	0.3 ml.	13.6%
<i>Bromus sterilis</i> L. (Barren Brome Grass)	seeds 10	0.2 ml.	9.1%
<i>Holcus lanatus</i> L. (Yorkshire Fog)	seeds 12	0.1 ml.	4.6%
<i>Juncas inflexus</i> L. (Hard Rush)	capsule & seeds 22	trace	
<i>Equisetum arvense</i> L. (Common Horsetail)	stem and sheath	trace	
ANIMAL MATERIAL			
<i>Hydropsychidae</i> larvae (Caddis-fly)	3	0.3 ml.	13.6%

GIZZARD CONTENTS

PLANT MATERIAL			
<i>Polygonum amphibium</i> L. (Amphibious Bistort)	seeds c. 90	0.4 ml.	80%
<i>Rumex conglomeratus</i> Murr. (Clustered Dock)	seeds c. 43	0.1 ml.	20%

The contents of the diverticulum were completely different from those of the gizzard, indicating that the bird had been feeding in two separate habitats, and that once the diverticulum was full any further food ingested would pass normally into the gizzard. The state of the seeds in the gizzard would suggest this meal had been taken only a short time before the bird succumbed. It is in the food contents of the diverticulum that the clue to the fatal haemorrhage is found. The spikelets of both the *Lolium* species are hard and sharply pointed, as are the narrower and longer seeds of *Bromus sterilis*. As the diverticulum and its contents are moved with each respiration, the consequent friction could easily result in these seeds causing the ulceration and haemorrhage. In this case the seeds of the *Bromus* and *Lolium* species must have been the direct cause of the bird's death.



Bromus sterilis seed.
Nat. size



Lolium multiflorum
spikelet, x3

It is interesting to note that this is the first time that the spikelets of either *Lolium* species have been found in any bird sent in to the Wildfowl Trust for food examination. Seeds of *Lolium perenne* L. have been found in duck gizzards before but not still as part of the spikelet. This particular Mallard could scarcely have taken a more unfortunate meal.

We are most grateful to Dr. C. E. Hubbard for help in identifying the grass seeds.

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Tuberculosis in a wild Pochard and remarks on the recognition of disease by predators *

ON 19th August, 1959 Major General C. B. Wainwright and Mr. Roy King found an eclipse drake Pochard *Aythya fuligula* (Linnaeus) on Abberton Reservoir, Essex, swimming weakly and with its neck badly lacerated by some predator, which judging by the tooth marks was most likely to have been a fox or an otter. It was also very wasted and the bird was killed and given to us on the same day.

On examination, apart from being very wasted, the belly was extremely distended. On opening the body, this distension was found to be due to a grossly thickened, yellowish-white thoraco-abdominal air-sac, containing about a quarter of a pint of straw-coloured fluid. The pericardium was similarly thickened and there was an advanced plastic pericarditis, the whole heart looking as if it was covered with soft butter. Lying behind the air-sac, the liver was enlarged and studded with many small, hard, whitish nodules, while other nodules were present on the visceral surfaces of the gall-bladder and intestines, which were matted together by adhesions. One nodule had eroded the eighth right rib. Many of these features can be seen in the picture of the specimen after dissection (see p. 189), in photographic section).

A direct film from a liver nodule showed that numerous pleomorphic acid-alcohol fast bacilli were present. Histologically, a section of the liver stained with haematoxylin and eosin presented a picture of miliary tuberculosis with multiple caseous areas largely destroying the central area of each liver lobule, with small round-celled infiltration and giant cell systems surrounding the caseation, as a prominent feature, leaving only a narrow zone of liver cells.

A slide stained by the Zeihl-Neelsen technique showed many acid-alcohol-fast bacilli in the affected parts. From a study of these slides it is apparent that as a blood-borne infection, the disease reaches the central artery of each lobule and that caseation develops from this point peripherally, ultimately destroying the whole lobule. A culture was set up on Finlayson's medium and growth of a typical avian strain appeared in three weeks. Unfortunately owing to a technical error on our part, Dr. A. McDiarmid, of the Agricultural Research Station at Compton, was subsequently unable to type the strain.

This is the first confirmed case in a wild Pochard and only the fourth confirmed case in a wild duck in Britain. These others were a Wigeon, *Anas*

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