



Notes on Mallophaga.—III. By GORDON B. THOMPSON,
Department of Entomology, British Museum (Natural
History).

THE SYNONYMY OF THE SPECIES OF *PHILOPTERUS*
OCCURRING ON BRITISH CORVIDÆ.

A recent examination of species of the genus *Philopterus* parasitic on British birds of the genera *Corvus*, *Colæus*, and *Pica* has revealed certain differences which Harrison (1916) did not know of when he compiled his 'Genera and Species of the Mallophaga.' Since the genotype of the genus *Philopterus* is *Philopterus ocellatus* (Scopoli), it is as well to settle the synonymy of the group of species containing it.

Waterston (1912) discussed the difficulties of naming this group of species and came to the conclusion that the species occurring on the raven (*Corvus corax corax* Linn.) was the *Philopterus semisignatus* (Nitzsch) described by Denny (1842, pp. 66–67).

My conclusions as to the synonymy of the species are as follows :—

*1. *Philopterus corvi* (Linn.).

Pediculus corvi Linn. Syst. Nat. 1758, p. 612.

Pediculus ocellatus Scopoli, Ent. Carn. 1763, p. 382.

Pediculus cornicis Fabricius, Syst. Ent. 1775, p. 807.

Pediculus adustus Olfers (nec Nitzsch in Giebel), 1861, De vegetativis et animalis corporibus in corporibus animatis referiundis commentarius, Berlin, 1816, p. 87.

Docophorus atratus Piaget (nec Nitzsch in Denny), Les Pédiculines, 1880, pp. 44–46, pl. iii. fig. 2.

Type-hosts : *Corvus corone corone* Linn. (Carrion Crow) and *Corvus cornix cornix* Linn. (Hooded Crow).

*2. *Philopterus atratus* (Nitzsch in Denny).

Docophorus atratus Nitzsch in Denny, Anoplur. Brit. 1842, pp. 63–64, pl. iv. fig. 8.

Type-host : *Corvus frugilegus frugilegus* Linn. (Rook).

*3. *Philopterus guttatus* (Nitzsch in Denny).

Docophorus guttatus Nitzsch in Denny, Anoplur. Brit. 1842, pp. 67–68, pl. iii. fig. 8.

Pediculus serratus Gervais, Aptères, iii. 1844, p. 341, pl. xlix. fig. 3.

Type-host : *Colæus monedula spermologus* (Vieill.) (Jackdaw).

*4. *Philopterus semisignatus* (Nitzsch in Burmeister).

Docophorus semisignatus Nitzsch in Burmeister, Handbuch der Entomologie, ii. 1838, p. 424.

Philopterus coracis Leach MS. in Denny, List Brit. Anoplur. 1852, p. 7 (nom. nud.).

Docophorus distinctus Kellogg, New Mallophaga, ii. 1896, pp. 471–478, pl. lxxv. fig. 5.

Type-host : *Corvus corax corax* Linn. (Raven).

*5. *Philopterus picæ* (Denny).

Docophorus picæ Denny, Anoplur. Brit. 1842, p. 67, pl. i. fig. 9.

Docophorus subcrassipes Nitzsch, Zeit. f. Ges. Nat. xxvii. 1866, p. 116.

Type-host : *Pica pica pica* (Linn.) (Magpie).

The genotype of the genus *Philopterus* was fixed by Neumann (1906).

In the above list of species I have placed *ocellatus* Scopoli as a synonym of *corvi* Linn., being unable to find any specific differences in material from the Hooded Crow and the Carrion Crow. Harrison (1916) placed the two species as distinct, but gave no reason. The genotype therefore now becomes *Philopterus corvi* (Linn.).

Harrison (1916) gave *atratus* Nitzsch (in Denny), which occurs on the Rook, as a synonym of *corvi* Linn., but it is quite a distinct species. An examination of the male genitalia gives good evidence for their separation. The *atratus* of Piaget is definitely not the same as that of Denny, but possibly Harrison accepted Piaget's naming of the species without studying the description and figures of the latter.

In dealing with *semisignatus* Nitzsch (in Burmeister) I have included *distinctus* Kellogg as a synonym. Unfortunately, I have been unable to examine Kellogg's type, but the description and figure, and the fact that his description was based on material taken off an American form of the Raven, convince me that this is the same species.

In conclusion, I may say that the male genitalia, especially the form of the penis, is, among other characters, a useful aid to the determination of the species.

The following summary will enable one to see at a glance the species of *Philopterus* found on the birds dealt with above:—

Host.	Parasite.
<i>Corvus corax corax</i> Linn. (The Raven).	<i>Philopterus semisignatus</i> (Nitzsch in Burmeister).
<i>Corvus cornix cornix</i> Linn. (The Hooded Crow).	<i>Philopterus corvi</i> (Linn.).
<i>Corvus corone corone</i> Linn. (The Carrion Crow).	<i>Philopterus corvi</i> (Linn.).
<i>Corvus frugilegus frugilegus</i> Linn. (The Rook).	<i>Philopterus atratus</i> (Nitzsch in Denny).
<i>Colæus monedula monedula</i> Linn. (The Scandinavian Jackdaw).	<i>Philopterus guttatus</i> (Nitzsch in Denny).
<i>Pica pica pica</i> Linn. (The Magpie).	<i>Philopterus picæ</i> (Denny).

ON THE PRESENT STATUS OF THE TWO SPECIES DESCRIBED BY UCHIDA IN HIS PAPER "BIRD-INFESTING MALLOPHAGA OF JAPAN" (III.).

1. *Lipeurus annuliventris* Uchida.

Annot. Zool. Jap. ix. 1917, pp. 204–206, fig. 2.

Type-host: *Oceanodroma furcata* (Gmelin).

The description of this species was based on a single male specimen. In my opinion the species should be placed in the genus *Philoceanus* (Kellogg, 1903), of which the genotype and previously only known species is *Philoceanus becki* Kellogg. The type-host of Kellogg's species is *Oceanodroma tethys tethys* (Bonaparte) (= *Thalassidroma tethys*).

2. *Lipeurus turturis* Uchida.

Annot. Zool. Jap. ix. 1917, pp. 212–214, fig. 3.

Type-host: *Streptopelia chinensis chinensis* (Scopoli) (= *Turtur chinensis*).

This species was described from a single specimen which Uchida stated to be a female. The figure seems to show almost certainly an immature specimen of that widely distributed parasite of birds of the family Columbidae, *Columbicola columbæ* (Linn.).

REFERENCES.

- DENNY. 1842. 'Monographie Anoplurorum Britanniae.' London.
HARRISON. 1916. 'Parasitology,' ix. pp. 86-105.
KELLOGG. 1903. Biol. Bull. v. p. 87.
NEUMANN. 1906. Bull. Soc. Zool. France, xx. pp. 54-60.
NITZSCH. 1818. 'Magazin der Entomologie,' pp. 288-289 & p. 920.
PIAGET. 1880. 'Les Pédiculines.' Leiden.
WATERSTON. 1914. Trans. Perth. Soc. Nat. Sci. v. pp. 126-127.