

13. *H. hilara*, sp. n.

♀. Fulvous, head, prothorax and three apical abdominal segments deep violet. Face and prothorax with yellow markings. Head black, mouth-parts and apex of clypeus fulvous, a long triangle in centre of clypeus and inner orbits, yellow, the latter extending almost to base of mandibles. Pronotum, humeral calli, except anterior margin, and tegulae yellow. Mesonotum darker, and pleura infused with fuscous. Tips of claws black. Wings pale brown in basal half, apical half infuscate. Vestiture pale, shining brown.

Mandibles almost the same width throughout their length, which is  $2\frac{1}{2}$  the width, upper and lower tooth rounded the central acute. Malar space  $1\frac{1}{2}$  base of mandibles. Clypeus finely, irregularly longitudinally striate with a few scattered punctures and a median carina; supraclypeal area strongly raised between the antennae with central fovea from which a deep impression extends to fore ocellus. Face, matt, frons with scattered punctures above and on vertex, orbital impressions slightly beyond fore ocellus. Back of head rounded, punctures denser near occiput; distance between hind ocelli about two-thirds that between them and the eyes, which is slightly more than that between ocelli and occiput; sides straight below eyes. Pronotum produced, laterally rounded. Mesonotum matt, coarsely, densely punctate, median impression to centre and continued as an impunctate line. Length of scutellum twice that of postscutellum, punctures sparser than on mesonotum, irregular, finer and denser at margins. Carinae of anterior area of propodeum rather fine and dense, remainder of propodeum densely punctate and hirsute. Propleura densely, finely longitudinally reticulate striate. Mesopleura with regular, coarse puncturation (space between punctures equals width of one puncture). Metapleura finely transverse punctate in upper area, lower with dense punctures finer than on mesopleura. Abdominal tergites shining, the microscopic transverse aciculation only visible under a high-power lens, puncturation fine and sparse; apical areas rather wide; hair of apical tergites black. Fore wings with first abscissa of cubitus in second cubital cell slightly longer than third abscissa.

Length 11 mm.

A.M.N.H. 12. v. 1. 1948

## On the Type-hosts of the Mallophaga.

335

♂. As ♀, but yellow pattern of face wider. Seventh abdominal segment with lateral spines (remainder invisible).

NORTH DUTCH NEW GUINEA: Cyclops Range, Sabron, 930 ft., 1 ♀ (holotype), iv. 1936. PAPUA: Kokoda, 1200 ft., 1 ♂, iv. 1933 (paratypes).

Possibly near *apicata* Sm. (Mysol), but I have not seen the type.

This species and another (undescribed) nested in a very large log in a zone of almost perpetual rain at 3500 ft. on Mt. Lina, Cyclops Mts. During the month that I encamped there, only for a few hours in the day, and not every day, was it fine enough for females to leave their burrows. The same favourable weather conditions brought out females of a species of *Faenus* which visited all the burrows that had no *Heterorhiza* female guarding it.

Other species probably belonging to this subgenus *Heterorhiza*:

- Rubripes* Friese, Victoria.
- Flaviceps* Friese, Victoria.
- Major* Friese, Victoria.
- Striaticeps* Perez, Queensland.
- Grandis* Friese, Queensland.
- Maculiceps* Friese, Queensland.

## XXVII.—A List of the Type-hosts of the Mallophaga and the Lice described from them.\* By GORDON B. THOMPSON.

[Continued from Ann. & Mag. Nat. Hist. 1947, ser. 11, vol. xiv. p. 767.]

## Order GRUIFORMES.

## Suborder TURNICES.

## Family TURNICIDÆ.

539. *Turnix sylvatica dussumieri* (Temminck).

*Turnicola nigrolineatus* (Piaget), 1885. On *Hemipodius Dussumieri*, Leyden Museum.

\* It must be borne in mind when using this list that the type-hosts of the various species of Mallophaga are not fixed but only listed.

540. *Turnix suscitator suscitator* (Gmelin).

*Turnicola angusticeps* (Giebel), 1874. On *Hemipodius pugnax*, "aus Ostindien."

*Turnicola angustissimus* (Giebel), 1866. On *Hemipodius pugnax*.

541. *Turnix* sp.

*Turnicola platyclypeatus* (Piaget), 1880. On bird misdetermined as *Perdix* sp. from Celebes (see 467).

## Suborder GRUES.

## Superfamily GRUOIDEA.

## Family Gruidæ.

## Subfamily GRUINÆ.

542. *Grus grus grus* (Linn.). (Common Crane.)

*Gruimenopon longum* (Giebel), 1874. On *Grus communis*.

*Colpocephalum atrofasciatum* Piaget,\* 1880. On *Grus communis*, Rotterdam Zoo.

*Heleonomus macilentus* (Nitzsch), 1866. On *Grus communis* from (?) Germany.

*Heleonomus truncatus* (Piaget), 1880. On *Grus cinerea (communis)*.

*Philopterus integer* (Nitzsch), 1866. On *Grus communis*.

*Esthiopterum ebraeum* (Nitzsch), 1818. On *Grus communis*.

*Esthiopterum gruis* (Linn.), 1758. On *Ardea grus*.

543. *Grus canadensis tabida* (Peters). (Sandhill Crane.)

*Esthiopterum brevicephalum* (MacGregor), 1917. On *Grus mexicana* from Western Minnesota, U.S.A.

544. *Grus americana* (Linn.). (Whooper Crane.)

*Heleonomus assimile* (Piaget), 1880. On *Grus americana*, Rotterdam Zoo.

545. *Grus vipio* Pallas.

*Heleonomus abdominalis* (Piaget), 1880. On *Grus leucachen*, Rotterdam Zoo.

\* *Grus grus* (Linn.) is considered the only host because Piaget immediately goes on to describe the form on *Balearica* as a variety.

546. *Grus rubicunda rubicunda* (Perry).

*Philopterus novæhollandiæ* (Giebel), 1874. On *Grus novæ Hollandiæ*.

*Esthiopterum giganteum* (Le Souëf & Bullen), 1902. On *Antigone australasiana* from Australia.

547. *Grus leucogeranus* Pallas.

*Philopterus furca* (Giebel), 1874. On *Grus leucogeranus*.

548. *Bugeranus carunculatus* (Gmelin). (Wattled Crane.)

*Heleonomus harrisoni* (Bedford), 1919. On "Bustard" \* from Angola.

## Subfamily BALEARICINÆ.

549. *Balearica pavonina pavonina* (Linn.). (Crested or Crowned Crane.)

*Heleonomus cornutus* (Rudow), 1866. On *Balearica pavonina*.

*Heleonomus semiluctus* (Gervais), 1844. On *Grus balearica*.

*Heleonomus tuberculatus* (Rudow), 1869. On *Balearica pavonina*.

*Degeeriella nigricans* (Rudow), † 1869. On *Balearica pavonina*.

*Esthiopterum maximum* (Rudow), 1869. On *Balearica pavonina* from Africa.

550. *Balearica pavonina gibbericeps* Reichenow. (East African Crested Crane.)

*Heleonomus confusus* Ferris, 1916. On *Balearica regulorum gibbericeps* from Tanganyika Territory.

*Heleonomus miandrius* (Kellogg), 1908. Same data.

## Family Aramidæ.

551. *Aramus scolopaceus pictus* (F. A. A. Meyer). (Limpkin.)

*Eulæmabothrion* (*setigerum* var.) *cubensis* (Kellogg & Ferris). On *Aramus giganteus holostictus* from Cuba.

\* See Bedford's footnote and also Hopkins, 1947, p. 180.

† Straggler.

552. *Aramus scolopaceus scolopaceus* (Gmelin).  
*Rallicola bresslaui* Pessoa & Guimarães, 1935. On  
*Aramus scolopaceus* (Gm.) from Auqidauana, Matto-  
Grosso, Brazil.
- Family **Psophiidæ**.
553. *Psophia crepitans* Linn. (Golden-breasted Trum-  
peter.)  
*Eulæmoothrion gracile* (Giebel), 1874. On *Psophia*  
*crepitans*.  
*Rallicola foedus* (Nitzsch), 1866. On *Psophia*  
*crepitans*.
- Superfamily **RALLOIDEA**.
- Family **Rallidæ**.
554. *Rallus elegans obsoletus* Ridgway. (California Clapper  
Rail.)  
*Rallicola (bisetosa var.) californicus* (Kellogg &  
Chapman), 1899 (part; see 556). On *Rallus*  
*obsoletus* from California.
555. *Rallus limicola limicola* Vieillot. (Virginian Rail.)  
*Fulicoffula comstocki* (Kellogg & Chapman), 1902.  
On *Rallus virginianus* from Ithaca, New York.
556. *Rallus limicola zetarius* Peters.  
*Incidifrons (pertusus var.) monachus* (Kellogg &  
Paine), 1911. On *Rallus virginianus* from Mon-  
terey, California.  
*Rallicola (bisetosa var.) californicus* (Kellogg &  
Chapman), 1899 (part; see 554). Same data.
557. *Rallus aquaticus aquaticus* Linn.  
*Menacanthus ralli* Neumann, 1912. On *Rallus aquati-*  
*cus*, Hyslop Collection.  
*Pseudomenopon scopulacorne* (Denny), 1842. On  
*Rallus aquaticus* from Britain.  
*Incidifrons ralli* (Denny), 1842. Same data.  
*Fulicoffula rallina* (Denny), 1842. Same data.  
*Rallicola cuspidatus* (Scopoli), 1763. On *Rallus*  
*aquat.* from Carniola, Yugoslavia.
558. *Tricholimnas lafresnayanus* (J. Verreaux & Des Murs).  
*Rallicola major* (Piaget), 1888. On *Ocydromus*  
*lafresnayanus*, Trouessart Coll.

559. *Dryolimnas cuvieri* (Pucheran).  
*Rallicola affinis* (Piaget), 1880. On *Rougetius bernieri*.
560. *Rallina tricolor tricolor* G. R. Gray.  
*Rallicola bisetosus* (Piaget), 1880 (part; see 562, 569).  
On *Rallina tricolor*, Leyden Mus.
561. *Aramides cajanea cajanea* (P. L. S. Müller).  
*Lipeurus volsellus* Ewing, 1930. On *Aramides*  
*cajaneus chiricota* from Panama Canal Zone.
- 561 a. *Aramides ypecaha* (Vieillot).  
*Rallicola funebris* (Nitzsch), 1866. On *Aramus gigas*.
562. *Gymnocrex plumbeiventris* (G. R. Gray).  
*Rallicola bisetosus* (Piaget), 1880 (part; see 560, 569).  
On *Rallina plumbeiventris*, Leyden Museum.
563. *Himantornis hæmatopus hæmatopus* Hartlaub.  
*Pseudomenopon cinereum* (Piaget), 1885. On *Himan-*  
*tornis hæmatopus*, Leyden Museum.  
*Rallicola flavesces* (Piaget), 1885. On *Himantornis*  
*hæmatopus*, Leyden Museum.
564. *Crex crex* (Linn.). (Corn Crake.)  
*Pediculus ortygometræ* Schrank, 1781. On *Rallus*  
*crex* from Austria.  
*Rallicola attenuatus* (Denny), 1842. On *Crex*  
*pratensis*.
565. *Porzana porzana* (Linn.). (Spotted Crake.)  
*Rallicola mystax* (Giebel), 1874, nom. nov. for *Nirmus*  
*intermedius* Giebel, 1874, nec Nitzsch, 1866. On  
*Ortygometra porzana*.
566. *Laterallus albicularis cinereiceps* (Lawrence).  
*Pseudomenopon (tridens var.) costaricense* (Carriker),  
1903. On *Porzana cinereiceps* from Costa Rica.
567. *Coturnicops noveboracensis noveboracensis* (Gmelin).  
(Yellow Rail.)  
*Rallicola (bisetosus var.) porzanæ* (Piaget), 1880. On  
*Porzana noveboracensis* from North America (Ley-  
den Museum).

568. *Tribonyx ventralis ventralis* (Gould).  
*Goniodes cornutus* Rudow,\* 1869. On *Tribonyx ventralis*.  
*Philopterus flavopunctatus* (Rudow), 1870. On *Tribonyx ventralis* from Australia.
569. *Amaurornis isabellina* (Schlegel).  
*Rallicola bisetosus* (Piaget), 1880 (part; see 560, 562).  
On *Rallina isabellina*, Leyden Museum.
570. *Gallinula tenebrosa frontata* Wallace.  
*Menopon abnorme* Piaget, 1880.\* On *Gallinula hæmatopus*, Rotterdam Zoo.  
*Eulæmobothrion emarginatum* (Piaget), 1880. On *Gallinula hæmatopus*, Rotterdam Zoo.
571. *Gallinula chloropus chloropus* (Linn.).  
*Eulæmobothrion chloropodus* (Schrank), 1803. On "rothschnabigen Wasserhuhn" from Bavaria.  
*Rallicola minutus* (Nitzsch), 1866 (part; see 579).  
On *Gallinula chloropus*.
572. *Gallinula chloropus indica* Blyth.  
*Colpocephalum gallinulæ* Uchida, 1926. On *Gallinula chloropus parvifrons* from Japan (captive bird, probably straggling louse).
573. *Gallinula chloropus orientalis* Horsfield.  
*Rallicola parvulus* (Piaget), 1880. On *Gallinula chloropus* from Sumatra.
574. *Porphyrio poliocephalus poliocephalus* (Latham).  
(Indian Purple Coot.)  
*Pseudomenopon poliocephalus* Qadri, 1936. On *Porphyrio poliocephalus* from North India.  
*Rallicola lugens* (Giebel), 1874. On *Porphyrio poliocephalus*.
575. *Porphyrio poliocephalus indicus* Horsfield.  
*Menopon gracile* Piaget, 1880. On *Porphyrio smaragdinus*, Leyden Museum.  
*Philopterus continuus* (Piaget),\* 1880. On *Porphyrio smaragdinus* from Java (Leyden Museum).
576. *Porphyrio poliocephalus palliatus* Brüggemann.  
*Rallicola subfallax* (Piaget), 1880. On *Porphyrio melanopterus* from Celebes.

\* Straggler.

577. *Porphyrio poliocephalus seistanicus* Zarudny & Härms.  
*Incidifrons curvitrabeculatus* Blagoveshtchensky, 1940. On *Porphyrio poliocephalus seistanicus* from Azerbaijan.
578. *Porphyrio poliocephalus melanotus* Temminck.  
*Pseudomenopon concréatum* (Piaget), 1880. On *Porphyrio melanopterus*, Leyden Museum.  
*Rallicola fallax* (Piaget), 1880. On *Porphyrio poliocephalus* from East Coast of Australia (Leyden Museum).

#### Subfamily Fulicinæ.

579. *Fulica atra atra* Linn. (Common Coot.)  
*Pseudomenopon* (tridens var.) *major* (Piaget), 1880, p. 480, nec *Menopon major* Piaget, 1880, p. 441. On *Fulica atra*.  
*Pseudomenopon thompsoni* Eichler, 1937 (*nom. nov.* for above). On *Fulica atra*.  
*Pseudomenopon tridens* (Burmeister), 1838. On *Fulica atra*.  
*Eulæmobothrion atrum* (Nitzsch), 1818, *nom. nov.* for Redi's "Pollino della folago," pl. 4, fig. 1.  
*Eulæmobothrion nigrum* (Burmeister), 1838. On *Fulica atra*.  
*Rallicola minutus* (Nitzsch), 1866 (part; see 571). On *Fulica atra*.  
*Rallicola fulicæ* (Denny), 1842. On *Fulica atra* from Britain.  
*Fulicoffula lurida* (Nitzsch), 1818, *nom. nov.* for Redi's "Pollino della folago," pl. 4, fig. 2.\*  
*Incidifrons pertusus* (Burmeister), 1838. On *Fulica atra*.  
*Incidifrons fulicæ* (Linn.)\*, 1758 (Redi, 1668, pl. iv. fig. 3).

580. *Fulica americana americana* Gmelin. (American Coot.)  
*Pseudomenopon* (tridens var.) *pacificum* (Kellogg), 1896. On *Fulica americana* † from near Monterey, California.

\* See Hopkins, 1940, pp. 421-426.

† And a straggler on *Urinator pacificus*. There are strong indications that Kellogg's material from Rallidæ and Colymbidæ was much mixed, and the reader is advised to check these latter for parasites of the Rallidæ.

*Philopterus quadraticeps* (Kellogg) \*, 1896. Same data.

*Rallicola advena* (Kellogg), 1896. Same data.†

*Fulicoffula longipila* (Kellogg), 1896. Same data.

*Fulicoffula picturata* (Kellogg), 1896. Same data.

*Rallicola minutotrabecula* (Osborn), 1896. On *Fulica americana*.

581. *Fulica* sp.

*Colpocephalum menoponoides* Ewing, 1930. On *Fulica* sp. from National Zoological Park, Washington, D.C.

582. Species described from Stragglers.

*Philopterus* (? *Rallicola*) *bipustulatus* (Piaget), 1880. Straggler on *Ardea egretta* from Java.

*Rallicola acuminatus* (Piaget), 1885. Straggler on *Ardea egretta*.

*Rallicola turbinatus* (Piaget), 1888. Straggler on *Mycteria senegalensis*, Trouessart Coll.

*Rallicola unguiculatus* (Piaget), 1880. Straggler on *Eurylaimus cucullatus* from Sumatra (Leyden Museum).

Suborder *HELIORNITHES*.

Family *Heliornithidae*.

583. *Podica senegalensis senegalensis* (Vieillot). (Senegal Finfoot.)

*Menopon popellus* Piaget, 1890. On *Podoa senegalensis*, Trouessart Coll.

*Fulicoffula rotundata* (Piaget), 1888. Same data.

Suborder *CARIAMAE*.

Family *Cariamidae*.

584. *Cariama cristata* (Linn.). (Cariama or Seriema).

*Colpocephalum breve* Giebel, 1866. On *Dicholophus cristatus*, no locality.

*Colpocephalum notatum* Piaget, 1885. On *Dicholophus cristatus*, Rotterdam Zoo.

\* Straggler.

† And a straggler on *Urinator pacificus*. There are strong indications that Kellogg's material from Rallidae and Colymbidae was much mixed, and the reader is advised to check these latter for parasites of the Rallidae.

*Heinrothiella frielingi* (Eichler), 1941. On *Cariama cristata* Linn.

585. *Chunga burmeisteri* (Hartlaub). (Chunnia.)

*Colpocephalum (caudatum var.) longipes* Piaget, 1885, nec 1880. On *Chunga Burmeisteri*, Hyslop Coll.

*Heinrothiella inexpectata* Eichler, 1942. On *Dicholophus burmeisteri*, Berlin Zoo.

Suborder *OTIDES*.

Family *Otidae*.

586. *Tetrao tetrix tetrix* (Linn.). (Little Bustard.)

*Otilipeurus antilogus* (Nitzsch), 1866. On *Otis tetrix*.

587. *Otis tarda tarda* Linn. (Great Bustard.)

*Degeeriella unicolor* (Nitzsch), 1866. On *Otis tarda*. *Otilipeurus turmalis* (Denny), 1842. On *Otis tarda* from Germany.

588. *Neotis cafra jacksoni* Bannerman. (Jackson's Red-necked Bustard.)

*Otidiceus neotidis* Hopkins, 1940. On *Neotis cafra jacksoni* Bannerman, from Uganda.

*Otilipeurus bedfordi* Hopkins, 1943. Same data.

589. *Choriotis kori kori* (Burchell). (Giant Bustard.)

*Otidiceus dimorphus* Bedford, 1931. On *Choriotis kori* from Zululand, S. Africa.

*Otilipeurus kori* Bedford, 1931. On *Choriotis kori* from Transvaal.

590. *Chlamydotis undulata undulata* (Jacquin). (Houbara Bustard.)

*Otilipeurus houbaræ* (Barthélemy), 1836. On "Outarde Houbara" from Sfax.

591. *Lissotis melanogaster melanogaster* (Rüppell). (Black-billed Lesser Bustard.)

*Otilipeurus elliotti* Hopkins, 1941. On *Lissotis m. melanogaster* (Rüppell) from Uganda.

## 592. Unidentified Bustard.

*Otilipeurus dissimilis* (Piaget), 1880.\* Straggler on *Ortyx virginianus*.

[Note.—A number of new genera have been described within recent years for the *Degeeriella* spp. occurring on Charadriiformes, but a few species that have not been well-enough described to be placed correctly are retained under *Degeeriella*, to which most of them certainly do not belong.]

## Order CHARADRIIFORMES.

## Suborder CHARADRII.

## Superfamily JACANOIDEA.

## Family Jacanidae.

593. *Hydrophasianus chirurgus* (Scopoli). (Chinese Jacana.)

*Parricola sulcatus* (Piaget), 1880. On *Parra sinensis*, Leyden Museum.

594. *Jacana spinosa gymnostoma* (Wagler).

*Parricola exiguiifrons* Carriker, 1944. On *Jacana spinosa gymnostoma* from Mexico.

## Superfamily CHARADRIOIDEA.

## Family Rostratulidae.

595. *Rostratula benghalensis benghalensis* (Linn.).  
(Painted Snipe.)

*Pseudomenopon rostratulae* Bedford, 1919. On *Rostratula capensis* from Transvaal.  
*Quadraceps quadrisetaceus* (Piaget), 1880. On *Rhynchæa variegata* from Sumatra.  
*Lipeurus parumsetosus* Piaget, 1880. On *Rhynchæa lævigata* † from Sumatra.

## Family Hæmatopodidae.

596. *Hæmatopus ostralegus galapagensis* Ridgway.

*Quadraceps ridgwayi* (Kellogg), 1906. On *Hæmatopus galapagoensis* from Galapagos Is.

\* See 421.

† In placing this host under *Rostratula b. benghalensis* (Linn.) I am assuming that *lævigata* is a mis-spelling of *variegata*. The parasite is, however, according to Clay (1938) a straggler from *Rollulus roulroul* (Scopoli). (See 483.)

## Type-hosts of the Mallophaga.

597. *Hæmatopus ostralegus ostralegus* Linn. (European Oyster-catcher.)

*Austromenopon micrandum* (Nitzsch), 1866 (part; see 658). On *Hæmatopus ostralegus*.

*Actornithophilus grandiceps* (Piaget), 1880. On *Hæmatopus ostralegus*.

*Actornithophilus laticeps* (Mjöberg), 1910, nec *Colpocephalum laticeps* Kellogg, 1896. On *Hæmatopus ostralegus*.

*Sæmundssonia acantha* (Giebel), 1874. On *Hæmatopus ostralegus*.

*Sæmundssonia hæmatopi* (Linn.), 1758. On *Hæmatopus ostralegus*.

*Sæmundssonia hæmatopodis* (Gmelin), 1788, nom. nov. for above. On *Hæmatopus ostralegus*.

*Quadraceps hæmatopi* (Denny), 1842. On *Hæmatopus ostralegus* from England.

*Quadraceps ochropygus* (Nitzsch), 1866. On *Hæmatopus ostralegus*.

## Family Charadriidae.

## Subfamily VANELLINÆ.

598. *Vanellus vanellus* (Linn.). (Lapwing or Green Plover.)

*Actornithophilus ochraceus* (Burmeister), 1838, nec Nitzsch, 1818. On *Vanellus cristatus*.

*Sæmundssonia temporalis* (Giebel), 1874. On *Vanellus cristatus*.

*Lunaceps bicolor* (Piaget), 1880. Same data.

*Quadraceps junceus* (Scopoli), 1763. On *Tringa vanellus* from Carniola, Yugoslavia.

*Pediculus tringæ* (Schrank), 1803, nec O. Fabricius, 1780. Not determinable even to family. On "Kybize" from Bavaria.

*Quadraceps vanelli* (Schrank), 1803. Same data.

599. *Xiphidiopterus albiceps* (Gould). (White-headed Lapwing.)

*Austromenopon albipes* (Giebel), 1876. On *Lobivaniellus albiceps*.

600. *Hoplopterus spinosus* (Linn.). (Spur-winged Lapwing.)

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- Actornithophilus hoplopteri* (Mjöberg), 1910. On *Hoplopterus spinosus* from Sudan.  
*Quadraceps hoplopteri* (Mjöberg), 1910. Same data.

Subfamily CHARADRINAE.

601. *Squatarola squatarola* (Linn.). (Grey Plover or Black-bellied Plover.)  
*Colpocephalum flavipes* Giebel, 1874. On *Vanellus varius*.<sup>\*</sup>  
*Sæmundssonia fuliginosa* (Kellogg), 1896. On *Charadrius squatarola* from Kansas and California.  
*Sæmundssonia rufimarginata* Giebel. ~~See~~ On *Vanellus squatarola*.  
*Quadraceps hospes* (Nitzsch). 1866. On *Vanellus squatarola*.  
*Lunaceps incoenis* (Kellogg & Chapman), 1899. On *Squatarola squatarola* from California.  
*Quadraceps vanelli* (Denny), 1842, nec Schrank, 1803. On *Vanellus griseus* from Britain.  
602. *Pluvialis apricaria oreophilos* A. C. Meinhertzhangen.  
*Sæmundssonia conicus* (Denny), 1842. On *Charadrius pluvialis* from Britain.  
603. *Pluvialis dominica fulva* (Gmelin).  
*Sæmundssonia (fuliginosus var.) hawaiiensis* (Kellogg & Chapman), 1902 (part; see 637). On *Charadrius dominicus fulvus* from Hawaii.  
*Sæmundssonia wallacei* (Johnson & Harrison), 1912. On *Charadrius dominicus* from Kermadec Is.  
*Quadraceps (orarius var.) hawaiiensis* (Kellogg & Chapman), 1902. On *Charadrius dominicus fulvus*† from Hawaii.  
604. *Pluvialis dominica dominica* (P. L. S. Müller).  
*Quadraceps orarius* (Kellogg), 1896. On *Charadrius dominicus* (Golden Plover) from Kansas.  
605. *Charadrius hiaticula hiaticula* Linn. (Ringed Plover).  
*Quadraceps fissus* (Burmeister), 1838 (part; see 607). On *Charadrius hiaticola*.

\* This name has also been employed for *Leucopolius pecuarius*, but Giebel appears to use it for *S. squatarola*.

† And stragglers on *Fulica alai*.

- Quadraceps hiaticulæ* (O. Fabricius), 1780. On *Charadrius hiaticula* from Greenland.  
*Quadraceps hiaticulæ* (Denny), 1842, nec Fabricius, 1780. On *Charadrius hiaticula* from Britain.  
606. *Charadrius hiaticula semipalmatus* Bonaparte. (Semipalmented Plover.)  
*Quadraceps opacus* (Kellogg & Chapman), 1899. On *Ægialitis semipalmata* from California.  
607. *Charadrius dubius euronicus* Gmelin. (Little Ringed Plover.)  
*Quadraceps bicuspis* (Nitzsch), 1874. On *Charadrius minor*.  
*Quadraceps fissus* (Burmeister), 1838 (part; see 605). On *Charadrius minor*.  
608. *Charadrius alexandrinus alexandrinus* Linn. (Kentish Plover.)  
*Quadraceps alexandrinus* (Giebel), 1874. On *Pluvianus alexandrinus*.  
609. *Charadrius alexandrinus marginatus* Vieillot.  
*Quadraceps macrocephalus* (Waterston), 1914 (part; see 610, 612). On *Ægialitis marginata* from South Africa.  
610. *Charadrius pecuarius pecuarius* Temminck. (Kittlitz's Sand Plover.)  
*Quadraceps macrocephalus* (Waterston), 1914 (part; see 609, 612). On *Ægialitis pecuaria* from South Africa.  
611. *Charadrius vociferus vociferus* Linn. (Killdeer Plover.)  
*Austromenopon ægialitidis* (Durrant), 1906. On *Ægialitis vocifera* from Colorado, U.S.A.  
*Quadraceps boophilus* (Kellogg), 1896. On *Ægialitis vocifera* from Kansas.  
*Quadraceps parallelus* (Osborn), 1896. On *Ægialitis vocifera*, Burnett Coll.  
612. *Charadrius tricollaris tricollaris* (Vieillot). (Three-banded Plover.)  
*Quadraceps macrocephalus* (Waterston), 1914 (part; see 609, 610). On *Ægialitis tricollaris* from South Africa.

613. **Eupoda asiatica** (Pallas). (Caspian Plover.)  
Quadraceps assimilis (Piaget), 1890. On *Aegialitis asiatica* from England.
614. **Eudromias morinellus** (Linn.).  
Sæmundssonia semivittata (Giebel), 1874. On *Charadrius morinellus*.  
Sæmundssonia platygaster (Denny), 1842. (See 719.)  
Quadraceps punctulatus (Giebel), 1874, nec 1866.  
On *Charadrius morinellus*.

Family **Scolopacidae**.Subfamily **TRINGINÆ**.

615. **Bartramia longicauda** (Bechstein). (Upland Plover.)  
Rhynonirmus infuscatus (Osborn), 1896 (part; see 646). On *Bartramia longicauda*, Burnett Coll.
616. **Numenius phæopus phæopus** (Linn.).  
Austromenopon ambiguum (Nitzsch), 1874. On *Numenius phæopus*.  
Actornithophilus ocellatus (Rudow), 1869. On *Numenius phæopus*.  
Sæmundssonia rotunda (Rudow), 1869. Same data.  
Lunaceps phæopi (Denny), 1842. On *Numenius phæopus* from England.  
Lunaceps phæopodis (Giebel), 1874. On *Numenius phæopus*.
617. **Numenius phæopus variegatus** (Scopoli).  
Sæmundssonia armata (Johnston & Harrison), 1912.  
On *Numenius variegatus* (Scop.) from Kermadec Is.  
Sæmundssonia numeniicola (Johnston & Harrison), 1912. Same data.  
Lunaceps oliveri (Johnston & Harrison), 1912. Same data.
618. **Numenius arquata arquata** (Linn.). (Common Curlew.)  
Austromenopon crocatum (Nitzsch), 1866. On *Numenius arquatus*.  
Actornithophilus patellatus (Piaget), 1890. On *Numenius arquatus*, Rotterdam Zoo.  
Cummingsiella testudinaria (Denny), 1842. On *Numenius arquatus* from Britain.

- Cummingsiella nirmoides (Piaget), \* 1880. On *Numenius arquatus*, Rotterdam Zoo.  
Sæmundssonia humeralis (Denny), 1842. On *Numenius arquatus* from Britain.  
Lunaceps inæqualis (Piaget), 1880. On *Numenius arquata*.  
Lunaceps numenii (Denny), 1842. On *Numenius arquata* from Britain.  
Degeeriella pseudonirmus (Nitzsch), 1874. On *Numenius arquatus*.  
Carduiceps zonarius (Nitzsch), 1866 (part; see 650, 653). On *Numenius arquatus*.
619. **Numenius arquata orientalis** C. L. Brehm.  
Austromenopon numenii (Rudow), 1869. On *Numenius linearis*.  
Actornithophilus numenii (Rudow), 1869. Same data.  
Philopterus microceras (Rudow), 1869. Same data.
620. **Numenius americanus americanus** Bechstein. (Long-billed Curlew.)  
Cummingsiella longirostricola Wilson, 1937. On *Numenius americanus* (Wils.) from Texas.
621. **Numenius** sp.  
Sæmundssonia viridicola (Kellogg), 1914. On *Numenius* sp. from Cape Verde Is.
622. **Limosa limosa limosa** (Linn.). (Black-tailed Godwit.)  
Actornithophilus spinulosus (Piaget), 1880. On *Limosa melanura*, Leyden Museum.  
Carduiceps cingulatus (Denny), 1842. On *Limosa melanura* from Britain.  
Quadraceps obscurus (Burmeister), 1838 (part; see 632, 635). On *Limosa melanura*.
623. **Limosa haemastica** (Linn.). (Hudsonian Godwit.)  
Degeeriella cordata (Osborn), 1896. On *Limosa haemastica*, Burnett Coll.
624. **Limosa lapponica lapponica** (Linn.). (Bar-tailed Godwit.)  
Austromenopon meyeri (Giebel), 1874. On *Limosa rufa*.

\* Straggler.

- Actornithophilus limosæ* (Kellogg), 1908, *nom. nov.* for *Colpocephalum ochraceum* Grube, 1851, *nec* Nitzsch, 1818. On *Limosa rufa* from Siberia.  
*Sæmundssonia limosæ* (Denny), 1842. On *Limosa rufa* from Britain.  
*Sæmundssonia meyeri* (Giebel), 1874. On *Limosa meyeri*.
625. *Limosa fedoa* (Linn.). (Marbled Godwit.)  
*Degeeriella lucida* (Kellogg & Mann), 1912. On *Limosa fedoa* from Baja California.
626. *Tringa erythropus* (Pallas). (Spotted or Dusky Redshank.)  
*Austromenopon lutescens* (Burmeister), 1838 (part; see 655). On *Totanus maculatus*.  
*Actornithophilus affinis* (Nitzsch), 1874. On *Totanus maculatus*.  
*Sæmundssonia cordiceps* (Piaget), 1880, p. 664, *nec* p. 80, *nec* Giebel, 1874 (part; see 635, 638, 649). On *Totanus fuscus*.  
*Sæmundssonia nitzschi* (Giebel), 1866 (part; see 655). On *Totanus maculatus*.  
*Quadraceps furvus* (Burmeister), 1838. On *Totanus maculatus*.\*
627. *Tringa totanus totanus* (Linn.). (Common Redshank.)  
*Sæmundssonia mollis* (Nitzsch), 1874.† On *Totanus calidris*.  
*Quadraceps conformis* (Blagoveshtchensky), 1940. On *Totanus totanus totanus* (L.) from Azerbaijan.
628. *Tringa flavipes* (Gmelin). (Lesser Yellow-legs.)  
*Quadraceps falcigerus* (Peters), 1931. On *Totanus flavipes* (Gmelin) from Ohio, U.S.A.  
*Quadraceps naumannii* (Giebel), 1874. On *Totanus flavipes*.‡
629. *Tringa nebularia* (Gunnerus). (Greenshank.)  
*Quadraceps similis* (Giebel), 1866. On *Totanus glottis*.

\* Restricted to this host by Giebel, 1866.

† Types apparently very immature.

‡ There is no such bird, but the name may be a mis-spelling of *flavipes* and is therefore placed here.

630. *Tringa melanoleuca* (Gmelin). (Greater Yellow-legs.)  
*Quadraceps austini* (Peters), 1931. On *Totanus melanoleucus* from Labrador.
631. *Tringa ochropus* Linn. (Green Sandpiper.)  
*Quadraceps ochropi* (Denny), 1842. On *Totanus ochropus* from Britain.  
*Rhynonirmus emarginatus* (Piaget), 1880. On *Totanus ochropus*. Doubtless straggler from snipe.
632. *Tringa glareola* Linn. (Wood Sandpiper.)  
*Sæmundssonia glareolæ* (Giebel), 1866. On *Totanus glareola*.  
*Quadraceps obscurus* (Burmeister), 1838 (part; see 622, 635). On *Totanus glareola*.
633. *Tringa* (s.l.) sp. (probably really *Charadrius* sp.).  
*Quadraceps (fissus var.) major* (Kellogg), 1899. On *Tringa* sp., from Baja, California.
634. *Xenus cinereus* (Güldenstaedt). (Terek Sandpiper.)  
*Carduiceps fulvo-fasciatus* (Grube), 1851 (part; see 654, 655). On *Tringa cinerea* from Siberia.
635. *Actitis hypoleucos* (Linn.). (Common Sandpiper.)  
*Sæmundssonia cordiceps* (Piaget), 1880, p. 664, *nec* p. 80, *nec* Giebel, 1874 (part; see 626, 638, 649). On *Totanus hypoleucus*.  
*Sæmundssonia frater* (Giebel), 1874. On *Totanus hypoleucus*.  
*Quadraceps obscurus* Burmeister, 1838 (part; see 622, 632). On *Totanus hypoleucus*.
636. *Actitis macularia* (Linn.). (Spotted Sandpiper.)  
*Quadraceps (furvus var.) ravus* (Kellogg), 1899. On *Actitis macularia* from Panama.
637. *Heteroscelus incanus* (Gmelin). (Wandering Tattler.)  
*Actornithophilus kilauensis* (Kellogg & Chapman), 1902. On *Heteractitis incanus* from Hawaii.  
*Sæmundssonia (fuliginosus var.) hawaiiensis* (Kellogg & Chapman), 1902 (part; see 603). On *Heteractitis incanus* from Hawaii.

## Subfamily ARENARIINÆ.

638. *Arenaria interpres interpres* (Linn.). (Turnstone or Ruddy Turnstone.)

*Austromenopon strepsilæ* (Denny), 1842. On *Strepsilaris collaris* from England.

*Colpocephalum pediculoides* Mjöberg, 1910. On *Strepsilas interpres*.

*Actornithophilus bicolor* (Piaget), 1880. On *Strepsilas interpres*.

*Actornithophilus pætulus* (Kellogg & Kuwana), 1900. On *Arenaria interpres* from Alaska.

*Sæmundssonia cordiceps* (Piaget), 1880 (p. 664 nec p. 80, nec Giebel, 1874) (part; see 626, 635, 649). On *Strepsilas interpres*.

*Quadraceps euprepes*\* (Kellogg & Chapman), 1902. On *Arenaria interpres* from California.

*Quadraceps strepsilaris* (Denny), 1842. On *Strepsilas interpres* from Britain.

*Paragoniocotes semicingulatus* (Piaget), 1890. On *Strepsilas collaris*, Trouessart Coll. Straggler from parrot.

639. *Arenaria interpres morinella* (Linn.).

*Actornithophilus (spinulosus subsp.) obscurus* (Carriker & Shull), 1910, nec *Colpocephalum obscurum* Giebel, 1874. On *Arenaria interpres* from Michigan, U.S.A.

*Actornithophilus ocularis* (Carriker & Shull), 1910. Same data.

640. *Arenaria melanocephala* (Vigors). (Black Turnstone.)

*Actornithophilus tigrus* (Kellogg & Mann), 1913. On *Arenaria melanocephala* † from Baja California.

## Subfamily SCOLOPACINÆ.

641. *Capella gallinago gallinago* (Linn.). (Common Snipe.)

*Philopterus ambiguus* (Burmeister), 1838. On *Scolopax gallinago*.

*Philopterus amphibolus* (Giebel), 1861, *nom. nov.* for above.

\* Mis-spelt *luprepes* in original.

† And stragglers on *Aphriza virgata* from San Geronimo Is.

*Philopterus (nirmoides var.) major* (Waterston), 1912, nec Kellogg, 1896. On *Gallinago caelestis* from Shetland Isles, Britain.

*Rhynonirmus scolopacis* (Denny), 1842. On *Scolopax gallinago* from Isle of Man, Britain.

*Rhynonirmus tristis* (Giebel), 1874. On *Scolopax gallinago*.\*

*Rhynonirmus truncatus* (Nitzsch), 1866. On *Scolopax gallinago*.

642. *Capella delicata* (Ord). (Wilson's Snipe.)

*Actornithophilus stictus* (Kellogg & Paine), 1911. On *Gallinago delicata* from California.

*Rhynonirmus (truncatus var.) magnocephalus* (Carriker), 1902. On *Gallinago delicata* (and straggler on *Larus franklini*) from Nebraska, U.S.A.

643. *Capella* sp.

*Colpocephalum horii* Uchida, 1926. On "Snipe," *Gallinago*, sp., from Japan.

644. *Scolopax rusticola rusticola* Linn. (Woodcock.)

*Austromenopon icterum* (Burmeister), 1838. On *Scolopax rusticola*.

*Sæmundssonia aurata* (Burmeister), 1838, nec *Docophorus auratus* De Haan, 1829. On *Scolopax rusticola*.

*Rhynonirmus helvolus* (Burmeister), 1838. On *Scolopax rusticola*.

645. *Scolopax* (s.l.) sp.

*Carduiceps nigrolimbatus* (Mjöberg), 1910. On *Scolopax* sp., from Jinretlen, Arctica. (Probably straggler.)

646. *Philocela minor* (Gmelin.) (American Woodcock.)

*Rhynonirmus infuscatus* (Osborn), 1896 (part; see 615). On *Philocela minor*, Burnett Coll.

647. *Lymnocryptes minima* (Brünnich). (Jack Snipe.)

*Actornithophilus multisetosus* Blagoveshtchensky, 1940. On *Lymnocryptes minima* from Azerbaijan.

## Subfamily EROLIINÆ.

648. *Calidris canutus canutus* (Linn.). (Knot.)

*Sæmundssonia canuti* (Denny), 1842. On *Tringa canutus* from Britain.

\* Giebel thought (probably correctly) that the record was erroneous.

649. *Croceethia alba* (Pallas). (Sanderling.)  
*Actornithophilus (spinulosus var.) minor* (Kellogg & Chapman), 1899, *nec Colpocephalum minor* Piaget, 1880. On *Calidris arenaria* from California.  
*Sæmundssonia cordiceps* (Piaget), 1880, p. 664, *nec* sp. 80, *nec* Giebel, 1874 (part; see 626, 635, 638). On *Calidris arenaria*.  
*Lunaceps actophilus* (Kellogg & Chapman), 1899. On *Calidris arenaria* from California.  
*Carduiceps complexivus* (Kellogg & Chapman), 1899. Same data.\*
650. *Erolia minuta* (Leisler). (Little Stint.)  
*Actornithophilus trilobatus* (Giebel), 1874. On *Tringa minuta*.  
*Sæmundssonia fusiformis* (Denny), 1842. On *Tringa minuta* from Northern Ireland.  
*Carduiceps zonarius* (Nitzsch), 1866 (part; see 618, 653). On *Tringa minuta*.
651. *Erolia melanotos* (Vieillot).  
*Actornithophilus morsitans* (Kellogg & Mann), 1912. On *Tringa maculata* from Alaska.
652. *Erolia maritima* (Brünnich). (Purple Sandpiper.)  
*Sæmundssonia arctica* (Mjöberg), 1910. On *Tringa* sp. (*maritima*?), from Pendulum Island, Greenland.
653. *Erolia alpina alpina* Linn. (Lapland Dunlin.)  
*Sæmundssonia alpina* (Giebel), † 1874. On *Tringa alpina*.  
*Sæmundssonia variabilis* (Denny), † 1842. On *Tringa variabilis* (Dunlin) from Britain.  
*Sæmundssonia grubei* Eichler, 1942, *nom. nov.* for *Docophorus lari* "Denny," Grube, 1851, *nec* Denny, 1842. On *Tringa islandica* from Boganida, Siberia.  
*Carduiceps zonarius* (Nitzsch), 1866 (part; see 618, 650). On *Tringa cinclus*.
654. *Erolia testacea* (Pallas). (Curlew Sandpiper.)  
*Actornithophilus umbrinus* (Burmeister), 1838. On *Tringa subarquata*. (See 655.)

\* And stragglers on *Tringa minutilla*.  
 † See Hopkins, 1947, pp. 110 and 111.

- Actornithophilus umbrosus* (Harrison), 1916, *nom. nov.* for *umbrinus* Piaget, 1880, *nec* Nitzsch, 1838. On *Tringa (Erolia) subarquata*.  
*Brüelia brevipes* (Piaget), 1880. On *Tringa subarquata*. Straggler from Passerine.  
*Carduiceps fulvo-fasciatus* (Grube), 1851 (part; see 634, 655). On *Tringa subarquata* from Siberia.
655. *Philomachus pugnax* (Linn.). (Ruff.)  
*Austromenopon lutescens* (Burmeister), 1838 (part; see 626). On *Tringa pugnax*.  
*Actornithophilus cornutus* (Nitzsch), 1866, *nec* Rudow, 1866. On *Tringa pugnax*.\*  
*Actornithophilus pustulosus* (Piaget), 1880. On *Machetes pugnax*.  
*Sæmundssonia nitzschi* (Giebel), 1866 (part; see 626). On *Tringa pugnax*.  
*Carduiceps fulvo-fasciatus* (Grube), 1851 (part; see 634, 654). On *Tringa pugnax* from Siberia.  
*Carduiceps scalaris* (Piaget), 1880. On *Machetes pugnax*.†  
*Lunaceps holophæus* (Burmeister), 1838. On *Tringa pugnax*.

#### Subfamily RECURVIROSTRINÆ.

656. *Himantopus himantopus himantopus* (Linn.). (Black-winged Stilt.)  
*Quadraceps hemichrous* (Nitzsch), 1866. On *Himantopus rufipes* from Germany.  
*Quadraceps opisthotomus* (Kellogg), 1910. On *Himantopus himantopus* from Tanganyika, E. Africa.  
*Quadraceps semifissus* (Nitzsch), 1866. On *Himantopus rufipes* from Germany.
657. *Himantopus himantopus mexicanus* (P. L. S. Müller).  
*Quadraceps (semifissus) mexicanus* Carriker, 1944. On *Himantopus mexicanus* from Mexico.
658. *Recurvirostra avosetta* Linn. (Avocet.)  
*Austromenopon micrandum* (Nitzsch), 1866 (part; see 597). On *Recurvirostra avocetta*.

\* Cf. *umbrinus* Burmeister (see 654). There is a possibility that the hosts of these two species were transferred.

† And stragglers on *Calidris arenaria*.

- Actornithophilus uniseriatus* (Piaget), 1880. On *Recurvirostra avocetta*.  
*Degeeriella decipiens* (Denny), 1842. On *Recurvirostra avocetta* from Germany.  
*Degeeriella pilea* (Nitzsch), 1866. On *Recurvirostra avocetta*.  
*Quadraceps signatus* (Piaget), 1880. On *Recurvirostra avocetta*, Rotterdam Zoo.
659. ***Recurvirostra americana*** Gmelin.  
 (American Avocet.)  
*Austromenopon indistinctum* (Kellogg), 1896. On *Recurvirostra americana* from Kansas.  
*Actornithophilus uniformis* (Kellogg), 1896. Same data.  
*Degeeriella biseriata* (Children), 1836. On "Curlew,"\* from Arctic Canada.  
*Degeeriella testudinaria* (Children), 1836. Same data.
660. ***Recurvirostra andina*** Philippi & Landbeck.  
*Quadraceps (semifissus) andinus* Carriker, 1944. On *Recurvirostra andina* from S.W. Bolivia.

#### Family Phalaropodidæ.

661. ***Phalaropus fulicarius*** (Linn.).  
 (Grey or Red Phalarope.)  
*Austromenopon corporosum* (Kellogg & Kuwana), 1901. On *Crymophilus fulicarius* † from Alaska.  
*Quadraceps infecta* (Kellogg & Kuwana), 1901. Same data.  
*Quadraceps fulvoguttata* (Mjöberg), 1910. On *Phalaropus fulicarius*.  
*Quadraceps phalaropi* (Denny), 1842. On Grey Phalarope ‡ (*Phalaropus lobatus*) from England.
662. ***Steganopus tricolor*** Vieillot. (Wilson's Phalarope.)  
*Degeeriella fimbriata* (Giebel), 1866. On *Phalaropus fimbriatus* from Mexico.

\* There is no Curlew in the list of birds collected by the Expedition; but *Recurvirostra americana* is mentioned (p. 484). (See Hopkins, 1947, pp. 102-103.)

† And ? straggler from *Arenaria interpres* from same locality.

‡ Denny says Grey Phalarope and the English name is more probably correct than the Latin one.

663. ***Lobipes lobatus*** (Linn.). (Red-necked Phalarope.)  
*Quadraceps (infecta var.) connexa* (Kellogg & Mann), 1912. On *Phalaropus lobatus* from Alaska.  
*Carduiceps paradoxus* (Giebel), 1874, nec *Nirmus paradoxus* Rudow, 1869. On *Phalaropus hypoboreus*.  
*Carduiceps subscalaris* (Piaget), 1880. On *Phalaropus hypoboreus*, Leyden Museum.

#### Superfamily DROMADOIDEA.

##### Family Dromadidæ.

664. ***Dromas ardeola*** Paykull. (Crab Plover.)  
*Quadraceps antennatus* (Piaget), 1880. On *Dromas ardeola*, Leyden Museum.  
*Quadraceps brunneus* (Nitzsch), 1866. On *Dromas ardeola*.  
*Quadraceps stictochrous* (Nitzsch), 1866. On *Dromas ardeola*.

#### Superfamily BURHINOIDEA.

##### Family Burhinidæ.

665. ***Burhinus oedicnemus*** (Linn.). (Stone Curlew.)  
*Quadraceps annulatus* (Denny), 1842. On *Oedicnemus crepitans* from Britain.  
*Brüelia immaculata* (Piaget),\* 1890. On *Oedicnemus crepitans*.  
*Quadraceps oedicnemi* (Denny), 1842. On *Oedicnemus crepitans* from Britain.

#### Superfamily GLAREOLOIDEA.

##### Family Glareolidæ.

###### Subfamily CURSORIINÆ.

666. ***Cursorius cursor cursor*** (Latham). Cream-coloured Courser.)  
*Austromenopon cursorius* (Giebel), 1874. On *Cursorius isabellinus*.  
*Quadraceps cursorius* (Mjöberg), 1910. On *Cursorius gallicus* from Sweden.

\* Straggler from Passerine.

- Degeeriella lota* (Nitzsch), 1866.\* On *Tachyptromus isabellinus*.
- Esthiopterum lineare* (Nitzsch), 1866. Same data.

Subfamily GLAREOLINÆ.

667. *Glareola pratincola pratincola* (Linn.). (Pratincole.)  
Actornithophilus sedes Eichler, 1944. On *Glareola pratincola* from near Salоника.
- Quadraceps ellipticus* (Nitzsch), 1866 (part; see 668).  
On *Glareola austriaca*.
668. *Glareola*? *maldivarum* J. R. Forster.  
*Quadraceps ellipticus* (Nitzsch), 1866 (part; see 667).  
On *Glareola orientalis*.
669. *Glareola ocularis* Verreaux.  
*Rediella mirabilis* Hopkins, 1947. On *Galachrysa ocularis* from Kongolira Swamp, near Bukoba, Tanganyika Territory.

Superfamily THINOCOROIDEA.

Family Thinocoridae.

670. *Thinocorus rumicivorus* Eschscholtz.  
*Austromenopon brevicolle* (Piaget), 1885. On *Thinocorus rumicivorus*, Leyden Museum.
- Degeeriella crassipes* (Piaget), 1885. Same data.
- Degeeriella crassipedalis* Harrison, 1916. Unnecessary nom. nov. for *crassipes* Piaget, 1885, nec Denny, 1842 (which is a nom. nud.). Same data.
- Esthiopterum fulvum* (Piaget),† 1885. On *Imochorus rumicivorus*, Leyden Museum.

Suborder LARI.

Family Stercorariidae.

671. *Catharaeta skua antarctica* (Lesson). (Antarctic Skua.)  
*Quadraceps* (triangulata var.) *alpha* (Kellogg), 1914.  
On *Megalestris antarctica* ‡ from South Tropical Atlantic.
- \* Mis-spelt *latus* (see Giebel, 1874, p. 155).
- † Straggler.
- ‡ And straggler on *Oceanodroma leucorhoa* from North Tropical Atlantic.

672. *Stercorarius pomarinus* (Temminck). (Pomatorhinine Skua.)
- Austromenopon circinatum* (Piaget), 1890. On *Stercorarius pomarinus*, Trouessart Coll.
- Austromenopon fuscofasciatum* (Piaget), 1880. On *Lestrina pomarina*.
- Actornithophilus brachycephalus* (Giebel), 1874. On *Lestrina pomarina*.
- Sæmundssonia euryrhyncha* (Giebel), 1874. On *Lestrina pomarina*.
- Perineus laculatus* (Kellogg & Chapman), 1899. On *Stercorarius pomarinus*\* from California.
- Ardeicola modestus* † (Giebel), 1874. On *Lestrina pomarina*.

673. *Stercorarius parasiticus* (Linn.).‡ (Arctic or Richardson's Skua.)
- Sæmundssonia atlantica* (Kellogg), 1914 (part; see 702). On *Lestrina crepidata* from North Tropical Atlantic.
- Sæmundssonia cephalus* (Denny), 1842. On *Lestrina parasiticus* from Britain.
- Sæmundssonia pustulosa* (Nitzsch), 1866. On *Lestrina parasitica*.
- ? *Perineus grandis* (Piaget), 1880. Straggler on *Thalassidroma pelagica*, Rotterdam Zoo; [Waterston (1915) states that the true host is a Skua and that he has found it in numbers on the present species].
- Quadraceps normifer* (Grube), 1851. On *Lestrina richardsoni* from Siberia.
- Quadraceps triangulatus* (Nitzsch), 1866. On *Lestrina crepidata*.

\* And stragglers on *Puffinus creatopus*.

† According to Taschenberg, 1882, the unique type is a female of *Lipeurus leucopygus* Nitzsch, now known as *Ardeicola ardeax* (Linn.). This species is therefore a straggler.

‡ The nomenclature of this species and the Long-tailed Skua (*S. longicaudus* Vieillot) is peculiarly confused, the name *parasiticus* having been applied almost indiscriminately to both, but the present species is much the commonest member of the genus in Northern Europe.

## Family Laridæ.

## Subfamily LARINÆ.

674. *Pagophila eburnea* (Phipps). (Ivory Gull.)  
Sæmundssonia congener (Giebel), 1874 (part; see 678, 681). On *Larus eburneus*.
675. *Larus heermanni* Cassin.  
Quadraceps felix (Giebel), 1874. On *Larus Heermannii*.
676. *Larus ? hemprichii* Bruch. (Hemprich's Gull.)  
Sæmundssonia larina (Picaglia), 1885. On *Larus* sp. from Suez.
677. *Larus crassirostris* Vieillot.  
Sæmundssonia parva (Piaget), 1880 (part; see 684). On *Larus crassirostris* from China.
678. *Larus canus canus* Linn. (Common Gull.)  
Colpocephalum nanum (Piaget), \* 1890. On *Larus canus*, from Leyden Museum.  
Sæmundssonia congener (Giebel), 1874 (part; see 674, 681). On *Larus canus* and *L. cyanorhynchus*.  
Quadraceps lineolatus (Nitzsch), 1866 (part; see 687, 693). On *Larus canus*.
679. *Larus canus kamtschatschensis* (Bonaparte).  
Quadraceps ornatus (Grube), 1851. On *Larus canus* from Siberia.
680. *Larus canus brachyrhynchos* Richardson.  
Quadraceps (lineolatus var.) atri-marginatus (Kellogg & Chapman), 1899 (part; see 682, 694). On *Larus canus* and *brachyrhynchus* from California.
681. *Larus argentatus argentatus* Pontoppidan. (Herring Gull.)  
Sæmundssonia congener (Giebel), 1874 (part; see 674, 678). On *Larus argentatus*.
682. *Larus argentatus vegæ* Palmén.  
Quadraceps (lineolatus var.) atri-marginatus (Kellogg & Chapman), 1899 (part; see 680, 694). On *Larus vegæ* from California.

\* Straggler.

683. *Larus fuscus fuscus* Linn. (Lesser Black-backed Gull.)  
Sæmundssonia breviappendiculata (Piaget), 1880  
On *Larus fuscus*.
684. *Larus dominicanus* Lichtenstein.  
Austromenopon lemniscatum (Enderlein), 1909. On *Larus dominicanus* from Kerguelen Is.  
Actornithophilus fuscipes (Piaget), 1880. On *Larus dominicanus*, Leyden Museum.  
Sæmundssonia parva (Piaget), 1880 (part; see 677). On *Larus dominicanus* from Chile.  
Quadraceps fuscolaminulatus (Enderlein), 1909. On *Larus dominicanus* from Kerguelen Is.
685. *Larus marinus* Linn. (Greater Black-headed Gull.)  
Actornithophilus lari (Packard), 1870. On *Larus marinus*.  
Sæmundssonia gonothorax (Giebel), 1874 (part; see 691, 693). On *Larus marinus*.
686. *Larus glaucescens* Naumann (Glaucous-winged Gull.)  
Austromenopon infrequens (Kellogg), 1896. On *Larus glaucescens* from California.  
Actornithophilus funebris (Kellogg), 1896. Same data.
687. *Larus hyperboreus* Gunnerus. (Glaucous Gull or Burgomaster.)  
Sæmundssonia lari (O. Fabricius), 1780. On *Larus glaucus* from Greenland.  
Quadraceps lineolatus (Nitzsch), 1866 (part; see 678, 693). On *Larus glaucus*.  
Quadraceps striolatus (Nitzsch), 1866. On *Larus glaucus* from Greenland.
688. *Larus atricilla* Linn. (Laughing Gull.)  
Sæmundssonia magna (Piaget), 1880. On *Larus atricilla*.
689. *Larus novæ-hollandiæ hartlaubii* Bruch. (Hartlaub's Gull.)  
Quadraceps (punctatus) lingulatus (Waterston), 1914.  
On *Larus hartlaubi* from Table Bay, South Africa.

690. *Larus ridibundus* Linn. (Black-headed Gull.)  
*Austromenopon phaeopus* (Nitzsch), 1866. On *Larus ridibundus*.  
*Austromenopon ridibundus* (Denny), 1842. On *Larus ridibundus* from Britain.  
*Sæmundssonia mülleri* Eichler, 1942, *nom. nov.* for  
*Docophorus lari* Müller, 1927, *nec* Fabricius, 1780.  
On *Larus ridibundus*, Germany.  
*Quadraceps punctatus* (Burmeister), 1838. On *Larus ridibundus*.  
*Quadraceps punctulatus* (Giebel), 1866. On  
“Lachmöwe”.
691. *Larus minutus* Pallas. (Little Gull.)  
*Quadraceps eugrammicus* (Burmeister), 1838. On  
*Larus minutus*.  
*Quadraceps grammicus* (Gervais), 1844, *nom. nov.*  
for above.  
*Sæmundssonia gonothorax* (Giebel), 1874 (part ;  
see 685, 691). On *Larus minutus*.
692. *Rhodostethia rosea* (Macgillivray). (Wedge-tailed  
or Ross's Gull.)  
*Sæmundssonia alaskensis* (Kellogg & Kuwana), 1900,  
On *Rhodostethia rosea* from Alaska.
693. *Rissa tridactyla tridactyla* (Linn.). (Kittiwake.)  
*Austromenopon obtusum* (Giebel), 1866. On *Larus tridactylus*.  
*Austromenopon transversum* (Denny), 1842. On  
*Larus tridactylus* from Britain.  
*Actornithophilus maurus* (Nitzsch), 1866 (part ; see  
698). On *Larus tridactylus*.  
*Sæmundssonia gonothorax* (Giebel), 1874 (part ; see  
685, 691). On *Larus tridactylus* from Northern  
Spitzbergen.  
*Quadraceps lineolatus* (Nitzsch), 1866 (part ; see 678,  
687). On *Larus tridactylus*.
694. *Rissa tridactyla pollicaris* Ridgway. (Pacific Kitti-  
wake.)  
*Quadraceps (lineolatus var.) atri-marginatus* (Kellogg  
& Chapman), 1899 (part ; see 680, 682). On *Rissa tridactyla pollicaris* from California.
695. *Xema sabini* (J. Sabine). (Sabine's Gull.)  
*Quadraceps jugiferus* (Müller), 1932. On *Xema Sabini* from Germany.

*Quadraceps lineatus* (Piaget), 1880. On *Xema (Larus) Sabini*, Leyden Museum.

696. Undetermined Larinæ.

- Austromenopon interpolatum* (Piaget), 1880. “Sans aucune indication d'habitat.”  
*Actornithophilus abbotti* (Kellogg), 1899. On *Larus* sp., from Baja California, Mexico.  
*Sæmundssonia virilis* (Piaget), 1885. Straggler on *Polyborus vulgaris*, Leyden Museum.  
*Quadraceps auratus* (De Haan), 1829. On “Bécasse de mer”.\*  
*Quadraceps paludicola* (Kellogg & Kuwana), 1902.  
Straggler on *Butorides plumbeus* from Galapagos Is.

Subfamily STERNINÆ.

697. *Chlidonias hybrida hybrida* (Pallas). (Whiskered Tern.)  
*Sæmundssonia laricola* (Nitzsch), 1874. On *Sterna leucoparia* from Hungary.  
*Quadraceps anagraptes* (Nitzsch), 1866. Same data.
698. *Chlidonias nigra nigra* (Linn.). (Black Tern.)  
*Actornithophilus maurus* (Nitzsch), 1866 (part ; see 693). On *Sterna fissipes*.  
*Actornithophilus sulcatus* (Piaget), 1880. On *Sterna nigra*.  
*Sæmundssonia lobaticeps* (Giebel), 1874 (part ; see 701). On *Sterna fissipes*.  
*Quadraceps phæonotus* (Nitzsch), 1866. On *Sterna fissipes*.
699. *Chlidonias nigra surinamensis* (Gmelin).  
*Sæmundssonia pustulifera* (Picaglia), 1885. On *Hydrochelidon surinamensis* from Panama.
700. *Hydropogone tschegrava tschegrava* (Lepechin). (Caspian Tern.)  
*Quadraceps caspius* (Giebel), 1874. On *Sterna caspia*.  
*Quadraceps griseus* (Rudow), 1869. On *Sterna caspia*.
701. *Sterna hirundo hirundo* Linn. (Common Tern.)  
*Austromenopon pachypus* (Piaget), 1880. On *Sterna hirundo*, Trouessart Coll.

\* Equals (literally) “Sea Woodcock”—a general term covering many species of waders.

- Sæmundssonia lobaticeps (Giebel), 1874 (part; see 698). On *Sterna hirundo*.  
*Quadraceps sellatus* (Burmeister), 1838. On *Sterna hirundo*.  
*Esthiopterum parviceps* (Piaget), 1880.\* On *Sterna hirundo*.
702. *Sterna paradisaea* Pontoppidan. (Arctic Tern.)  
 Sæmundssonia atlantica (Kellogg), 1914 (part; see 673). On *Sterna paradisea* from South Atlantic.
703. *Sterna lunata* Peale.  
 Sæmundssonia snyderi (Kellogg & Paine), 1910. On *Sterna lunata* from Laysan Island.
704. *Sterna fuscata fuscata* Linn. (Sooty Tern.)  
*Quadraceps birostris* (Giebel), 1874. On *Sterna*, sp. n., probably *S. fuliginosa*.
705. *Sterna fuscata crissalis* (Lawrence).  
 Sæmundssonia peristicta (Kellogg & Kuwana), 1902.  
 On *Sterna fuliginosa* † from Galapagos Is.  
*Quadraceps gloriosus* (Kellogg & Kuwana), 1902.  
 Same data.  
*Degeeriella lepida* (Kellogg & Kuwana), ‡ 1902 (part; see later). Same data.  
*Degeeriella obtusa* (Kellogg & Kuwana), ‡ 1902. Same data.
706. *Sterna fuscata oahuensis* Bloxham.  
*Austromenopon sternophilum* (Ferris), 1933. On *Sterna fuscata* from Marquesas Islands.
707. *Sterna albifrons albifrons* Pallas. (European Little Tern.)  
*Quadraceps nycthemerus* (Burmeister), 1838. On *Sterna minuta*.  
 Sæmundssonia melanocephalus (Burmeister), 1838.  
 "Auf mehreren *Sterna* und *Larus* Arten." (Restricted to *Sterna minuta* by Giebel, 1874, p. 315.)
708. *Sterna albifrons sinensis* Gmelin. (Asiatic Little Tern.)  
*Comatomenopon elongatum* Uchida, 1920. On *Sterna sinensis* from Formosa.

\* Straggler.

† And single stragglers on *Dendroica aureata* and *Nesomimus carringtoni*.

‡ Probably stragglers.

709. *Thalasseus bergii bergii* (Lichtenstein). (Swift Tern).  
*Actornithophilus crassipes* (Piaget), 1880. On *Sterna poliocerca*, Leyden Museum.
710. *Thalasseus maximus maximus* (Boddaert). (Royal Tern.)  
*Degeeriella hebes* (Kellogg), \* 1896. On *Sterna maxima* from California.  
*Quadraceps praestans* (Kellogg), 1896. Same data.
711. *Thalasseus sandvicensis sandvicensis* (Latham). (Sandwich Tern.)  
*Austromenopon fuscofasciatum* var. minor Thompson, 1937, nec Piaget, 1880. On *Sterna cantiaca*.  
*Actornithophilus piceus* (Denny), 1842. On *Sterna cantiaca* from Britain.  
 Sæmundssonia laticaudata (Rudow), 1869. On *Sterna cantiaca*.  
*Quadraceps longicollis* (Rudow), 1869. On *Sterna cantiaca*.
712. *Thalasseus sandvicensis aeuflavidus* (Cabot).  
 Sæmundssonia brevicornis (Giebel), 1874. On *Sterna acuflavida* from Tehuantepec, Mexico.
713. *Anous stolidus pileatus* (Scopoli). (Noddy Tern.)  
*Colpocephalum discrepans* Kellogg & Chapman, 1902 (part; see below †). On *Anous stolidus* from Hawaii.  
*Quadraceps emarginatus* (Kellogg & Chapman), 1902.  
 Same data.
714. *Anous stolidus galapagensis* Sharpe. (Galapagos Noddy.)  
*Eidmanniella singularis* (Kellogg & Kuwana), 1902  
 On *Anous stolidus* from Galapagos Is. Probably really from *Sula* sp.  
*Actornithophilus milleri* (Kellogg & Kuwana), 1902.  
 Same data.
715. " *Sterna* sp."  
*Columbicola exilicornis* (Piaget), 1880. On *Sterna* sp., from Banka. (Almost certainly an error.)  
 \* Probably straggler.  
 † The other host is a finch (s. l.). This does not look like a tern parasite; the Passerine is more likely.

## Family Rhynchopidæ.

716. *Rhynechops flavirostris* Vieillot. (African Skimmer.)  
*Actornithophilus latifasciatus* (Piaget), 1885. On  
*Rhynchos flavirostris*, Leyden Museum.  
*Quadraceps elongatus* (Piaget), 1885. Same data.  
 Suborder ALCE.  
 Family Alcidæ.
717. *Plautus alle alle* (Linn.). (Little Auk or Dovekie.)  
*Sæmundssonia merguli* (Denny), 1842. On *Mergulus alle* from Britain.  
*Mjöberginirmus obliquus* (Mjöberg), 1910 (part; see 719). On *Mergulus alle*, no locality.
718. *Alca torda* Linn. (Razor-bill or Razor-billed Auk.)  
*Menopon nigropleurum* Denny, 1842. On *Alca torda* from Britain.  
*Sæmundssonia celidoxa* (Burmeister), 1838. On *Alca torda*.  
*Mjöberginirmus aleæ* (Denny), 1842. On *Alca torda* from Britain.  
*Mjöberginirmus citrinus* (Nitzsch), 1866. On *Alca torda*.  
*Anaticola tordæ* (Müller), 1927. On *Alca torda* from Germany. Straggler from Anatidæ.
719. *Uria aalge aalge* (Pontoppidan). (Common Guillemot or Murre.)  
*Sæmundssonia platygaster* (Denny), 1842. Straggler on *Uria troile*\* from Britain (probable true host 614).  
*Mjöberginirmus obliquus* (Mjöberg), 1910 (part; see 717). On *Uria troile*, no locality.
720. *Uria aalge californica* (H. Bryant). (California Murre.)  
*Sæmundssonia calva* (Kellogg), 1896. On *Uria troile californica* from California, U.S.A.
721. *Cephus grylle grylle* (Linn.). (Black Guillemot.)  
*Sæmundssonia grylle* (O. Fabricius), 1780. On *Uria grylle* from Greenland.  
*Sæmundssonia megacephala* (Denny), 1842. On *Uria grylle* from Britain.

\* In 1937 I designated this species as the type host, but it seems almost certain that the true host is *Eudromias morinella* (Linn.). (See 614.)

- Quadraceps pictus* (Mjöberg), 1910. On *Uria grylle* from Jinretlen. Probably a straggler from *Larus* sp.
722. *Cephus columba columba* Pallas. (Pigeon Guillemot.)  
*Sæmundssonia procax* (Kellogg & Chapman), 1899. On *Cephus columba* from California.  
*Mjöberginirmus pacificus* (Kellogg & Chapman), 1899 (part; see 729). On *Cephus columba* from California.
723. *Brachyrhamphus marmoratus marmoratus* (Gmelin). (Marbled Murrelet.)  
*Craspedonirmus atricolor* (Kellogg), \* 1896 (part; see 724). On *Brachyrhamphus marmoratus* from California.  
*Sæmundssonia montereyi* (Kellogg), 1866 (part; see 724, 725). On *Brachyrhamphus marmoratus* from California.
724. *Synthliborhamphus antiquus* (Gmelin). (Ancient Murrelet.)  
*Craspedonirmus atricolor* (Kellogg), 1896 (part; see 723). On *Synthliborhamphus antiquus* from California.  
*Sæmundssonia montereyi* (Kellogg), 1896 (part; see 723, 725). On *Synthliborhamphus antiquus* from California.  
*Mjöberginirmus maritimus* (Kellogg & Chapman), 1899 (part; see 725, 727). On *Synthliborhamphus antiquus* from California.
725. *Ptychorhamphus aleuticus* (Pallas). (Cassin's Auklet or Aleutian Murrelet.)  
*Sæmundssonia insolita* (Kellogg), 1896. On *Ptychorhamphus aleuticus* from California.  
*Sæmundssonia montereyi* (Kellogg), 1896 (part; see 723, 724). On *Ptychorhamphus aleuticus* from California.  
*Mjöberginirmus maritimus* (Kellogg & Chapman), 1899 (part; see 724, 727). On *Ptychorhamphus aleuticus* from California.
726. *Aethia pusilla* (Pallas).  
*Mjöberginirmus aethereus* (Giebel), 1874. On *Simorhynchus microcerus*.  
 \* Straggler.

727. *Cerorhinea monocerata* (Pallas). (*Rhinoceros Auklet.*)  
*Sæmundssonia acutipecta* (Kellogg), 1896. On  
*Ceratorhina monocerata* from California.  
*Mjöberginirmus maritimus* (Kellogg & Chapman),  
1899 (part; see 724, 725). Same data.
728. *Fratercula arctica arctica* (Linn.).  
*Sæmundssonia fraterculæ* (Overgaard), 1942. On  
*Fratercula arctica* from Iceland.
729. *Lunda cirrhata* (Pallas). (Tufted Puffin.)  
*Actornithophilus perplanus* (Kellogg & Chapman),  
1899. On *Lunda cirrhata* from California, U.S.A.  
*Mjöberginirmus pacificus* (Kellogg & Chapman), 1899  
(part; see 722). On *Lunda cirrhata* from California.

**XXVIII.—Early stages and habits of Sindia clathrata (Fabricius) (Cassidinæ, Chrysomelidæ, Coleoptera).** By S. MAULIK, M.A., D.Sc., D.I.C., British Museum (Natural History).

At the end of July, 1928, Major R. W. G. Hingston, I.M.S., collected at Jhansi in Central India, specimens of larvae of this species and published a popular account in the Journal of the Bombay Natural History Society, September 30, 1928, pp. 60–64. Part of his material was secured for the British Museum collection and the following description of the larva is drawn up from it. The observations on habits and colour of fresh specimens are taken from Hingston's account.

July is one of the months of the rainy season when the central plain of India is green with vegetation and the jungles are very moist. The larvae were found on *Rivea hypocrateriformis* (Convolvulaceæ), a family of plants on which insects of this subfamily usually occur.

**Geographical distribution.**—This is an Indian genus including only three species. *Sindia clathrata* (Fab.) is the genotype species, the locality of which, as given by Fabricius, is simply "India Orientalis".

The following records are taken from specimens in the collection of the British Museum.

BENGAL: Calcutta; Malda (W. H. Irvine).

MADRAS: Salam, Namakal, 800 ft., xi. 1934 (D. A. Thrower).

CENTRAL INDIA: Jhansi, end of July (R. W. G. Hingston).

BOMBAY: Sholapur.

CEYLON: Hambanosta, 31. x. 1908 (T. B. Fletcher).

CHINA (Fry Collection).

It has also been recorded from BOMBAY: Nasik, xii. 1913 (N. B. Kinnear). From these records it is seen that the species has a very wide distribution.

**Egg.**—Oval, somewhat flattened, surface smooth, margins all round with spicules, laid on the leaf of the food-plant and cemented to the surface by a transparent adhesive substance which completely covers the egg. Colour yellow, darkening with age. Length, 1.59 mm.; breadth, 0.847 mm.

**Hatching of the egg.**—On the sixth day the egg hatches. From the pole of the egg the larva pushes itself out with the head foremost, but upside down, so that in emerging it secures itself by catching hold of the egg shell which remains intact after the larva has come out.

**Newly hatched larva.**—Almost transparent, faintly green. Body broad anteriorly tapering posteriorly, with the spinose projections all round. The mobile supra-anal prolongations are, of course, bare. Length, exclusive of the prolongations, 1.59 mm.; after 10 days: Length, 5.08 mm.; after 18 days: Length, 10.00 mm.

**Larger larva.**—Body ovate with 32 spinose projections all round the body, 16 on each side of the median longitudinal line; in addition two supra-anal prolongations without spines, usually carrying the accumulated cast skins and other discarded material.

**Colour and pattern on body.**—Colour of the living larva, according to Hingston, is dark brown, almost to black. In a cleared specimen the pattern is distinctly seen and consists of a median light stripe which is broader on the thoracic segments and gradually narrowing to a faint line on the abdominal tergites, and a transverse series of light round spots on each tergite except the prothoracic. The dark colour is apparently due to fine wrinkles of the surface. Under a higher magnification a minute spinule is seen at the centre of each light spot.

**Number of segments in the body.**—Head 1+thorax 3 +abdomen 8=12 segments.

**How the structure on the supra-anal prolongations is built.** At the tail end of the body is a short cylindrical projection with its apex directed upwards. It moves in a vertical plane which lies along the longitudinal middle line of the body so that it can touch the body when it