

XXXIV.—*Three new Genera of Mallophaga from Charadriiformes.* By THERESA CLAY, B.Sc., and R. MEINERTZHAGEN.

[Plate XIII.]

It is apparent from drawings in the British Museum, prepared by Mr. Terzi for the late Dr. Waterston, that the latter intended to describe four genera from the Charadriiformes, namely *Rhynonirmus* Thompson, 1935, and the three described below. Unfortunately, all Dr. Waterston's manuscript has been lost, so that his descriptions and names he intended for these genera cannot be used. A fifth genus, *Parricola* Harrison, 1915, from the Jacanidae (Charadriiformes) is distinguished by the absence of a distinct clypeal suture.

#### LUNACEPS, gen. nov.

This genus is distinguished from all other known genera by the characters of the clypeal region.

Head with narrow hyaline margin arising from clypeal suture; internal and clypeal bands broadly fused anteriorly for about a third of their lengths; clypeal signature small and irregular in shape and may be joined to fused part of clypeal and internal bands. Dorsal antennal bands pass inwards on each side to form transverse suture across head. Dorsal occipital band and transverse antennal band absent (text-fig. 1). Pterothorax with lateral margins divergent. Abdomen with segment I small; paratergal plates simple without inwardly directed process and only rarely with elongated re-entrant

“heads.” Tergal plates transversely continuous and rarely with partial median division. Segment IX in the male clearly demarcated from segment VIII.

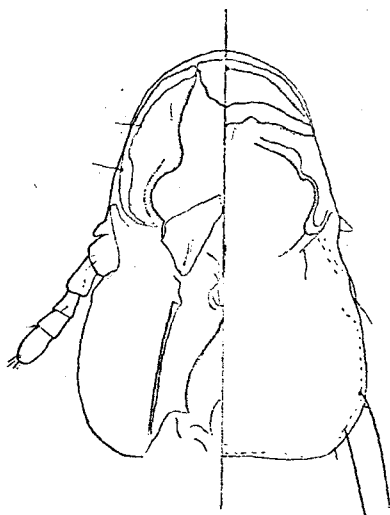
Genotype : *Degeeriella actophila* (Kellogg & Chapman), 1899.

Type-host : *Crocethia alba* (Pallas), Sanderling.

Specimens of this genus have been examined from the following genera :—

*Hæmatopus*, *Numenius*, *Limosa*, *Crocethia*, *Ereunetes*, *Erolia*, *Philomachus*, *Micropalama*.

Text-fig. 1.



*Lunaceps actophilus*. ♀.

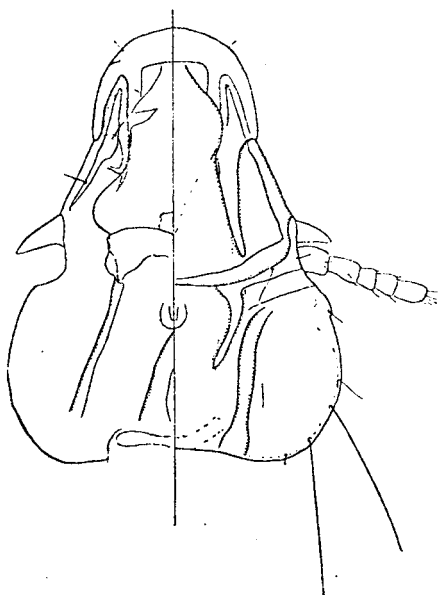
#### CARDUICEPS, gen. nov.

This genus is distinguished by the characters of the clypeal region and abdomen.

Head with broad hyaline margin arising from clypeal suture ; clypeal and internal bands fusing at their anterior ends ; clypeal signature large. Dorsal antennal bands pass inwards and downwards to form narrow suture each side of pre-antennal region. Heavily chitinized transverse antennal band across head at level of mandibles ; dorsal and ventral occipital bands present (text-fig. 2).

Pterothorax short with lateral margins not divergent. Abdomen with segment I small; paratergal plates without elongated re-entrant "heads" and bearing anterior and posterior inwardly directed processes; the posterior process continued across tergal plate as thickened bar, giving a characteristic appearance to abdomen. Tergal plates entire and transversely continuous. Male abdomen with segment IX much reduced, not protruding and scarcely demarcated from segment VIII.

Text-fig. 2.

*Carduceps complexivus*. ♀.

Genotype: *Degeeriella complexiva* (Kellog & Chapman), 1899.

Type-host: *Crocethia alba* (Pallas), Sanderling.

Specimens of this genus have been examined from the following genera:—

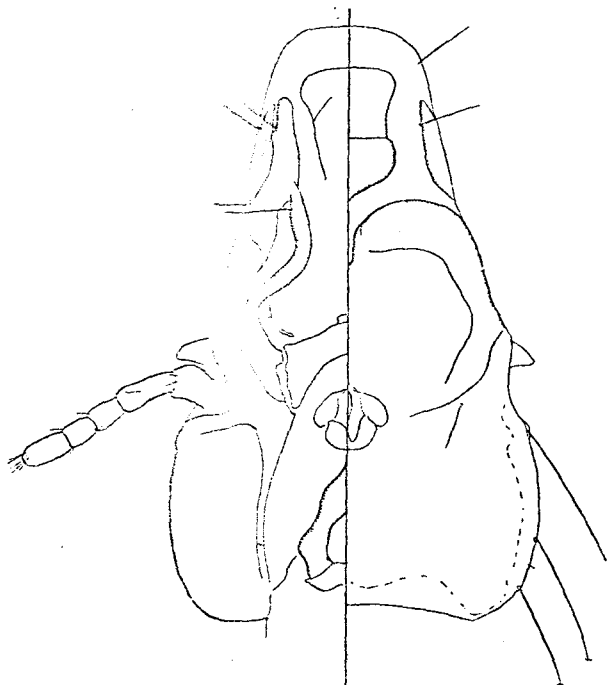
*Limosa*, *Limnodromus*, *Crocethia*, *Ereunetes*, *Erolia*, *Philomachus*, *Micropalama*.

*QUADRACEPS*, gen. nov.

This genus, which is more widely spread throughout the Charadriiformes than either *Lunaceps* or *Carduiceps*, is distinguished from the two latter by the hyaline margin arising anterior to the clypeal suture and by the presence of a median dorsal pre-antennal suture.

Head with broad hyaline margin arising from near anterior end of clypeal band; clypeal and internal bands fused near their anterior terminations but with

Text-fig. 3.



*Quadriceps vanelli* (Denny). ♀.

free anterior ends. Dorsal antennal bands on each side pass inwards to form narrow median suture (text-fig. 3). Narrow suture each side of post-antennal region, transverse antennal band and dorsal occipital bands as in *Carduiceps* present in some species. Pterothorax with lateral margins divergent. Abdomen with segment 1 small; paratergal plates with elongated re-entrant

“heads,” but without inwardly directed processes. Tergal plates of some or all segments showing either partial or complete division into two plates. Segment IX in male clearly demarcated from segment VIII.

Genotype : *Degeeriella vanelli* (Denny), 1842.

Type-host : *Squatarola squatarola* (Linn.), Grey Plover.

Specimens of this genus have been examined from the following genera :—

*Rostratula, Hæmatopus, Chettusia, Vanellus, Lobivanellus, Hemiparra, Afribyx, Stephanibyx, Hoplopterus, Sarcio-phorus, Squatarola, Charadrius, Æchmorhynchus, Tringa, Catoptrophorus, Arenaria, Limnodromus, Ibidorhyncha, Himantopus, Recurvirostra, Phalaropus, Dromas, Burhinus, Pluvianus, Cursorius, Glareola, Chionis.*

All genera of suborder Lari except *Pagophila, Phætusa,* and *Gygis.*

*Key to Genera of Degeeriellini from Charadriiformes.*

- |                                                                                                         |                     |
|---------------------------------------------------------------------------------------------------------|---------------------|
| 1. Without hyaline margin or definite clypeal signature . . . . .                                       | <i>Rhynonirmus.</i> |
| With hyaline margin and clypeal signature . . . . .                                                     | 2.                  |
| 2. Without definite clypeal suture . . . . .                                                            | <i>Parricola.</i>   |
| With definite clypeal suture . . . . .                                                                  | 3.                  |
| 3. Hyaline margin arising anterior to clypeal suture ;<br>median vertical pre-antennal suture . . . . . | <i>Quadriceps.</i>  |
| Hyaline margin arising at clypeal suture ; without<br>median vertical suture . . . . .                  | 4.                  |
| 4. With transverse pre-antennal suture . . . . .                                                        | <i>Luniceps.</i>    |
| With vertical pre-antennal suture each side of head . .                                                 | <i>Carduceps.</i>   |

EXPLANATION OF PLATE XIII.

*Fig. 1. Luniceps actophilus* (Kell. & Chapman).

*Fig. 2. Carduceps complexivus* (Kell. & Chapman).

*Fig. 3. Quadriceps vanelli* (Denny).

*Fig. 4. Rhynonirmus infuscatus* (Osborn).

*Fig. 5. Parricola sulcata* (Pingot).



Mallophaga from Charadriiformes.