DENNYUS AEQUATORIALIS N. SP. (MALLOPHAGA : MENOPONIDAE) FROM THE MOTTLED SWIFT, APUS AEQUATORIALIS

by

J. A. Ledger

(Department of Entomology and Parasitology, South African Institute for Medical Research, Johannesburg)

While examining specimens of *Dennyus* for a forthcoming revision of the species parasitic on the Old World swifts, an undescribed form was encountered in material from the British Museum (Natural History). In basing a new taxon on a short series of two males, it must be stated that the host is an uncommon bird and poorly represented in most museum collections. I have examined specimens of *Apus aequatorialis* in the Transvaal Museum without success, and requests to active bird collectors within the range of distribution of the host have not resulted in the securing of further specimens.

In the account which follows, setal counts and measurements are given for the holotype specimen; if the paratype specimen differs in any of the setal counts or measurements, these are stated in parenthesis.

Dennyus aequatorialis n. sp.

(Figs. 1–4, 6)

Type host — *Apus a. aequatorialis* (VON MÜLLER).

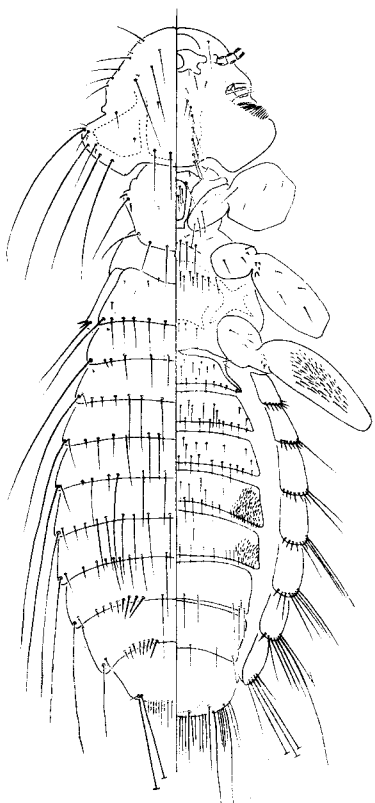
Male — General appearance and chaetotaxy as in Fig. 1.

Head: Short pair of middorsal head setae; 4 long marginal temple setae on each side; 4 medium occipital setae; gular plate with 7–8 medium and 1 minute setae on each side; 2 medium setae anterior to subocular comb row.

Thorax: Pronotal margin with 4 medium, 2 short and spinelike setae on each side; 1 pair minute middorsal setae. «Mesonotum» with a minute marginal

seta each side. Metanotum marginally with 13 medium to long setae, 3 short setae anteriorly on each side. Prosternal plate well developed (Figs. 2, 3) with 6 (1) medium setae in the central area of plate.

Mesosternal setae 8, comprising 2 short setae anteriorly and 6 medium setae in a row posteriorly; metasternal setae 16. Femora of first pair of legs very broad, third femora with extensive brushes of setae ventrally.



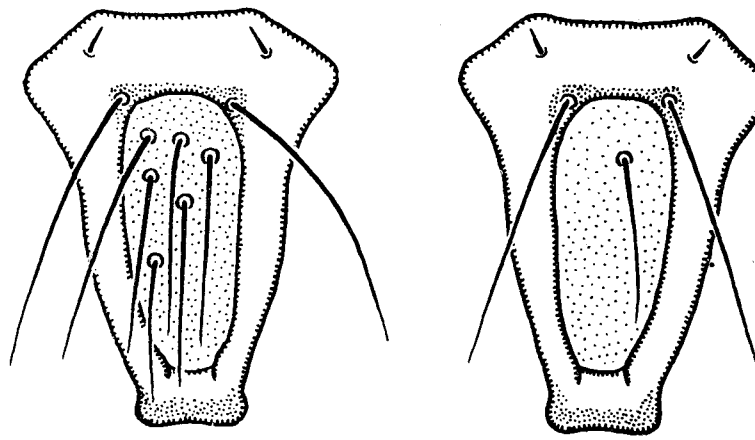
Dennyus aequatorialis n. sp.

Fig. 1 — Dorsal-ventral view of holotype male

Abdomen, dorsal: Anterior tergal setae lacking except on I and II, each with a minute pair. Postspiracular setae long on II–IV, decreasing in length and thickness on V–VIII. Short seta associated with postspiracular also decreasing in length on posterior tergites. Tergite I with 13 (17) marginal setae. Tergocentral setae: 9 (13) on II; 13 on III; 13 (12) on IV; 15 (16) on V; 16 on VI; 18 on VII; 15 on VIII. Tergocentrals generally short laterally, longer medially;

those on VII and VIII of characteristic form and arrangement (Fig. 4). Terminal segment with a pair of long and 2 minute setae on each side; 22 dorsal anal setae in a straight line.

Abdomen, ventral: Sternite I reduced, represented by 5 setae lying between the hind coxae, the outermost of these being longer. Sternite II with a «plate» bordering the anterior and lateral margins, interrupted medially; a pair of short



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Prosternal plate in *Dennyus aequatorialis* n. sp.

Fig. 2 — Holotype male. Fig. 3 — Paratype male

setae in the lateral angles of this plate on each side, 14 (12) marginal, 12 (11) anterior setae; 17 (14) marginal, 16 (18) anterior setae on III; 18 (12) marginal, 13 (15) anterior setae on IV; 10 marginal, 10 anterior setae and brushes of about 80 fine setae laterally on V; 7 marginal, 3 (4) anterior setae and brushes of about 40 fine setae laterally on VI; VII with 4+4 (4+5) lateral setae, 4 (5) marginal setae medially; VIII with 6 evenly spaced marginal setae. Terminal segment with 4 submarginal, 36 (32) marginal setae. Sternites VII, VIII and the terminal sternal segment are heavily pigmented.

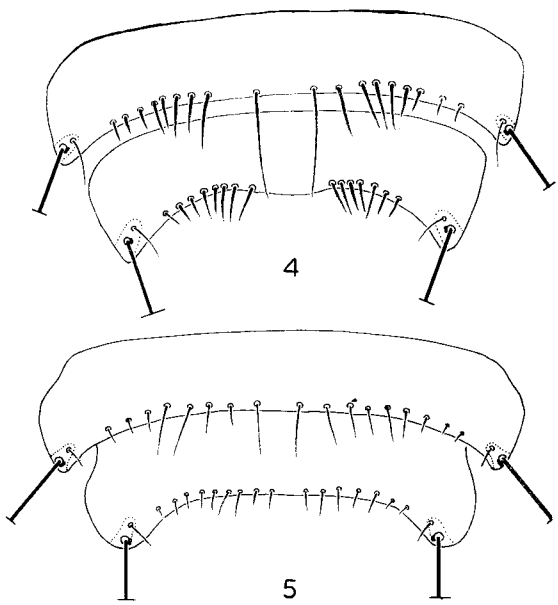
Paratergites with short spinelike setae anteriorly, showing a gradient towards medium and long setae on posterior segments.

Genitalia: As in Fig. 6. Basal plate long, broad caudally; parameres free, endomeral plate flatly rounded.

Dimensions (in mm):

Preocular width	0.56	(0.50)
Temple width	0.75	(0.74)
Head length	0.51	(0.50)
Total length	2.70	(2.56)

Female — Unknown.



Tergites VII and VIII compared

Fig. 4 — *Dennyus aequatorialis* n. sp. Fig. 5 — *Dennyus vonarxi* BÜTTIKER, 1954

Holotype — ♂, ex *Apus a. aequatorialis,* Kenya, March, 1936 [British Museum (Natural History), Meinertzhagen, 7182].

Paratype — 1 ♂, same data as holotype.

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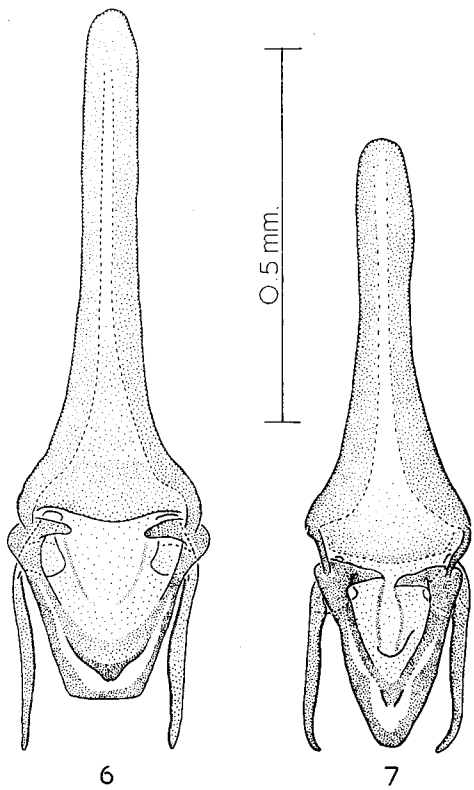
DISCUSSION

Dennyus aequatorialis n. sp. appears to be closely related to *Dennyus vonarxi* BÜTTIKER, 1954 from *Apus melba.* There is no comprehensive description of *D. vonarxi,* but the author has been able to assemble a good series of specimens

for revisionary studies. The best criteria for the separation of males of the two species are the arrangement of the tergocentral setae on VII and VIII (Figs. 4, 5) and the characters of the genitalia (Figs. 6, 7). Furthermore, sternites VII, VIII and the terminal sternite in *D. vonarxi* are not strongly pigmented as in *D. aequatorialis* n. sp. The number of setae on the prosternal plate, used by previous authors for species separation, appears to be of little use in the species under discussion because of the considerable range of variability.



Male genitalia, drawn to same scale

Fig. 6 — *Dennyus aequatorialis* n. sp. Fig. 7 — *Dennyus vonarxi* BÜTTIKER, 1954

According to LACK (1956), *Apus aequatorialis* and *Apus melba* appear to be closely related, and the characters in the males of *D. aequatorialis* and *D. vonarxi* tend to support this relationship. The genitalia especially are of a distinct type which sets these two Mallophaga apart from all the other known *Dennyus* parasitic on the genus *Apus*.

A final point requires elucidation.

Dennyus africanus BÜTTIKER, 1954, was based on specimens taken from *Apus aequatorialis bradfieldi* collected in South West Africa. Modern systematists, however, treat *bradfieldi* as a subspecies of *Apus barbatus* (see LACK, 1956). Through the kindness of Dr. EICHLER I have been able to examine the type series of *D. africanus,* and find that these specimens are inseparable from the *Dennyus* population normally occurring on *Apus barbatus,* and that they cannot be confused in any way with *D. aequatorialis* n. sp.

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With compliments

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Dennyus aequatorialis n. sp. *(Mallophaga : Menoponidae)* from the mottled swift, *Apus aequatorialis*

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EDITOR

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