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Descriptions and Records of Mallophaga from the Pacific Islands.

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[Plate VII.]

Dennyus francicus, sp. n. (Pl. VII. figs. 1 & 2; and text-fig. 1 *a*.)

Type-host.—According to the original label the host of this species is *Collocalia francica* (Gmelin) (Grey Martin). On referring to Mathews' 'Systema Avium Australasianarum' it seems probable that the correct name for the bird is *Collocalia francica reichenowi* Stres.

Specimens examined.—♀ holotype, ♂ allotype, and 4 ♀♀ paratypes from the type-host, British Solomon Islands, Malaupaina, Three Sisters, 12. v. 1934.

A detailed description is not necessary for this new species, since it is very closely related to *Dennyus distinctus* Ferris (1916). The main differences are as follows:—a very much darker species, short and broad with the head shorter and more tapering. The supra-antennal margins are bulging (see text-fig. 1 *a*). The thorn-like setæ situated on the paratergites are almost lacking.

Length: ♀ 1·9 mm., ♂ 1·6 mm.; greatest breadth: ♀ 0·7 mm., ♂ 0·6 mm.

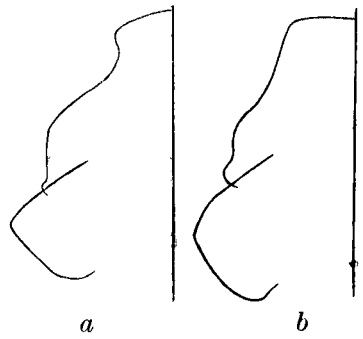
Dennyus distinctus Ferris (1916).

Previous records.—*Collocalia* sp., Java, Samarang; *Collocalia ocista* Oberhosler, Marquesas Is., Uahuka, Vaipaee Valley.

New Record.—*Collocalia* sp., New Hebrides.

The specimens here recorded have not been compared with the type, but as they agree fairly well with Ferris's

Text-fig. 1.



a. Outline of left side of head of *Dennyus francicus*, sp. n. ♂.
b. Outline of left side of head of *D. distinctus* Ferris. ♂.

description and figures I have no hesitation in determining then as *D. distinctus* Ferris.

The specimen from which the outline figure of the head is drawn is one of a series taken from an undetermined host in Java. The specimens agree perfectly with Ferris's description and figures.

Eureum mumfordi, sp. n.

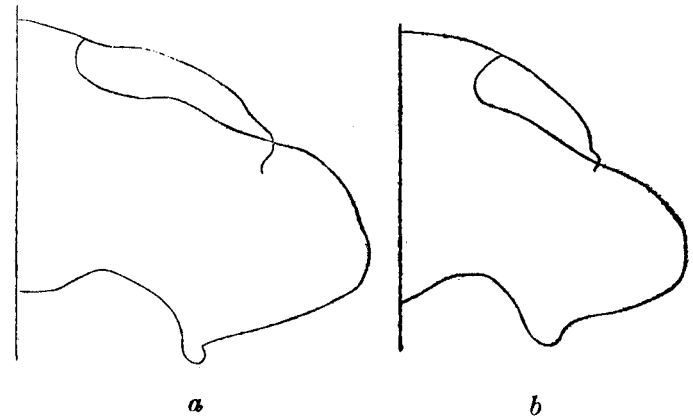
Type-host.—*Collocalia* sp.

It is a great pity that the host of this new species cannot be given in full. Unfortunately there are so many species and subspecies of *Collocalia* recorded from the New Hebrides that it would be unsafe even to suggest the actual host-species. It is very possible that this parasite will be found to parasitize numerous species of *Collocalia*.

Specimens examined.—♀ holotype and 1 ♀ paratype.

Up to the present only a single species of the interesting genus *Eureum* is known. The type-host of *Eureum cimicoides* Nitzsch, the genotype and sole species, is *Micropus apus apus* (L.), the European Swift. This large parasite is by no means common. The single female in my collection, with which I have compared this new species, is one of a small series which I have seen at various

Text-fig. 2.



a. Outline of right side of head of *Eureum cimicoides* Nitzsch. ♀.
b. Outline of right side of head of *E. mumfordi*, sp. n. ♀.

times. I have never seen the male, and it seems that the males are very rare.

Eureum cimicoides Nitzsch.

Length 3·8 mm.: greatest breadth: 2·3 mm.

Head (see text-fig. 2 *a*).—Rather more than twice as long as broad. Antennal fossæ elongate and rather shallow. Posterior margin of temples produced into small lobes. Gular plate indistinct. Gular bars each bearing about four stout setæ.

Eureum mumfordi, sp. n.

Length 3·4 mm.; greatest breadth: 1·6 mm.

Head (see text-fig. 2 *b*).—Almost exactly twice as broad as long. Antennal fossæ short and deep. Posterior margin of temples produced into two large, evenly rounded lobes. Gular plate very distinct. Gular bars each bearing about nine fairly stout setæ.

Prothorax and meso-metathorax very similar in the two species.

Prothoracic sternite not very well marked and bearing a number of short setæ anteriorly and three pairs of rather longer setæ medianly to about half the length of the sternite.	Prothoracic sternite very well marked and bearing about sixteen short peg-like setæ anteriorly and down a median line.

Legs very similar in both the species.

Abdomen with distinct patches of setæ on the 5th–7th ventral abdominal segments.	*Abdomen* with distinct patches of setæ on the 6th and 7th ventral abdominal segments, with an indistinct patch consisting of fewer setæ on the 5th.
Terminal abdominal segments (See text-fig. 3 *a*.)	Terminal abdominal segments (See text-fig. 3 *b*.)

Trichodectes canis (De Geer).

New record.—Males and females from a dog, New Britain, Kieta district, 16. x. 1937 (*J. L. Froggatt*).

Degeeriella rhipidura, sp. n.

Type-host.—Rhipidura leucophrys melaleuca (G. and G.) (Black and White Fantail Flycatcher). According to Mathews it seems more probable that the correct name for this host is *Leucouria cockerelli cockerelli* (Rams.).

Specimens examined.—Holotype, allotype, and paratypes from the type-host, British Solomon Islands, Guadalcanal, Lunga, 3. vi. 1935.

A small, weakly sclerotized and pigmented species.

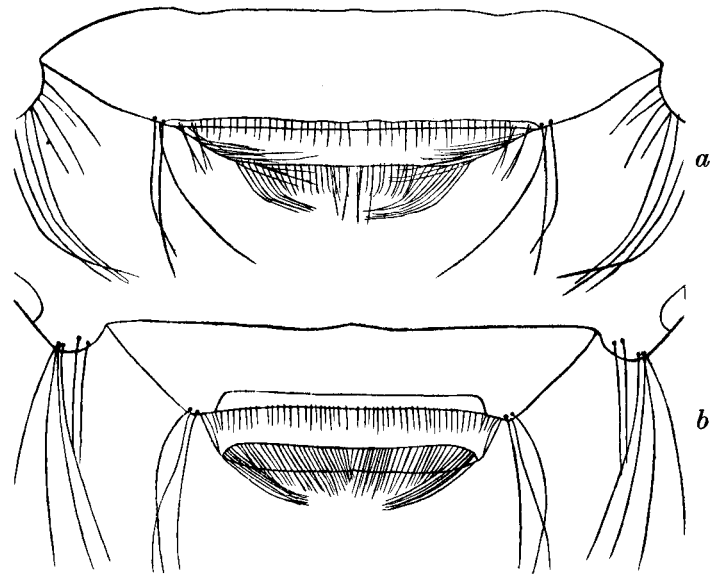
Female.—Head (see text-fig. 4 *a*) slighly longer than broad, roughly triangular in shape. The antennal bands extending forward to the clypeus, a small area posterior to the eye and continuous with the temporal margins, and the mandibles are the only definitely pigmented area of the head. Trabeculæ about half the length of the first antennal segment. Antennæ simple.

Thorax.—Prothorax about two-thirds the width of the temples and half as long as broad. Sides curved. Two pigmented areas posterior to the first pair of coxæ and running to the sides and laterally. One small seta situated in each of the posterior lateral angles. Meso-metathorax three times as long as prothorax, widening posteriorly to a little less than the temporal region of the head. Two pigmented areas situated laterally and

extending inwards between the 2nd and 3rd coxæ. Posterior margin bears a row of about twelve small setæ. Legs normal.

Abdomen.—Almost three times as long as wide. Lateral margins of first seven segments deeply pigmented—remainder of abdomen faintly sclerotized. Tergites divided medianally. Sternites : rectangular plate occupying roughly two-thirds of the area of each segment. There appears only to be a single long slender seta and another shorter one in the posterior-lateral angle of each

Text-fig. 3.



a. Terminal portion of abdomen of *E. cimicoides* Nitzsch. ♀.
b. Terminal portion of abdomen of *E. mumfordi*, sp. n. ♀.

segment. Terminal abdominal segments not pigmented (see text-fig. 4 *b*).

Male.—Smaller but similar in every respect to the female.

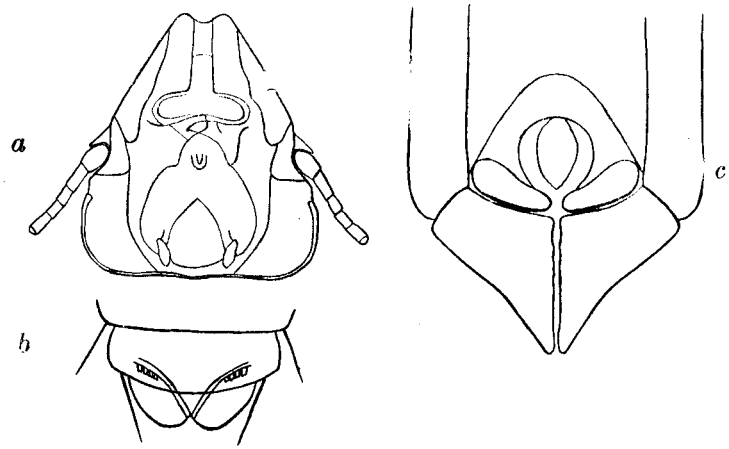
Genitalia (see text-fig. 4 *c*).

Length : ♀ 1·5 mm., ♂ 1·1 mm. ; greatest breadth : ♀ 0·3 mm., ♂ 0·4 mm.

Note.—In dealing with this species I have had a number of specimens before me, but owing to their mode of

preservation before they came into my hands it was extremely difficult to make good microscopical preparations. The male genitalia have been drawn under a high power from a specimen with genitalia contained internally, and much difficulty was experienced in the execution of the drawing. I was unable to detect the presence of a spermatheca in the females, but it is possible that it is very weekly sclerotic, and owing to the condition of the material easily overlooked. It is to be hoped, however, that the accompanying drawings, together with

Text-fig. 4.



a. Head of *Degeeriella rhipidura*, sp. n.
b. Terminal portion of abdomen of *D. rhipidura*, sp. n.
c. Terminal portion of ♂ genitalia (greatly enlarged) of *D. rhipidura*, sp. n.

(All figures, except 4 *c*, drawn to the same scale.)

the notes and the knowledge of the host from which the specimens were obtained, will enable future workers to identify the species. The head and the terminal abdominal segments of the female were drawn to the same scale, as were all the other drawings in this paper (except the ♂ genitalia of the present species—see above).

EXPLANATION OF PLATE VII.

Fig. 1. *Dennyus francicus*, sp. n. ♀.
Fig. 2. *Dennyus francicus*, sp. n. ♂.

FIG. 1.

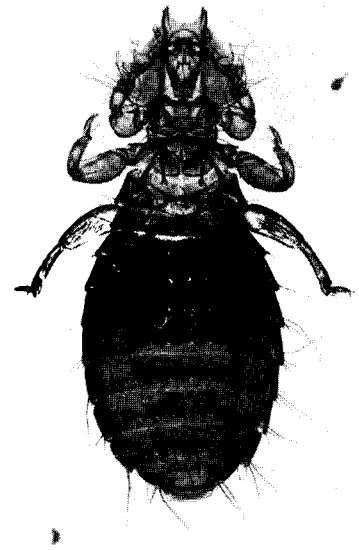


FIG. 2.