

## IX.—Notes on Some Ectoparasites in the Museum, Perth.

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[Read 10th February, 1910.]

Through the kindness of Mr. A. M. Rodger, an opportunity has recently been given me of examining the parasites of birds and mammals in the collections under his charge. These creatures have only been casually acquired, yet amongst them there are two species of more than ordinary interest, viz., *Braula cæca*, N., and *Trichodectes crassus*, N., of whose precise status in Scotland little seems to be known.

The collection is a small one, comprising less than a dozen species, belonging, with one exception, to the order Insecta. The single Tick represented has been determined by Prof. G. H. F. Nuttall, F.R.S., to whom my best thanks are due.

## ACARINA.

*Ixodes ricinus*, L.

5 males and 5 females, adult. Wild Cat (*Felis catus*, L.), Sutherland. Taken by Mr. Geo. Hart, 1903.

2 females, adult. Sheep, Perth. Taken by Mr. Geo. Hart, 1903.

Female, adult. Red Deer (*Cervus elaphus*, L.), Breadalbane. Taken by Mr. Thomas Crawford, 3rd October, 1898.

Female, adult. Dog. Obney Farm, Bankfoot, Perthshire, 3rd August, 1904.

Male, female, and nymph. Roe Deer (*Capreolus caprea*, Gray), Perthshire. Mr. G. Hart, 1903.

Mr. Wm. Evans, F.R.S.E., has recorded this species from the vicinity of Callander (on the udders and legs of cows), and, unattached to the host, has taken the female near Aberfoyle, and the adult male near Killin (*Ann. Scot. Nat. Hist.*, 1907, p. 35).

## DIPTERA.

*Hippoboscidae*.

*Stenopteryx hirundinus*, Leach. Male. "Swallow." Taken by Mr. Geo. Hart, Perthshire, 25th June, 1903. [I find this species generally in house martins' nests (*Chelidon urbica*, J.W.)].

*Lipoptena cervi*, L.

4 wingless males and 2 females in same condition, also 2 females which have not yet shed their wings. Red Deer (*C. elaphus*), Breadalbane. Taken by Mr. Thomas Crawford, 3rd October, 1898.

Male, wingless. Roe Deer (*Capreolus caprea*, Gray), Perthshire. Taken by Mr. Geo. Hart, 1903.

2 males, 5 females, wingless. Red Deer (*C. elaphus*), Perthshire. Taken by Mr. Geo. Hart, October, 1909.

*Melophagus ovinus*, L. Male and 5 females. Sheep, Perthshire. Taken by Mr. Thos. Crawford, 1st October, 1898.

*Braulidae*.

*Braula cæca*, Nitzsch. Mr. Hutchison found three examples of this curious parasite on a queen bee (*Apis mellifica*, L.), Perth, 23rd September, 1907. From the worker he has never taken more than one at a time. This seems to be the general experience. The only other Scottish specimen of *Braula* that I have heard of is in the collection of Dr. J. H. Ashworth. It is on a slide prepared some years ago by the late Mr. James Simpson, of the Anatomy Department, Edinburgh University. Although without data there seems to be no reason for doubting its native origin.

## SIPHONAPTERA.

*Ceratophyllus styx*, Rothsch. Nest of *C. riparia*, near Perth. Both sexes abundant. 4th October, 1909. F. Smith.

[The following fleas have been recorded from the Tay area:—*Pulex irritans*, L.; *Spilopsyllus cuniculi*, Dale; *Ceratophyllus gallinae*, Schrk.; *C. fringillæ*, Rothsch.; *C. gallinula*, Dale; *C. agyrtes*, Heller. (See *Ann. Scot. Nat. Hist.*, 1906, October, pp. 211-214; *Ibid.* 1910, July, p. 184; and *Proc. Roy. Phys. Soc. Edin.*, 1910, pp. 86-89)].

## MALLOPHAGA.

*Ornithobius cygni*, L. Numerous on *Cygnus musicus*, Port Allen-on-Tay, January, 1909. A. M. Rodger. *Ann. Scot. Nat. Hist.*, January, 1910, p. 58.

*Ornithobius goniopleurus*, Denny. Mr. Rodger has taken 9 examples of this interesting parasite from the Canada Goose (*Bernicla canadensis*) at Perth on 12th February, 1910. Of these one male only is adult, three females are nearly mature, while the remainder are at much earlier stages. In none are the black dorsal markings completely established; indeed, (except in

the male) only the edges of the abdominal segments are darkened. It was, I think, from immature examples like these that Denny constituted his \**Atromarginatus*, now relegated to the status of a synonym.

*Goniopleurus* and *cygni* are not likely to be confused, for, apart from the character and disposition of their abdominal markings, certain of their morphological features are very distinct. The male genitalia and antennæ are contrasted in the accompanying figures.



I., III.—*Cygni*. II., IV.—*Goniopleurus*.

*Trichodectes crassus*, N. There is a nice series, 6 males and 18 females (2 immature), of this insect from the Badger (*Meles taxus*, L.). Taken by Mr. Fred. Hart, 15th January, 1910.

I take this opportunity of recording

*Trichodectes latus*, N. Both sexes, adult, with other immature examples, on nursing puppies, Duncrervie, Glenfarg, 16th July, 1909. Forwarded by Mr. J. W. M. Adamson.

The collection contains also Mallophaga from Barn Owl, Guillemot, and Domestic Fowl. But I think it better to postpone notice of these examples till I have made a fuller study of the group.

\* Piaget (Les Pediculines, I., p. 378) discusses this species under *Cygni*. "Je ne crois pas qu'il faille conserver comme espèce distincte l'Or *atromarginatus* de Denny provenant d'un *Cygnus canadensis*. (Anop. p. 185, tab. xxiii., f. 3.) La seule différence, si l'on peut s'en rapporter à la figure, consiste en ce que le 3e art. de l'antenne serait plus large à l'extrémité, et les points noirs de l'abd. seraient ici la bande latérale entière." The latter character, however, clearly shown in Denny's figure, at once separates his insect from *cygni*. Piaget evidently knew *goniopleurus* only through Denny's description.

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