armature of the third pair of legs among the species of *Labidocarpus* it is believed that the genus should be divided. Besides the type, *L. minor* Trouessart and *L. compressus* Ewing are included in the genus.

MALLOPHAGA

Family LAEMOBOTHRIDAE

Eulaemobothrion, New Genus

Head as in *Laemobothrion*. Forehead subrectangular, with sides slightly incurved; front margin of clypeus broadly emarginate, or incurved; clypeus itself bearing several peglike setae on or near its anterior margin. Prothorax well developed, but not as broad as head, sides almost straight. Last two segments of thorax grouped with the abdomen as they are in *Laemobothrion*, so that the lateral contours of these segments are continuous with those of the abdomen. Abdomen composed of nine segments. Male genital armature with rodlike basal plate, prominent, incurved free parameres and slender endomeres.

Type: *Laemobothrion nigrum* Burmeister.

This genus is established for those species of *Laemobothrion* which infest water birds. It is recognized from *Laemobothrion*, which should be restricted to birds of prey, by the emarginate clypeus and the peglike setae on the same. Dr. E. A. Chapin first suggested this division of the old genus *Laemobothrion*.

Family PHILOPTERIDAE

Incidifrons, New Genus

Head large, with conspicuous rounded temples and prominent forehead, with slightly incurved sides. Clypeus deeply incised or notched in front, the notch being flanked by converging, hyaline flaps. Signatural plate conspicuous, undivided. Trabeculae large. Antennae short and similar

in the two sexes. Fused pterothorax broader than long, sides divergent, posterior margin either outwardly rounded or angulate. Abdomen stout, with nine segments, the last being very small; abdominal spiracles conspicuous, six pairs. Legs stout; claws dissimilar.

Type: *Philopterus pertusus* Nitzsch.

This genus is established for the reception of several species that have the peculiar characters of the clypeus described above. Doubtless it should be and will be further divided as its elements lack some of the unity of characters as well as similarity of host relationship desired in a natural genus.

Austrophilopterus, New Genus

Head large, with trapezoidal forehead and large, rounded temples. Clypeal region marked off by a broad and backwardly rounded suture and bearing dorsally just in front of this clypeal suture two pairs of short, stout, erect spines. Trabeculae large, triangular. Antennae short, the same in the two sexes. Fused pterothorax much broader than long, sides strongly divergent and posterior margin either outwardly rounded or angulate. Abdomen stout, of nine segments in both sexes; some of the tergites in female interrupted. Abdominal spiracles conspicuous, situated dorsally in tergites, six pairs present. Genital armature of male with short, platelike basal plate; short, hooked, free parameres and poorly developed endomeres. Legs short, as in *Philopterus*.

Type: *Philopterus cancellosus* (Carriker).

This genus, established for Carriker's species occurring on toucans, is very distinct on account of the peculiar characters of the clypeus.

Columbicola, New Genus

Head long and slender. Forehead well developed, with sides almost straight, and clypeal suture present; clypeus

rounded and bearing above two pairs of spines, the front pair being flattened and porrect and the hind pair being recurved. Trabeculae small and similar to tubercles. Antennae different in the two sexes, those of the male with the third segment appendiculate. Postantennal region of head slender, temples poorly developed, rounded. Pterothorax rectangular and bearing a tuft of long setae on each posterior angle. Abdomen very slender and with heavily chitinized pleural plates, in female with eight segments and in male with nine. Abdominal spiracles very small, six pairs. Genital armature of male with broad basal plate, almost straight, free parameres and poorly developed endomeres.

Type: *Esthiopterum columbae* (Linnaeus).

This new genus is distinguished from *Esthiopterum* in its restricted sense by the presence of the characteristic dorsal spines on the clypeus. But few of the species remaining in *Esthiopterum* have the extremely slender body of those of *Columbicola.*

Pectenosoma, New Genus

Head broad, with short and evenly rounded forehead and large, angulate temples. Clypeal suture wanting. Trabeculae small, fixed tubercles. Antennae short and similar in the two sexes. Pterothorax fused, much broader than long, sides strongly divergent and posterior margin outwardly rounded and angulate. Abdomen broad and stout, of seven segments in both sexes, the first and second segments being fused into one; abdominal spiracles minute, six pairs present. Some of the abdominal sclerites with combs of toothlike tubercles. Genital armature of male small, basal plate broad, parameres free, almost straight. Legs short but scarcely stout; claws almost equal but slightly curved.

Type: *Goniocotes verrucosus* Taschenberg.

The outstanding peculiarity of *Pectenosoma* is the presence of combs of tubercles on many of the sclerites of the body.

Pterocotes, New Genus

Forehead greatly reduced, broadly rounded, without signatural plate or clypeal suture. Trabeculae reduced to rounded tubercles. Antennae of male with first segment greatly enlarged and third segment produced laterally beyond its articulation with the fourth into a chitinous, clawlike hook. Temporal lobes large winglike, angular processes which extend backward and laterally far beyond the front margin of thorax. Eyes wanting. Prothorax large; pterothorax much broader, being the broadest part of the body. Abdomen short but not swollen; tergal and sternal plates not interrupted in the middle. Genital armature of male very peculiar; basal plate divided into two broadly separated but converging chitinous strips, each of which passes almost uninterruptedly into a styliform paramere; endomeres formed into a slender, needlelike pseudopenis. Legs short and rather weak, with long, slender, weak and almost straight and almost subequal tarsal claws.

Type: *Goniodes aberrans* Carriker.

This genus is unique, it is believed, in the type of the male genital armature and in the type of tarsal claws. The enormously expanded temporal lobes are of less generic importance.

Family TRICHODECTIDAE

Felicola, New Genus

Head with a narrow hair-groove below. Forehead triangular, sides almost straight. Antennae not large, three segmented, the same in the two sexes. Temporal lobes somewhat squarish. Abdomen swollen, segments provided with pleural plates. Legs short, weak. Genital armature of male poorly developed; genital plate, broad, poorly chitinized; parameres long, almost straight, stylets.

Type: *Trichodectes subrostratus* Nitzsch.

This genus is distinguished from the others of its family by the shape of the forehead and by the genital armature of the male.

Bovicola, New Genus

Forehead much broader than long and rounded but not evenly so. Antennae three segmented and the same in both sexes. Temporal lobes broadly and evenly rounded. Abdomen swollen; broadest in front of the middle; all segments with pleural plates. Abdominal spiracles large, equal; six pairs present. Genital armature of male well developed; basal plate with lateral, marginal, rodlike chitinizations; parameres free, curved; endomeres heavily chitinized, free distally, scooplike. Legs moderate; tarsal claws long, slender and very sharp.

Type: *Trichodectes caprae* Gurlt.

This genus is established for the bovine-infesting species of *Trichodectes*. It is differentiated largely on the shape of the head and antennal characters.

Geomydoecus, New Genus

Head very broad and with conspicuous hair-groove below. Forehead broader in the male than in the female, of peculiar shape; where the hair-groove reaches the front margin it is emarginate; at the sides the forehead is outwardly rounded except where an apodemal arm of the internal skeleton joins the marginal chitinization, at this point the lateral margin, on each side, is slightly emarginate. Antennae different in the two sexes; in the female, second segment with lateral process; in the male all three segments enlarged, while the first has a lateral process and the third is curved and tipped with short spines. Abdomen swollen, only first three segments with pleural plates. Genital armature very large and very peculiar; genital armature itself surrounded by a large U-shaped chitinous strip, each leg

of the U arising from the base of basal plate and uniting with its fellow along the posterior border of abdomen; parameres united distally.

Type: *Trichodectes geomydis* Osborn.

This genus is very distinct in the antennal characters and in those of the genital armature.

Neotrichodectes, New Genus

Forehead irregularly rounded except for the frontal notch at the junction with the hair groove. Heavy internal skeleton joins lateral, chitinized margin of forehead a short distance in front of antennae. Hair groove almost closed below in front of mandibles by lateral flaps. Antennae very different in the two sexes, second segment in female without lateral process and first in male without the same. Abdomen swollen, without pleural plates. Genital armature of type found in *Geomydoecus*, having the armature proper surrounded by an U-shaped structure; basal plate with lateral margins thickened into rodlike structures; parameres united, forming a stout pseudopenis; endomeres poorly developed.

Type: *Trichodectes mephitidis* Packard.

This genus is clearly related to *Geomydoecus* from which it is differentiated by the antennae in both sexes lacking lateral processes and in having no pleural plates at all to the abdomen.

ANOPLURA

Family Haematopinidae

Hoplophthirus, New Genus

Head long, about twice as long as broad. Forehead broader than long, domeshaped. Antennae conspicuous, the same in the two sexes; second segment about equal to fourth. Temples not enlarged.

Thorax broader than long; thoracic spiracles medium in size and lateral in position; sternum entire, almost as

broad as long and laterally emarginate opposite the second coxae.

Abdomen very broad, subcircular; tergal and sternal plates wanting; pleural plates on segments II–VII; second abdominal segment without a pair of ventral tubercle-bearing plates; abdominal setae very large and few in number; of the discal setae there are two longitudinal rows above and two below, there being but a single seta in a row to one segment. Genital armature of male with slender basal plate, parameres thickened distally and a true and pseudopenis present.

Legs long; tibiae and tarsi of the first two pairs of about the same width throughout; tarsal claws I and II each provided with a conspicuous tooth on its inside near the tip.

Type: *Enderleinellus euxeri* Ferris.

This genus is established exclusively for the type species, chiefly because of the peculiar leg characters.

Cyclophthirus, New Genus

Forehead almost as broad as long, rounded in front; antennae the same in the two sexes, without toothlike processes; first segment only slightly enlarged, without spine or tubercle. Postantennal region of head only slightly swollen.

Thorax as broad as long; posterior coxae more or less platelike, enlarged and contiguous; sternum broad and short, undivided.

Abdomen subcircular; pleural plates on segments II–V; tubercle bearing pair of plates on ventral surface of second abdominal segment not disc-like and tubercles themselves not cylindrical. Genital armature of male characteristic. Basal plate an inverted "Y" with parameres articulating with the ends of the branch of "Y"; pseudopenis present, articulating with ends of parameres; endomere well developed, inner plate horseshoe shape.