

A NEW SPECIES OF *DEGEERIELLA* NEUMANN (MALLOPHAGA)  
FROM THE FALCONIFORMES

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WHEN *Degeeriella mookerjeei* Clay, 1957 was described, it was the only known species of *Degeeriella* from the Falconiformes showing sexual dimorphism of the antennae; the new species described below also shows this character. It also agrees with the *phlyctopygus* species group, to which *mookerjeei* belongs (Clay, 1958), in having more than four sternocentral setae on segments III–VI, a character also found in the *regalis* and *rufa* groups; it differs in the absence (on at least one side) of pleural seta IV, in which character it resembles members of the *fulva* species group. The external male genitalia of the new species are unlike those of any other known *Degeeriella* in the characters of the penis and adjacent sclerites: the internal genitalia resemble those of some of the *fulva* group in having median and lateral lobes, and differ from those of the *phlyctopygus* group. The other characters in which the new species agrees with the *phlyctopygus* group are those also found in some of the species belonging to the *fulva* group. It seems probable therefore that the enlarged male antennae have been developed independently in this species and that this character does not indicate relationship between it and *mookerjeei*. Until more is known about the phylogenetic importance of the taxonomic characters used in the separation of the species of *Degeeriella* it is not possible to discuss further the affinities of this species. According to Peters (1931, *Check-List of the Birds of the World*), the host of this species is included in the subfamily Accipitrinae<sup>1</sup>; however, the *Degeeriella* parasites do not specially indicate this.

***Degeeriella manariensis* sp. n.**

(Pl. I, figs. 1–3; text-figs. 1–12)

Type host: *Heterospizias m. meridionalis* (Latham).

In the male, this species is distinguished from *mookerjeei* and all other known species by the characters of the male genitalia; in the female it is distinguished from *mookerjeei* by the shape of the head and the absence of pleural seta IV on at least one side, and from the *fulva* group by the greater number of sternocentral setae. *Degeeriella manariensis* has the characters 1–12, 14–15, 17 as given for the *fulva* group in Clay (1958: 143) and these will not be repeated here.

*Male*.—General appearance as in Plate I, figure 1. Marginal setae and ventral suture as in figure 1; antenna (fig. 2) similar to that of *mookerjeei* but lacking the long seta found on segment II of that species. Tergite II only with definite median unsclerotized indentation; fused tergites IX–X (fig. 4) narrowed medially and in some specimens almost separated into two distinct plates. Pleurites with re-entrant heads reduced. Subgenital plate as in figure 3; external genitalia as in Plate I, figure 3, text-figures 5–6; vesicular apparatus as in figure 7.

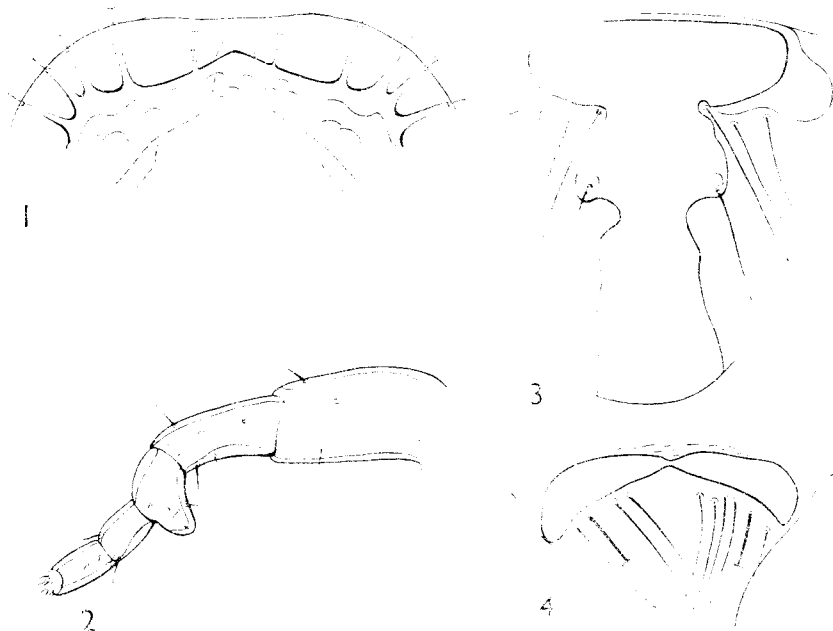
*Female*.—General appearance as in Plate I, figure 2; fused tergites of last segments as in figure 10 and genital region as in figures 8–9.

*Chaetotaxy*.—Posterior dorsal marginal setae of pterothorax as in Clay (1958, fig. 14); one female lacks one of the setae of the inner pair on one side and one female has an extra minute seta associated with this pair on one side. Post-spiracular setae as in all *Degeeriella* sens. str. Tergocentral setae of abdomen: II with 2 anterior and normally 6 posterior, range 5–7; III–VI normally 8, range 7–9; in the male: VII normally 8, range 6–8; VIII normally 7, range 6–7; X, range 2–6 each side; in the female: VII range 6–8, average of ten specimens 6·8; VIII normally 6, range 5–8; terminal segments of abdomen as in figure 10. Pleural setae: II–IV,

<sup>1</sup> In Clay (1958: 201) the heading for the subfamily Buteoninae was omitted between the *Melierus* and *Geranoaetus*.

0, but two males and one female out of 23 specimens examined each had one pleural seta on one side of segment IV; V, 1 each side, VI-VII, 2 each side (one female had only one on one side of VI); VIII, 3 each side. Sternocentral setae in the male: II range 4-6, average of eight specimens, 5; III range of 5-10, average, 6.5; IV range 6-8, average 7; V range 5-7, average, 6.25; VI normally 6, range 5-6; VII, normally 4, range 4-5; VIII, X as in figure 3. Total number of marginal setae of last segment of male, dorsal and ventral, varies from 17-24, average 20.5. In the female, sternocentral setae: II, range 3-6, average of eleven specimens 4.4; III, range 6-8, average 6.8; IV, range 6-8, average 6.9; V, range 6-8, average 6.6; VI, range 5-7, average 6; terminal segments as in figure 8.

*Nymph*.—Outline of heads of second and third instar as shown in figures 11-12.



FIGS. 1-4.—*Tegocriella manariensis* sp. n., male: (1) marginal carina and ventral suture; (2) antenna; (3) subgenital plate; (4) fused tergites IX-X.

*Material examined*.—16 ♂, 32 ♀ and 18 nymphs collected from *Heterospizias m. meridionalis* (Latham) (no. 113), BRITISH GUIANA: Manari Ranch, Lethem, Rupununi, 11. ii. 61 (*T. Clay*).

*Holotype* ♂ and *paratype* ♀ (allotype), slide no. 660 in the British Museum (Natural History), from *Heterospizias m. meridionalis* with data as given above. *Other paratypes*: 15 ♂, 28 ♀ from the same host individual.

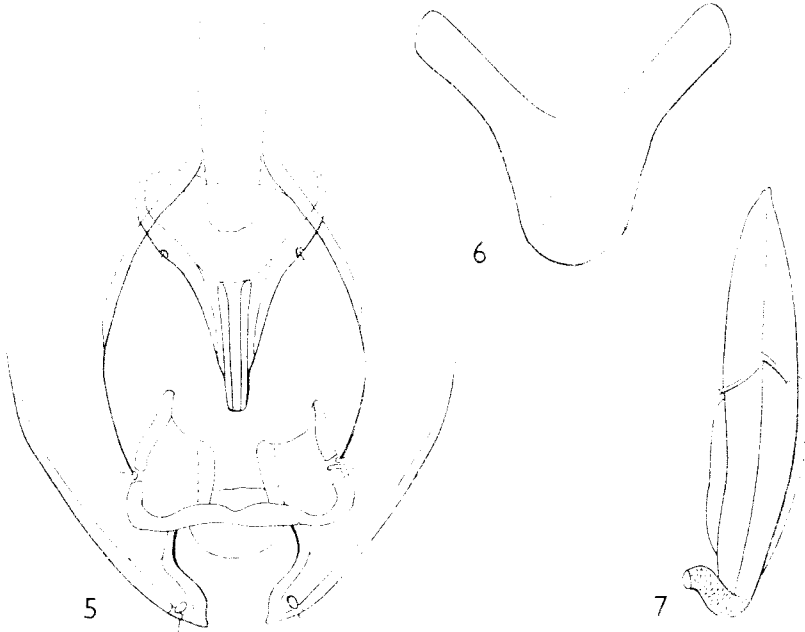
This species is named after Manari Ranch in gratitude to its owner Mrs. Orella, to Mr. James who collected the host and to Mr. Leus Chung and others in the Rupununi who gave me hospitality, transport and assistance in collecting.

*Measurements of holotype and allotype (in mm.)*

	Male		Female	
	Length	Breadth	Length	Breadth
Head . . . . .	0.600	0.455	0.630	0.490
Prothorax . . . . .		0.320		0.325
Pterothorax . . . . .		0.510		0.540
Abdomen . . . . .	1.260	0.630	1.390	0.630
Total . . . . .	2.250		2.390	
Genitalia (2) . . . . .	0.43-0.44			

*Measurements based on 10 specimens*

	Range	Mean	Range	Mean
Head length . . . . .	0.57-0.61	0.59	0.56-0.66	0.62
Head breadth . . . . .	0.44-0.46	0.45	0.44-0.52	0.49
C.L. . . . .	0.74-0.79	0.76	0.77-0.86	0.78



Figs. 5-7.—*Degeeriella manariensis* sp. n., male genitalia : (5) ventral view of distal area (note asymmetry of shape and number of setae of endomeral plates); (6) endomeral plate, dorsal view; (7) vesicular apparatus.

NOTES ON *Degeeriella* FROM THE FALCONIFORMES

1. In order to include *D. manariensis* in the key given in Clay (1958: 199) the following alterations should be made : In couplet 4 remove words in bracket. Insert before couplet 7 as follows :

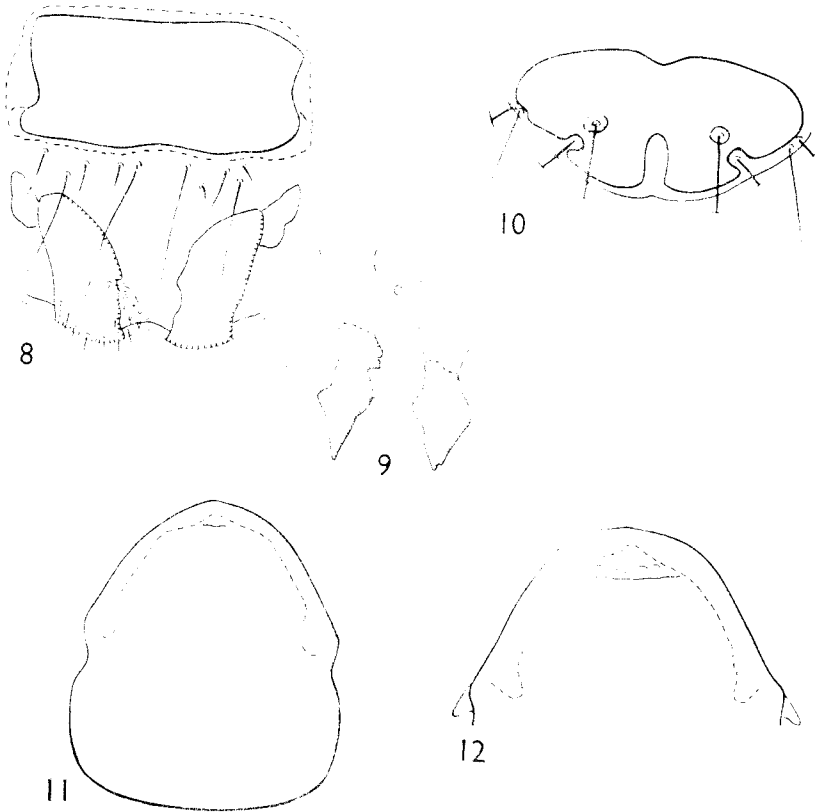
- 7a Pleural seta IV absent on at least one side of abdomen ; male genitalia as in figures 5-7 . . . . . **manariensis**
- Pleural seta IV present ; male genitalia not as in figures 5-7 . . . . . 7

In couplet 10 and 12 on p. 191 the form referred to as *D. regalis* subsp. has now been named : *D. regalis paleata* Tendeiro, 1958.

2. In Clay (1958) the names *D. masumae* Ansari, 1955 and *D. splendidus* Ansari, 1955 were included under unidentifiable names. In Ansari, 1959 these two species were again described as new and the accompanying figures show that they are both hawk *Degeeriella* and belong to *D. rufa* (Burm., 1838) sens. lat. *D. beaufacis* Ansari, 1955 is also described as a new species in Ansari (1959) with a figure that suggests that it is the same species as discussed by Clay (1958: 152) under that name.

3. When discussing the internal male genitalia (Clay, 1958: 127-129) no material of *D. phlyctopygus* was available; now, through the kindness of Dr. Brelvi, who has sent fresh material, it has been possible to make dissections. These show that the vesicular apparatus is similar to that of *D. mookerjeei* in having two median lobes and no lateral lobes.

4. Mr. Vijai Dhanda has pointed out that the term "subvulval sclerite" as used in Clay (1957 and 1958) is misleading and we have agreed that it should be replaced by "postvulval sclerite" (see Dhanda, 1961).



FIGS. 8-12.—*Degeeriella manariensis* sp. n. (8-10) Female: (8) genital region, vulval setae shown on one side only; (9) postvulval sclerites (= subvulval sclerites, see above); (10) dorsal view of segments IX-XI. (11-12) Heads of nymphs: (11) second instar; (12) third instar, preantennal region.

#### REFERENCES

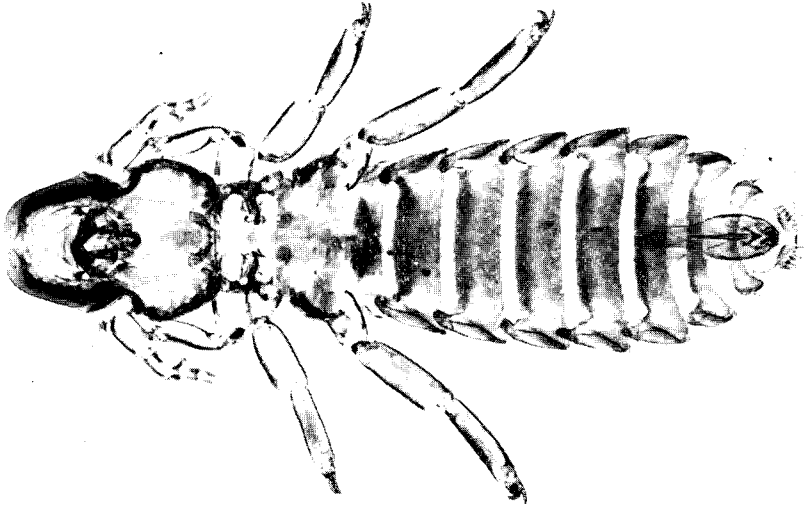
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#### PLATE I

*Degeeriella manariensis* sp. n.

- FIG. 1.—Male (neg. no. 29849).  
 FIG. 2.—Female (neg. no. 29846).  
 FIG. 3.—Male genitalia (neg. no. 29850).

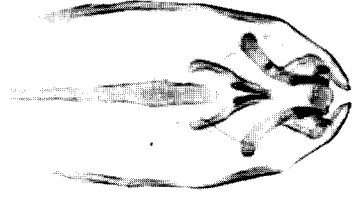
(Photographs by J. V. Brown, British Museum (Natural History))



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