

range of distribution has been considerably extended. The species are arranged in the collection in two main groups, the first group containing the stronger forms with the costal margin of the forewing heavily serrated, and the second the smaller species with less powerful flight and the serration of the costal margin denser and feebler. The species of the second group, particularly the ♀♀, frequently resemble some species of the first group, the similarity in colour and pattern being often surprisingly close.

Luncheon was served at 1 o'clock, after which the Museum was again open for inspection, and the party dispersed about 4 o'clock after having spent a very enjoyable day.—H. WILLOUGHBY ELLIS, *Hon. Secretary.*

# THE PARASITES OF BRITISH BIRDS AND MAMMALS. XI. RECORDS OF *ORNITHOMYIA* spp. (DIPTERA, HIPPOBOSCIDAE) FROM BRITISH BIRDS.\*

BY GORDON B. THOMPSON

(Department of Entomology, British Museum (Natural History).)

In a revised list of the British species of Hippoboscidae (1936) I listed three species of *Ornithomyia* which occur in the British Isles. This note is devoted entirely to the recording of two species of *Ornithomyia* based on specimens which have been examined by me during the past two years. In the case of one or two doubtful specimens I have solicited the help of Dr. Jos. Bequaert, who is making a special study of the Hippoboscidae of the world. Dr. Bequaert has also sent me a short list of British specimens which he has examined, and they are included in this note. I wish to record my warmest thanks to Dr. Bequaert for much kind help. The greater part of the material recorded here is in the collection of the British Museum (Natural History).

Records of Hippoboscidae are very few, comparatively speaking, and it appears that most of the earlier records have been published by Dipterists who have little interest in the fact that they are bird or mammal parasites, and therefore the names of the hosts on which a particular species of Hippoboscidae occurred is often vaguely stated or omitted entirely.

In the following records I have given both the correct scientific name and the common name of the host upon which the *Ornithomyia* spp. were taken. Their host-names are furthermore arranged under their respective families. My reason for giving such detailed data may not be apparent, but it is to be hoped that it will be of use to future workers. It is not always fully realised that the name of the host is equally as important as the name of the parasite. If this fact were borne in mind by collectors and recorders, the records

\* No. X appeared in this Magazine for October, 1936, pp. 224-228.

of parasites would be of greater interest. The records which are asterisked were those communicated to me by Dr. Bequaert. I am only able to state the name of the species of *Ornithomyia* (indicated by a cross, ×) which was found on the various hosts, as the numbers and sexes, etc., are not known to me.

Host specificity is not, to any marked extent, a feature in the case of a large number of these parasites, but if sufficient accurate records of host and parasite were noted it might be possible to form some conclusions as to their host-parasite relationships. Host specificity is, to my mind, the ability of a parasite to reproduce on or at the expense of a single host species or group. In the case of some of the *Ornithomyia* individuals appear to be abundant, and it seems that the more abundant a species is in nature the larger the number of hosts. A study of the fifty-eight records of two species of *Ornithomyia* from thirty-five species of birds given in this note reveals certain limits to the hosts of the two parasites. The owls, hawks and pigeons seem to be parasitised almost exclusively by *Ornithomyia avicularia* (Linn.), whereas the waders, game-birds, and a large number of passerines are most commonly parasited by *Ornithomyia fringillina* Curtis. It is significant also that these records contain no sea-birds or ducks; in fact, no true water birds (except for the one record from a moorhen) as hosts of either species of *Ornithomyia*.

Family of Host.	Scientific and Common Name of Host.	Locality.	<i>Ornithomyia</i>	
			<i>avicularia</i> (Linn.).	<i>fringillina</i> Curtis.
CORVIDAE.	<i>Corvus c. corone</i> Linn. (Carrion Crow).	Surrey, Richmond Park, 16.iv.1934 (A. H. Bishop)	2 ♂♂	—
	<i>Garrulus glandarius rufitergum</i> Hart. (British Jay).	*Perthshire, Dunalastair.	×	×
STURNIDAE.	<i>Sturnus vulgaris zelandicus</i> Hart. (Shetland Starling).	Shetland Is., Ollaberry, 15.viii.1910 (J. Waterston).	—	2 ♀♀
		Ditto, 3.ix.1910.	—	3 ♀♀
FRINGILLIDAE.	<i>Fringilla c. coelebs</i> Linn. (Chaffinch).	London, Kensington, 20.vi.1919.	1 ♀	—
MOTACILLIDAE.	<i>Anthus pratensis</i> (Linn.) (Meadow-Pipit).	Skokholm I., ix.1934 (H. Morrey Salmon).	—	2 ♀
		*Scotland, Dumbarton.	—	×
PARIDAE.	<i>Anthus spinoletta petrosus</i> (Mont.) (Rock-Pipit).	Scotland, Cromarty, 3.x.1912 (H. R. Ogilvie-Grant).	—	×
	<i>Parus major newtoni</i> Prazák (British Great Titmouse).	*Perthshire, Dunalastair.	—	×

Family of Host.	Scientific and Common Name of Host.	Locality.	Ornithomyia <i>avicularia fringillina</i> (Linn.). Curtis.	
			(Linn.).	Curtis.
LYNCHIDAE.	<i>Lanius c. collurio</i> Linn. (Red-backed Shrike).	Sussex, Brighton, 1892.	1 ♀, 1 ♂	—
MUSCICAPIDAE.	<i>Muscicapa s. striata</i> (Pall.) (Spotted Fly-catcher).	*Scotland, Dumbarton.	—	×
TURDIDAE.	<i>Turdus v. viscivorus</i> Linn. (Mistle-Thrush).	*Suffolk, Dunwich.	×	—
	<i>Turdus e. ericetorum</i> Turton (British Song-Thrush).	Herts., N. Mimms, 2.vii.1933 (D. Buxton & J. Shillito).	2 ♀ ♀, 1 ♂	—
	<i>Turdus m. merula</i> Linn. (Blackbird).	*Scotland, Dumbarton. Sussex, Balcombe, 5.viii.1901 (I. J. Comber). Kent, Eltham, 12.vii.1931 (G. B. Thompson).	— 1 ♂, 2 ♀ ♀ — 1 ♂	×
	<i>Oenanthe o. oenanthe</i> (Linn.) (Wheatear).	Shetland Is., Ollaberry, vii.1910. Ditto, viii.1911. Ditto, vii.1912. Shetland Is., Eastness, vi.1910. Isle of Arran, Sliderry, 19.viii.1924.	— — — — —	1 ♀ 2 ♀ ♀ 1 ♀, 1 ♂ 1 ♀ 1 ♀
	<i>Erithacus rubecula melophilus</i> Hart. (British Robin).	Somerset, Wellow, nr. Bath, 14.vii.1906 (H. R. F. Magrath).	1 ♂ 2 ♂ ♂, 1 ♀	—
CINCLIDAE.	<i>Cinclus cinclus gularis</i> (Latham) (British Dipper).	*Perthshire, Dunalastair,	—	×
PICIDAE.	<i>Picus viridis virescens</i> (Brehm) (Green Woodpecker).	Worcestershire, Tenbury, 1890 (C. D. Willis).	1 ♀	—
CUCULIDAE.	<i>Cuculus c. canorus</i> Linn. (Cuckoo).	*Suffolk, Dunwich.	×	×
STRIGIDAE.	<i>Asio otus otus</i> (Linn.) (Long-eared Owl).	Kent, Ramsgate, 1891. Norfolk, 25.x.1901 (C. Ingram).	1 ♀ 1 ♀	— —
	<i>Strix aluco sylvatica</i> Shaw (British Tawny Owl).	Suffolk, Hartest. Surrey, Dorking, vii.1935 (G. B. Thompson). Surrey, Kingston-on-Thames, viii.1935 (G. B. Thompson).	×	—
	<i>Tyto a. alba</i> (Scop.) (White-breasted Barn Owl).	Bucks., Burnham, 1.ix.1904 (O. Marshall).	1 ♂	—
FALCONIDAE.	<i>Falco t. tinnunculus</i> Linn. (Kestrel).	Montgomery, Welshpool, 1907 (T. P. Aldworth).	1 ♀, 1 ♂	—

Family of Host.	Scientific and Common Name of Host.	Locality.	<i>Ornithomyia</i>	
			<i>avicularia</i> (Linn.).	<i>fringillina</i> Curtis.
AQUILIDAE.	<i>Accipiter n. nisus</i> (Linn.) (Sparrow Hawk).	Scotland, nr. Edinburgh, Penicuik, 21.vii.1911.	—	2 ♀♀
		*Buckinghamshire.	x	—
		Radnorshire, Boughrood, 14.ix.1934 (J. G. Williams).	1 ♀	—
		Kent, Sevenoaks, 14.xi.1934 (C. Brown).	1 ♀	—
		Essex, Felsted, 10.vii.1916 (J. H. Owen).	1 ♂	—
		Radnorshire, Boughrood, 12.ix.1934 (J. G. Williams).	1 ♀	—
COLUMBIDAE.	<i>Columba p. palumbus</i> Linn. (Wood Pigeon).	Kent, Horton Kirby, 8.viii.1906 (J. R. Hale).	1 ♂, 1 ♀	—
		*Suffolk.	x	—
CHARADRIIDAE.	<i>Streptopelia t. turtur</i> (Linn.) (Turtle-Dove).	Shetland Is., Ollaberry, ix.1911 (J. Waterston).	—	1 ♀
		East Lothian, Aberlady, 17.ix.1909 (J. Waterston).	—	1 ♀
	<i>Charadrius h. hiaticula</i> Linn. (Ringed Plover).	Isle of Arran, Sliddery, 13.viii.1924 (J. Waterston).	—	1 ♀
		Orkney Is., 7.ix.1912 (J. R. Hale).	—	1 ♂
	<i>Numenius a. arquata</i> (Linn.) (Common Curlew).	Shetland Is., Ollaberry, 14.viii.1913 (J. Waterston).	—	1 ♀
		Aberdeenshire, Dinnet, 27.viii.1921 (C. Pantin).	—	1 ♀
		Orkney Is., Shapinsay, 28.viii.1912 (J. R. Hale).	—	1 ♂
	<i>Capella g. gallinago</i> (Linn.) (Common Snipe).	Yorkshire, Cronkley Fell, 27.vii.1909.	—	2 ♀♀
		*Suffolk.	x	—
	<i>Gallinula c. chloropus</i> (Linn.) (Moor-Hen).	—	—	—
TETRAONIDAE.	<i>Lyrurus tetrix britannicus</i> With. & Lönn. (British Black Grouse).	Scotland, Blackhill, 11.ix.1909 (J. Waterston).	—	1 ♀
		Orkney Is., Shapinsay, 1.ix.1912 (J. R. Hale).	—	1 ♀
	<i>Lagopus s. scoticus</i> (Latham) (British Red Grouse).	*Scotland, Dumbarton.	—	x
		*Perthshire, Dunalastair.	—	x

	<i>Lagopus mutus millaisi</i>	*Perthshire, Dunalastair.	—	×
	Hart. (Scottish Ptarmigan).			
PHASIANIDAE	<i>Phasianus colchicus</i> Linn.	*Perthshire, Dunalastair.	—	×
	(Pheasant).	*Scotland, Dumbarton.	—	×
	<i>Perdix p. perdix</i> (Linn.)	Isle of Arran, Sliderry,	—	2 ♀ ♀
	(Common Partridge).	10.ix.1924 (J. Waterston).		

\* Specimens examined by Dr. Bequaert and not seen by me.

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 British Museum (Natural History),  
 Cromwell Road, London, S.W.7.  
 October, 1936.

[On p. 48, 6 lines from the bottom, insert the record '1 ♀' under *Orniomania fringilla* (opposite *Anthus spinoletta*); line 26 from top, 'parasited' should read 'parasitised.']

#### TWO SPECIES OF COLEOPTERA NEW TO SCIENCE.

BY A. A. ALLEN.

##### 1. *Homalota* [= *Epipeda*] *donisthorpei* sp.n. (Staphylinidae).

Closely allied to *H. plana* Gyll. and best described by comparison with it:

Black, with the elytra, apex of hind body, antennae, palpi and femora brownish-yellow, tibiae and tarsi yellow. *Head* shorter and more transverse, broader in proportion to thorax; temples shorter and more dilated, projecting to the same distance as the eyes; in *H. plana* the head is always broadest at the eyes in both sexes, and more gradually rounded and contracted behind. Puncturation of head finer, closer, and less distinct, considerably less sparing in front; clypeus more delicately alutaceous and shining; pubescence of head more conspicuous. *Antennae* lighter in colour, shorter and stouter, especially the basal joints, not longer than the head and thorax together; joint 3 very little longer than 4, and scarcely longer than broad; in *H. plana* it is  $1\frac{1}{2}$  to nearly twice as long as 4, and  $1\frac{1}{2}$  to twice as long as broad. *Thorax* slightly less transverse, at the widest part (just in front of middle) scarcely wider than head, a little more contracted in front and a little less behind, so that the width at the hind angles is more nearly the same as at the front angles, which project less from the head. *Elytra* very slightly less transverse and narrower in proportion to thorax, distinctly more finely pubescent than in *H. plana*. *Abdomen* sculptured as in that species, but more narrowly margined; segments 1—5 parallel-sided. *Male characters* unknown; the single specimen is apparently a female, as it has no tubercle on the fifth segment. *Length* (with abdomen moderately extended) 2.1 mm.

Windsor Forest, under bark of felled beech, July 7th, 1935.

Named in compliment to Mr. H. St. J. K. Donisthorpe.

This little species approaches some of the smallest forms of *H. plana* Gyll., of which it is possible that it may be an extreme