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TWO NEW GENERA OF MALLOPHAGA.

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ON Passerine hosts there occur three distinct genera of Philopteridae: true *Philopterus*, *Bruelia* (olim *Degeeriella*), and the genus described below. Waterston (*Zoologisches Jahrbuch*, 1915, 39 (1) : 27) first drew attention to the fact that *Philopterus troglodytis* (Waterston) differed markedly from the usual *Philopterus* found on the Passerines, and indicated that in certain respects it approached *Degeeriella* (*Nirmus*). The authors regret that they are unable to associate Dr. Waterston's name with this new genus, as every possible generic use of his name appears to have already been made.

Penenirmus gen. nov.

Head with lateral clypeal margins converging sharply towards clypeal suture, from thence margins converging more gradually towards anterior hyaline margin of head. Clypeal signature present and pointed posteriorly. Trabeculae narrow and rounded in both sexes; antennae filiform in the ♂ and ♀. Temples rounded but never swollen beyond the extension of the line of the lateral clypeal margin. Ventral occipital bands present, but no dorsal occipital bands as in *Philopterus*. Occiput with curved suture originating from antennal fossa each side. Prothorax rectangular; pterothorax narrow and pointed posteriorly. Abdomen elongated and hairy, with terminal segment rounded posteriorly in the ♂ and bilobed in the ♀. Pleurites distinct with re-entrant heads; tergal plates either narrowly separated medianly or continuous, or joined by a narrow posterior chitinous strip. ♂ genitalia characteristic, with paramera curved and not protruding beyond the mesosome; the latter consisting of a flattened plate with central penis.

Genotype: *Pediculus albiventris* Scopoli.*

This genus is readily distinguished from *Philopterus* by the smaller trabeculae, narrower temples, the shape of the abdomen, arrangement of the tergal plates, the distinct pleurites and by the ♂ genitalia.

Species of *Penenirmus* have been recorded from the following Passerine genera: *Alaemon*, *Ammomanes*, *Dicrurus*, *Eremopteryx*,

* When the Mallophaga of *Troglodytes troglodytes* are examined in a fresh state it is apparent that the description of *Pediculus albiventris* Scopoli applies to a species of *Penenirmus*, the white abdomen being a distinctive character. *Philopterus troglodytis* (Waterston) thus becomes a synonym of *Penenirmus albiventris* (Scopoli).

Galerida, *Grandala*, *Lanius*, *Melanocorypha*, *Mirafra*, *Muscicapa*, *Oenanthe*, *Pericrocotus*, *Phylloscopus*, *Pogonocichla*, *Prinia*, *Pycthoris*, *Saxicola*, *Sylvia*, *Troglodytes*, *Turdoides*. Also from the following genera of Woodpeckers (*Pici*): *Blythipicus*, *Brachypterus*, *Dendropicus*, *Dryobates*, *Gecinulus*, *Iynx*, *Picoides*, *Picus*.

The Ischnoceran genus described below is unlike any hitherto recorded from the Woodpeckers (*Pici*) in having the head circumfasciate.

***Picicola* gen. nov.**

Head circumfasciate; trabeculae narrow and elongate in both sexes; antennae filiform in ♂ and ♀. Antennal band with greatly thickened internal margin sometimes cellulated in appearance;

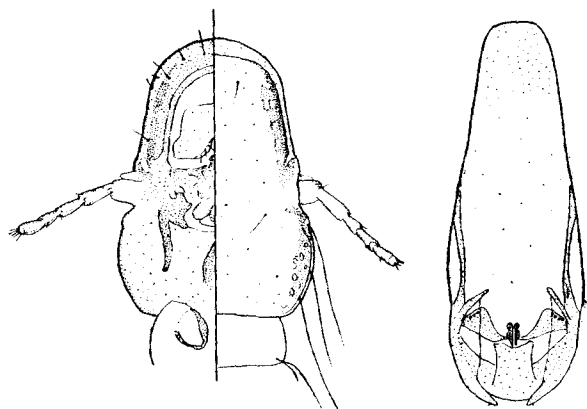


FIG. 1.

FIG. 2.

Picicola praeposterus ♂, head (Fig. 1) and genitalia (Fig. 2).

occipital bands and signature present; temple bands thickened and sometimes showing cellulated appearance internally. Temples rounded but not greatly swollen (Fig. 1). Abdomen elongate with first segment short; pleurites distinct with re-entrant heads. Genitalia with short curved paramera and mesosomal plate rounded posteriorly (Fig. 2).

Genotype: *Picicola praeposterus* sp. nov.

***Picicola praeposterus* sp. n.**

Male with head as shown in Fig. 1. Prothorax rectangular in shape with long postero-lateral hair. Pterothorax with lateral margins diverging posteriorly; posterior margin flattened, and bearing a spine and 6 dorsal hairs each side of the mid-line. Abdomen elongate with segment I short, and the terminal segment narrow and rounded posteriorly. Pleurites each with an anterior and posterior inwardly directed process; tergal plates transversely continuous.

On the dorsal surface segment I has 2 anterior and 4 posterior hairs; segments II-VII have 4 central hairs and a post-spiracular hair each side; segment VIII has 2 central hairs; segment IX has 2 terminal hairs. On the ventral surface segments I-VII each have 2 central hairs; segment IX has 2 central hairs and 8 marginal and submarginal hairs each side. Segments I-II have no postero-lateral hairs; segments III-IV have 1 hair each side; segments V-VIII have 2 hairs each side. Genitalia as shown in Fig. 2.

Female similar to the male with thorax and abdomen broader. Abdomen with terminal segment bilobed posteriorly. Posterior edge of valve rounded with a single row of 16 marginal hairs.

Material examined: 6 ♂♂ and 6 ♀♀ from *Dryobates sindeanus* from Peshawar, India.

Holotype: ♂, slide no. 9217 (Meinertzhagen Coll.).

***Picicola campethera* sp. n.**

This species is distinguished from the preceding species by the shape of the head and the ♂ genitalia.

Male with head as shown in Fig. 3. Prothorax rectangular in shape, with long postero-lateral hair. Pterothorax with lateral

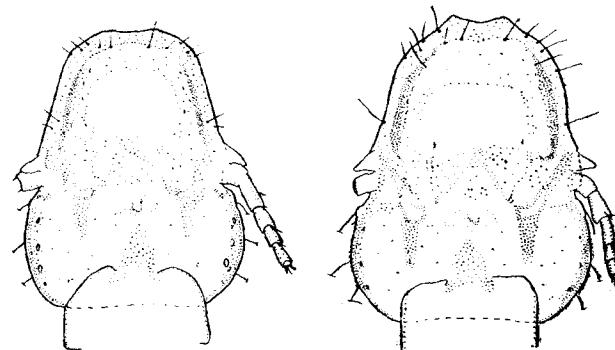


FIG. 3.

FIG. 4.

Picicola campethera ♂ (Fig. 3) and *Picicola thripias* ♀ (Fig. 4).

margins diverging posteriorly; posterior margin flattened and bearing a spine and 5 hairs each side. Abdomen elongated with segment I short and terminal segment narrow and rounded posteriorly. Pleurites with re-entrant heads and each with an anterior inwardly directed process; tergal plates transversely continuous. On the dorsal surface segment I has 2 anterior and 2 posterior hairs; segments II-III have 4 central hairs and a post-spiracular hair each side; segments IV-VI have 5 central hairs and a post-spiracular hair each side; segment VII has 4 central hairs and a post-spiracular hair each side; segment VIII has 4 hairs; segment IX has 3 hairs each side.

On the ventral surface segments I, II and III have 4 hairs; segments IV-V have 5 hairs; segment VI has 4 hairs; segment VII has 2 hairs; segment IX has 2 central and 11 terminal hairs. Segments I-II have no postero-lateral hairs; segments III-IV have 1 hair each side; segments V-VII have 2 hairs and segment VIII 1 hair each side.

The ♂ genitalia are similar to those of *P. praeposterus*, but the penis is more elongated and the form of the mesosomal plates is different.

Holotype and only specimen: ♂ from *Campethera abingoni mombasicus* from Amani, Tanganyika; slide no. 4485 (Meinertzhagen Coll.).

Picicola thripias sp. n.

This species is distinguished from the two preceding species of *Picicola* by having a deep and irregular concavity in the anterior margin of the head.

Female with head as shown in Fig. 4. Prothorax with lateral margins somewhat rounded and posterior margin straight, with a long hair at each postero-lateral corner. Pterothorax with sides diverging posteriorly; posterior margin with a spine and 6 hairs each side of mid-line. Abdomen elongate with terminal segment bilobed posteriorly; pleurites with re-entrant heads and without internal processes; tergal plates transversely continuous; valve with rounded posterior margin bearing 18 marginal hairs and a number of submarginal spines.

Holotype and only specimen: ♀ from *Thripias namaquus namaquus* from Kenya; slide no. 6892 (Meinertzhagen Coll.).

A fourth species in this genus is represented by an immature ♀ from *Picus canus canus* from Estonia, and is probably a new species.

MEASUREMENTS.

	<i>P. praeposterus.</i>				<i>P. campethera.</i>		<i>P. thripias,</i>	
	♂.		♀.		♂.		♀.	
	Length.	Breadth.	Length.	Breadth.	Length.	Breadth.	Length.	Breadth.
Head	.48	.34	.52	.37	.49	.40	.53	.43
Prothorax	.12	.22	.14	.26	.12	.25	.16	.28
Pterothorax	.14	.29	.17	.40	.18	.37	.18	.35
Abdomen	.98	.36	1.33	.59	1.04	.53	1.20	.35