

CATALOGUS INSECTORUM SINENSIIUM

(CATALOGUE OF CHINESE INSECTS)

By

CHENFU F. WU, M. A., PH. D.

Professor of Zoology, Yenching University,

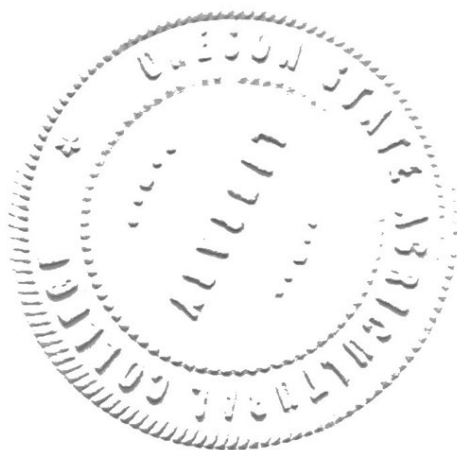
Peiping, China

Visiting Professor of Entomology,

Cornell University, U.S.A.

(1933-1934)

VOLUME I.



PUBLISHED BY

THE FAN MEMORIAL INSTITUTE OF BIOLOGY

PEIPING, CHINA.

April 1, 1935.

ORDER XI. MALLOPHAGA

Superfamily AMBLYGERA

Amblycera Kellogg, New Mallophaga, Pt. I, p. 68 (1896).

Kellogg, Gen. Ins., Fasc. 66, p. 52 (1908).

Harrison, Parasit. IX, p. 29 (1916).

FAMILY MENOPONIDAE

Menoponidae Mjöberg, Studien über Malloph. u. Anopl. p. 26 (1910).

Harrison, Parasit. IX, p. 32 (1916).

Subfamily Menoponinae

Menoponinae Harrison, Parasit. IX, p. 32 (1916).

Genus **MENOPON** Nitzsch

Menopon Nitzsch, in Germar, Mag. f. Insekt. III, p. 299 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 60 (1908).

Harrison, Parasit. IX, p. 32 (1916).

M. **albipes** Giebel

Giebel, Ins. Epiz. p. 280 (1874).

Giebel, Zeits. f. Ges. Naturw. XLVII, p. 250.

Harrison, Parasit. IX, p. 33 (1916).

albiceps Kellogg, Gen. Ins., Fasc. 66, p. 60 (1908).

Kellogg & Paine, Rec. Ind. Mus. X, p. 242 (1914).

CHINA: Foochow (on *Garrulus sinensis*).

HOST: *Lobivanellus albiceps*.

M. **eurum** Piaget

Piaget, Les Pediculines, p. 502, pl. 40, f. 3 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 63 (1908).

Harrison, Parasit. IX, p. 36 (1916).

CHINA: Soochow (on Pigeon).

HOST: *Carbo javanicus*.

M. **eurysternum** Nitzsch

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 439 (1838).

Nitzsch, in Giebel, Ins. Epiz. p. 283, pl. 15, f. 4 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 63 (1908).

Harrison, Parasit. IX, p. 36 (1916).

CHINA: Soochow (on Magpie).

HOSTS: *Pica melanoleuca*, *P. leucoptera*.

M. **fulvomaculatum** Denny

Denny, Anopl. Brit. p. 218, pl. 21, f. 6 (1842).

Harrison, Parasit. IX, pp. 37, 40, 43 (1916).

majus Piaget, Les Pedicul. p. 462 (1880) (nec p. 441).

productum Piaget, Les. Pedicul. p. 461, pl. 37, f. 8 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 67 (1908).

Kellogg & Paine, Rec. Ind. Mus. X, p. 231 (1914).

CHINA: (on *Chrysolophus pictus*).

India.

HOSTS: *Phasianus pictus*, *P. colchicus*.

M. gallinae Linnaeus

Linnaeus, Syst. Nat. p. 613 (1758).

Harrison, Parasit. IX, pp. 37, 42, 46 (1916).

pallidum Nitzsch, in Burmeister, Handb. d. Ent. II, p. 440 (1830).

Nitzsch, in Giebel, Ins. Epiz. p. 291, pl. 17, f. 11, pl. 19, f. 2-5 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 66 (1908).

trigonocephalum Olfers, De vegetativis etc. p. 90 (1876).

Cosmopolitan, Europe, America,

HOSTS: *Gallus domesticus*, fowls, pigeons, ducks.

M. monochromateum Kellogg & Paine

Kellogg & Paine, Rec. Ind. Mus. X, p. 240 (1914).

Harrison, Parasit, IX, p. 41 (1916).

CHINA: Tibet (on *Graculus graculus*).

India.

M. planiceps Piaget

Piaget, Les Pediculines, Suppl. p. 115, pl. 12, f. 6 (1885).

Kellogg, Gen. Ins., Fasc. 66, p. 67 (1908).

Harrison, Parasit. IX, p. 43 (1916).

CHINA: Soochow (on Cuckoo).

HOST: *Ardea leucolopha*.

M. stramineum Nitzsch

Nitzsch, in Giebel, Ins. Epiz. pp. 291 (1874).

Harrison, Parasit. IX, pp. 34, 40, 45 (1916).

biseriatum Piaget, Les Pedicul. p. 469, pl. 37, f. 2 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 61 (1908).

meleagrides Panzer, Faun. Ins. Germ. p. 51, f. 20 (1793).

(nec *Pediculus meleagrides* Linnaeus, Syst. Nat. p. 613 (1758).

Cosmopolitan, Maryland.

HOSTS: *Euplocamus cuvieri*, *Gallus domesticus*, *Phasianus colchicus*, *Pavo speciferus*,
Meleagris gallopavo, Domestic fowl.

Genus **COLPOCEPHALUM** Nitzsch

Colpocephalum Nitzsch, in Germar, Mag. f. Insekt. VII, p. 298 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 53 (1908).

Harrison, Parasit, IX, p. 46 (1916).

C. flavescens Nitzsch

- Nitzsch, in Lyonet, Mem. Mus. XVIII, p. 262, pl. 12 (1829).
 Nitzsch, in Giebel, Ins. Epiz. p. 262, pl. 13, f. 10, pl. 19, f. 3, 4, 7 (1874).
 Denny, Anopl. Brit. p. 206 (1842).
 Piaget, Les Pedicul. p. 515 (1880).
 Kellogg, Gen. Ins., Fasc. 66, p. 55 (1908).
 Harrison, Parasit. IX, p. 49 (1916).

Cosmopolitan, Kansas, California, Alaska, Iowa, Arctic Ocean, Galapagos Is.

HOSTS: *Haliaetus albicilla*, *Milvus regalis*, *Astur palumbarius*, *Falco peregrinus*, *Pernis apivorus*, *Aquila naevia*, *Gybaetos barbatus*, *Harpyia destructor*, *Haliaetus leucogaster*, *Buteo vulgaris*, *Circus cinereus*, *Nyctea nivea*, *Haliaetus leucocephalus*, *Archibuteo sanctijohannis*, *Aquila chrysaetos*, *Haliaetus pelagicus*, *Elanoides forficatus*, *Buteo galapagensis*, *Fregata aquila*.

C. subflavescens Piaget

- Piaget, Les Pedicul. p. 571, pl. 48, f. 2 (1880).
 Kellogg, Gen. Ins., Fasc. 66, p. 59 (1908).
 Harrison, Parasit. IX, p. 55 (1916).

CHINA: Soochow (on Kite).

HOST: *Zenorhynchus senegalensis*.

Genus **MYRSIDEA** Waterston

Myrsidea Waterston, Ent. Mon. Mag. p. 12 (1915).

Harrison, Parasit. IX, p. 57 (1916).

M. nigrum (Kellogg & Paine)

- Kellogg & Paine, Bull. Ent. Res. p. 151, pl. 5, f. 4 (1911) (*Menopon*).
 Kellogg & Paine, Rec. Ind. Mus. X, p. 242 (1914) (*Menopon*).
 Harrison, Parasit. IX, pp. 41, 59 (1916).

CHINA: Foochow (on *Corvus macrorhynchus*).

M. picae (Denny)

- Denny, Anopl. Brit. p. 213, pl. 18, f. 6 (1842) (*Menopon*).
 Piaget, Les Pedicul. p. 433 (1880) (*Menopon*).
 Kellogg, Gen. Ins., Fasc. 66, p. 67 (1908) (*Menopon*).
 Kellogg & Paine, Rec. Ind. Mus. X, p. 242 (*Menopon*).
 Harrison, Parasit. IX, pp. 43, 59 (1916).

CHINA: Tibet (on *Graculus graculus*).

Genus **TRINOTON** Nitzsch

Trinoton Nitzsch, in Germar, Mag. f. Insekt. VIII, p. 300 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 70 (1908).

Harrison, Parasit. IX, p. 61 (1916).

T. querquedulae Linnaeus

Linnaeus, Syst. Nat., Ed. X, p. 612 (1758).

Harrison, Parasit. IX, p. 62 (1916).

viridum Nitzsch, in Burmeister, Handb. d. Ent. II, p. 441 (1838).

Nitzsch, in Giebel, Ins. Epiz. p. 258, pl. 18, f. 7 (1874).

Piaget, Les Pedicul. p. 597 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 71 (1908).

squalidum Denny, Anopl. Brit. p. 235 (1842).

clangulae Fabricius, Faun. Groen. p. 217 (1780).

gracile Grube, Sib. Reise, Zool. I, p. 494, pl. 32, f. 6.

lari De Geer, Mem. Hist. Ins. VII, p. 77, pl. 4, f. 12 (1778).

pygmaeum Kolenati, Melet. Ent. V, p. 139, pl. 19, f. 5 (1846).

Cosmopolitan, Alaska, California, Galapagos Islands.

HOSTS: *Anas acuta*, *A. boschas*, *A. rufina*, *A. clypeata*, *A. bahamensis*, *A. marila*, *A. querquedula*, *A. clangula*, *A. crecca*, *Mareca penelope*, *Mergus merganser*, *M. albellus*, *M. serrator*, *Anas carolinensis*, *A. americana*, *Aythya marila nearctica*, *Spatula clypeata*, *Erisnatura rubida*, *Urinator pacificus*, *Dafila acula*, *Anas versicolor*, *Haematopus galapagensis*.

FAMILY RICINIDAE

Ricinidae Neumann, Bull. Soc. Toulouse, XXIV, p. 55 (1890).

Harrison, Parasit. IX, p. 66 (1916).

Genus **RICINUS** De Geer

Ricinus De Geer, Mem. pour servir a l'hist. des Insectes VII, p. 69 (1778).

Harrison, Parasit. IX, p. 66 (1916).

Physotomum Nitzsch, in Germar, Mag. f. Insekt. VII, p. 302 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 71 (1908).

R. **elongatus** Olfers

Olfers, De vegetativis etc. p. 88 (1816).

Harrison, Parasit. IX, pp. 66, 67 (1916).

mystax Nitzsch, in Burmeister, Handb. d. Ent. II, p. 442 (1838) (*Physotomum*).

Nitzsch, in Giebel, Ins. Epiz. p. 254, pl. 18, f. 2-3 (1874) (*Physotomum*).

Kellogg, Gen. Ins., Fasc. 66, p. 72 (1908) (*Physotomum*).

Cosmopolitan.

HOSTS: *Turdus pilaris*, *T. torquatus*, *T. ruficollis*, *T. merula*.

Superfamily ISCHNOCERA

Ischnocera Kellogg, New Mallophaga, Pt. I, p. 63 (1896).

Kellogg, Gen. Ins., Fasc. 66, p. 6 (1908).

Harrison, Parasit. IX, p. 68 (1916).

FAMILY TRICHODECTIDAE

Trichodectidae Burmeister, Handb. d. Ent. II, p. (1838).

Kellogg, Gen. Ins., Fasc. 66, p. 6 (1908).

Harrison, Parasit. IX, p. 68 (1916).

Genus **TRICHODECTES** Nitzsch

Trichodectes Nitzsch, in Germar, Mag. f. Insekt. VII, p. 294 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 6 (1908).

Harrison, Parasit. IX, p. 68 (1916).

T. bovis Linnaeus

Linnaeus, Syst. Nat., Ed. X, p. 611 (1758).

Harrison, Parasit. IX, pp. 69, 72 (1916).

scalaris Nitzsch, in Burmeister, Handb. d. Ent. II, p. 436 (1838).

Denny, Anopl. Brit. p. 191 (1842).

Giebel, Ins. Epiz. p. 61, pl. 3, f. 7, 9 (1874).

Piaget, Les Pedicul. p. 396 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 8 (1908).

tauri Olfers, De vegetativis etc. p. 85 (1880).

CHINA: Kiangsu (on cow and goat).

Europe, America.

HOST: *Bos taurus*.

T. canis (De Geer)

De Geer, Mem. Hist. Ins. VII, p. 81, pl. 4, f. 16 (1778) (*Ricinus*).

Harrison, Parasit. IX, pp. 69, 70 (1916).

latus Nitzsch, in Burmeister, Handb. d. Ent. II, p. 436 (1838).

Denny, Anopl. Brit. p. 188 (1842).

Giebel, Ins. Epiz. p. 53, pl. 3, f. 2-3 (1874).

Piaget, Les Pedicul. p. 384 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 7 (1908).

octopunctatus Leach, M. S., in Denny, List Brit. Anopl. p. 29 (1852).

setosus Olfers, De vegetativis etc. p. 84 (1816) (*Pediculus*).

Cosmopolitan, Europe, America.

HOST: *Canis familiaris*.

T. cervi Linnaeus

Linnaeus, Syst. Nat., Ed. X, p. 611 (1758).

Harrison, Parasit. IX, pp. 69, 71 (1916).

longicornis Nitzsch, in Burmeister, Handb. d. Ent. II, p. 436 (1838).

Giebel, Ins. Epiz. p. 60, pl. 3, f. 8 (1874).

Piaget, Les Pedicul. p. 400 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 7 (1908).

similis Denny, Anopl. Brit. p. 194, pl. 17, f. 6 (1842).

Cosmopolitan.

HOST: Deer, *Cervus elaphus*.

T. pinguis Nitzsch

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 438 (1838).

Giebel, Ins. Epiz. p. 53, pl. 3, f. 1 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 8 (1908).

Harrison, Parasit. IX, p. 72 (1916).

Cosmopolitan.

HOST: Bear, *Ursus arctos*.

T. subrostratus Nitzsch

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 436 (1838).

Giebel, Ins. Epi. p. 55, pl. 3, f. 5 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 8 (1908).

Harrison, Parasit. IX, p. 73 (1908).

Cosmopolitan, Europe, America.

HOST: *Felis domestica*.

FAMILY PHILOPTERIDAE

Philopteridae Burmeister, Handb. d. Ent. II, p. 422 (1838).

Kellogg, Gen. Ins., Fasc. 66, p. 9 (1908).

Harrison, Parasit. IX, p. 74 (1916).

Subfamily Gonioidinae

Gonioidinae Mjöberg, Studien über Malloph. u. Anopl. p. 26 (1910).

Harrison, Parasit. IX, p. 74 (1916).

Genus **GONIODES** Nitzsch

Goniodes Nitzsch, in Germar, Mag. f. Insekt. VII, p. 293 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 47 (1908).

Harrison, Parasit. IX, p. 74 (1916).

G. **colchicus** Denny

Denny, Anopl. Brit. p. 158, pl. 12, f. 4 (1842).

Kellogg, Gen. Ins., Fasc. 66, p. 48 (1908).

Kellogg & Paine, Rec. Ind. Mus. X, p. 229 (1914).

Harrison, Parasit. IX, p. 75 (1916).

CHINA: (on *Chrysolophus pictus*).

England, India.

HOSTS: *Phasianus colchicus*, *P. reevesi*, *P. pictus*.

G. **dissimilis** Nitzsch

Nitzsch, in Denny, Anopl. Brit. p. 162 (1842).

Giebel, Ins. Epiz. p. 201 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 48 (1908).

Harrison, Parasit. IX, p. 76 (1916).

CHINA: Soochow (on Chicken).

HOSTS: *Gallus domesticus*, *G. furcatus*.

G. **meleagrides** Linnaeus

Linnaeus, Syst. Nat., Ed. X, p. 613 (1758).

Harrison, Parasit. IX, p. 76 (1916).

stylifer Nitzsch, in Burmeister, Handb. d. Ent. II, p. 432 (1838).

Giebel, Ins. Epiz. p. 200, pl. 13, f. 1 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 49 (1908).

styliferum Taschenberg, Die Mallophagen, p. 47 (1882).

Cosmopolitan, Europe, Maryland.

HOST: *Meleagris gallopavo*.

G. **spinicornis** Nitzsch

Nitzsch, in Giebel, Zeits. f. Ges. Nat. XXVIII, p. 389 (1866).

Harrison, Parasit. IX, pp. 75, 79 (1916).

bicuspidatus Piaget, Les Pedicul. p. 278, pl. 23, f. 3 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 47 (1908).

Kellogg & Paine, Rec. Ind. Mus. X, p. 229 (1914).

CHINA : (on *Tragopan caboti*).

India.

HOSTS : *Tragopan satyrus*, *T. temmincki*.

Genus **GONIOCOTES** Burmeister

Goniocotes Burmeister, Handbuch d. Ent. II, p. 431 (1835).

Kellogg, Gen. Ins., Fasc. 66, p. 31 (1908).

Harrison, Parasit. IX, p. 79 (1916).

G. gigas Taschenberg

Taschenberg, Zeitschr. f. ges. Naturw. LII, p. 104, pl. 1, f. 10 (1869).

Kellogg, Gen. Ins., Fasc. 66, p. 33 (1908).

Harrison, Parasit. IX, pp. 79, 81 (1916).

abdominalis Piaget, Les Pedicul. p. 238, pl. 20, f. 9 (1880).

Kellogg, Gen. Ins., Fasc. 66, p. 31 (1908).

hologaster Denny, Anopl. Brit. p. 153, pl. 12, f. 4 (1842) (nec Nitzsch 1839).

Cosmopolitan.

HOST : Domestic fowl, *Gallus domesticus*.

Genus **LIPEURUS** Nitzsch

Lipeurus Nitzsch, in Germar, Mag. f. Insekt. VII, p. 292 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 36 (1908).

Harrison, Parasit. IX, p. 83 (1916).

L. caponis Linnaeus

Linnaeus, Syst. Nat., Ed. X, p. 614 (1758).

Harrison, Parasit. IX, pp. 83, 85 (1916).

variabilis Nitzsch, in Burmeister, Handb. d. Ent. II, p. 434 (1838).

Giebel, Ins. Epiz. p. 219, pl. 16, f. 3 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 45 (1908).

Kellogg & Paine, Rec. Ind. Mus. X, p. 221 (1914).

CHINA : (on *Chrysolophus pictus*).

America, India.

HOSTS : *Gallus domesticus*, *G. furcalus*, *Pavo spiciferus*, *Phasianus pictus*, *Ph. colchicus*.

L. heterographus Nitzsch

Nitzsch, in Giebel, Zeits. f. ges. Nat. XXXVIII, p. 381 (1866).

Giebel, Ins. Epiz. p. 218 (1874).

Kellogg, Gen. Ins., Fasc. 66, p. 40 (1908).

Harrison, Parasit. IX, p. 84 (1916).

obscurus Giebel, Ins. Epiz. p. 220 (1874).

Cosmopolitan, Iowa, Nebraska.

HOSTS : *Gallophasis curvieri*, *Gallus domesticus*, *Phasianus pictus*, *Ardea cinerea* (straggler), *Perdix saxatilis*, *P. graeca*, Domestic fowl, Domestic duck.

Subfamily Philopterinae

Philopterinae Harrison, Parasit. IX, p. 86 (1916).

Genus **PHILOPTERUS** Nitzsch

Philopterus Nitzsch, in Germer, Mag. f. Insekt. VII, p. 288 (1818).

Harrison, Parasit. IX, p. 86 (1916).

Docophorus Nitzsch, in Germer, Mag. f. Insekt. VII, p. 289 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 9 (1908).

P. auritus Scopoli

Scopoli, Ent. Carn. p. 383 (1763).

Harrison, Parasit. IX, pp. 88, 105 (1916).

superciliosus Nitzsch, in Burmeister, Handb. d. Ent. II, p. 427 (1838) (*Docophorus*).

Giebel, Ins. Epiz. p. 94, pl. 10, f. 3 (1874) (*Docophorus*).

Kellogg, Gen. Ins., Fasc. 66, p. 19 (1908) (*Docophorus*).

CHINA: Soochow (on Crow).

HOSTS: *Picus major*, *Picus viridis*, *Dryobates villosus* (U. S. A.).

P. corvi Linnaeus

Linnaeus, Syst. Nat., Ed. X, p. 612 (1758).

Harrison, Parasit. IX, pp. 88, 92 (1916).

atratus Nitzsch, in Denny, Anopl. Brit. p. 63, pl. 4, f. 8 (1842) (*Docophorus*)

Giebel, Ins. Epiz. p. 81, pl. 8, f. 10 (1874) (*Docophorus*).

Kellogg, Gen. Ins., Fasc. 66, p. 10 (1908) (*Docophorus*).

Kellogg & Paine, Rec. Ind. Mus. X, p. 233 (1914) (*Docophorus*).

adustus Olfers, De vegetativis etc. p. 87 (1816) (*Docophorus*).

CHINA: Soochow (on Magpie), Chinese Turkestan, Kashgar (on *Corvus cornix* and *Corvus corone*), Tibet (on *Corvus corax*), Peiping (on *Corvus dauricus*).

India.

HOSTS: *Corvus frugilegus*, *C. corone*, *C. dauricus*, *Cyanocorax cristatus*.

P. graculae (Piaget)

Piaget, Les Pedicul. p. 67, pl. 5, f. 7 (1880) (*Docophorus*).

Kellogg & Paine, Rec. Ind. Mus. X, p. 234 (1914) (var. of *Docophorus leontodon* Nitzsch).

Harrison, Parasit. IX, p. 95 (1916).

CHINA: Foochow (on *Dendrocitta sinensis*).

India.

HOSTS: *Gracula religiosa*, *Bombycilla garrula*.

P. melanocephalus (Nitzsch)

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 426 (1838) (*Docophorus*).

Giebel, Ins. Epiz. p. 110, pl. 11, f. 8 (1874) (*Docophorus*).

Kellogg, Gen. Ins., Fasc. 66, p. 17 (1908) (*Docophorus*).

Harrison, Parasit. IX, p. 99 (1916).

Cosmopolitan, Paraguay, Obi, Galapagos Islands, Egypt, Minnesota, Alaska, California, W. Pacific Ocean.

HOSTS: *Sterna cantianca*, *Parus cirrhocephalus*, *Sterna hirundo*, *Sterna fassipes*, *Sterna gracilis*, *Sterna fuliginosus*, *Anous galapagensis*, *Nesomimus macdonaldi*, *Sterna burgii*, *Sterna forsteri*, *Stercorarius parasiticus*, *Oidemia* (straggler?), *Creagrus furcatus*, *Sterna pomarinus*, *Sterna maxima*, Great Cayenne tern.

P. meropis (Denny)

Denny, Anopl. Brit. pp. 101, pl. 4, f. 4 (1842) (*Docophorus*).

Harrison, Parasit. IX, pp. 89, 99 (1916).

bifrons Nitzsch, in Giebel, Zeits. f. Ges. Nat. XXVII, p. 116 (1866) (*Docophorus*).

Giebel, Ins. Epiz. p. 61 (1874) (*Docophorus*).

Kellogg, Gen. Ins., Fasc. 66, p. 10 (1908) (*Docophorus*).

CHINA: Soochow (on Cuckoo).

HOST: *Merops apiaster*.

P. platystomus (Nitzsch)

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 426 (1838) (*Docophorus*).

Giebel, Ins. Epiz. p. 69, pl. 9, f. 5 (1874) (*Docophorus*).

Kellogg, Gen. Ins., Fasc. 66, p. 18 (1908) (*Docophorus*).

Harrison, Parasit. IX, p. 102 (1916).

CHINA: Soochow (on Kite).

Costa Rica, Rhode Island, Iowa.

HOSTS: *Buteo vulgaris*, *Buteo borealis costaricensis*, *Buteo abbreviatus*, *Accipiter velox*, *Buteo swainsonii*, *Aquila imperialis*, *Haliastur indus*.

P. sturni Schrank

Schrank, Beitrage, p. 118, pl. 5, f. 11 (1776).

Harrison, Parasit. IX, pp. 97, 104 (1916).

lecnodon Nitzsch, in Burmeister, Handb. d. Ent. II, p. 425 (1838) (*Docophorus*).

Giebel, Ins. Epiz. p. 90, pl. 11, f. 4, 7, (1874) (*Docophorus*).

Kellogg, Gen. Ins., Fasc. 66, p. 16 (1908) (*Docophorus*).

ostralegi Denny, Anopl. Brit. p. 74, pl. 5, f. 4 (1842) (*Docophorus*).

pastoris Denny, Anopl. Brit. p. 77, pl. 4, f. 3 (1842) (*Docophorus*).

CHINA: Foochow (on *Dendrocitta sinensis*).

India.

HOSTS: *Sturnus vulgaris*, domestic pigeon.

* Genus **DEGEERIELLA** Neumann

Degeeriella Neumann, Bull. Soc. Zool. France, XX, p. 59 (1906) (nec Hermann 1804).

Harrison, Parasit. IX, p. 107 (1916).

Nirmus Nitzsch, in Germar, Mag. f. Insekt. VII, p. 291 (1818).

Kellogg, Gen. Ins., Fasc. 66, p. 20 (1908).

D. biguttatus (Kellogg & Paine)

Kellogg & Paine, Rec. Ind. Mus. X, p. 234 (1914) (*Nirmus*).

Harrison, Parasit. IX, p. 109 (1916).

CHINA: Tibet (on *Graculus graculus*).

India.

D. brachythorax (Giebel)

Giebel, Ins. Epiz. p. 134, pl. 12, f. 8 (1874) (*Nirmus*).

Kellogg, Gen. Ins., Fasc. 66, p. 22 (1908) (*Nirmus*).

Harrison, Parasit. IX, p. 109 (1916).

CHINA: Soochow (on Goose).

California, Iowa.

HOSTS: *Ampelis garrula*, *A. carolinensis*, *A. cedrorum*.

D. densilimbus (Nitzsch)

Nitzsch, in Giebel, Zeits. f. ges. Nat. XXVIII, p. 368 (1866) (*Nirmaus*).

Giebel, Ins. Epiz. p. 138 (1874) (*Nirmaus*).

Kellogg, Gen. Ins., Fasc. 66, p. 23 (1908) (*Nirmaus*).

Harrison, Parasit. IX, p. 111 (1916).

CHINA: Soochow (on Hawfinch).

HOSTS: *Fringilla carduelis*, *Pyrrhula vulgaris*.

D. fusca (Nitzsch)

Nitzsch, in Denny, Anopl. Brit. p. 118, pl. 9, f. 8 (1842).

Harrison, Parasit. IX, p. 113 (1916).

aeruginosi Leach, M. S., in Denny, Anopl. Brit. p. 16 (1852) (*Nirmaus*).

aguiæ Gervais, Aptères, III, p. 350 (1847) (*Nirmaus*).

appendiculata Piaget, Les Pedicul. p. 132, pl. 11, f. 2 (1880) (*Nirmaus*).

fasciata Rudow, Zeits. f. Ges. Nat. XXXV, p. 468 (1870) (*Nirmaus*).

flavida Giebel, Ins. Epiz. p. 301 (1874) (*Nirmaus*).

incerta Piaget, Les Pedicul. Suppl. p. 20, pl. 2, f. 9 (1885) (*Nirmaus*).

Kellogg, Gen. Ins., Fasc. 66, p. 26 (1908) (*Nirmaus*).

kunzei Giebel, Ins. Epiz. p. 125 (1874) (*Nirmaus*).

leucopleura Nitzsch, in Giebel, Zeits. f. Ges. Nat. XXVIII, p. 364 (1866) (*Nirmaus*).

platyrhyncha Lyonet, Mem. Mus. XVIII, p. 270, pl. 5, f. 4 (1829) (*Nirmaus*).

quadraticollis Rudow, Zeits. f. Ges. Nat. XXXV, p. 469 (1870) (*Nirmaus*).

regalis Giebel, Ins. Epiz. p. 127 (1874) (*Nirmaus*).

socialis Giebel, Ins. Epiz. p. 127 (1874) (*Nirmaus*).

stenorhyncha Giebel, Ins. Epiz. p. 129 (1874) (*Nirmaus*).

vittata Giebel, Ins. Epiz. p. 127 (1874) (*Nirmaus*).

CHINA: Soochow (on Kite).

HOST: *Totanus glottis*.

D. olivaceus (Nitzsch)

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 431 (1838) (*Nirmaus*).

Giebel, Ins. Epiz. p. 131, pl. 6, f. 10 (1874) (*Nirmaus*).

Kellogg, Gen. Ins., Fasc. 66, p. 27 (1908) (*Nirmaus*).

Kellogg & Paine, Rec. Ind. Mus. X, p. 236 (1914) (*Nirmaus*).

Harrison, Parasit. IX, p. 119 (1916).

CHINA: Yunnan (on *Corvus macrorhynchos*).

India.

HOSTS: *Nucifraga caayocatates*, *Phasianus pictus*.

D. rufus (Nitzsch)

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 430 (1838) (*Nirmaus*).

Giebel, Ins. Epiz. p. 124, pl. 7, f. 11-12 (1874) (*Nirmaus*).

Kellogg, Gen. Ins., Fasc. 66, p. 29 (1908) (*Nirmaus*).

Kellogg & Paine, Rec. Ind. Mus. X, p. 238 (1914) (*Nirmus*).

Harrison, Parasit. IX, p. 122 (1916).

CHINA: Chinese Turkestan (on *Corvus sharpi*).

HOSTS: *Falco tinnunculus*, *F. tinnunculoides*, *F. subbuteo*, *F. peregrinus*, *F. rufipes*,
Spizaeus cirratus, *Strix brachyotus*, *Asar nisus*, *A. palumbarius*, *Buteo lagopus*.

D. sinensis Sugimoto

Sugimoto, Journ. Jap. Soc. Vet. Sci. IX (3), p. 249, pls. X-XI (1930).

CHINA: S. China.

Formosa.

D. uncinus (Nitzsch)

Nitzsch, in Burmeister, Handb. d. Ent. II, p. 430 (1838) (*Nirmus*).

Giebel, Ins. Epiz., p. 131, pl. 7, f. 1 (1874) (*Nirmus*).

Kellogg, Gen. Ins., Fasc. 66, p. 31 (1908) (*Nirmus*).

Harrison, Parasit. IX, p. 125 (1916).

Cosmopolitan.

HOSTS: Crow, *Corvus corax*, *C. cornix*, *C. corone*, *C. scapularis*.

Subfamily Esthiopterinae

Esthiopterinae Harrison, Parasit. IX, p. 129 (1916).

Genus **ESTHIOPTERUM** Harrison

Esthiopterum Harrison, Parasit. IX, pp. 26, 129 (1916).

E. anseris (Linnaeus)

Linnaeus, Syst. Nat. Ed. X, p. 612 (1758) (*Lipeurus*).

Harrison, Parasit. IX, pp. 130, 136 (1916).

crassicorne Olfers, De vegetativis etc. p. 88 (1816) (*Lipeurus*).

cygnoides Rudow, Zeit. f. Ges. Nat. XXXV, p. 129 (1870) (*Lipeurus*).

cygnopse Rudow, Zeit. f. Ges. Nat. XXXV, p. 129 (1870) (*Lipeurus*).

jejunum Nitzsch, in Denny, Anopl. Brit. p. 177, pl. 15, f. 4 (1842) (*Lipeurus*).

Giebel, Ins. Epiz. p. 240, pl. 20, f. 5, 7 (1874) (*Lipeurus*).

Kellogg, Gen. Ins., Fasc. 66, p. 41 (1908) (*Lipeurus jejunus*).

lacteam Giebel, Ins. Epiz. p. 243 (1874) (*Lipeurus*).

serratum Nitzsch, in Giebel, Zeit. f. Ges. Nat. XXVIII, p. 385 (1866) (*Lipeurus*).

CHINA: Soochow (on Duck and Goose).

America, Italy.

HOSTS: *Anser domesticus*, *A. cinereus*, *A. canadensis*, *A. aegypticus*, *A. albifrons*,

A. aegypticus gambeli, *Himantopus caudatus*.

E. columbae (Linnaeus)

Linnaeus, Syst. Nat. Ed. X, p. 614 (1758) (*Lipeurus*).

Harrison, Parasit. IX, pp. 131, 132 (1916).

angustum Rudow, Beitrag. p. 34 (1869) (*Lipeurus*).

bacillum Nitzsch, in Giebel, Ins. Epiz. p. 215 (1874) (*Lipeurus*).

baculum Nitzsch, in Giebel, Zeit. f. Ges. Nat. XXVIII, p. 379 (1866) (*Lipeurus*).

Giebel, Ins. Epiz. p. 215, pl. 16, f. 8-9, pl. 20, f. 3 (1874) (*Lipeurus*).

Kellogg, Gen. Ins., Fasc. 66, p. 37 (1909) (*Lipeurus baculus*).

cavifrons Taschenberg, Nova Acta, p. 124 (1842) (*Lipeurus*).

filiforme Olfers, De vegetativis etc. p. 90 (1816) (*Lipeurus*).

Cosmopolitan, Europe, America, Italy, Galapagos Islands.

HOSTS: *Columba turtur*, *C. palumbus*, *C. livia*, Domestic Pigeon, *C. bistorta*, *C. migratoria*, *C. capensis*, *Sula alba*, *Charadrius minor* (straggler), *Falco aesalon*, *Phaps chalcoptera*, *Myristicivora reinwardti*, *Macropygia reinwardti*, *Carpophaga pinion*, *Columba zoeae*, *C. magnifica*, *C. luctuosa*, *Leucosarca plicata*, *Eutrygon terrestre*, *Ptilopus puellus*, *Anous stolidus*, *Geospiza fuliginosa*, *Nesomimus melanotis*, *Camarhynchus productus*, *Nesopelia galapagensis*.

E. crassicornis (Scopoli)

Scopoli, Ent. Carn. p. 383 (1763) (*Lipeurus*).

Harrison, Parasit. IX, p. 142 (1916).

anatis Fabricius, Syst. Ent. Suppl. p. 571 (1798) (*Lipeurus*).

angustolimbatum Giebel, Zeit. f. Ges. Nat. XXVIII, p. 386 (1866) (*Lipeurus*).

coloratum Piaget, Les Pedicul. p. 346 (1880) (*Lipeurus*).

constrictum Kellogg, New Mallophaga, I, p. 125, pl. 8, f. 7-8 (1896) (*Lipeurus*).

depuratum Nitzsch, in Giebel, Zeit. f. Ges. Nat. XXVIII, p. 385 (1866) (*Lipeurus*).

frater Giebel, Ins. Epiz. p. 242 (1874) (*Lipeurus*).

gracile Giebel, Ins. Epiz. pl. 242 (1874) (*Lipeurus*).

lepidotum Rudow, Beitrag. z. Kennt. Malloph. (1869) (*Lipeurus*).

majus Piaget, Les. Pedicul. p. 346 (1880) (*Lipeurus*).

nyrocae Rudow, Zeit. f. Ges. Nat. XXXVI, p. 128 (1870) (*Lipeurus*).

punctulatum Rudow, Zeit. f. Ges. Nat. XXXVI, p. 137 (1870) (*Lipeurus*).

rubromaculatum Rudow, Zeit. f. Ges. Nat. XXXVI, p. 128 (1870) (*Lipeurus*).

sordidum Giebel, Zeit. f. Ges. Nat. XXXVIII, p. 385 (1866) (*Lipeurus*).

squalidum Nitzsch, in Denny, Anopl. Brit. p. 176, pl. XIV (1842) (*Lipeurus*).

Giebel, Ins. Epiz. p. 241, pl. 16, f. 1 (1874) (*Lipeurus*).

Kellogg, Gen. Ins., Fasc. 66, p. 44 (1908) (*Lipeurus squalidus*).

tadornae Denny, Anopl. Brit. p. 170, pl. 14, f. 6 (1842) (*Lipeurus*).

Cosmopolitan, California, Kansas.

HOSTS: *Anas domestica*, *A. fucata*, *A. clypeata*, *A. acuata*, *A. crecca*, *A. boschas fera*, *A. stelleri*, *A. gloscitans*, *A. strepera*, *A. glacialis*, *A. spectabilis*, *A. fusca*, *A. mollissima*, *Merganetta armata*, *Merganser serrator*, *Eniconetha stelleri*, *Spatula clypeata*, *Charitonetta albeola*, *Anas bosca*, *Erismatura rubida*.

E. longisetaceus (Piaget)

Piaget, Les Pedicul. Suppl. p. 57, pl. 6, f. 4 (1885) (*Lipeurus*).

Kellogg, Gen. Ins., Fasc. 66, p. 43 (1908) (*Lipeurus*).

Harrison, Parasit. IX, p. 137 (1916).

CHINA: Soochow (on Pigeon)

HOST: *Tinamus solitarius*.

E. tuberculatus (Piaget)

Piaget, Les Pedicul. Suppl. p. 61, pl. 6, f. 8 (1885) (*Lipeurus*).

Kellogg, Gen. Ins., Fasc. 66, p. 45 (1908) (*Lipeurus*).

Harrison, Parasit. IX, p. 143 (1916).

CHINA: Soochow (on Chicken).

HOST: *Procellaria glacialis*.

INDEX TO GENERA AND SPECIES OF MALLOPHAGA

- abdominalis* Piaget (*Goniocotes*) 325
adustus Olfers (*Docophorus*) 326
aeruginosi Leach (*Nirmus*) 328
agniae Gervais (*Nirmus*) 328
albiceps Kellogg (*Menopon*) 319
albipes Giebel (*Menopon*) 319
AMBLYCERA (Superfamily) 319
anatis Fabricius (*Lipeurus*) 330
angustolimbatum Giebel (*Lipeurus*) 330
angustum Rudow (*Lipeurus*) 329
anseris Linnaeus (*Esthiopterum*) 329
appendiculata Piaget (*Nirmus*) 328
atratus Nitzsch (*Docophorus*) 326
auritus Scopoli (*Philopterus*) 326
bacillum Nitzsch (*Lipeurus*) 329
baculum Nitzsch (*Lipeurus*) 329
bicuspidatus Piaget (*Goniodes*) 324
bifrons Nitzsch (*Docophorus*) 327
biguttatus Kellogg & Paine (*Degeeriella*) 327
biseriatum Piaget (*Menopon*) 320
bovis Linnaeus (*Trichodectes*) 323
brachythorax Giebel (*Degeeriella*) 327
canis De Geer (*Trichodectes*) 323
caponis Linnaeus (*Lipeurus*) 325
cavifrons Taschenberg (*Lipeurus*) 329
cervi Linnaeus (*Trichodectes*) 323
clangulae Fabricius (*Trinoton*) 322
colchicus Denny (*Goniodes*) 324
coloratum Piaget (*Lipeurus*) 330
COLPOCEPHALUM Nitzsch 320
columbae Linnaeus (*Esthiopterum*) 329
constrictum Kellogg (*Lipeurus*) 330
corvi Linnaeus (*Philopterus*) 326
crassicorne Scopoli (*Esthiopterum*) 330
crassicorne Olfers (*Lipeurus*) 329
cygnoides Rudow (*Lipeurus*) 329
cygnopse Rudow (*Lipeurus*) 329
DEGEERIELLA Neumann 327
densilimbus Nitzsch (*Degeeriella*) 328
depuratum Nitzsch (*Lipeurus*) 330
dissimilis Nitzsch (*Goniodes*) 324
Docophorus Nitzsch 326
elongatus Olfers (*Ricinus*) 322
ESTHIOPTERINAE (Subfamily) 329
ESTHIOPTERUM Harrison 329
eurum Piaget (*Menopon*) 319
eurysternum Nitzsch (*Menopon*) 319
fasciata Rudow (*Nirmus*) 328
filiforme Olfers (*Lipeurus*) 330
flavescens Nitzsch (*Colpocephalum*) 321
flavida Giebel (*Nirmus*) 328
frater Giebel (*Lipeurus*) 330
fulvomaculatum Denny (*Menopon*) 319
fusca Nitzsch (*Degeeriella*) 328
gallinae Linnaeus (*Menopon*) 320
gigas Taschenberg (*Goniocotes*) 325
GONIOCOTES Burmeister 325
GONIODES Nitzsch 324
GONIODINAE (Subfamily) 324
gracile Giebel (*Lipeurus*) 330
gracile Grube (*Trinoton*) 322
graculae Piaget (*Philopterus*) 326
heterographus Nitzsch (*Lipeurus*) 325
hologaster Denny (*Goniocotes*) 325
incerta Piaget (*Nirmus*) 328
ISCHNOCERA (Superfamily) 322
jejunum Nitzsch (*Lipeurus*) 329
kunzei Giebel (*Nirmus*) 328
lacteum Giebel (*Lipeurus*) 329
lari De Geer (*Trinoton*) 322
latus Nitzsch (*Trichodectes*) 323
leontodon Nitzsch (*Docophorus*) 327
lepidotum Rudow (*Lipeurus*) 330
leucopleura Nitzsch (*Nirmus*) 328
LIPEURUS Nitzsch 325
longicornis Nitzsch (*Trichodectes*) 323
longisetaceus Piaget (*Esthiopterum*) 330
luridum Nitzsch (*Trinoton*) 321
majus Piaget (*Lipeurus*) 330
majus Piaget (*Menopon*) 320
MALLOPHAGA (Order) 319
melanocephalus Nitzsch (*Philopterus*) 326
meleagrides Linnaeus (*Goniodes*) 324
meleagrides Panzer (*Menopon*) 320
MENOPON Nitzsch 319

- MENOPONIDAE** (Family) 319
 MENOPONINAE (Subfamily) 319
 meropis Denny (*Philopterus*) 327
 monochromateum Kellogg & Paine
 (*Menopon*) 320
MYRSIDEA Waterston 321
mystax Nitzsch (*Physotomum*) 322
 nigrum Kellogg & Paine (*Myrsidea*) 321
Nirmaus Nitzsch 327
nyrocae Rudow (*Lipeurus*) 330
obscurus Giebel (*Lipeurus*) 325
octopunctatus Leach (*Trichodectes*) 323
 olivaceus Nitzsch (*Degeeriella*) 328
ostralegi Denny (*Docophorus*) 327
pallidum Nitzsch (*Menopon*) 320
pastoris Denny (*Docophorus*) 327
PHILOPTERIDAE (Family) 324
 PHILOPTERINAE (Subfamily) 326
PHILOPTERUS Nitzsch 326
Physotomum Nitzsch 322
 picae Denny (*Myrsidea*) 321
 pinguis Nitzsch (*Trichodectes*) 323
 planiceps Piaget (*Menopon*) 320
platyrhyncha Lyonet (*Nirmaus*) 328
 platystomus Nitzsch (*Philopterus*) 327
producium Piaget (*Menopon*) 320
punctulatum Rudow (*Lipeurus*) 330
pygmaeum Kolenati (*Trinoton*) 322
quadraticollis Rudow (*Nirmaus*) 328
 querquedulae Linnaeus (*Trinoton*) 321
regalis Giebel (*Nirmaus*) 328
RIGINIDAE (Family) 322
RIGINUS De Geer 322
rubromaculatum Rudow (*Lipeurus*) 330
 rufus Nitzsch (*Degeeriella*) 328
 scalaris Nitzsch (*Trichodectes*) 323
serratum Nitzsch (*Lipeurus*) 329
setosus Olfers (*Pediculus*) 323
similis Denny (*Trichodectes*) 323
 sinensis Sugimoto (*Degeeriella*) 329
socialis Giebel (*Nirmaus*) 328
sordidum Giebel (*Lipeurus*) 330
 spinicornis Nitzsch (*Goniodes*) 324
squalidum Nitzsch (*Lipeurus*) 330
squalidum Denny (*Trinoton*) 322
stenorhyncha Giebel (*Nirmaus*) 328
 stramineum Nitzsch (*Menopon*) 320
 sturni Schrank (*Philopterus*) 327
styliifer Nitzsch (*Goniodes*) 324
styliiferum Taschenberg (*Goniodes*) 324
 subflavescens Piaget (*Colpocephalum*) 321
 subrostratus Nitzsch (*Trichodectes*) 323
superciliosus Nitzsch (*Docophorus*) 326
tadornae Denny (*Lipeurus*) 330
taxeri Olfers (*Trichodectes*) 323
TRICHODECTES Nitzsch 322
TRICHODECTIDAE (Family) 322
trigonocephalum Olfers (*Menopon*) 320
TRINOTON Nitzsch 321
 tuberculatus Piaget (*Esthiopterum*) 330
 uncinosus Nitzsch (*Degeeriella*) 329
variabilis Nitzsch (*Lipeurus*) 325
vittata Giebel (*Nirmaus*) 328

ORDER XIV. ANOPLURA

- Anoplura Leach, Edinburg Encyclopedia (1817).
Enderlein, Zool. Anz. XXVIII, p. 121-147 (1904).
Mjöberg, Ark. f. Zool. VI, pt. 13 (1910).
Cummings, Ann. Mag. Nat. Hist. ser. 8, XV, p. 256-259 (1915).
Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 131 (1916).
Pediculinae Burmeister, Handb. d. Ent. II, p. 52 (1835).
Siphunculata Meinert, Videnskabelige Meddelelser (1896).
Cholodkovsky, Zool. Anz. XXVII, p. 527 (1904).
Pseudorhyncota Cholodkovsky, Zool. Anz. XXVII, p. 125 (1903).
Lipognatha Börner, Zool. Anz. XXVII, p. 527 (1904).
Ellipoptera Shipley, Zool. Anz. XXVII, p. 261 (1904).

FAMILY PEDICULIDAE

- Pediculidae Leach, Zool. Misc. III, p. 64 (1817).
Giebel, Insecta Epizoa, p. 21 (1874).
Piaget, Les Ped. p. 615-618 (1880).
Enderlein, Zool. Anz. XXVIII, p. 136 (1904).
Dalla Torre, Gen. Ins. Anopl. p. 8 (1908).
Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 135 (1916).

Subfamily Pediculinae

- Pediculinae Enderlein, Zool. Anz. XXVIII, pp. 136, 138 (1904).
Dalla Torre, Gen. Ins. Anopl. p. 8 (1908).
Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 135 (1916).

Genus **PEDICULUS** Linnaeus

- Pediculus* Linnaeus, Syst. Nat., Ed. X, p. 610 (1758).
Denny, Mon. Anopl. p. 12-13 (1842).
Giebel, Ins. Epizoa, p. 27-30 (1874).
Piaget, Les Ped. p. 619-623 (1880).
Enderlein, Zool. Anz. XXVIII, pp. 136, 138 (1904).
Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 136 (1916).

P. capitis De Geer

- De Geer, Mem. Hist. Ins. VII, p. 67, pl. 1, f. 6 (1778) (var. of *humanus* L.).
Nitzsch, Germar's Mag. III, p. 305 (1818).
Denny, Mon. Anopl. p. 13-16, pl. 26, f. 2 (1842).
Giebel, Ins. Epizoa, p. 30-32, pl. 1, f. 1-2 (1874).
Piaget, Les. Ped. p. 619-623, pl. 50, f. 2 (1880).
Fahrenheit, Jahreb. d. Niedersäch. Zool. Ver. p. 2-12, (1912).
Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 136 (1916).

humanus Linnaeus, Syst. Nat., Ed. X, p. 610 (1758).

humanus var. I, Linnaeus, Syst. Nat., Ed. XII, II, p. 1016 (1778).

cervicalis Leach, Zool. Misc. III, p. 66 (1817).

CHINA: Kiangsu.

Cosmopolitan.

HOSTS: Man, *Ateles ater*, *Cebus fatuellus*, *Cebus sp.*

P. corporis De Geer

De Geer, Mem. Hist. Ins. VII, p. 67, pl. 1, f. 7 (1778) (var. of *humanus* L.).

Dalla Torre, Gen. Ins. Anopl. p. 8 (1908).

Fahrenheit, Jahresb. d. Niedersäch. Zool. Ver. p. 2-12 (1912).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 137 (1916).

humanus Linnaeus, Syst. Nat. Ed. X, p. 610 (1758).

humanus var. 2, Linnaeus, Syst. Nat., Ed. XII, II, p. 1016 (1766).

vestimenti Nitzsch, Germar's Mag. III, p. 305 (1818).

Denny, Mon. Anopl. p. 16-18, pl. 26, f. 1 (1842).

Giebel, Ins. Epizoa, p. 27-30, pl. 1, f. 5 (1874).

Piaget, Les. Ped. p. 623-625, pl. 5, f. 3 (1880).

Neumann, Arch. de Par. XIV, p. 411-412 (1911) (var. of *capitis* De Geer).

CHINA: Peiping.

Cosmopolitan.

HOST: Man.

Genus **PHTHIRUS** Leach

Phthirus Leach, Edinburgh Encycl. IX, p. 77 (1815).

Leach, Zool. Misc. III, p. 64 (1817).

Enderlein, Zool. Anz. XXVIII, pp. 136, 138 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 9 (1908).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 138 (1916).

Phthirius Burmeister, Handb. d. Entom. II, p. 1 (1835).

Denny, Mon. Anopl. p. 8-9 (1842).

Giebel, Ins. Epizoa, p. 23-27, pl. 1, f. 8 (1874).

Piaget, Les. Ped. p. 628-630, pl. 51, f. 5 (1880).

P. pubis Linnaeus

Linnaeus, Syst. Nat., Ed. X, p. 611 (1758).

Enderlein, Zool. Anz. XXVIII, p. 136 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 9 (1908).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 138 (1916).

inguinalis Leach, Edinburgh Encycl. IX, p. 77 (1817).

Denny, Mon. Anopl. p. 9-11, pl. 26, f. 3 (1842).

Giebel, Ins. Epizoa, p. 23-27, pl. 1, f. 8 (1874).

Piaget, Les. Ped. p. 628-630, pl. 51, f. 5 (1880).

tabescentium Alt, De Phthoriasi (1818).

CHINA.

Cosmopolitan.

HOST: Man.

FAMILY HAEMATOPINIDAE

Haematopinidae Enderlein, Zool. Anz. XXVIII, pp. 136, 137 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 10 (1908).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 142 (1916).

Subfamily Haematopininae

Haematopininae Enderlein, Zool. Anz. XXVIII, pp. 136, 138 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 10 (1908).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 142 (1916).

Genus **HAEMATOPINUS** Leach

Haematopinus Leach, Zool. Misc. III, p. 64-65, f. 146 (1817).

Denny, Mon. Anopl. p. 24-25 (1842).

Giebel, Ins. Epizoa, p. 33-35 (1874).

Piaget, Les Ped. p. 633-635 (1880).

Enderlein, Zool. Anz. XXVIII, p. 138 (1904).

Neumann, Arch. de Par. XIII, p. 529-532 (1909).

Dalla Torre, Gen. Ins. Anopl. p. 10 (1908).

Kellogg & Ferris, Anopl. and Mall. p. 10 (1915).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 142 (1916).

H. asini (Linnaeus)

Linnaeus, Syst. Nat., Ed. X, p. 612 (1758) (*Pediculus*).

Stephens, Catalogue, II, p. 329 (1829).

Denny, Mon. Anopl. p. 32-33, pl. 25, f. 1 (1842).

Osborn, Bul. 7, o.s., U.S. Dept. Agr. Div. Ent. p. 21-22, f. 9 (1891).

Osborn, Bul. 5, n.s. U.S. Dept. Agr. Div. Ent. p. 180-181, f. 103 (1896).

Enderlein, Zool. Anz. XXVIII, p. 141 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 10 (1908).

Mjöberg, Arkiv. f. Zool. VI, pt. 13, p. 167 (1910).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 142 (1916).

macrocephalus Burmeister, Gen. Rhynch. No. 18 (1838) (*Pediculus*).

Giebel, Ins. Epizoa, p. 44-45, pl. 2, f. 5 (1874).

Piaget, Les Ped. p. 652-653, p. 53, f. 3 (1880).

equi Simmonds, Journ. Ag. Soc. Lond. (2) I, p. 60-62 (1865).

Cosmopolitan.

HOSTS: Horse, Ass, *Equus burchelli*.

H. eurysternus (Nitzsch)

Nitzsch, Germar's Mag. III, p. 305 (1818) (*Pediculus*).

Denny, Mon. Anopl. p. 29-30, pl. 25, f. 5 (1842).

Nitzsch, Zeit. f. ges. Naturw. XXIII, p. 27 (1864) (*Pediculus*).

Giebel, Ins. Epizoa, p. 41-42, pl. 2, f. 8 (1874).

Piaget, Les Ped. p. 648-650, pl. 53, f. 1 (1880).

Osborn, Bul. 7, o.s. U.S. Dept. Agr. Div. Ent. p. 13-16, f. 6 (1891).

Osborn, Bul. 5, n.s. U.S. Dept. Agr. Div. Ent. p. 172-175, f. 100 (1896).

Dalla Torre, Gen. Ins. Anopl. p. 11 (1908).

Neumann, Arch. de Par. XIII, p. 498-500 (1909).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 144 (1916).
tuberculatus var. *penicillatus* Piaget, Les Ped. Suppl. p. 146 (1885).

Cosmopolitan.

HOST: *Bos taurus*.

H. suis (Linnaeus)

Linnaeus, Syst. Nat., Ed. X, p. 611 (1758) (*Pediculus*).

Leach, Zool. Misc. III, p. 65, pl. 146 (1817).

Denny, Mon. Anopl. p. 34-35, pl. 25, f. 2 (1842).

Burmeister, Linnaea. Entom. II, p. 577, pl. 1 (1847).

Enderlein, Zool. Anz. XXVIII, p. 124 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 11 (1908).

Neumann, Arch. de Par. XIV, p. 406-490, f. 8a (1911).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 145 (1916).

urius Moufet, Theatrum Ins. p. 266 (1634) (*Pediculus*).

Nitzsch, Germar's Mag. III, p. 305 (1818) (*Pediculus*).

Giebel, Ins. Epizoa, p. 45-46, pl. 2, f. 6 (1874).

Piaget, Les Ped. p. 654-656, pl. 48, f. 4 (1880).

Osborn, Bul. 7, o.s. U.S. Dept. Agr. Div. Ent. p. 18-21, f. 8 (1891).

Osborn, Bul. 5, n.s. U.S. Dept. Agr. Div. Ent. p. 178-180, f. 102 (1896).

CHINA: Kiangsu.

Cosmopolitan.

HOST: Domestic Swine.

H. tuberculatus (Burmeister)

Burmeister, Gen. Rhyn. No. 20 (1839) (*Pediculus*).

Lucas, Ann. Soc. Ent. France, X, ser. 2, p. 529-533, pl. 11, No. 2 (1852).

Nitzsch, Zeit. f. ges. Naturw. XXIII, p. 32 (1864) (*Pediculus*).

Nitzsch, Zeit. f. ges. Naturw. XXVIII, p. 397 (1867).

Giebel, Ins. Epizoa, p. 46-47 (1874).

Piaget, Les Ped. p. 650-652, pl. 53, f. 2 (1880).

Enderlein, Zool. Anz. XXVIII, p. 140 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 11 (1908).

Neumann, Arch. de Par. XIII, p. 497-500, f. 1 (1909).

Mjöberg, Ark. f. Zool. VI, pt. 13, p. 167 (1910).

Neumann, Arch. de Par. XIV, p. 413-414 (1911).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 147 (1916).

del cammello Redi, Esperienze intorno alla generatione degl' insetti, pl. 20 (1668).

cameli Linnaeus, Syst. Nat., Ed. X, p. 611 (1758).

Gervais, Ateres III, p. 306 (1844).

Giebel, Ins. Epizoa, p. 47 (1874).

Piaget, Les Ped. p. 644 (1880).

Dalla Torre, Gen. Ins. Anopl. p. 11 (1908).

CHINA: Kiangsu, Soochow.

Vienna, India, Tonkin, Summatra, Rumania, N. America, Africa.

HOSTS: Chinese Buffalo, Indian Buffalo, *Bison bison*, *Camelus dromedarius*, African Camel.

Subfamily Linognathinae

Linognathinae Enderlein, Zool. Anz. XXIX, p. 194 (1905).

Dalla Torre, Gen. Ins. Anopl. p. 11 (1908).

Ferris, Proc. Calif. Acad. Sci. ser. 4, VI (6), p. 147 (1916).

Trichaulinae Enderlein, Zool. Anz. XXVIII, p. 138 (1904).

Genus **ENDERLEINELLUS** Fahrenholz

Enderleinellus Fahrenholz, Zool. Anz. XXXIX, p. 56 (1912).

Fahrenholz, 2-3-4th Jahresb. des Niedersäch. zool. Ver. zu Hannover, pp. 52, 58 (1912).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mammals, p. 40 Stanford Univ. Publ. (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 148 (1916).

Fahrenholz, Arch. f. Naturg. 81 A, p. 29 (1916).

E. dremomydis Ferris

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci., I, p. 29 (1919).

CHINA: W. Szechuan.

HOST: *Dremomys pernyi*.

E. sciurotamiasis Ferris

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci., I, p. 35 (1919).

CHINA: Shensi.

HOST: *Sciurotamias davidianus*.

E. suturalis (Osborn)

Osborn, U. S. Dept. Agr. Div. Ent. Bul. 7, o. s., p. 27, f. 15 (1891) (*Haematopinus*).

Osborn, U. S. Dept. Agr. Div. Ent. Bul. 5, n. s. p. 185, f. 109 (1896) (*Haematopinus*).

Enderlein, Zool. Anz. XXVIII, p. 143 (1904) (*Polyplax*).

Dalla Torre, Anoplura in Gen. Ins., p. 14 (1908) (*Polyplax*).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mammals, p. 40-42, pl. 4, f. 9; Stanford Univ. Publ. (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 149 (1916).

Ferris, Psyche, XXIII, p. 108 (1916).

Ewing, Manual of External Parasites, pp. 133, 195 (1929) (*Cyclophthirus*).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. V, p. 10 (1932).

var. *occidentalis* Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mammals, p. 42, pl. 2, f. 3; pl. 4, f. 10; pl. 5, f. 17, Stanford Univ. Publ. (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 150 (1916).

CHINA: Kansu, Altai.

California, Colorado, Siberia, N. Dakota, Nevada, Alaska, Washington, Kansas, Oklahoma, Utah, Mexico, Wyoming.

HOSTS: *Citellus beldingi*, *C. elegans*, *C. eversmanni*, *C. franklini*, *C. mollis*, *C. mongolicus*, *C. osgoodi*, *C. townsendi*, *C. tridecimlineatus pallidus*, *C. tridecimlineatus texensis*, *Callospermophilus chrysodeirus*, *C. castanurus*, *C. madrensis*, *Ammospermophilus nelsoni*, *Cynomys gunnisoni*, *C. leucurus*.

Genus **HOPLOPLEURA** Enderlein

Hoplopleura Enderlein, Zool. Anz. XXVIII, p. 221-223 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 14 (1908).

Fahrenholz, 2-3-4th Jahresb. des Niedersäch. Zool. Ver. p. 44-46 (1912).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ. p. 15-16 (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 153 (1916).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. II, p. 59 (1921).

Haematopinus (Polyplax) Neumann, Arch. de Parasit. XIII, p. 531 (1909).

H. affinis (Burmeister)

Burmeister, Genera Insectorum, Rhynchota, p. 10 (1839) (*Pediculus*).

Denny, Mon. Anopl. Brit. p. 36 (1842) (*Haematopinus*).

Nitzsch, Zeit. f. ges. Naturw. XXIII, p. 22 (1864) (*Pediculus*).

Giebel, Insecta Epizca, p. 39, pl. 1, f. 9 (1874) (*Haematopinus*).

Enderlein, Zool. Anz. XXVIII, p. 142 (1904) (*Polyplax*).

Dalla Torre, Gen. Ins. Anopl. p. 13 (1908) (*Polyplax*).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 172 (1916) (*Polyplax*) (part).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. II, p. 75 (1921).

acanthopus var. *affinis* Piaget. Les Ped. p. 639 (1880) (*Haematopinus*).

CHINA: Shensi, Altai, Manchuria.

Germany, Siberia, British East Africa, Argentina, Paraguay, Peru, Brazil, Bolivia, Patagonia.

HOSTS: *Apodemus agrarius agrarius*, *A. agrarius mantchuricus*, *A. sylvaticus tscherga*, *Rattus nigricaudus loringii*, *Cricetulus incanus*, *Akodon arenicola*, *A. arviculoides montensis*, *A. aurosus*, *A. cursor*, *A. mollis*, *Euneomys* sp., *Phyllotis domorum*, *P. micropus*, *P. pictus*, *Reithrodon hatcheri*.

H. distorta Ferris

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. II, p. 115 (1921).

CHINA: Hsing-lung-shan, N. of Peiping.

HOST: a Sciurid.

H. hesperomydis (Osborn)

Osborn, U. S. Dept. Agr. Div. Ent. Bull. 7, o. s. p. 26, f. 14 (1891) (*Haematopinus*).

Osborn, U. S. Dept. Agr. Div. Ent. Bul. 5, n. s., p. 184-185, f. 108 (1896) (*Haematopinus*).

Enderlein, Zool. Anz. XXVIII, p. 143 (1904) (*Polyplax*).

Dalla Torre, Gen. Ins. Anopl. p. 14 (1908) (*Polyplax*).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ., Publ. p. 17, f. 4-5; pl. 4, f. 1; pl. 5, f. 14 (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 155 (1916).

Perris, Psyche, XXIII, p. 112 (1916).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. II, p. 70 (1921).

CHINA: Kansu (Tao-chou), Shensi (Tai-yuan-fu).

Iowa, California, Colorado, Argentina, Russian Turkestan, Virginia, Bolivia, Mexico.

HOSTS: *Peromyscus leucopus*, *P. maniculatus*, *P. boylei*, *Onychomys torridus pulcher*,
O. leucogaster articeps, *O. torridus longicaudus*, *Eligmodontia collisae*, *Mus musculus*,
M. gansus, *M. wagneri mongoliun*, *Oryzomys chaparensis*, *O. fulvescens*.

H. merionidis Ferris

Ferris, Standford Univ. Publ., Univ. Ser., Biol. Sci., II, p. 98 (1921).

CHINA: Shensi.

HOST: *Moriones psammophilus* a Murid of Subfamily Gerbillinae.

H. ochotonae Ferris

Ferris, Standford Univ. Publ., Univ. Ser., Biol. Sci., III, p. 142 (1922).

Ewing, Manual of External Parasites, pp. 135, 198 (1929) (*Ferrisella*).

Ferris, Standford Univ. Publ., Univ. Ser., Biol. Sci., V, p. 12 (1932).

CHINA: Kansu (Tao-chao), Mongolia (Tabool).

Baltistan.

HOSTS: *Ochotona cansus*, *O. roylei*, *O. danurica*.

H. emarginata Ferris

Ferris, Standford Univ. Publ., Univ. Ser., Biol. Sci., III, p. 139 (1922).

Ewing, Manual of External Parasites, pp. 135, 198 (1929) (*Ferrisella*).

Ferris, Standford Univ. Publ., Univ. Ser., Biol. Sci., V, p. 12 (1932).

CHINA: Shensi.

HOST: *Sciurotamias davidianus*.

Genus **LINOGNATHUS** Enderlein

Linognathus Enderlein, Zool. Anz. XXIX, p. 194 (1905).

Dalla Torre, Gen. Ins. Anopl. p. 12 (1908).

Mjöberg, Arkiv för Zoologi, VI, p. 156 (1910).

Patton & Cragg, Textbook of Medical Entomogy, p. 544 (1913).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Standford Univ. Publ.,
 Univ. Ser. p. 10 (1915).

Ferris, Proc Calif. Acad. Sci. (4) VI, p. 159 (1916) (part).

Ewing, Manual of External Parasites, pp. 136, 138 (1929).

Ferris, Standford Univ. Publ., Univ. Ser., Biol. Sci., V, p. 66 (1932).

Trichaulus Enderlein, Zool. Anz. XXVIII, pp. 139, 141 (1904) (preoccupied).

Haematopinus (Linognathus) Neumann, Arch. de Par. XIII, p. 529-530 (1909).

L. setosus (Olfers)

Olfers, De vegetativis et animatis corporibus in corporibus animatis reperiundis commen-
 tarius (1816) (*Pediculus*).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 205 (1916).

Ferris, Report of the Canadian Arctic Expedition, III, Pt. D, p. 11 (1919).

Fahrenholz, Jahresbericht des Niedersächsischen zoologischen Vereins zu Hannover, 5-10,
 p. 23 (1919).

Ferris, Standford Univ. Publ., Univ. Ser., Biol. Sci., V, p. 70 (1932).

bicolor Lucas, Ann. Soc. Ent. Fr. (2) V, p. 538, pl. 9, f. 2a (1847) (*Haematopinus*).

isopus Nitzsch, Zeits. f. gesamt. Naturw. XVIII, p. 290 (1861) (*Pediculus*).

- piliferus* Burmeister, Genera Insectorum, Rhynchota, Sp. 13 (1838) (*Pediculus*).
 Denny, Monographia Anoplurorum Britanniae, p. 28, pl. 25, f. 4 (1842)
 (*Haematopinus*).
 Gurlt, Magazin für die gesamte Tierheilkunde, IX, p. 9, pl. 7 (1843)
 (*Haematopinus*).
 Giebel, Insecta Epizoa, p. 40 (1874) (*Haematopinus*).
 Piaget, Les Pediculines, p. 643, pl. 52, f. 6, (1880) (*Haematopinus*).
 Osborn, U. S. Dept. Agr. Div. Ent. Bul. 7, n.s. p. 11, f. 5 (1891) (*Haematopinus*).
 Osborn, U. S. Dept. Agr. Div. Ent. Bul. 5, n.s. p. 169, f. 98 (1896) (*Haematopinus*).
 Enderlein, Zool. Anz. XXVIII, p. 142 (1904) (*Trichaulus*).
 Enderlein, Zool. Anz. XXIX, p. 194 (1905).
 Dalla Torre, Gen. Ins. Anopl. p. 12 (1908).
 Mjöberg, Arkiv för Zoologi, VI, p. 157, f. 77 (1910).
 Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ.,
 Univ. Ser. p. 11 (1915).
 Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 164 (1916).
 Ewing, Amer. Journ. Trop. Med. IV, p. 547-551 (1924).
 Hall, U. S. Dept. Agr. Circular 338 (1925) (*Haematopinus Linognathus*).
 Ewing, Manual of External Parasites, p. 139, f. 75 (1929).
flavidus Nitzsch, Zeits. f. gesamten Naturw. XXIII, p. 27 (1864) (*Pediculus*).
 Cosmopolitan, U. S. A., England, Mexico, California, Panama, Croatia, Alaska,
 Canada, Washington.
- HOSTS: Domestic Dog, *Alopex lagopus inmitus*, Rabbits, *Canis cupus*, Arctic Fox, Blue
 Fox, *Vulpes fulva*.

L. stenopsis (Burmeister)

- Burmeister, Genera Insectorum, Rhynchota, Species, 3 (1838) (*Pediculus*).
 Denny, Mono. Anopl. Brit. p. 36 (1842) (*Haematopinus*).
 Nitzsch, Zeits. f. ges. Naturw. XXIII, p. 30 (1864) (*Pediculus*).
 Giebel, Insecta Epizoa, p. 44, pl. 2, f. 4 (1874) (*Haematopinus*).
 Piaget, Les Ped. p. 648 (1880) (*Haematopinus*).
 Osborn, U.S. Dept. Agr. Div. Ent. Bul. 7, o. s. p. 12 (1891) (*Haematopinus*).
 Osborn, U.S. Dept. Agr. Div. Ent. Bul. 5, n. s. p. 170 (1896) (*Haematopinus*).
 Enderlein, Zool. Anz. XXVIII, p. 142 (1904) (*Trichaulus*).
 Enderlein, Zool. Anz. XXIX, p. 194 (1905).
 Dalla Torre, Gen. Ins. Anopl. p. 12 (1908).
 Mjöberg, Arkiv för Zoologi, VI, p. 159 (1910).
 Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ., Univ.
 Ser. p. 11 (1915).
 Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 164 (1916) (part).
 Bedford, Director of Veterinary Education and Research, Union of South Africa, Report.
 11-12, p. 737 (1927).
 Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. V, p. 79 (1932).

schistopygus Nitzsch, Zeits. f. ges. Naturw. XXIII, p. 31 (1864) (*Pediculus*).
forficulus Rudow, Zeits. f. ges. Naturw. XXXIV, p. 169 (1869) (*Haematopinus*).

Giebel, Insecta Epizoa, p. 47 (1874) (*Haematopinus*).

Dalla Torre, Gen. Ins. Anopl. p. 11 (1908) (*Haematopinus*).

Fahrenholz, Archiv. f. Naturg. 81, A (11), p. 24-26, f. 19-20 (1916).

Freund, Prager Tierarztlicher Archiv, 40, p. 59, f. 9-10 (1924).

rupicaprae Rudow, Zeits. f. ges. Naturw. XXXIV, p. 170 (1869) (*Haematopinus*).

Giebel, Insecta Epizoa, p. 47 (1874) (*Haematopinus*).

Dalla Torre, Gen. Ins. Anopl. p. 11 (1908) (*Haematopinus*).

Cosmopolitan, Europe, California, Africa, England, Zululand, India, Australia, Transcaucasia.

HOSTS: Domestic Goat, Sheep, *Antilope rupicapra*, *Capra aegyptica*, *Capra ibex*.

L. *vituli* (Linnaeus)

Linnaeus, Syst. Nat., Ed. X, p. 611 (1758) (*Pediculus*).

Linnaeus, Fauna Suecica, p. 475 (1761) (*Pediculus*).

Fabricius, Species Insectorum, II, p. 476 (1781) (*Pediculus*).

Latreille, Hist. Nat. Gen. et Part. Crus. et Ins. p. 93 (1800) (*Pediculus*).

Fabricius, Systema Antliatorum, p. 342 (1805) (*Pediculus*).

Stephens, Catalogue of British Insects, II, p. 329 (1829) (*Haematopinus*).

Denny, Monogr. Anopl. Brit. p. 31, pl. 25, f. 3 (1842) (*Haematopinus*).

Gervais, in Walchenaer, Hist. nat. des Ins. apteres, III, p. 307 (1844) (*Haematopinus*).

Osborn, U.S. Dept. Agr. Div. Ent. Bul. 7, o. s. p. 16, f. 7 (1891) (*Haematopinus*).

Osborn, U.S. Dept. Agr. Div. Ent. Bul. 5, n. s. p. 176, f. 101 (1896) (*Haematopinus*).

Enderlein, Zool. Anz. XXVIII, p. 142 (1904) (*Trichaulus*).

Enderlein, Zool. Anz. XXIX, p. 194 (1905).

Dalla Torre, Gen. Ins. Anopl. p. 12 (1908).

Patton & Cragg, Textbook of Med. Ent. p. 513, pl. 66, f. 3 (1913).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 166 (1916) (part).

Dudich, Rovartani Lapok, XXVI, p. 59 (1923).

Freund, Prager Terarztliche Archiv. 4A, p. 57, f. 8 (1924).

Freund, Prager Archiv. für Tiermedizin, 7A, p. 46, f. 7 (1927).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci., V, p. 87 (1932).

bovis vituli Geoffroy, Histoire Abrégée des Insectes, II, p. 598 (1764) (*Pediculus*).

tenairostris Burmeister, Genera Insectorum, Rhynchota, Speices 17 (1838) (*Pediculus*).

Giebel, Insecta Epizoa, p. 43, pl. 2, f. 9 (1874) (*Haematopinus*).

Piaget, Les Ped. p. 650 (1880) (*Haematopinus*).

Stroebelt, Annals and Mag. Nat. Hist. (5) XI, p. 73-108, pl. 3 (1883)

(*Haematopinus*).

Piaget, Les Ped. Suppl. p. 145, pl. 15, f. 8 (1886) (*Haematopinus*).

oxyrrhynchus Nitzsch, Zeits. für die gesamten Naturwissenschaften, XXIII, p. 21

(1864) (*Pediculus*).

Cosmopolitan, Europe, N. America, India, Hungary, Myasaland, Africa, Burma, Australia, England.

HOSTS: Domestic Cattle, Wild Boar, Sheep.

Genus **EULINOGNATHUS** Cummings

Eulinognathus Cummings, Ann. Mag. Nat. Hist. (8) XVII, p. 90 (1916).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 168 (1916).

Ewing, Manual of External Parasites, p. 134 (1929).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. V, p. 48 (1932).

E. aculeatus (Neumann)

Neumann, Bull. Soc. Zool. Fr. XXXVII, p. 143-145 (1912) (*Haematopinus Polyplax*).

Ferris, Proc. Calif. Acad. Sci. (4), VI, p. 168 (1916).

Ferris, Stanford Univ. Publ., Univ. ser., Biol. Sci. V, p. 51 (1932).

CHINA: Kansu (Ching-ning-chow).

Djerba, Tunis.

HOSTS: *Allactaga mongolica longior*, *Dipus* sp.

E. biuncatus Ferris

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. V, p. 54 (1932).

CHINA: Shensi.

HOST: *Dipodipus sowerbyi*.

Genus **NEOHAEMATOPINUS** Mjöberg

Neohaematopinus Mjöberg, Arkiv f. Zool. VI, pp. 13, 160 (1910).

Cummings, Bull. Ent. Res. III, p. 393 (1912).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ. p. 35 (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 168 (1916).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. IV, p. 237 (1923).

Acanthopinus Mjöberg, Arkiv. f. Zool. VI, pp. 13, 160 (1910).

Linognathoides Cummings, Bull. Ent. Res. V, p. 159 (1914).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ. p. 23 (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 158 (1916).

Lutegus Fahrenholz, Arkiv f. Naturg. 81, A (11), p. 31 (1915).

N. laeviusculus (Grube)

Grube, Middendorff's Reise, II, p. 498 (1851) (*Pediculus*).

Giebel, Insecta Epizoa, p. 38 (1874) (*Haematopinus*).

Piaget, Les Ped. p. 641 (1880) (*Haematopinus*).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 158 (1916) (*Linognathoides*).

Fahrenholz, Archiv. f. Naturg. 81, A (11), p. 29 (1916) (*Enderleinellus*).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. IV, p. 264 (1923).

spermophili Grube, Middendorff's Reise, II, pl. 32, f. 5 (1851) (*Pediculus*).

montanus Osborn, U.S. Dept. Agr. Div. Ent. Bul. 5, n.s.p. 184, f. 107 (1896) (*Haematopinus*).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ. p. 24-25, f. 9, pl. 5, f. 1, pl. 6, f. 4 (1915) (*Linognathoides*).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 159 (1916).

Ferris, Psyche, XXIII, p. 99-100 (1916).

columbianus Osborn, Can. Ent. XXXII, p. 215-216 (1900) (*Haematopinus*).

laeviuscula Enderlein, Zool. Anz. XXVIII, p. 142 (1904) (*Polyplax*).

Dalla Torre, Gen. Ins. Anopl. p. 13 (1908) (*Polyplax*).

Mjöberg, Arkiv för Zool. VI, p. 160 (1910) (*Polyplax*).

columbiana Enderlein, Zool. Anz. XXVIII, p. 143 (1904) (*Polyplax*).

Dalla Torre, Gen. Ins. Anopl. p. 13 (1908) (*Polyplax*).

montana Enderlein, Zool. Anz. XXVIII, p. 143 (1904) (*Polyplax*).

Dalla Torre, Gen. Ins. Anopl. p. 13 (1908) (*Polyplax*).

columbianus Cummings, Bul. Ent. Res. V, p. 160 (1914) (*Linognathoides*).

CHINA : Altai.

Siberia, Washington, Alaska, California, Arizona, Mexico, Nevada, Colorado, Oregon, Utah.

HOSTS : *Citellus evermanni*, *C. columbianus*, *C. barrowensis*, *C. beecheyi*, *C. beldingi*, *C. douglasi*, *C. grammurus*, *C. mexicanus*, *C. oregonus*, *C. plesius ablusus*, *Cynomys leucurus*, *Marmota flaviventris*, Western gray squirrel, Rock squirrel, *Citellus buxtoni*, *C. elegans*, *C. osgoodi*, *Callospermophilus castanurus*, Ground squirrels, Prairie dogs, marmots, Wood chucks.

Genus **POLYPLAX** Enderlein

Polyplax Enderlein, Zool. Anz. XXVIII, pp. 139, 142, 223 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 13 (1908).

Mjöberg, Arkiv f. Zool. VI, p. 159 (1910).

Fahrenholz, Jahresb. des Niedersäch. Zool. Ver. II-IV, p. 29-30 (1912).

Patten & Cragg, Textbook of Med. Ent. p. 543 (1913).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ. p. 11 (1915).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 171 (1916).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. IV, p. 183 (1923).

Eremophthirus Glinkiewicz, Sitz. d. Kaiserl. Ak. Wiss. Wien. Natur. Klasse, 116, p. 381-383 (1907).

Haematopinus (*Polyplax*) Neumann, Arch. de Parasit. XIII, p. 529-532 (1909).

P. chinensis Ferris

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. IV, p. 209 (1923).

CHINA : Shensi.

HOST : *Meriones aiceps*.

P. spinulosa (Burmeister)

Burmeister, Genera Insectorum, Rhynchota, No. 8 (1839) (*Pediculus spinulosus*).

Enderlein, Zool. Anz. XXVIII, p. 142 (1904).

Enderlein, Zool. Anz. XXIX, p. 192-194 (1905).

Dalla Torre, Gen. Ins. Anopl. p. 14 (1908).

Mjöberg, Ark. f. Zool. VI, p. 160 (1910).

Banks, U. S. Treasury Dept. Bul. XXX, p. 79, f. 7 (1910).

Mjöberg, Tijdschr. v. Ent. 55, p. 336-337 (1912).

Fahrenholz, Jahresb. des Niedersäch. Zool. Ver. 2-4, p. 30-37, tf. 8-10, pl. 2, f. 8-13 (1912).

Johnston & Harrison, Proc. Roy. Soc. Queensl. XXIV, p. 107 (1913).

Evans, Proc. Roy. Physical Soc. Edinb. XIX, p. 93 (1913).

Kellogg & Ferris, Anopl. and Malloph. N. Amer. Mamm., Stanford Univ. Publ. p. 12-13, tf. 1, pl. 5, f. 11a-b, pl. 6, f. 7 (1915).

Cummings, Proc. Zool. Soc. Lond. pp. 256-257, 268-271, tf. 7, 15, 16 (1915).

Ferris, Psyche, XXIII, p. 99 (1916).

Bedford, Rept. Div. Vet. Res. Dept. Agric. Un. S. Africa, 6-7, p. 715 (1919).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. IV, p. 187 (1923).

spinulosus Denny, Mono. Anopl. Brit. p. 26, pl. 24, f. 5 (1842) (*Haematopinus*).

Giebel, Insecta Epizoa, p. 38-39, pl. 1, f. 7 (1874) (*Haematopinus*).

Piaget, Les Ped. p. 636-637, pl. 52, f. 2 (1880) (*Haematopinus*).

Osborn, U. S. Dept. Agr. Div. Ent. Bul. 7, o. s. p. 22 (1891) (*Haematopinus*).

Osborn, U. S. Dept. Agr. Div. Ent. Bul. 5, n. s. p. 181 (1896) (*Haematopinus*).

Tiraboschi, Arch. de Parasit. VIII, p. 316-317 (1904) (*Haematopinus*).

Neumann, Arch. de Parasit. XIII, p. 526, f. 26 (1909) (*Haematopinus Polyplax*).

Patten & Cragg, Textb. Med. Ent. p. 550 (1913) (*Haematopinus Polyplax*).

Moll, Journ. Parasitology, IV, p. 89-90 (1917).

spiniger Denny, Mono. Anopl. Brit. p. 24, f. 6 (1842) (*Haematopinus*).

jenticulatus Nitzsch, Zeits. f. ges. Naturw. XXIII, p. 24 (1864) (*Pediculus*).

CHINA: Soochow, Canton.

Cosmopolitan, Europe, California, Nevada, England, Australia, India, Panama, British East Africa, Philippines, Malay Peninsula, Burma, Java, South Africa, Canada, British Guiana.

HOSTS: *Epimys norvegicus*, *E. rattus*, *E. rattus alexandrinus*, *Microtus sp.*, *M. californicus*, *M. iniermedius*, *Phenacomys longicaudus*, *Apodemus sylvaticus*, *Phenacomys serrata*, *Epimys rattus kijabius*, *E. calcis*, *E. stridens*, *Geomys bengalensis*, *Mus sp.*, *Synaptomys borealis*, *Crocidura caerulea*.

P. serrata (Burmeister)

Burmeister, Genera Insectorum, Rhynchota, No. 6, (1839) (*Pediculus serratus*).

Denny, Mono. Anopl. Brit. p. 36 (1842) (*Haematopinus serratus*).

Nitzsch, Zeits. f. ges. Naturw. XXIII, p. 27 (1864) (*Pediculus serratus*).

Giebel, Insecta Epizoa, p. 36, pl. 1, f. 6 (1874) (*Haematopinus serratus*).

Piaget, Les Ped. p. 639 (1880) (*Haematopinus serratus*).

Enderlein, Zool. Anz. XXVIII, p. 142 (1904).

Dalla Torre, Gen. Ins. Anopl. p. 14 (1908).

Evans, Proc. Roy. Phys. Soc. Edinb. XIX, p. 94 (1913).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 175 (1916).

Csiki, Rovart. Lapok, XI, p. 182 (1904) (*serratus*).

Ferris, Stanford Univ. Publ., Univ. Ser., Biol. Sci. IV, p. 191 (1923).

affinis Fahrenholz, Jahresb. des Niedersäch. Zool. Ver. 2-4, p. 39-42, tf. 13-15 (1912) (Misidentification).

Ferris, Proc. Calif. Acad. Sci. (4) VI, p. 172 (1916) (part).

CHINA: Shensi (Feng Siang), Kansu (Tao Chou), Manchuria (Sungaree).

Scotland, England, Spain, Bohemia.

HOSTS: House mouse, *Mus musculus*, *M. spicilegus hispanicus*, *Apodemus agarius mantchuricus*, *A. agarius pallidior*, *A. speciosus peninsulae*, *A. sylvaticus sylvaticus*.

INDEX TO GENERA AND SPECIES OF ANOPLURA

- Acanthopinus* Mjöberg 362
aculeatus Neumann (*Eulinognathus*) 362
affinis Piaget (var. of *Haematopinus acanthopus*) 358
affinis Burmeister (*Hoplopleura*) 358
affinis Fahrenholz (*Polyplax*) 364
ANOPLURA (Order) 353
asini Linnaeus (*Haematopinus*) 355
bicolor Lucas (*Haematopinus*) 359
biuncatus Ferris (*Eulinognathus*) 362
cameli Linnaeus (*Haematopinus*) 356
capitis De Geer (*Pediculus*) 353
cervicalis Leach (*Pediculus*) 354
chinensis Ferris (*Polyplax*) 363
columbiana Enderlein (*Polyplax*) 363
columbianus Osborn (*Haematopinus*) 363
columbianus Cummings (*Linognathoides*) 363
corporis De Geer (*Pediculus*) 354
del cammello Redi (*Haematopinus*) 356
denticulatus Nitzsch (*Pediculus*) 364
distorta Ferris (*Hoplopleura*) 358
dremomydis Ferris (*Enderleinellus*) 357
Ellipopleura Shipley 353
emarginata Ferris (*Hoplopleura*) 359
ENDERLEINELLUS Fahrenholz 357
equi Simmonds (*Haematopinus*) 355
Eremophthirus Glinkiewicz 363
EULINOGNATHUS Cummings 362
eurysternus Nitzsch (*Haematopinus*) 355
flavidus Nitzsch (*Pediculus*) 360
forficulus Rudow (*Haematopinus*) 361
HAEMATOPINIDAE (Family) 355
 HAEMATOPININAE (Subfamily) 355
HAEMATOPINUS Leach 355
hesperomydis Osborn (*Hoplopleura*) 358
HOPLOPLEURA Enderlein 358
haematus Linnaeus (*Pediculus*) 354
inguinalis Leach (*Phthirus*) 354
isopus Nitzsch (*Pediculus*) 359
laeviuscula Enderlein (*Polyplax*) 363
laeviusculus Grube (*Neohaematopinus*) 362
 LINOGNATHINAE (Subfamily) 357
Linognathoides Cummings 362
LINOGNATHUS Enderlein 359
Linognathus Neumann (Subgenus of *Haematopinus*) 358, 359
Lipognatha Börner 353
Lutegus Fahrenholz 362
macrocephalus Burmeister (*Pediculus*) 355
merionidis Ferris (*Hoplopleura*) 359
montana Enderlein (*Polyplax*) 363
montanus Osborn (*Haematopinus*) 362
NEOHAEMATOPINUS Mjöberg 362
occidentalis Kellogg & Ferris (var. of *Enderleinellus suturalis*) 357
ochotonae Ferris (*Hoplopleura*) 359
oxyrrhynchus Nitzsch (*Pediculus*) 361
PEDIGULIDAE (Family) 353
 PEDICULINAE (Subfamily) 353
Pediculinae Burmeister 353
PEDICULUS Linnaeus 353
penicillatus Piaget (var. of *Haematopinus tuberculatus*) 356
Phthirus Burmeister 354
PHTHIRUS Leach 354
piliferus Burmeister (*Pediculus*) 360
POLYPLAX Enderlein 363
Polyplax Neumann (Subgenus of *Haematopinus*) 358, 363
Pseudorhyncota Cholodkovsky 353
pubis Linnaeus (*Phthirus*) 354
rupicaprae Rudow (*Haematopinus*) 361

- schistopygus* Nitzsch (*Pediculus*) 361
sciurotamiasis Ferris (*Enderleinellus*) 357
serrata Burmeister (*Polyplax*) 364
setosus Olfers (*Linognathus*) 359
Siphonchlata Meinert 353
spermophili Grube (*Pediculus*) 362
spiniger Denny (*Haematopinus*) 364
spinulosa Burmeister (*Polyplax*) 363
spinulosus Denny (*Haematopinus*) 364
stenopsis Burmeister (*Linognathus*) 360
suis Linnaeus (*Haematopinus*) 356
suturalis Osborn (*Enderleinellus*) 357
tabescentum Alt (*Phthirus*) 354
temirostris Burmeister (*Pediculus*) 361
Trichaulinae Enderlein 357
Trichaulus Enderlein 359
tuberculatus Burmeister (*Haematopinus*) 356
uvius Moufet (*Pediculus*) 356
vestimenti Nitzsch (*Pediculus*) 354
vituli Linnaeus (*Linognathus*) 361
vituli Geoffroy (var. of *Pediculus bovis*) 361