

## NEW GENERA AND SPECIES OF MALLOPHAGA.

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## PHILOPTERIDAE Burmeister.

**Philopterinae** Harrison.**Falcoecus** gen. n.

THIS genus is distinguished from true *Philopterus* by the prolongation of the antennal and internal bands of the head to a point some distance beyond the anterior margin of the clypeal signature ; by the absence of a second trabecular tubercle and by the characters of the genitalia.

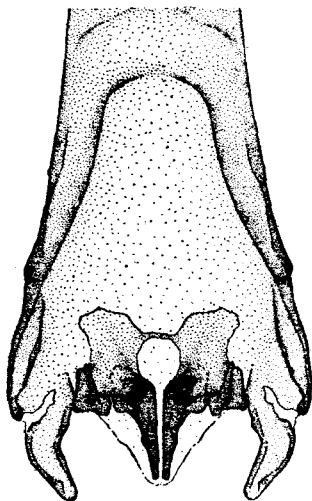


FIG. 1.—*Falcoecus aquilinus*. ♂ genitalia. (R. S. Pitcher, del.).

*Description of the Genus.*—Head large with the following diagnostic characters : Internal and antennal bands terminating in a point some distance beyond the anterior margin of the clypeal signature ; hyaline anterior portion of head originates each side at the level of the clypeal suture ; clypeal signature large and distinct ; clypeal suture prolonged inwards on the dorsal surface each side, and passes down the median line of the head as a narrow suture to the level of the antennal fossae. Trabeculae large ; antennae filiform and similar in the two sexes. Abdomen short and rounded with tergal plates I-VII widely separated medianly in both sexes ; posterior margin of terminal segment rounded in the male and emarginate in the female. Genitalia characteristic (Fig. 1).

Genotype : *Philopterus aquilinus* (Denny).

This genus occurs on the following genera of Accipitres :

<i>Accipiter.</i>	<i>Circetus.</i>	<i>Gymnogenys.</i>	<i>Rupornis.</i>
<i>Aquila.</i>	<i>Elanus.</i>	<i>Haliaeetus.</i>	<i>Stephanoaetus.</i>
<i>Buteo.</i>	<i>Haliastur.</i>	<i>Milvus.</i>	<i>Helicolestes.</i>
<i>Circus.</i>	<i>Pernis.</i>	<i>Harpagus.</i>	<i>Leucopternis.</i>
<i>Micrastur.</i>			

**Helluo** gen. n.

This genus is distinguished from *Falcoecus* by the characters of the pre-antennal region of the head and by the genitalia.

*Description of the Genus.*—Species with large heads and short broad abdomens. Head as shown in Fig. 2, with short ventral trabeculae scarcely projecting beyond the lateral margin of the head ; antennae filiform and similar in the two sexes. Abdomen short and broad with tergal plates widely separated medianly, and with numerous dorsal and ventral somewhat lanceolate hairs ; female abdomen with three small irregular-shaped dark chitinous plates in the centre of segment VII, one median flanked by a lateral plate each side. Terminal segment rounded posteriorly in the male and bilobed in the female. Genitalia extremely large in comparison with the size of the abdomen, and with characters as shown in Fig. 3.

Genotype : *Helluo neophron* sp. n.

This genus is apparently confined to the Aegypiinae, and should contain the species *Philopterus brevicollis* (Nitzsch in Burmeister) from *Aegypius monachus* as well as the genotype. An immature specimen (in the Meinertzhagen Collection) collected from a dried skin of *Gypseus barbatus aureus* apparently belongs to this genus.

**Helluo neophron** sp. n. (Figs. 2 and 3.)

This species is distinguished from *H. brevicollis*, of which only Nitzsch's figure has been seen (*Ins. Epizoa*, 1874, pl. 10, fig. 7), by the shape of the head.

*Description of the male.*—Head as shown in Fig. 2. Prothorax with rounded lateral margins each bearing a long hair at the widest point. Pterothorax with rounded lateral and posterior margins, the former bearing a long hair each side, and the latter with 2 postero-lateral hairs, 1 hair on the dorsal margin central to the acetabular bar each side, and 8 hairs along the centre of the dorsal posterior margin. Legs with claws unequal in size and bearing a number of pedunculate spines at the distal end of the tibia ; the second and third legs with a dark ring at the distal end of the femoral and tibial segments. Abdomen widest at the third segment with tergal plates I–VII widely separated medianly. Spiracles open on clear spaces

in the tergal plates and become progressively more lateral in position from segments II–VII, those on segment VII and in some specimens

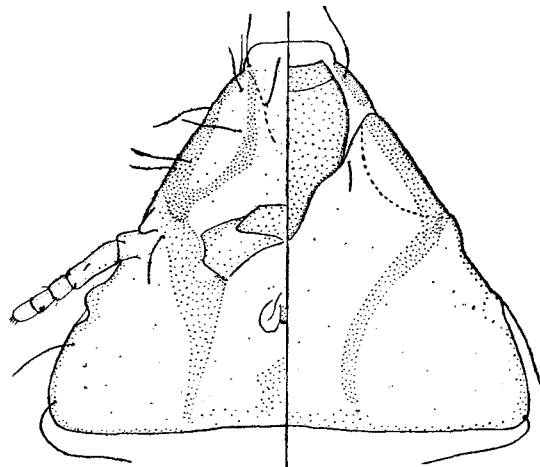


FIG. 2.—*Helluo neophron*. ♂ head.

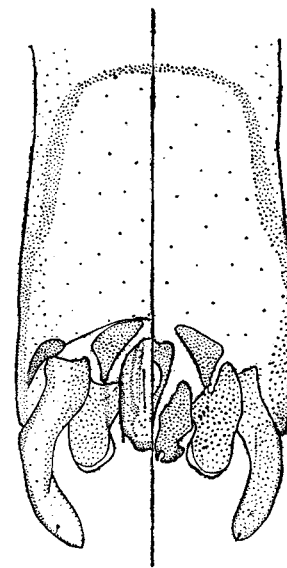


FIG. 3.—*Helluo neophron*. ♂ genitalia.

those on segment VI actually opening on the lateral margin. Posterior margin of segment IX rounded and thickened. Segments with a row of dorsal and ventral hairs somewhat lanceolate in form ; segments

III-VI with a lateral clump of 5-6 hairs on the ventral surface. Genitalia as shown in Fig. 3, with distal end of paramera appearing somewhat variable in shape.

*Female*.—Head and thorax as in the male. Abdomen somewhat more elongated than in the male, with tergal plates I-VII widely separated medianly; segment VII with three small ventral plates of irregular outline, one central and one lateral each side. Arrangement of hairs on segments I-VI similar to that of the male, but fewer in number. Valve with 19-20 long hairs at each postero-lateral corner and a group of 8-9 short spines on the posterior margin each side of the centre. Terminal segment with a lateral group of 5-6 hairs each side.

Material examined: 8 ♂♂, 8 ♀♀ from *Neophron p. percnopterus* from Egypt, and 8 ♂♂, 5 ♀♀ from *Neophron percnopterus ginginianus* from Sind.

Holotype: ♂ from *Neophron p. percnopterus*, slide no. 4829 (Meinertzhagen Collection).

### **Esthiopterinae** Harrison.

#### **Turnicola** gen. n.

This genus is distinguished by the characters of the pre-antennal region of the head, especially by the presence of a vertical bar passing down the centre.

*Description of the Genus*.—Narrow elongate forms with the following diagnostic characters: Head elongated with rounded anterior margin and distinct clypeal suture prolonged inwards across the dorsal surface of the head as a narrow semi-lunar suture; a median bar passes down the centre of the pre-antennal region, the anterior origin of which is obscure; clypeal area large, and with internal bands curving towards each other anteriorly and fusing just posterior to the suture dividing off the semicircular anterior portion of the head. Antennal bands continued posteriorly and inwards across head as a faint semi-lunar band at the level of the pharyngeal sclerite; occipital bands distinct. Trabeculae small and pointed; antennae filiform and similar in the two sexes. Pterothorax short and diverging posteriorly. Abdomen narrow and elongated, with segment I short, and segment IX rounded posteriorly in the male and bilobed in the female. Pleurites narrow and distinct with re-entrant heads. Genitalia characteristic, with paramera sharply narrowed distally, flattened mesosomal plate and free penis.

Genotype: *Lipeurus angustissimus* Giebel.

This genus is apparently confined to the Turnices. *Lipeurus nigrolineatus* Piaget and *L. platyclypeatus* Piaget should be included with *L. angustissimus* in the genus.

#### **Multicola** gen. n.

This genus is unlike any described, and is recognized by its general form, structure of the head and genitalia.

*Description of the Genus*.—Stout elongated forms with the following diagnostic characters: Head with rounded or flattened hyaline anterior margin; clypeal suture distinct and prolonged inwards dorsally on each side to form a narrow and irregular suture, which is continued backwards along the median line of the head to a point just behind the posterior margin of the clypeal signature; trabeculae small; antennae filiform and similar in the two sexes. Thorax with lateral margins of both pro- and pterothorax flattened and diverging distally to a slight extent. Abdomen elongated, with segment I short and with nine segments in both sexes. Pleurites distinct, with elongated pointed re-entrant heads. Genitalia with short basal plate; paramera prolonged, pointed and somewhat curved distally; endomera straight, pointed terminally and shorter than the paramera; telomera small but distinct.

Genotype: *Esthiopterum hypoleucum* (Denny).

This genus, as far as is known to us, is confined to the avian genus *Caprimulgus*.

#### **Fulicoffula** gen. n.

This genus is distinguished by the characters of the head and of the terminal segments of the female abdomen.

*Description of the Genus*.—Elongated Esthiopterinae with the following diagnostic characters: Head with large clypeal signature bearing a median longitudinal slit and with a striated anterior margin; clypeal suture distinct and continued inwards across dorsal surface of the head and down the median line as a narrow suture as far as the anterior level of the mandibles. Trabeculae small and similar in the two sexes; antennae exhibiting sexual dimorphism. Pharyngeal sclerite greatly reduced or absent; gular plate large. Abdomen elongated, with segment IX bifid in the male and more deeply bifid in the female, and partly flanked each side by a pointed prolongation of segment VIII. Genitalia rather variable in form, but with paramera always broadened and unthickened distally, endomera flattened and mesosomal plate of variable and complicated form.

Genotype: *Esthiopterum luridum* (Denny).

This genus occurs, as far as we know, on the following genera of the Rallidae: *Fulica*, *Gallinula*, *Limnecorax*, *Rallus* and *Podica*. The following species are known to fall into this genus:

*Degeeriella rallina* (Denny).

*Esthiopterum luridum* (Denny).

*Esthiopterum rotundatum* (Piaget).

*Esthiopterum comstocki* (Kellogg and Chapman).