



From Percy Lowe, *Transactions of the Zoological Society XXIV. 1939. p. 336.*

PARASITOLOGY.

I am much indebted to Miss Miriam Rothschild for the very interesting information that she found Mallophaga or feather-lice on one of her Humming-Birds which had died and which she determined as being Passerine.

Subsequently this was confirmed by Mr. G. B. Thompson of the Entomological Department of the British Museum as belonging to the rare genus *Ricinus*. This genus, I understand, is exclusively Passerine, the only other genus in the family which is very closely related to it being *Trochilæcetes* which is exclusively confined to Humming-Birds.

I am also much indebted to Miss Teresa Clay, who is making a special study of Mallophaga, for the following report. Miss Clay, however, is anxious for it to be known that the material on which it is based is necessarily inadequate from which to draw any far-reaching conclusions, and that the conclusions which have been tentatively suggested must be taken at their face value only.

The Mallophaga parasitic on the Passeres are at the present referred to seven



genera, three of which belong to the superfamily Ischnocera and four to the superfamily Amblycera. The Ischnocera contain the genera *Philopterus* (s. s.) and *Brueelia*, which are apparently found universally among the Passeres, the former in its strict sense is, as far as is known, confined to the Passeres, while the latter occurs also on the Pici (Woodpeckers) and the Capitonidæ. The third genus, *Penenirmus* (description in the press), is not of such universal occurrence among the Passeres and is found also on the Pici, the Capitonidæ, and the Indicatoridæ. Species of *Penenirmus* from the last three named families of birds form a definite group within the genus, but resemble some of the species found on the Passeres. In the case of the Cypseli, there is hitherto no record of the occurrence of a genus of the Ischnocera, but in Colonel Meinertzhagen's collection there are four specimens of an undoubted *Penenirmus* from *Hemiprogne coronata*; this record should be considered with caution. There is only one record of an Ischnoceran species from the Trochili (Humming-Birds) which is apparently a species of *Brueelia*, but since this species was founded on a single specimen it is perhaps at the present better ignored. It should be noted here that so little systematic collecting of Mallophaga has been done from the Trochili that any conclusions based on specimens must necessarily be tentative. The known species of Ischnoceran Mallophaga from the Caprimulgidæ are not of the Passerine type. The Amblyceran genera found on the Passeres are *Colpocephalum*, *Menacanthus*, *Myrsidea*, and *Ricinus*. The first three genera are large heterogeneous groups containing species from many families of birds, and which will eventually have to be further divided. These genera will not here be discussed except to mention in passing that the genus *Dennyus* from the Cypseli has a certain number of characters in common with the species of *Myrsidea* from the Passeres especially those from the Hirundinidæ. The genus *Ricinus* is confined to Passerine genera, but closely allied species occurring on the Trochili have been referred to the genus *Trochilæcetes*; on the other hand, Miss Rothschild has recently recorded three specimens from a captive Humming-Bird which cannot be separated from true *Ricinus*.

A consideration of the Mallophaga, therefore, would suggest that the Pici, Capitonidæ, and Indicatoridæ should be placed together in one group, and that this group is related to the Passeres, as also are the Trochili. In the case of the Cypseli there is but little evidence to show where their relationships lie and without further material it is unwise to draw any conclusions. The Cypseli, Pici, and Capitonidæ each have in addition a genus peculiar to themselves, and these genera are unrepresented on Passerine birds.