

The Genera and Species of Mallophaga
of North America (North of Mexico)
Part II. Suborder AMBLYCERA

by

K. C. Emerson, Ph.D.

DEFENSE PEST MGMT INFO ANALYSIS CTR
AFPMB, FOREST GLEN SECTION, WRAMC
WASHINGTON, DC 20307-5001

PREFACE

This volume is essentially a revision of my 1964 publication, Checklist of the Mallophaga of North America (north of Mexico), which reflects the taxonomic studies published since that date.

Host criteria for the birds has been expanded to include consideration of all species listed in The A. O. U. Checklist of North American Birds, Fifth Edition (1957). A few species of birds definitely known to be extinct are omitted from the listings of probable hosts, even though new species may still be found on museum skins.

Mammal hosts considered remain those recorded in Miller and Kellogg, List of North American Recent Mammals (1955), as being found north of Mexico.

Dr. Theresa Clay, British Museum (Natural History), and especially Dr. Roger D. Price, University of Minnesota, during the last few years, have reviewed several genera of the Menoporidae; however, several of the larger genera are still in need of review. Unfortunately this volume could not be delayed until work on these genera is completed.

CONTENTS

BOOPIDAE	5
Heterodoxus	5
GYROPIDAE	6
Gliricola	6
Gyropus	7
Macrogypopus	8
Pitrufluena	9
LAEMOBOTHRIIDAE	10
Laemobothrion	10
MENOPONIDAE	15
Actornithophilus	15
Amyrsidea	24
Ancistrona	27
Ardeiphilus	28
Austromenopon	29
Bonomiella	37
Ciconiphilus	38
Clayia	41
Colpocephalum	42
Comatomenopon	51
Cuculiphilus	52
Dennyus	54
Eidmanniella	56
Eucolpocephalum	58
Eureum	59
Fregatiella	60
Gruimenopon	61
Heleonomus	62
Hohorstiella	63
Holomenopon	65
Kurodaia	68
Longimenopon	72
Machaerilaemus	73
Menacanthus	75
Menopon	82
Myrsidea	84
Nosopon	90
Numidicola	91
Osborniella	92

Piagetiella	93
Plegadiphilus	95
Procellariphaga	95
Pseudomenopon	100
Somaphantus	103
Trinoton	104
RICINIDAE	107
Ricinus	107
Trochiliphagus	116
Trochiloectes	117
TRIMENOPONIDAE	118
Trimenopon	118

Suborder AMBLYCERA

Family BOOPIDAE

Genus HETERODOXUS

Heterodoxus LeSouëf and Bullen, 1902. Vict. Nat., 18:159.

Type species: Heterodoxus macropus LeSouëf and Bullen, 1902.

Macropophila Mjöberg, 1919. Ent. Tidskr., 40:95.

Type species: Macropophila forcipata Mjöberg, 1919.

The only species of this genus likely to be collected in North America is well known. The only probable host not listed is Canis lupus Linnaeus--Gray Wolf.

Heterodoxus spiniger (Enderlein, 1909)

Menopon spiniger Enderlein, 1909. Jenais. Denkschr., 14:80, pl. 8, figs. 4-5.

Heterodoxus armiferus Paine, 1912. Ent. News., 23: 362, figs. A-D.

Menopon spinigerum Neumann, 1912. Arch. Parasit., 15:364, fig. 12.

Type host: Domestic Dog.

Other North American hosts: Canis latrans Say-Coyote.

Canis niger Bartram--Red Wolf.

Family GYROPIDAE

Genus GLIRICOLA

Micropus Denny, 1842 (nec Meyer and Wolf, 1818). Mon. Anopl. Brit.: 247.

Type species: Gyropus gracilis Nitzsch, 1818 (A synonym of Pediculus porcelli Schrank, 1781).

Gliricola Mjöberg, 1910. Zool. Anz., 35:292.

Type species: Gyropus gracilis Nitzsch, 1818
(A synonym of Pediculus porcelli Schrank, 1781).

Paraglricola Ewing, 1924. Proc. U. S. Nat. Mus., 63:29.

Type species: Paraglricola quadrisetosa Ewing, 1924.

This genus is not found on native mammals of North America. The only species found in North America is well known.

Gliricola porcelli (Schrank, 1781)

Pediculus Schrank, 1781. Enum. Ins. Austr. Indig.: 500, pl. 1, fig. 1.

Pediculus saviae Schrank, 1803. Fauna Boica: 186
(nn for P. porcelli Schrank, 1781).

Pediculus bifurcatus Olfers, 1816. De Veget., 1:83 (nn for P. porcelli Schrank, 1781).

Gyropus gracilis Nitzsch, 1818. Mag. Ent. Germar, 3:304 (nn for P. porcelli Schrank, 1781).

Gyropus porcelli perfoliatus Neumann, 1912. Bull. Soc. Zool. Fr., 37:216.

Gyropus bicaudatus Paine, 1912. Ent. News, 23:441, pl. 20, fig. 3.

Gliricola mexicanus Zavaleta, 1946. Ann. Inst. Biol. Mex., 16:435, fig. 1.

Type host: Cavia porcellus (Linnaeus)--Guinea Pig.

Genus GYROPUS

Gyropus Nitzsch, 1818. Mag. Ent. Germar, 3:303.

Type species: Gyropus ovalis Burmeister, 1838
(By subsequent designation by the International
Commission of Zoological Nomenclature).

Haemabarus Nitzsch, 1874. In Giebel, Insecta Epizoa: 6
(nn for Gyropus Nitzsch, 1818).

Diplocerus Nitzsch, 1874. In Giebel, Insecta Epizoa: 6
(nn for Gyropus Nitzsch, 1818).

Monogryopus Ewing, 1924. Proc. U. S. Nat. Mus., 63:10.
Type species: Gyropus longus Neuman, 1912.

Tetragryopus Ewing, 1924. Proc. U. S. Nat. Mus., 63:21.
Type species: Gyropus lineatus Neumann, 1912.

Eogyropus Eichler, 1952. Zool. Anz., 149:76.
Type species: Gyropus lenti lenti Werneck, 1936.

This genus is not found on native mammals of North
America. The only species found in North America is well
known.

Gyropus ovalis Burmeister, 1838

Gyropus ovalis Burmeister, 1838. Handb. Ent., 2:443.

Gyropus turbinatus Piaget, 1880. Les Pediculines: 612,
pl. 50, fig. 7.

Gyropus recifensis Torres, 1938. Bol. Soc. Brasil.
Med. Vet., 8:279 and 288, figs. 1-4.

Macrogyropus mexicanus Zavaleta, 1946. Ann. Inst.
Biol. Mex., 16:438, fig. 2.

Type host: Cavia porcellus (Linnaeus)--Guinea Pig.

Genus PITRUFQUENIA

Pitrufoquia Marelli, 1932. La Chacra, 3:9.

Type species: Pitrufoquia coypus Marelli, 1932.

A monotypic genus.

Pitrufoquia coypus Marelli, 1932

Pitrufoquia coypus Marelli, 1932. La Chacra, 3:9,
figs. 1-6.

Pitrufoquia mollis Marelli, 1933. Rev. Soc. Ent.
Argentina, 5:299.

Type host: Myocastor coypus (Molina)--Nutria.

Genus MACROGYROPUS

Macrogyropus Ewing, 1924. Proc. U.S. Nat. Mus.,
63:25.

Type species: Macrogyropus dentatus Ewing, 1924.
(A synonym of Gyropus dicotylis Macalister
1869).

Heterogyropus Ewing, 1924. Proc. U. S. Nat. Mus.,
63:27.

Type species: Heterogyropus heteronychus Ewing,
1924.

The species listed is probably the only one of this genus
likely to be found in North America.

Macrogyropus dicotylis (Macalister, 1869)

Gyropus dicotylis Macalister, 1869. Proc. Zool.
Soc. London, 1869: 420, fig.

Macrogyropus dentatus Ewing, 1924. Proc. U. S.
Nat. Mus., 63:26, pl. 1, fig. 5.

Type host: Pecari tajacu (Linnaeus)--Collared
Peccary.

Family LAEMOBOTHRIDAE

Genus LAEMOBOTHRION

Laemobothrion Nitzsch, 1818. Mag. Ent. Germar, 3:301.

Type species: Pediculus giganteum Nitzsch, 1818 (A synonym of Pediculus maximus Scopoli, 1763). (By subsequent designation by Johnston and Harrison, 1911, Proc. Linn. Soc. N. S. W., 36:327).

Laemobothrium Burmeister, 1838. Handb. Ent., 2:441 (Emendation).

Eulaemobothrion Ewing, 1929. Manual External Parasites: 189.

Type species: Laemobothrion nigrum Burmeister, 1838 (A synonym of Laemobothrion atrum Nitzsch, 1818).

Ornithopeplechthos Eichler, 1941. Stettin. Ent. Ztg., 102:127.

Type species: Laemobothrion opisthocomi Cummings, 1913.

Pterophagus Eichler, 1941. Stettin. Ent. Ztg., 102:128.

Type species: Laemobothrion gracilentum Harrison, 1915 (A synonym of Laemobothrion gracile Giebel, 1874).

Plegadilymantikos Eichler, 1941. Stettin. Ent. Ztg., 102:128.

Type species: Laemobothrion pallescens Kellogg, 1908.

Species found on the Falconiformes are in the subgenus Laemobothrion. Species found on the Gruiformes and Podicipitidae are in the subgenus Eulaemobothrion. For a revision of the subgenus Laemobothrion, see Nelson and Price, 1965 (J. Med. Ent., 2:249).

Probable North American hosts include all species of Podicipitidae, Falconiformes and Gruiformes (except Gruidae) not listed. It is also possible that a species of this genus may be found on Jacana spinosa (Linnaeus)--Jacana.

Laemobothrion atrum (Nitzsch, 1818)

Liotheum atrum Nitzsch, 1818. Mag. Ent. Germar, 3:302.

Laemobothrion nigrum Burmeister, 1838. Handb. Ent., 2:442.

Laemobothrion lathrobium Kolenati, 1846. Melet. Ent., 5:139, pl. 19, fig. 6.

Type host: Fulica atra Linnaeus--European Coot.

Other North American host: Fulica americana Gmelin--American Coot.

Laemobothrion chloropodis (Schrank, 1803)

Pediculus chloropodis Schrank, 1803. Fauna Boica: 189.

Type host: Gallinula chloropus (Linnaeus)--Common Gallinule.

Laemobothrion cubense Kellogg and Ferris, 1915

Laemobothrion setigerum cubensis Kellogg and Ferris, 1915. Ann. Durban Mus., 1:149, pl. 15, fig. 2.

Type host: Aramus scolopaceus (Linnaeus)--Limpkin.

Laemobothrion glutinans Nitzsch, 1861

Laemobothrion glutinans Nitzsch, 1861. In Giebel, Z. ges. NatWiss., 17:518.

Laemobothrion delogramma Carriker, 1903. Univ. Stud. Nebr., 3:159, pl. 4, fig. 6.

Laemobothrion canalense Eichler, 1942. Zool. Anz., 139:31 (nn for L. delogramma Kellogg and Paine, 1910 (nec Carriker, 1903)).

Laemobothrion museihamburgi Eichler, 1954. Beitr. Fauna Perus, 4:34, figs. 10-11.

Type host: Sarcoramphus papa (Linnaeus).

North American hosts:

Cathartes aura (Linnaeus)--Turkey Vulture.

Gymnogyps californianus (Shaw)--California Condor.

Coragyps atratus (Bechstein)--Black Vulture.

Laemobothrion maximum (Scopoli, 1763)

Pediculus maximus Scopoli, 1763. Ent. Carniolica: 382.

Pediculus buteonis J. C. Fabricius, 1776. Gen. Ins.: 309
(nn for P. maximus Scopoli, 1763).

Pediculus circi Fourcroy, 1785. Ent. Paris: 518 (nn for
Geoffroy's Pediculus circi, fuscus, oblongus).

Pediculus milvi Schrank, 1803. Fauna Boica: 193 (nn for
Frisch's "Huhnergeyerlaus").

Laemobothrion giganteum Nitzsch, 1818. Mag. Ent. Germar,
3:301 (nn for maximus Scopoli, buteonis Fabricius, and
circi Geoffroy).

Nirmus buteonivorus Packard, 1872. Rept. U. S. Geol.
Survey, 6:733, fig. 61.

Laemobothrium nigrolimbatum Giebel, 1874. Insecta
Epizoa: 252.

Laemobothrium titan Piaget, 1880. Les Pediculines:
578, pl. 49, fig. 1.

Laemobothrium loomisi Kellogg and Chapman, 1902.
J. N. Y. Ent. Soc., 10:23, pl. 3, fig. 3.

Laemobothrion oligothrix Carriker, 1903. Univ. Stud.
Nebr., 3:161; pl. 4, fig. 7.

Laemobothrion caracaraensis Kellogg, 1906. J. N. Y.
Ent. Soc., 14:48; p. 2, fig. 6.

Laemobothrion eidmanni Eichler, 1942. Mitt. Dtsch. Ent.
Ges., 11:14, figs. 1-2.

Laemobothrion anatolicum Eichler, 1942. Zool. Anz.,
137:52, fig. 1.

Laemobothrion hoeschi Eichler, 1942. Zool. Anz., 137:56,
fig. 2.

Laemobothrion niethammeri Eichler, 1942. Zool. Anz.,
137:60, fig. 5.

Laemobothrion indica Sen, 1942. Ind. J. Vet. Sci. &
Anim. Husband., 12:169, fig. 1.

Laemobothrion hieraaeti Eichler, 1943. Mitt. Königl.
Naturwiss. Inst. Sofia, 16:209, fig. 3.

Laemobothrion bureschi Eichler, 1943. Mitt. Königl.
Naturwiss. Inst. Sofia, 16:209, fig. 4.

Laemobothrion mjobergi Eichler, 1944. Dtsch. Ent. Z.,
1943: 64, figs. 11-12.

Laemobothrion chondrohieracis Eichler, 1953. Bonn. Zool.
Beitr., 4:265, figs. 32b-c.

- Laemobothrion mendesi Tendeiro, 1955. Bol. Cult. Guine Port., 9:211, figs. 7-8.
- Laemobothrion siddiqii Ansari, 1955. Proc. VII Pakistan Sci. Conf., Sec. Biol.: 57.
- Laemobothrion clayi Tuleshkov, 1957. Isv. Zool. Inst. Bulgaria Akad. Nauk, (Otd. Biol.), 6:281.
- Laemobothrion lunai Tendeiro, 1958. Publ. Cult. da Diam. Comp. Angola, no. 40:99.
- Laemobothrion tuleschkovi Bechet, 1961. Stud. Cerc. Biol., 12:220, fig. 2a-b.
- Laemobothrion grandiculus Tendeiro, 1964. Ann. Mus. Royal l'Afr. Cent., Ser. 8, no. 132:185, figs. 9 and 10, photographs 17-20.
- Type host: Buteo buteo (Linnaeus).
- North American hosts: Ictinia mississippiensis (Wilson)--Mississippi Kite.
- Accipiter gentilis (Linnaeus)--Goshawk.
- Buteo jamaicensis (Gmelin)--Red-tailed Hawk.
- Buteo harlani (Audubon)--Harlan's Hawk.
- Buteo swainsoni Bonaparte--Swainson's Hawk.
- Buteo lagopus (Pontoppidan)--Rough-legged Hawk.
- Buteo regalis (Gray)--Ferruginous Hawk.
- Parabuteo unicinctus (Temminck)--Harris' Hawk.
- Circus cyaneus (Linnaeus)--Marsh Hawk.
- Pandion haliaetus (Linnaeus)--Osprey.
- Caracara cheriway (Jacquin)--Caracara.

Laemobothrion simile Kellogg, 1896

- Laemobothrium similis Kellogg, 1896. Proc. Calif. Acad. Sci., 6:153, pl. 14, figs. 1 and 2.
- Type host: Podiceps caspicus (Hablizl)--Eared Grebe.

Laemobothrion tinnunculi (Linnaeus), 1758)

- Pediculus tinnunculi Linnaeus, 1758. Syst. Nat., ed. 10:612.
- Nirmus hasticeps Olfers, 1816. De Veget., etc.: 87.
- Laemobothrium hastipes Burmeister, 1838. Handb. Ent., 2:442.
- Laemobothrium laticolle Denny, 1842. Mon. Anopl. Brit.: 203 and 239; pl. 23, fig. 4.
- Nirmus albicillae Denny, 1852. List Brit. Animals in Brit. Mus., pt. II, Anoplura: 39 (nn for L. laticolle Denny, 1842).

Physostomum longetarsatum Piaget, 1895. Tijdschr.
Ent., 38:101.

Laemobothrium intermedium McGregor, 1917. Ent.
News, 28:434; pl. 28, figs. 2 and 5.

Laemobothrion aquab Ansari, 1955. Proc. VII Pakistan
Sci. Conf., Sect. Biol.: 57.

Laemobothrion semicirculus Carriker, 1961. Nov. Cien.
Mus. Hist. Nat. LaSalle, no. 28:39, fig. 4.

Type host: Falco tinnunculus Linnaeus--Kestrel.

North American hosts: Falco mexicanus Schlegel--
Prairie Falcon.

Falco peregrinus Tunstall--Peregrine Falcon.

Falco sparverius Linnaeus--Sparrow Hawk.

Falco columbarius Linnaeus--Pigeon Hawk.

Laemobothrion vulturis (J. C. Fabricius, 1775)

Pediculus vulturis J. C. Fabricius, 1775. Syst. Ent.: 806.

Liotheum percnopteri Gervais, 1844. Hist. Nat. Ins.,
3:321, pl. 48, fig. 6.

Laemobothrium pallidum Giebel, 1874. Insecta Epizoa: 250.

Laemobothrium validum Giebel, 1874. Insecta Epizoa: 251.

Laemobothrium gypsis Kellogg, 1906. Ent. News, 17:63,
fig.

Laemobothrium africanum Kellogg, 1910. Wiss. Ergebn.
Schwed. Zool. Exped. Kilimandjaro, 3 (15): 49, p. 7,
fig. 6.

Laemobothrion grossei Eichler, 1943. Zool. Anz., 141:59
(nn for "L. von Gypoggeranus serpentarius" Grosse, 1885,
Z. Wiss. Zool., 42:557).

Laemobothrion bulgaricum Eichler, 1943. Mitt. Königl.
Naturwiss. Inst. Sofia, 16:210.

Laemobothrion romanicum Bechet, 1961. Stud. Cerc.
Biol., 12:218, fig. 1a-c.

Laemobothrion vulturis daneckii Zlotorzyska, 1969.
Polok. Pismo. Ent., 39:125, figs. 1-4.

Type host: Pseudogyps bengalensis (Gmelin).

North American hosts: Haliaeetus leucocephalus (Linnaeus)--
Bald Eagle.

Aquila chrysaetos (Linnaeus)--Golden Eagle.

Haliaeetus albicilla (Linnaeus)--Gray Sea Eagle.

Haliaeetus pelagicus (Pallas)--Steller's Sea Eagle.

Family MENOPONIDAE

Genus ACTORNITHOPHILUS

Actornithophilus Ferris, 1916. *Canad. Ent.*, 48:303.

Type species: Colpocephalum uniseriatum Piaget, 1880.

Diactornithophilus Balat, 1953. *Zool. Ent. Listy*, 2:96, and 104.

Type species: Actornithophilus (Diactornithophilus) svobodyae Balat, 1953 (A synonym of Colpocephalum gracile Piaget, 1880).

Clypeodon Timmermann, 1954. *Ann. Mag. Nat. Hist.* (12), 7:830.

Type species: Colpocephalum incisum Piaget, 1880.

Larithophilus Zlotorzyska, 1963. *Acta Parasit. Polonica*, 11:223.

Type species: Colpocephalum maurum Nitzsch, 1866
(A synonym of Colpocephalum piceum Denny, 1842).

Clay, 1962 (*Bull. Brit. Mus. (N. H.)*, *Ent.*, 11:191) provides: a key to the known species, illustrations for many species, and an excellent discussion of host-parasite relationships.

Hosts which may harbor species of Actornithophilus, but for which no data are available include:

Aphriza virgata (Gmelin)--Surfbird.

Philohela minor (Gmelin)--American Woodcock.

Scolopax rusticola Linnaeus--European Woodcock.

Numenius americanus Bechstein--Long-billed Curlew.

Numenius tahitiensis (Gmelin)--Bristle-thighed Curlew.

Numenius borealis (Forster)--Eskimo Curlew.

Bartramia longicauda (Bechstein)--Upland Plover.

Tringa solitaria Wilson--Solitary Sandpiper.

Erolia subminuta (Middendorff)--Long-toed Stint.

Heteroscelus brevipes (Vieillot)--Polynesian Tattler.

Tringa glareola Linnaeus--Wood Sandpiper.

Limosa haemastica (Linnaeus)--Hudsonian Godwit.
Limosa limosa (Linnaeus)--Black-tailed Godwit.
Eurynorhynchus pymeum (Linnaeus)--Spoon-
bill Sandpiper.

Actornithophilus bicolor (Piaget, 1880)

Colpocephalum bicolor Piaget, 1880. Les Pediculines:
561, pl. 47, fig. 1.

Colpocephalum paetulum Kellogg and Kuwana, 1900.
Proc. Acad. Sci. Philad., 23:157, pl. 7, fig. 4.

Colpocephalum spinulosum obscurum Carriker, 1910
(nec Giebel, 1874). Ent. News, 21:52.

Colpocephalum oculare Carriker, 1910. Ent. News,
21:52, pl. 5, fig. 1.

Colpocephalum tigrum Kellogg and Mann, 1912. Ent.
News, 23:64.

Type host: Arenaria interpres (Linnaeus)--Ruddy
Turnstone.

Other North American host: Arenaria melanocephala
(Vigors)--Black Turnstone.

Actornithophilus canuti Price and Leibovitz, 1969

Actornithophilus canuti Price and Leibovitz, 1969. Canad.
Ent., 101:997, figs. 1-6.

Type host: Calidris canutus (Linnaeus)--Knot.

Actornithophilus ceruleus (Timmermann, 1954)

Clypeodon ceruleus Timmermann, 1954. Ann. Mag.
Nat. Hist., (12), 7:830, figs. 2c and d, and pl. 26,
fig. c.

Type host: Procelsterna cerulea (F. D. Bennett),
(This may be in error; see Clay, 1962 (Bull. Brit.
Mus. (N. H.), Ent., 11: p. 201).

Other North American host: Anotis stolidus (Linnaeus)--
Noddy Tern (questionable record).

Actornithophilus flumineus Clay, 1962

Actornithophilus flumineus Clay, 1962. Bull. Brit.
Mus. (N. H.), Ent., 11:217, pl. 4, fig. 5.

Type host: Actitis hypoleucos (Linnaeus).

North American host: Tringa macularis (Linnaeus)--
Spotted Sandpiper.

Actornithophilus gracilis (Piaget, 1880)

Colpocephalum gracile Piaget, 1880. Les Pediculines: 555, pl. 46, fig. 5.

Liotheum scopularium Neumann, 1912, Arch. Parasit., 15:370, fig. 16.

Actornithophilus svobodae Balat, 1953. Zool. Ent. Listy. 2:100, 101, 105, fig. 4.

Actornithophilus svobodai Balat, 1957. Acta Veterinaria, 7:445 (nn for A. svobodae Balat, 1953).

Type host: Vanellus vanellus (Linnaeus)--Lapwing.

Actornithophilus grandiceps (Piaget, 1880)

Colpocephalum grandiceps Piaget, 1880. Les Pediculines: 558, pl. 46, fig. 7.

Colpocephalum laticeps Mjßberg, 1910 (nec Kellogg, 1896). Ark. Zool., 6:42, pl. 2, fig. 4.

Type host: Haematopus ostralegus Linnaeus--European Oystercatcher.

North American hosts: Haematopus palliatus Temminck--American Oystercatcher.

Haematopus bachmani Audubon--Black Oystercatcher.

Actornithophilus hoplopteri maculosus Carriker, 1963

Actornithophilus hoplopteri maculosus Carriker, 1963. Rev. Brasil. Biol., 23:294, figs. 1-2.

Actornithophilus hoplopteri peruvianus Carriker, 1963. Rev. Brasil. Biol., 23:295, fig. 3.

Type host: Charadrius vociferus Linnaeus--Killdeer.

Actornithophilus incisus (Piaget, 1880)

Colpocephalum incisum Piaget, 1880. Les Pediculines: 569, pl. 47, fig. 9.

Colpocephalum milleri Kellogg and Kuwana, 1902. Proc. Wash. Acad. Sci., 4:483, pl. 30, fig. 6.

Colpocephalum epiphanes Kellogg and Chapman, 1902. J. N. Y. Ent. Soc., 10:161, pl. 14, fig. 2.

Clypeodon pacificus Timmermann, 1955. Ann. Mag. Nat. Hist., (12), 8:534.

Type host: Anous stolidus (Linnaeus)--Noddy Tern.

Actornithophilus kilauensis (Kellogg and Chapman, 1902)

Colpocephalum kilauensis Kellogg and Chapman, 1902, J. N. Y. Ent. Soc., 10:161, pl. 14, fig. 1.

Type host: Heteroscelus incanum (Gmelin)--Wandering Tattler.

Actornithophilus lacustris Clay, 1962

Actornithophilus lacustris Clay, 1962. Bull. Brit. Mus. (N. H.) Ent., 11:220, pl. 5, figs. 1 and 4; pl. 11, fig. 5 and t.f. 20.

Type host: Catoptrophorus semipalmatus (Gmelin)--Willet.

Actornithophilus limarius Clay, 1962

Actornithophilus limarius Clay, 1962. Bull. Brit. Mus. (N. H.), Ent., 11:222, pl. 5, figs. 2 and 5; pl. 11, fig. 4.

Type host: Limnodromus scolopaceus (Say)--Long-tailed Dowitcher.

Other North American host: Limnodromus griseus (Gmelin)--Short-tailed Dowitcher.

Actornithophilus limosae (Kellogg, 1908)

Colpocephalum ochraceum Grube, 1851 (nec Nitzsch, 1818). In Middendorff, Sibir. Reise, 2:490

Colpocephalum limosae Kellogg, 1908. In Wytsman's Gen. Ins., Mallophaga: 56 (nn for C. ochraceum Grube, 1851).

Type host: Limosa lapponica (Linnaeus)--Bar-tailed Godwit.

Other North American host: Limosa fedoa (Linnaeus)--Marbled Godwit.

Actornithophilus mexicanus Emerson, 1953

Actornithophilus mexicanus Emerson, 1953. J. Kansas Ent. Soc., 26:134, fig. 4.

Type host: Himantopus mexicanus (Müller)--Black-necked Stilt.

Actornithophilus ocellatus (Rudow, 1869)

Colpocephalum ocellatum Rudow, 1869. Z. ges. NatWiss., 34:392.

Type host: Numenius phaeopus (Linnaeus)--Whimbrel.

Other North American hosts: None recorded, but probably found on other species of Numenius.

Actornithophilus ochraceus (Nitzsch, 1818)

Liotheum ochraceum Nitzsch, 1818. Mag. Ent.

Germa., 3:299.

Colpocephalum flavipes Giebel, 1874. Insecta Epizoa:
276.

Colpocephalum timidum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6:145, pl. 12, fig. 6.

Colpocephalum perplanum Kellogg and Chapman, 1899.
Occ. Pap. Calif. Acad. Sci., 6:109, pl. 7, fig. 8.

Actornithophilus perrarus Blagoveshtchensky, 1948.
Mag. Parasit., Leningr., 10:270, fig. 8.

Actornithophilus laveni Eichler, 1953. Die Vögelwarte,
16:173.

Type host: Pluvialis apricaria (Linnaeus)--
Eurasian Golden Plover.

Other North American hosts: Charadrius hiaticula
Linnaeus--Ringed Plover.

Charadrius semipalmatus Bonaparte--Semipalmated
Plover.

Charadrius melodus Ord--Piping Plover.

Charadrius alexandrinus Linnaeus--Snowy Plover.

Charadrius mongolus Pallas--Mongolian Plover.

Charadrius wilsonia Ord--Wilson's Plover.

Eupoda montana (Townsend)--Mountain Plover.

Eudromias morinellus (Linnaeus)--Dotterel.

Pluvialis dominica (Müller)--American Golden
Plover.

Squatarola squatarola (Linnaeus)--Black-bellied
Plover.

Actornithophilus paludosus Clay, 1962

Actornithophitus paludosus Clay, 1962. Bull. Brit.
Mus. (N.H.), Ent., 11:219, pl. 5, figs. 3 and 6;
t.f. 47.

Type host: Tringa nebularia (Gunnerus).

North American host: Totanus melanoleucus (Gmelin)--
Greater Yellowlegs.

Actornithophilus patellatus (Piaget, 1890)

Colpocephalum patellatum Piaget, 1890. Tijdschr.
Ent., 33:254, pl. 10, fig. 8.

Type host: Numenius arquata (Linnaeus)--Eurasian Curlew.

Actornithophilus pediculoides (Mjöberg, 1910)

Colpocephalum pediculoides Mjöberg, 1910. Ark.

Zool., 6:44, pl. 2, fig. 6.

Type host: Arenaria interpres (Linnaeus)--Ruddy Turnstone.

Other North American hosts: None recorded, but probably found on Arenaria melanocephala (Vigors)--Black Turnstone.

Actornithophilus piceus lari (Packard, 1870)

Colpocephalum lari Packard, 1870. Amer. Nat., 4:96, pl. 1, fig. 1.

Colpocephalum fuscipes Piaget, 1880. Les Pediculines: 567, pl. 47, fig. 7.

Colpocephalum funebre Kellogg, 1896. Proc. Calif. Acad. Sci., 6:147, pl. 12, fig. 7.

Colpocephalum fumidum Kellogg, 1896. Proc. Calif. Acad. Sci., 6:523, pl. 71, fig. 5.

Colpocephalum abbotti Kellogg, 1899. Occ. Pap. Calif. Acad. Sci. 6:36, pl. 4, fig. 9.

Colpocephalum grandiculum Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6:113, pl. 7, fig. 10.

Type host: Larus marinus Linnaeus--Great Black-backed Gull.

Other North American hosts: Larus hyperboreus Gunnerus--Glaucous Gull.

Larus glaucoides Meyer--Iceland Gull.

Larus glaucescens Naumann--Glaucous--winged Gull.

Larus schistisagus Stejneger--Slaty-backed Gull.

Larus occidentalis Audubon--Western Gull.

Larus fuscus Linnaeus--Lesser Black-backed Gull.

Larus argentatus Pontoppidan--Herring Gull.

Larus californicus Lawrence--California Gull.

Larus delawarensis Ord--Ring-billed Gull.

Larus canus Linnaeus--Mew Gull.

Larus ridibundus Linnaeus--Black-headed Gull.

Larus atricilla Linnaeus--Laughing Gull.

Larus pipixcan Wagler--Franklin's Gull.

Larus philadelphia (Ord)--Bonaparte's Gull.

Larus minutus Pallas--Little Gull.

Larus heermanni Gassin--Heermann's Gull.

Pagophilia eburnea (Phipps)--Ivory Gull.

Rissa tridactyla (Linnaeus)--Black-legged Kittiwake.

Rissa brevirostris (Bruch)--Red-legged Kittiwake.

Rhodostethia rosea (MacGillivray)--Ross Gull.
Xema sabini (Sabine)--Sabine's Gull.

Actornithophilus piceus piceus (Denny, 1842)

Colpocephalum piceum Denny, 1842. Mon. Anopl.
Brit.: 198 and 212, pl. 18, fig. 4.

Colpocephalum maurum Nitzsch, 1866. In Giebel,
Z. ges. NatWiss., 28:395.

Colpocephalum sulcatum Piaget, 1880. Les Pediculines:
565, pl. 47, fig. 5.

Colpocephalum crassipes Piaget, 1880. Les Pediculines:
566, pl. 47, fig. 6.

Actornithophilus funebre candidus Carriker, 1949.
Proc. U.S. Nat. Mus., no. 3254, 100:17.

Larithophilus negroidalis Zlotorzycska, 1963. Acta
Parasit. Polonica, 11:226, fig. 1b and photograph 2.

Larithophilus sperabilis Zlotorzycska, 1963. Acta
Parasit. Polonica, 11:227, fig. 1c and photograph 3.

Type host: Thalasseus sandvicensis (Latham)--
Sandwich Tern.

Other North American hosts: Gelochelidon nilotica
(Gmelin)--Gull-billed Tern.

Sterna trudeaui Audubon--Trudeau's Tern.

Sterna forsteri Nuttall--Forster's Tern.

Sterna hirundo Linnaeus--Common Tern.

Sterna paradisaea Pontoppidan--Arctic Tern.

Sterna dougallii Montagu--Roseate Tern.

Sterna aleutica Baird--Aleutian Tern.

Sterna fuscata Linnaeus--Sooty Tern.

Sterna anaethetus Scopoli--Bridled Tern.

Sterna albifrons Pallas--Least Tern.

Thalasseus maximus (Boddaert)--Royal Tern.

Thalasseus elegans (Gambel)--Elegant Tern.

Hydroprogne caspia (Pallas)--Caspian Tern.

Chlidonias nigra (Linnaeus)--Black Tern.

Chlidonias leucopterus (Temminck)--White-winged
Black Tern.

Actornithophilus pustulosus (Piaget, 1880)

Colpocephalum cornutum Giebel, 1866 (nec Rudow,
1866). Z. ges. NatWiss., 28:395.

Colpocephalum pustulosum Piaget, 1880. Les Pediculines:
559, pl. 46, fig. 8.

Type host: Philomachus pugnax (Linnaeus)--Ruff.

Actornithophilus sabulosus Clay, 1962

Actornithophilus sabulosus Clay, 1962. Bull. Brit. Mus. (N. H.), Ent., 11:228, pl. 4, fig. 3; pl. 9. fig. 1; and t. f. 7, 12, 18, 61 and 62.
Type host: Charadrius semipalmatus Bonaparte-- Semipalmated Plover.

Actornithophilus stictus (Kellogg and Paine, 1911)

Colpocephalum stictum Kellogg and Paine, 1911. Ent. News, 22:77, fig. 2.
Type host: Capella gallinago (Linnaeus)--Common Snipe.

Actornithophilus totani (Schrank, 1803)

Pediculus totani Schrank, 1803. Fauna Boica: 191.
Colpocephalum affine Nitzsch, 1874. In Giebel, Insecta Epizoa: 276.
Type host: Totanus totanus (Linnaeus)--Redshank.
Other North American host: Totanus flavipes (Gmelin)--Lesser Yellowlegs.

Actornithophilus umbrinus (Burmeister, 1838)

Colpocephalum umbrinum Burmeister, 1838. Handb. Ent., 2:438.
Colpocephalum trilobatum Giebel, 1874. Insecta Epizoa: 275.
Colpocephalum umbrinum Piaget, 1880 (nec Burmeister, 1838). Les Pediculines: 556, pl. 46, fig. 6.
Colpocephalum spinulosum minor Kellogg and Chapman, 1899 (nec Piaget, 1880). Occ. Pap. Calif. Acad. Sci., 6:112, pl. 7, fig. 9.
Colpocephalum morsitans Kellogg and Mann, 1912. Ent. News, 23:15, fig. 3.
Colpocephalum umbrosum Harrison, 1916. Parasitology, 9:56 (nn for C. umbrinum Piaget, 1880).
Actornithophilus albus Emerson, 1948. Ent. News, 59:178, figs. 1-2 (nn for C. spinulosum minor Kellogg and Chapman, 1899).
Actornithophilus hrabei Balat, 1953. Zool. Ent. Listy, 2:94 and 104, fig. 2.
Actornithophilus hirsutus Carriker, 1954. Florida Ent., 37:139, fig. 1.
Type host: Erolia testacea (Pallas).

North American hosts: Tringa macularis
(Linnaeus)--Spotted Sandpiper.
Calidris canutus (Linnaeus)--Knot.
Calidris tenuirostris (Horsfield)--Great Knot.
Erolia maritima (Brünnich)--Purple Sandpiper.
Erolia ptilocnemis (Coues)--Rock Sandpiper.
Erolia acuminata (Horsfield)--Sharp-tailed
Sandpiper.
Erolia melanotos (Vieillot)--Pectoral Sandpiper.
Erolia fuscicollis (Vieillot)--White-rumped
Sandpiper.
Erolia bairdii (Coues)--Baird's Sandpiper.
Erolia minutilla (Vieillot)--Least Sandpiper.
Erolia ruficollis (Pallas)--Rufous-necked Sandpiper.
Erolia ferruginea (Pontoppidan)--Curlew Sandpiper.
Erolia alpina (Linnaeus)--Dunlin.
Micropalama himantopus (Bonaparte)--Stilt Sandpiper.
Ereunetes pusillus (Linnaeus)--Semi-palmated
Sandpiper.
Ereunetes mauri Cabanis--Western Sandpiper.
Tryngites subruficollis (Vieillot)--Buff-breasted
Sandpiper.
Crocethia alba (Pallas)--Sanderling.
Phalaropus fulicarius (Linnaeus)--Red Phalarope.
Steganopus tricolor (Vieillot)--Wilson's Phalarope.
Lobipes lobatus (Linnaeus)--Northern Phalarope.

Actornithophilus uniseriatus (Piaget, 1880)

Colpocephalum uniseriatum Piaget, 1880. Les
Pediculines: 562, pl. 47, fig. 2.

Colpocephalum uniforme Kellogg, 1896. Proc.
Calif. Acad. Sci., 6:142, pl. 12, fig. 4.

Type host: Recurvirostra avosetta Linnaeus.

North American host: Recurvirostra americana
Gmelin--American Avocet.

Genus AMYRSIDEA

Amyrsidea Ewing, 1927. J. Wash. Acad. Sci., 17:90.

Type species: Menopon ventrale Nitzsch, 1866.

Argimenopon Eichler, 1947. Ark. Zool., 39A, No. 2:5.

Type species: Argimenopon polytrichum Eichler, 1947.

Cracimenopon Carriker, 1954. Novedades Colombianas, 1(1):22.

Type species: Cracimenopon mituensis Carriker, 1954.

Desumenopon Carriker, 1954. Novedades Colombianas, 1(1):25.

Type species: Amyrsidea praegracilis Carriker, 1950.

No revision of this genus is available. An undescribed species has been reported from the Guinea Fowl.

Hosts which may harbor species of Amyrsidea, but for which no data are available include:

Dendragapus obscurus (Say)--Blue Grouse.

Canachites canadensis (Linnaeus)--Spruce Grouse.

Tympanuchus pallidicinctus (Ridgway)--Lesser Prairie Chicken.

Centrocercus urophasianus (Bonaparte)--Sage Grouse.

Colinus virginianus (Linnaeus)--Bob-white.

Callipepla squamata (Vigors)--Scaled Quail.

Lophortyx californica (Shaw)--California Quail.

Lophortyx gambelii Gambel--Gambel's Quail.

Oreortyx pictus (Douglas)--Mountain Quail.

Cyrtonyx montezumae (Vigors)--Harlequin Quail.

Alectoris graeca (Meisner)--Chukar.

Amyrsidea desousai (Keler, 1953)

Menacanthus desousai Keler, 1953. Mocambique,
no. 72:29, figs. 12-13.

Type host: Numidae meleagris (Linnaeus)--Guinea Fowl.

Amyrsidea lagopi (Grube, 1851)

Menopon lagopi Grube, 1851. In Middendorff, Sibir.
Reise, 2:491, pl. 31, fig. 7.

Menopon striatum Kellogg, 1899. Occ. Pap. Calif.
Acad. Sci., 6:44, pl. 4, fig. 6.

Type host: Lagopus lagopus (Linnaeus)--Willow
Ptarmigan.

Other North American hosts: Lagopus mutus (Montin)--
Rock Ptarmigan.

Lagopus leucurus (Richardson)--White-tailed Ptarmigan.

Amyrsidea megalosoma (Overgaard, 1943)

Menopon megalosomum Overgaard, 1943. Ent.
Medd., 23:13, figs. 5-6.

Menopon hexapilosus Vrazic, 1956. Vet. Arhiv.
Zagreb, 26:121, 126, and 129.

Type host: Phasianus colchicus Linnaeus--Ring-necked
Pheasant.

Other North American hosts: Bonasa umbellus (Linnaeus)--
Ruffed Grouse.

Tympanuchus cupido (Linnaeus)--Greater Prairie Chicken.

Pedioecetes phasianellus (Linnaeus)--Sharp-tailed Grouse.

Amyrsidea minuta Emerson, 1961

Amyrsidea minuta Emerson, 1961. Florida Ent.,
44:117, figs. 1-3.

Type host: Pavo cristatus (Linnaeus)--Peafowl.

Amyrsidea perdicis (Denny, 1842)

Menopon perdicis Denny, 1842. Mon. Anopl. Brit.:
200 and 225, pl. 21, fig. 9.

Type host: Perdix perdix (Linnaeus)--Gray Partridge.

Amyrsidea phaeostoma (Nitzsch, 1866)

Menopon phaeostomum Nitzsch, 1866. In Giebel,
Z. ges. Natwiss., 28:391.

Type host: Pavo cristatus (Linnaeus)--Peafowl.

Amyrsidea spicula Carriker, 1950

Amyrsidea spicula spicula Carriker, 1950. Rev.
Acad. Colomb. Sci., 7:506, figs. 54-55a.

Type host: Ortalis vetula (Wagler)--Chachalaca.

Genus ANCISTRONA

Ancistrona Westwood, 1874. Thesaurus Entomologicus Oxoniensis; 197.

Type species: Ancistrona procellariae Westwood, 1874 (This may be a synonym of Pediculus vagelli J. C. Fabricius, 1787).

No revision of this genus is available; however, a good discussion and illustrations are given in Clay and Hopkins, 1960 (Bull. Brit. Mus. (N.H.), Ent., 9:4). Clay and Hopkins state that specimens have been "seen from various species of Procellariformes."

Ancistrona vagelli (J. C. Fabricius, 1787)

Pediculus vagelli J. C. Fabricius, 1787. Mantissa Ins.: 369.

Menopon giganteum Rudow, 1869. Z. ges. NatWiss., 27:403.

Ancistrona gigas Piaget, 1883. Tijdschr. Ent., 26:152, pl. 9, fig. 1.

Type host: Fulmarus glacialis (Linnaeus)--
Fulmar.

Other North American hosts: Daption capensis (Linnaeus)--Cape Petrel.

Puffinus diomedea (Scopoli)--Cory's Shearwater.

Puffinus creatopus Coues--Pink-footed Shearwater.

Puffinus gravis (O'Reilly)--Greater Shearwater.

Puffinus griseus (Gmelin)--Sooty Shearwater.

Puffinus tenuirostris (Temminck)--Slender-billed Shearwater.

Puffinus opisthomelas Coues--Black-vented Shearwater.

Puffinus puffinus (Brünnick)--Manx Shearwater.

Oceanites oceanicus (Kuhl)--Wilson's Petrel.

Pterodroma arminjoniana (Giglioli and Salvadori)--
South Trinidad Petrel.

Pelagodroma marina (Latham)--White-faced Petrel.

Genus ARDEIPHILUS

Ardeiphilus Bedford, 1939. Onderstepoort J. Vet. Sci.,
12:139.

Type species: Colpocephalum trochioxum (Burmeister,
1838).

Species of this genus are rarely collected. At present it contains four species found on hosts of the family Ardeidae, order Ciconiiformes. Future collections may reveal its presence in North America on more than one host. For a limited discussion of the genus see Tuff, 1965 (Texas J. Sci., 17:110).

Ardeiphilus floridae Tuff, 1965

Ardeiphilus floridae Tuff, 1965. Texas J. Sci., 17:100,
figs. 1-3.

Type host: Leucophoyx thula (Molina)--Snow Egret.

Austromenopon Bedford, 1939. Onderstepoort J. Vet. Sci., 12:122.

Type species: Menopon crocatum Nitzsch, 1866.

Australmenopon Conci, 1942. Boll. Soc. Ent. Ital., 74:30.

Type species: Menopon cincerea Thompson, 1939.

Clay, 1959 (Proc. R. Ent. Soc. London, (B), 28:157) contains a key and limited discussion of distribution of species found on the Charadriiformes. Timmermann, 1954 (Bonn. Zool. Beitr., 5:195) discusses the species found on the family Phaethontidae, order Pelecaniformes.

Hosts which probably have species of Austromenopon, but for which no data are available include:

Phaethon rubicauda Boddaert--Red-tailed Tropic-bird.

Eupoda montana (Townsend)--Mountain Plover.

Eudromias morinellus (Linnaeus)--Dotterel.

Pluvialis apricaria (Linnaeus)--Eurasian Golden Plover.

Pulvalis dominica (Müller)--American Golden Plover.

Aphriza virgata (Gmelin)--Surfbird.

Arenaria interpres (Linnaeus)--Ruddy Turnstone.

Philohela minor (Gmelin)--American Woodcock.

Numenius americanus Beckstein--Long-billed Curlew.

Numenius tahitiensis (Gmelin)--Bristle-thighed Curlew.

Numenius borealis (J. R. Forster)--Eskimo Curlew.

Bartramia longicauda (Bechstein)--Upland Plover.

Actitis macularia (Linnaeus)--Spotted Sandpiper.

Tringa solitaria Wilson--Solitary Sandpiper.

Heteroscelus incanum (Gmelin)--Wandering Tattler.

Totanus melanoleucus (Gmelin)--Greater
Yellowlegs.
Totanus flavipes (Gmelin)--Lesser Yellowlegs.
Calidris canutus (Linnaeus)--Knot.
Erolia maritima (Brunnich)--Purple Sandpiper.
Erolia ptilocnemis (Coues)--Rock Sandpiper.
Erolia acuminata (Horsfield)--Sharp-tailed
Sandpiper.
Erolia melanotos (Vieillot)--Pectoral Sandpiper.
Erolia fuscicollis (Vieillot)--White-rumped
Sandpiper.
Erolia bairdii (Coues)--Baird's Sandpiper.
Erolia minutilla (Vieillot)--Least Sandpiper.
Limnodromus griseus (Gmelin)--Short-billed
Dowitcher.
Limnodromus scolopaceus (Say)--Long-billed
Dowitcher.
Micropalama himantopus (Bonaparte)--Stilt
Sandpiper.
Ereunetes pusillus (Linnaeus)--Semipalmated Sandpiper.
Ereunetes mauri Cabanis--Western Sandpiper.
Tryngites subruficollis (Vieillot)--Buff-breasted
Sandpiper.
Limosa haemastica (Linnaeus)--Hudsonian
Godwit.
Crocethia alba (Pallas)--Sanderling.
Steganopus tricolor (Vieillot)--Wilson's
Phalarope.
Anous stolidus (Linnaeus)--Noddy Tern.
Uria lomvia (Linnaeus)--Thick-billed Murre.
Cephus grylle (Linnaeus)--Black Guillemot.
Cephus columba Pallas--Pigeon Guillemot.
Brachyramphus marmoratum (Gmelin)--
Marbled Murrelet.
Brachyramphus brevirostre (Vigors)--Kittlitz's
Murrelet.
Endomychura hypoleuca (Xantus)--Xantus'
Murrelet.
Endomychura craveri (Salvadori)--Craveri's
Murrelet.
Synthliboramphus antiquum (Gmelin)--Ancient
Murrelet.

Ptychoramphus aleutica (Pallas)--Cassin's
Auklet.

Cyclorrhynchus psittacula (Pallas)--Parakeet
Auklet.

Aethia cristatella (Pallas)--Crested Auklet.

Aethia pusilla (Pallas)--Least Auklet.

Aethia pygmaea (Gmelin)--Whiskered Auklet.

Cerorhinca monocerata (Pallas)--Rhinceros
Auklet.

Fratercula arctica (Linnaeus)--Common Puffin.

Fratercula corniculata (Naumann)--Horned
Puffin.

Lunda cirrhata (Pallas)--Tuffed Puffin.

Rynchops nigra Linnaeus--Black Skimmer.

Austromenopon aegialitidis (Durrant, 1906)

Menopon aegialitidis Durrant, 1906. Ohio. Nat.,
6:529, fig. 1c.

Austromenopon vanelli Zlotorzyska, 1968.

Bull. Ent. Pologne, 38:320, figs. 9-11.

Type host: Charadrius vociferus Linnaeus--Killdeer.

Other North American hosts: Vanellus vanellus
(Linnaeus)--Lapwing.

Charadrius hiaticula Linnaeus--Ringed Plover.

Charadrius semipalmatus Bonaparte--Semipalmated
Plover.

Charadrius melodus Ord--Piping Plover.

Charadrius alexandrinus Linnaeus--Snowy Plover.

Charadrius mongolus Pallas--Mongolian Plover.

Charadrius wilsonia Ord--Wilson's Plover.

Austromenopon alpinum Timmermann, 1954

Austromenopon alpinum Timmermann, 1954. Bonn.
Zool. Beitr., 5:202, fig. 8.

Type host: Erolia alpina (Linnaeus)--Dunlin.

Austromenopon atrofulvum (Piaget, 1880)

Menopon atrofulvum Piaget, 1880. Les Pediculines:
483, pl. 39, fig. 2.

Menopon sternophilum Ferris, 1932. Bull. Bishop.
Mus., 98:59, fig. 12.

Menopon fuscofasciatum minor Piaget, 1937 (nec 1880).
In Thompson, Ann. Mag. Nat. Hist., (10), 20:24.

Actornithophilus leucopleurus Touleshkov, 1959.

Comt. Acad. Bulgare Sci., 12:557, fig. 1.

Austromenopon caspiae Zlotorzyska, 1968.

Bull. Ent. Pologne, 38:311, fig. 3.

Austromenopon putum Zlotorzyska, 1968.

Bull. Ent. Pologne, 38:312, fig. 4.

Austromenopon sternophilum paucum Zlotorzyska, 1968.

Bull. Ent. Pologne, 38:314, fig. 5.

Austromenopon sternophilum piageti Zlotorzyska, 1968.

Bull. Ent. Pologne, 38:315, figs. 6 and 7.

Type host: Thalasseus bergi (Lichtenstein).

Other North American hosts: Gelochelidon nilotica (Gmelin)--Gull-billed Tern.

Sterna trudeaui Audubon--Trudeau's Tern.

Sterna forsteri Nuttall--Forster's Tern.

Sterna hirundo Linnaeus--Common Tern.

Sterna paradisaea Pontoppidan--Arctic Tern.

Sterna dougallii Montagu--Roseate Tern.

Sterna aleutica Baird--Aleutian Tern.

Sterna fuscata Linnaeus--Sooty Tern.

Sterna anaethetus Scopoli--Bridled Tern.

Sterna albifrons Pallas--Least Tern.

Thalasseus maximus (Boddaert)--Royal Tern.

Thalasseus elegans (Gambel)--Elegant Tern.

Thalasseus sandvicensis (Latham)--Sandwich Tern.

Hydroprogne caspia (Pallas)--Caspian Tern.

Chlidonias niger (Linnaeus)--Black Tern.

Chlidonias leucopterus (Temminck)--White-winged Black Tern.

Austromenopon beckii (Kellogg, 1906)

Menopon beckii Kellogg, 1906. Trans. Amer. Ent. Soc., 32:322.

Type host: Phaethon aethereus Linnaeus--Red-billed Tropic-bird.

Austromenopon corporosum (Kellogg and Kuwana, 1900)

Menopon corporosum Kellogg and Kuwana, 1900. Proc. Acad. Nat. Sci. Philad., 23:158, pl. 7, fig. 5.

Type host: Phalaropus fulicarius (Linnaeus)--Red Phalarope.

Austromenopon crocatum (Nitzsch, 1866)

Menopon crocatum Nitzsch, 1866. Z. ges. NatWiss.,
28:392.

Menopon numenii Rudow, 1869. Z. ges. NatWiss.,
34:401.

Type host: Numenius arquata (Linnaeus)--Eurasian
Curlew.

Austromenopon durisetosum (Blagoveshtchensky, 1948)

Menopon durisetosum Blagoveshtchensky, 1948. Mag.
Parasit., Leningr., 10:263, fig. 3.

Type host: Capella gallinago (Linnaeus)--Common
Snipe.

Austromenopon fuscofasciatum (Piaget, 1880)

Menopon fuscofasciatum Piaget, 1880. Les

Pediculines: 492, pl. 40, fig. 9.

Menopon circinatum Piaget, 1890. Tijdschr. Ent.
33:249, pl. 10, fig. 4.

Type host: Stercorarius pomarinus (Temminck)--
Pomarine Jaeger.

Other North American hosts: Stercorarius parasiticus
(Linnaeus)--Parasitic Jaeger.

Stercorarius longicaudus Vieillot--Long-tailed Jaeger.

Catharacta skua Brännich--Skua.

Austromenopon haematopi Timmermann, 1954

Austromenopon haematopi Timmermann, 1954.

Bonn. Zool. Beitr., 5:199, fig. 6.

Type host: Haematopus ostralegus Linnaeus--
European Oystercatcher.

Other North American hosts: Haematopus palliatus
Temminck--American Oystercatcher.

Haematopus bachmani Audubon--Black Oystercatcher.

Austromenopon himantopi Timmermann, 1954

Austromenopon himantopi Timmermann, 1954. Bonn.
Zool. Beitr., 5:199, fig. 6a.

Austromenopon mohni Ansari, 1955. Indian J. Ent.,
17:400.

Type host: Himantopus himantopus (Linnaeus).

Other North American host: Himantopus mexicanus
(Müller)--Black-necked Stilt.

Austromenopon icterum (Burmeister, 1838)

Menopon icterum Burmeister, 1838. Handb. Ent.,
2:400.

Type host: Scolopax rusticola Linnaeus --European
Woodcock.

Austromenopon limosae Timmermann, 1954

Austromenopon limosae Timmermann, 1954. Bonn.
Zool. Beitr., 5:202, fig. 10.

Type host: Limosa limosa (Linnaeus) --Black-tailed
Godwit.

Other North American host: Limosa fedoa (Linnaeus) --
Marbled Godwit.

Austromenopon lutescens (Burmeister, 1838)

Menopon lutescens Burmeister, 1838. Handb. Ent.,
2:440.

Type host: Philomachus pugnax (Linnaeus) --Ruff.

Austromenopon merguli Timmermann, 1954

Austromenopon merguli Timmermann, 1954. Bonn.
Zool. Beitr., 5:197.

Type host: Plautus alle (Linnaeus) --Dovekie.

Austromenopon meyeri (Giebel, 1874)

Menopon meyeri Giebel, 1874. Insecta Epizoa: 296.

Type host: Limosa lapponica (Linnaeus) --Bar-tailed
Godwit.

Austromenopon micrandum (Nitzsch, 1866)

Menopon micrandum Nitzsch, 1866. In Giebel, Z.
ges. NatWiss., 28:392.

Menopon indistinctum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6:157, pl. 14, figs. 6-7.

Type host: Recurvirostra avosetta Linnaeus.

Other North American host: Recurvirostra
americana Gmelin --American Avocet.

Austromenopon miloni (Seguy, 1949)

Menopon miloni Seguy, 1949. Mem. Inst. Sci.,
Madagascar, 3A:165, figs. 1-2.

Type host: Phaethon lepturus Daudin --White-tailed
Tropic-bird.

Austromenopon nigropleurum (Denny, 1842)

Menopon nigro-pleurum Denny, 1842. Mon. Anopl.

Brit.: 200 and 224, pl. 20, fig. 1.

Type host: Alca torda Linnaeus--Razorbill.

Austromenopon phaeopodis (Schrank, 1802)

Pediculus phaeopodis Schrank, 1802. Briefe Natur. ---:
361.

Menopon ambiguum Nitzsch, 1874. In Giebel, Insecta
Epizoa: 295.

Type host: Numenius phaeopus (Linnaeus)--Whimbrel.

Austromenopon sachtlebeni Timmermann, 1954

Austromenopon sachtlebeni Timmermann, 1954.

Bonn. Zool. Beitr., 5:202, fig. 11.

Type host: Catoptrophorus semipalmatus (Gmelin)--
Willet.

Austromenopon spenceri Timmermann, 1956

Austromenopon spenceri Timmermann, 1956.

Bonn. Zool. Beitr., 7:192, fig. 7.

Type host: Lobipes lobatus (Linnaeus)--Northern
Phalarope.

Austromenopon squatarolae Timmermann, 1954

Austromenopon squatarolae Timmermann, 1954. Bonn.
Zool. Beitr., 5:199.

Type host: Squatarola squatarola (Linnaeus)--Black-
bellied Plover.

Austromenopon transversum (Denny, 1842)

Menopon transversum Denny, 1842. Mon. Anopl.

Brit: 201 and 226, pl. 21, fig. 7.

Menopon ridibundis Denny, 1842. Mon. Anopl. Brit.:
201 and 227, pl. 20, fig. 3.

Menopon obtusum Giebel, 1866. Z. ges. NatWiss.,
28:392.

Menopon phaeopus Nitzsch, 1866. In Giebel, Z. ges.
NatWiss., 28:392.

Menopon pachypus Piaget, 1888. Tijdschr. Ent.,
31:161, pl. 4, fig. 4.

Menopon infrequens Kellogg, 1896. Proc. Calif.
Acad. Sci., 6:161, pl. 15, fig. 5.

Menopon lemniscatum Enderlein, 1908. Dtsch.
südpolar Exped. Zool., 2:456, pl. 62, figs. 203,
207, and 210.

Austromenopon transversum circular Zlotorzycska, 1968.
Bull. Ent. Pologne, 37:306, fig. 1.

Austromenopon transversum comitor Zlotorzycska, 1968.
Bull. Ent. Pologne, 37:306, fig. 2.

Type host: Rissa tridactyla (Linnaeus)--Black-legged
Kittiwake.

Other North American hosts: Larus hyperboreus Gunnerus
Glaucous Gull.

Larus glaucoides Meyer--Iceland Gull.

Larus glaucescens Naumann--Clauconscious-winged Gull.

Larus marinus Linnaeus--Great Black-backed Gull.

Larus schistisagus Stejneger--Slaty-backed Gull.

Larus occidentalis Audubon--Western Gull.

Larus fuscus Linnaeus--Lesser Black-backed Gull.

Larus argentatus Pontoppidan--Herring Gull.

Larus californicus Lawrence--California Gull.

Larus delawarensis Ord--Ring-billed Gull.

Larus canus Linnaeus--Mew Gull.

Larus ridibundus Linnaeus--Black-headed Gull.

Larus atricilla Linnaeus--Laughing Gull.

Larus pipixcan Wagler--Franklin's Gull.

Larus philadelphia (Ord)--Bonaparte's Gull.

Larus minutus Pallas--Little Gull.

Larus heermanni Cassin--Heermann's Gull.

Pagophila eburnea (Phipps)--Ivory Gull.

Rissa brevirostris (Brunch)--Red-legged Kittiwake.

Rhodostethia rosea (MacGillivray)--Ross' Gull.

Xema sabini (Sabine)--Sabine's Gull.

Austromenopon uriae Timmermann, 1954

Austromenopon uriae Timmermann, 1954. Bonn. Zool.
Beitr., 5:196, fig. 2.

Type host: Uria aagle (Pontoppidan)--Common Murre.

Genus BONOMIELLA

Bonomiella Conci, 1942. Riv. Soc. Stud. Venezia
Tridentina, 23:1.

Type species: Bonomiella insolitunguicolata
Conci, 1942.

For a limited discussion of species of this genus, see
Emerson, 1957 (Florida Ent., 40:63). Specimens of this genus
are seldom collected, but forms probably are present on:

Columba leucocephala Linnaeus--White-
crowned Pigeon.

Columba squamosa Bonnatere--Scaly-
naped Pigeon.

Columba fasciata Say--Band-tailed Pigeon

Columba flavirostris Wagler--Red-billed
Pigeon.

Zenaida asiatica (Linnaeus)--White-winged
Dove.

Streptopelia risoria (Linnaeus)--Ringed
Turtle Dove.

Columbigallina passerina (Linnaeus)--Ground
Dove.

Scardafella inca (Lesson)--Inca Dove.

Leptotila verreauxi Bonaparte--White-fronted
Dove.

Geotrygon montana (Linnaeus)--Ruddy Quail-Dove.

Geotrygon chrysis Bonaparte--Key West Quail-
Dove.

Bonomiella beieri Eichler, 1959

Bonomiella beieri Eichler, 1959. Z. Med., 14: 1173.

Type host: Streptopelia chinensis (Scopoli)--Spotted Dove.

Bonomiella columbae Emerson, 1957

Bonomiella columbae Emerson, 1957. Florida Ent.,
40:60, figs. 1-3.

Type host: Domestic Pigeon.

Other North American host: Zenaidura macroura
(Linnaeus)--Mourning Dove.

Genus CICONIPHILUS

Ciconiphilus Bedford, 1939. Onderstepoort J. Vet. Sci. 12:141.

Type species: Colpocephalum quadripustulatum Burmeister, 1838.

Anseriphilus Eichler, 1944. Dtsch. Ent. Z., 1943:57.

Type species: Colpocephalum pectiniventre Harrison, 1916.

For a discussion of the genus, see Price and Beer, 1965 (Canad. Ent., 97:657).

The only North American probable host for which no data are available is Ardea occidentalis Audubon--Great White Heron.

Ciconiphilus butoridiphagus Carriker, 1964

Ciconiphilus butoridiphagus Carriker, 1964. Rev. Brasil. Biol., 24:104, fig. 23.

Ciconiphilus melanolophi Price and Beer, 1965.

Canad. Ent., 97:662, fig. 9.

Type host: Butorides virescens (Linnaeus)--Green Heron.

Other North American hosts: Nyctanassa violacea (Linnaeus)--Yellow-crowned Night Heron.

Ixobrychus exilis (Gmelin)--Least Bittern.

Ciconiphilus cygni Price and Beer, 1965.

Ciconiphilus cygni Price and Beer, 1965. Canad. Ent., 97:664, figs. 16-18.

Type host: Olor cygnus (Linnaeus)--Whooper Swan.

Other North American hosts: Cygnus olor (Gmelin)--Mute Swan.

Olor cygnus (Linnaeus)--Whooper Swan.

Olor columbianus (Ord)--Whistling Swan.

Olor buccinator Richardson--Trumpeter Swan.

Ciconiphilus decimfasciatus (Boisduval and Lacordaire, 1835)

Liotheum decimfasciatum Boisduval and Lacordaire, 1835. Faune Ent. Environs Paris: 123.

Colpocephalum importunum Denny, 1842. Mon. Anopl. Brit.: 199 and 214, pl. 18, fig. 1.

- Colpocephalum nyctarde Denny, 1842. Mon. Anopl.
Brit.: 199 and 215, pl. 20, fig. 9.
- Colpocephalum obscurum Giebel, 1874. Insecta
Epizoa: 273.
- Menopon sulcatum Piaget, 1880. Les Pediculines:
485, pl. 39, fig. 7.
- Colpocephalum importunum major Piaget, 1880.
Les Pediculines: 549 (nec 519).
- Colpocephalum trochioxum minor Piaget, 1885
(nec 1880). Les Pediculines, Supplement: 128.
- Colpocephalum castaneum Piaget, 1885. Les
Pediculines, Supplement: 153, pl. 16, fig. 7.
- Colpocephalum laticeps Kellogg, 1896. Proc.
Calif. Acad. Sci., 6:149, pl. 12, fig. 8.
- Colpocephalum veratrum Kellogg, 1910. Wiss.
Ergebn. Schwed. Zool. Exped. Kilimandjaro,
3, abt. 15:52, pl. 7, fig. 9.
- Colpocephalum tamamurensis Uchida, 1926. J.
Coll. Agri., Tokyo, 9:37, fig. 13.
- Colpocephalum boisduvali Eichler, 1937. Sitz.
Ges. Naturf. Fr. Berlin, 1937; 96 (nn for C.
importunum major Piaget, 1880).
- Pseudocolpocephalum doriabagla Ansari, 1951.
Proc. Nat. Inst. India, 17:154, fig. 11.
- Ciconiphilus nyctardis hoactli Carriker, 1964.
Rev. Brasil. Biol., 24:100, figs. 11 and 12.
- Ciconiphilus nyctardis violaceus Carriker, 1964.
Rev. Brasil. Biol., 102, figs. 13 and 14.
- Ciconiphilus pilherodii Carriker, 1964. Rev.
Brasil. Biol., 24:102, figs. 15-18.
- Ciconiphilus agami Carriker, 1964. Rev. Brasil.
Biol., 24:103, figs. 19 and 20.
- Ciconiphilus floridus Carriker, 1964. Rev. Brasil.
Biol., 24:104, figs. 21 and 22.
- Type host: Ardea cinerea Linnaeus--Gray Heron.
North American hosts: Ardea herodias Linnaeus--
Great Blue Heron.
- Florida caerulea (Linnaeus)--Little Blue Heron.
Bubulcus ibis (Linnaeus)--Cattle Egret.
Dichromanassa rufescens (Gmelin)--Reddish Heron.
Casmerodius albus (Linnaeus)--Common Egret.
Leucophoyx thula (Molina)--Snowy Egret.

Egretta garzetta (Linnaeus)--Little Egret.
Hydranassa tricolor (Müller)--Louisiana Heron.
Nycticorax nycticorax (Linnaeus)--Black-crowned
Night Heron.
Nyctanassa violacea (Linnaeus)--Yellow-crowned
Night Heron.
Botaurus lentiginosus (Rackett)--American Bittern.

Ciconiphilus pectiniventris (Harrison, 1916)

Menopon pectinatum Neumann, 1912 (nec Osborn,
1902). Arch. Parasit., Paris, 15:368, fig. 15.
Colpocephalum pectiniventre Harrison, 1916. Parasit.,
9:53 (nn for M. pectinatum Neumann, 1912).
Colpocephalum pectiniventre parvum Blagoveshtchensky,
1948. Mag. Parasit., Leningr., 10:269, fig. 7.
Type host: Domestic Goose.
Other North American hosts: Anser albifrons (Scopoli)--
White-fronted Goose.
Branta canadensis (Linnaeus)--Canada Goose.
Branta bernicla (Linnaeus)--Brant.
Branta nigricans (Lawrence)--Black Brant.
Branta leucopsis (Bechstein)--Barnacle Goose.
Anser fabalis (Latham)--Bean Goose.
Philacte canagica (Sewastianov)--Emperor Goose.
Chen hyperborea (Pallas)--Snow Goose.
Chen caerulescens (Linnaeus)--Blue Goose.
Chen rossii (Cassin)--Ross' Goose.

Ciconiphilus quadripustulatus (Burmeister, 1838)

Colpocephalum quadripustulatum Burmeister, 1838.
Handb. Ent., 2:438.
Menopon maculipes Giebel, 1874. Insecta Epizoa: 298.
Menopon tantali Giebel, 1874. Insecta Epizoa: 298.
(nn for M. maculipes Giebel, 1874).
Menopon planiceps Piaget, 1885. Les Pediculines,
Supplement: 115, pl. 12, fig. 6.
Menopon cingulatum Piaget, 1885. Les Pediculines,
Supplement: 91, pl. 9, fig. 9.
Type host: Ciconia ciconia (Linnaeus).
North American host: Mycteria americana Linnaeus--
Wood Ibis.

Genus CLAYIA

Clayia Hopkins, 1941. J. Ent. Soc. S. Africa, 4:46.

Type species: Colpocephalum mjöbergi Cummings,
1914.

Diasiella Tendeiro, 1955. Garcia de Orta, 3:136.

Type species: Diasiella cruzi Tendeiro, 1955.

For a discussion of the genus see Emerson, 1954
(Proc. Ent. Soc. Wash., 56:203). The only species of the
genus expected in North America is listed. Normal hosts
are species of Old-World Galliformes.

Clayia theresae Hopkins, 1941

Clayia theresae Hopkins, 1941. J. Ent. Soc. S.
Afr., 4:46.

Type host: Numida meleagris (Linnaeus)--Guinea
Fowl.

Genus COLPOCEPHALUM

Colpocephalum Nitzsch, 1818. Mag. Ent. Germar, 3:298.

Type species: Colpocephalum zebra Burmeister, 1838
(By designation by the International Commission of
Zoological Nomenclature).

Ferrisia Uchida, 1926 (nec Fullaway, 1923). J. Coll. Agri.,
Tokyo, 9:43.

Type species: Colpocephalum turbinatum Denny, 1842.

Neocolpocephalum Ewing, 1933. J. Parasit., 20:65 (nn for
Ferrisia Uchida, 1926).

Pseudocolpocephalum Qadri, 1936. Z. Parasit., 8:640.

Type species: Pseudocolpocephalum uchidi Qadri,
1936.

Allocolpocephalum Qadri, 1936. Ind. J. Ent., 1:66.

Type species: Colpocephalum semicinctum Rudow,
1866 (A synonym of Colpocephalum fragili Denny,
1842).

Corvocephalum Conci, 1942. Boll. Soc. Ent. Ital., 74:30.

Type species: Colpocephalum subaequale Burmeister,
1838 (A synonym of Colpocephalum fragili Denny,
1842).

Dimorphiventer Eichler, 1944. Dtsch. Ent. Z., 1943:60.

Type species: Colpocephalum spineum Kellogg, 1899.

Galligogus Eichler, 1947. Ark. Zool., 39A:10.

Type species: Colpocephalum appendiculatum
Nitzsch, 1866.

Liothella Eichler, 1947. Ark. Zool., 39A:15.

Type species: Colpocephalum leptopygus Nitzsch,
1874.

Pelëcanigogus Eichler, 1949. Boll. Soc. Ent. Ital., 79:12.

Type species: Colpocephalum eucarenum Burmeister,
1838.

Galliferrisia Ansari, 1951. Proc. Nat. Inst. Sci. India, 17:150.

Type species: Galliferrisia tausi Ansari, 1951.

Picusphilus Ansari, 1951. Proc. Nat. Inst. Sci. India, 17:163.

Type species: Cuculiphilus (Picusphilus) tirkhan Ansari, 1951.

Cariamigogus Eichler, 1952. Zool. Anz., 149:76.

Type species: Colpocephalum breve Giebel, 1866.

Scopigogus Eichler, 1952. Zool. Anz., 149:77.

Type species: Colpocephalum scopinum Mjöberg, 1910.

Vulturigogus Eichler and Zlotorzycza, 1963. Acta Parasit. Polonica, 11:205.

Type species: Colpocephalum kelloggi Osborn, 1902.

Gypsigogus Eichler and Zlotorzycza, 1963. Acta Parasit. Polonica, 11:212.

Type species: Gypsigogus novoannus Eichler and Zlotorzycza, 1963.

Lanicephalum Zlotorzycza, 1964. Acta Parasit. Polonica, 12:187.

Type species: Allocolpocephalum (Lanicephalum) laniidorum Zlotorzycza, 1964 (A synonym of Colpocephalum fregili Denny, 1842).

Price and Beer have published a series of papers in which the species found on each host group are reviewed. These papers are: Strigiformes - 1963, J. Kansas Ent. Soc., 36:58; Corvidae - 1965, Proc. Ent. Soc. Wash., 67:7; Piciformes - 1964, J. N. Y. Ent. Soc., 77:162; Falconiformes - 1963, Canad. Ent., 95:731; Galliformes - 1964, Ann. Ent. Soc. Amer., 57:391; Phoenicopteridae and Ciconiiformes - 1965, Ann. Ent. Soc. Amer., 58:111; and Pelecaniformes - 1967, Canad. Ent., 99:273.

Colpocephalum ajajae Ewing, 1930

Colpocephalum ajajae Ewing, 1930. Proc. Biol. Soc. Wash., 43:126.

Type host: Ajaja ajaja (Linnaeus)--Roseate Spoonbill.

Colpocephalum brachysomum Kellogg and Chapman, 1902
Colpocephalum brachysomum Kellogg and Chapman,
1902. J. N. Y. Ent. Soc., 10:162, pl. 14, fig. 3.
Colpocephalum discrepans Kellogg and Chapman,
1902. J. N. Y. Ent. Soc., 10:164, pl. 15, fig. 1.
Kurodaia keleri Emerson, 1961. Proc. Biol. Soc.
Wash., 74:191, figs. 7-9.
Type host: Asio flammeus (Pontoppidan)--Short-
eared Owl.
Other North American host: Bubo virginianus
(Gmelin)--Great Horned Owl.

Colpocephalum californici Price and Beer, 1963
Colpocephalum californici Price and Beer, 1963.
Canad. Ent., 95:740, figs. 5 and 9.
Type host: Gymnogyps californianus (Shaw)--
California Condor.

Colpocephalum flavescens (deHaan, 1829)
Liotheum flavescens deHaan, 1829. Mem. Mus.
Hist. Nat. Paris, 18:309.
Type host: Haliaeetus albicilla (Linnaeus)--Gray Sea Eagle.
Other North American hosts: Aquila chrysaetos (Linnaeus)--
Golden Eagle.
Haliaeetus leucocephalus (Linnaeus)--Bald Eagle.
Haliaeetus pelagicus (Pallas)--Steller's Sea Eagle.

Colpocephalum foetens (Eichler, 1954)
Neocolpocephalum foetens Eichler, 1954. Beitr.
Fauna Perus, 4:44, figs. 27-29.
Type host: Coragyps atratus (Bechstein)--Black Vulture.

Colpocephalum fregili Denny, 1842
Colpocephalum subaequale Burmeister, 1838 (nec
deHaan, 1829). Handb. Ent., 2:438.
Colpocephalum fregili Denny, 1842. Mon. Anopl.
Brit.: 198 and 208, pl. 20, fig. 4.
Colpocephalum semicinctum Rudow, 1866. Z. ges.
NatWiss., 27:475.
Colpocephalum trimaculatum Piaget, 1880. Les
Pediculines: 525, pl. 43, fig. 8.
Colpocephalum elongatum Piaget, 1880. Les
Pediculines: 529, pl. 44, fig. 2.

Colpocephalum ellipticum Piaget, 1880. Les

Pediculines: 570, pl. 48, fig. 1.

Colpocephalum splendens Ansari, 1955. Proc. VII

Pakistan Sci. Conf., Sec. Biol.: 51.

Colpocephalum laurencei Ansari, 1955. Proc. VII

Pakistan Sci. Conf., Sec. Biol.: 51 (nn for C. subaequale
Burmeister, 1838).

Colpocephalum bengalensis Ansari, 1955. Proc. VII

Pakistan Sci. Conf., Sec. Biol.: 58.

Allocolpocephalum frugilegi Zlotorzyczka, 1964.

Acta Parasit. Polonica, 12:186, fig. 9a and
photograph 13 (nn for Colpocephalum subaequale
Burmeister, 1838).

Lanicephalum laniidorum Zlotorzyczka, 1964. Acta

Parasit. Polonica, 12:188, fig. 9b and photograph
14.

Type host: Pyrrhocorax pyrrhocorax (Linnaeus).

North American hosts: Corvus corax Linnaeus--
Common Raven.

Corvus cryptoleucus Couch--White-necked Raven.

Corvus ossifragus Wilson--Fish Crow.

Corvus frugilegus Linnaeus--Rook.

Corvus cornix Linnaeus--Hooded Crow.

Colpocephalum fusconigrum Giebel, 1874

Colpocephalum fusconigrum Giebel, 1874. Insecta

Epizoa: 274.

Type host: Eudocimus albus (Linnaeus)--White Ibis.

Colpocephalum heterosoma Piaget, 1880

Colpocephalum heterosoma Piaget, 1880. Les

Pediculines: 572, pl. 48, figs. 3 and 4.

Colpocephalum heterosoma boliviana Carriker,

1956. Rev. Brasil. Ent., 5:139, figs. 23 and 24.

Colpocephalum poopoensis Carriker, 1956. Rev. Brasil.

Ent., 5:140, figs. 25-27.

Type host: Phoenicopterus antiquorum Temminck.

North American host: Phoenicopterus ruber Linnaeus--
American Flamingo.

Colpocephalum impressum Rudow, 1866

Colpocephalum impressum Rudow, 1866. Z. ges.

NatWiss.: 27, 475.

Type host: Aquila chrysaetos (Linnaeus)--Golden Eagle.

Colpocephalum kelloggi Osborn, 1902

Colpocephalum kelloggi Osborn, 1902. Ohio Nat.,

2:175, pl. 2, fig. 2.

Type host: Cathartes aura (Linnaeus)--Turkey Vulture.

Colpocephalum leptopygos Nitzsch, 1874

Colpocephalum leptopygos Nitzsch, 1874. In Giebel,

Insecta Epizoa: 273.

Ferribia gracilis Dubinin, 1938. Trav. Reserve

Etat. Astrakhan, 2:184, fig. 14.

Ferribia blagoweschenskii Dubinin, 1938. Trav.

Reserve Etat. Astrakhan, 2:182, fig.

Liothella humboldti Eichler, 1954. Beitr. Fauna.

Perus 4:47, fig. 31.

Type host: Plegadis falcinellus (Linnaeus)--Glossy Ibis.

Other North American host: Plegadis chihi (Vieillot)--White-faced Ibis.

Colpocephalum mycteriae Price and Beer, 1965

Colpocephalum mycteriae Price and Beer, 1965. Ann.

Ent. Soc. Amer., 58:114, figs. 9-12.

Type host: Mycteria americana Linnaeus--Wood Ibis.

Colpocephalum nanum Piaget, 1890

Colpocephalum nanum Piaget, 1890. Tijdschr. Ent.

33:257, pl. 10, fig. 10.

Neocolpocephalum buteonis Eichler, 1954. In Bach and

Eichler, Monatsch. f. Vet., 9:13, figs. 1, 3 and 4.

Type host: unknown (see Price and Beer (1963),

Canad. Ent., 95:731.

Other North American hosts: Buteo lineatus (Gmelin)--Red-shouldered Hawk.

Buteo jamaicensis (Gmelin)--Red-tailed Hawk.

Buteo lagopus (Pontoppidan)--Rough-legged Hawk.

Accipiter gentilis (Linnaeus)--Goshawk.

Accipiter cooperii (Bonaparte)--Cooper's Hawk.

Colpocephalum napiforme Rudow, 1869

Colpocephalum napiforme Rudow, 1869. Z. ges. NatWiss., 24:395.

Colpocephalum heterospizium Carriker, 1963. Mem. Soc. Cien. Nat. LaSalle, 23:15, pl. 1b, figs. 3d and 4a; pl. II, fig. 3; and pl. III, fig. 3a.

Type host: Buteo jamaicensis (Gmelin)--Red-tailed Hawk.

Other North American host: Buteo lineatus (Gmelin)--Red-shouldered Hawk.

Colpocephalum occidentalis Price, 1967

Colpocephalum occidentalis Price, 1967. Canad. Ent., 99:276, figs. 8 and 9.

Type host: Pelecanus occidentalis Linnaeus--Brown Pelican.

Colpocephalum osborni Kellogg, 1896

Colpocephalum osborni Kellogg, 1896. Proc. Calif. Acad. Sci., 6:521, pl. 71, figs. 2 and 3.

Type host: Elanus leucurus (Vieillot)--White-tailed Kite.

Other North American host: Elanoides forficatus (Linnaeus)--Swallow-tailed Kite.

Colpocephalum pectinatum Osborn, 1902

Colpocephalum pectinatum Osborn, 1902. Ohio Nat., 2:201, pl. 14, fig. 2.

Colpocephalum ictinae Carriker, 1963. Mem. Soc. Cien. Nat. LaSalle, 23:13, pl. 1b, fig. 3b; and pl. III, figs. 2 and 3b.

Conciella pectinata neotropicalis Carriker, 1963.

Mem. Soc. Cien. Nat. LaSalle, 23:16, pl. 2, fig. 1; and pl. 3, fig. 3c.

Type host: Speotyto cunicularia (Molina)--Burrowing Owl.

Colpocephalum plataleae Price and Beer, 1965

Colpocephalum plataleae Price and Beer, 1965. Ann. Ent. Soc. Amer., 58:123, figs. 61-63.

Type host: Platalea leucorodia Linnaeus--White Spoonbill.

Colpocephalum polybori Rudow, 1869

Colpocephalum polybori Rudow, 1869. Z. ges. NatWiss.,
34:397.

Type host: Caracara plancus (J. F. Miller).

Other North American host: Caracara cheriway (Jacquin)--
Caracara.

Colpocephalum scalariforme Rudow, 1866

Colpocephalum scalariforme Rudow, 1866. Z. ges.
NatWiss., 27:471.

Type host: Mycteria americana Linnaeus--Wood Ibis.

Colpocephalum spineum Kellogg, 1899

Colpocephalum spineum Kellogg, 1899. Occ. Pap.
Calif. Acad. Sci., 6:38, pl. 4, fig. 1.

Type host: Fregata magnificens Mathews--Magnificent
Frigate-bird.

Colpocephalum tausi (Ansari, 1951)

Galliferrisia tausi Ansari, 1951. Proc. Nat. Inst. Sci.
India, 17:151, fig. 10.

Type host: Pavo cristatus (Linnaeus)--Peafowl

Other North American host: Meleagris gallopavo
Linnaeus--Turkey.

Colpocephalum turbinatum Denny, 1842

Colpocephalum turbinatum Denny, 1842. Mon. Anopl.
Brit.: 198 and 209, pl. 21, fig. 1.

Colpocephalum oxyurum Nitzsch, 1861. In Giebel,
Z. ges. NatWiss., 17:519.

Colpocephalum ailurum Nitzsch, 1861. In Giebel,
Z. ges. NatWiss., 17:522.

Colpocephalum bicinctum Nitzsch, 1861. In Giebel,
Z. ges. NatWiss., 17:524.

Colpocephalum tricinctum Nitzsch, 1861. In Giebel,
Z. ges. NatWiss., 17:524.

Colpocephalum longicaudum Nitzsch, 1866. In Giebel,
Z. ges. NatWiss., 28:392.

Colpocephalum caudatum Giebel, 1874. Insecta
Epizoa: 261.

Colpocephalum caudatum setosum Piaget, 1880. Les
Pediculines: 519.

- Colpocephalum dissimile Piaget, 1880. Les
Pediculines: 520, pl. 43, fig. 4.
- Colpocephalum intermedium Piaget, 1880. Les
Pediculines: 521 (nn for C. tricinatum Nitzsch, 1861).
- Colpocephalum subflavescens Piaget, 1880. Les
Pediculines: 571, pl. 48, fig. 2.
- Colpocephalum dissimile major Piaget, 1885 (nec 1880).
Les Pediculines, Supplement: 119, pl. 13, fig. 2.
- Colpocephalum caudatum longipes Piaget, 1885
(nec 1880). Les Pediculines, Supplement: 125.
- Colpocephalum latifasciatum Piaget, 1885. Les
Pediculines, Supplement: 130, pl. 14, fig. 2.
- Colpocephalum osborni costaricense Carriker, 1903.
Univ. Stud. Nebr., 3:172.
- Colpocephalum abruptofasciatum Mjöberg, 1910.
Ark. Zool. 6:36, fig. 23.
- Neocolpocephalum gypae Qadri, 1935. Zeit. Parasit.,
8:229, fig. 3.
- Neocolpocephalum tricinatum wetzeli Eichler, 1941.
Arch. Naturgesch., B (n.f.), 10:374, fig. 23.
- Vulturigogus eugenii Eichler and Zlotorzyska, 1963.
Acta Parasit. Polon., 11:207, fig. 4., pl. 1., figs. 2 and 3.
- Vulturigogus femellus Eichler and Zlotorzyska, 1963.
Acta Parasit. Polon., 11:209, pl. 1, fig. 4.
- Type host: Domestic Pigeon.
- Other North American hosts: Haliaeetus leucocephalus
(Linnaeus)--Bald Eagle.
- Elanus leucurus (Vieillot)--White-tailed Kite.
- Rostrhaus sociabilis (Vieillot)--Everglade Kite.
- Circus cyaneus (Linnaeus)--Marsh Hawk.
- Buteo jamaicensis (Gmelin)--Red-tailed Hawk.
- Buteo swainsoni Bonaparte--Swainson's Hawk.
- Streptopelia chinensis (Scopoli)--Spotted Dove.

- Colpocephalum unciferum Kellogg, 1896
- Colpocephalum unciferum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6:140, pl. 12, figs. 1-3.
- Type host: Pelecanus erythrorhynchos Gmelin--White
Pelican (see Price (1967), Canad. Ent., 99:274).

- Colpocephalum zerafae Ansari, 1955.
- Colpocephalum zerafae Ansari, 1955. Proc. VII Pakistan
Sci. Conf. Sec. Biol., : 52. (Also described as a new
species in Ind. J. Ent., 17 (1956): 399 and Ind. J. Ent.,
18 (1957): 428).

Colpocephalum falconii falconii Carriker, 1963. Mem. Soc. Cien. Nat. LaSalle, 23:9, pl. 1b, figs. 1, 3a and 4c.

Colpocephalum falconii caerulescens Carriker, 1963. Mem. Soc. Cien. Nat. LaSalle, 23:11, pl. 1b, fig. 4b; and pl. 4, fig. 4.

Colpocephalum falconii rufigularis Carriker, 1963. Mem. Soc. Cien. Nat. LaSalle, 23:11, pl. 1b, fig. 2; pl. 2, fig. 2a; and pl. 4, fig. 3b.

Type host: Falco jugger J. E. Gray.

Other North American hosts: Falco peregrinus Tunstall-- Peregrine Falcon.

Falco sparverius Linnaeus--Sparrow Hawk.

Falco mexicanus Schlegel--Prairie Falcon.

Falco columbarius Linnaeus--Pigeon Hawk.

Falco femoralis Temminck--Aplomado Falcon.

Falco tinnunculus Linnaeus--Kestrel.

Genus COMATOMENOPON

Comatomenopon Uchida, 1920. Annot. Zool. Japan., 9:648.

Type species: Comatomenopon elongatum Uchida, 1920.

Discussions of the genus are contained in Emerson, 1957 (Ann. Mag. Nat. Hist., (12), 10:710); Price 1965 (Pan-Pacific Ent., 41:80); and Tuff, 1967 (J. Med. Ent., 4:247).

All species of Ardeidae not listed below are probable hosts.

Comatomenopon dichromanassae Tuff, 1967

Comatomenopon dichromanassae Tuff, 1967. J. Med. Ent., 4:247, figs. 1 and 3.

Type host: Dichromanassa rufescens (Gmelin)--Reddish Egret.

Comatomenopon elongatum Uchida, 1920

Comatomenopon elongatum Uchida, 1920. Annot. Zool. Japan, 9:649, figs. 1-3.

Type host: Egretta garzetta (Linnaeus)--Little Egret.

Comatomenopon exilis Price, 1965

Comatomenopon exilis Price, 1965. Pan-Pacific Ent., 41:84, fig. 1.

Type host: Ixobrychus exilis (Gmelin)--Least Bittern.

Comatomenopon ibis Emerson, 1957

Comatomenopon ibis Emerson, 1957. Ann. Mag. Nat. Hist., (12), 10:711, fig. 3.

Type host: Bubulcus ibis (Linnaeus)--Cattle Egret.

Comatomenopon thulae Tuff, 1967

Comatomenopon thulae Tuff, 1967. J. Med. Ent., 4:249, figs. 2 and 4.

Type host: Leucophoyx thula (Molina)--Snowy Egret.

Genus CUCULIPHILUS

Cuculiphilus Uchida, 1926. J. Coll. Agri. Tokyo, 9:47
Type species: Pediculus fasciatus Scopoli, 1763.

Falcophilus Guimaraes, 1942. Pap. Avulsos. Dept. Zool.
S. Paulo, 2:241.
Type species: Menopon alternatum Osborn, 1902.

Aegyphiphilus Eichler, 1944. Dtsch. Ent. Zeitr., 1943:56.
Type species: Aegyphiphilus gypsis Eichler, 1944.

Vulturiphilus Eichler, 1948. Entomologist, 81:251 (nn for
Falcophilus Guimaraes, 1942).

Carrikeria Hopkins, 1947. Ann. Mag. Nat. Hist. (11), 13:182.
Type species: Menacanthus megaspinus Carriker, 1940.

Ctenomenacanthus Conci, 1947. Boll. Soc. Ent. Ital., 77:31.
Type species: Menacanthus megaspinus Carriker, 1940.

For a revision of the genus, see Scharf and Price, 1965
(Ann. Ent. Soc. Amer., 58:546). In North America, species
of the genus are found on hosts of the family Cathartidae, order
Falconiformes and the family Cuculidae, order Cuculiformes.

The subgenus Falcophilus is found on the Vultures, and
the subgenus Cuculiphilus is found on Cuckoos. The subgenera
Carrikeria (on Opisthocomidae: Galliformes) and Aegyphiphilus
(on Aegyptiinae: Falconiformes) are not found in North America.

The probable North American hosts for which no data exist
are: Cuculus saturatus (Blyth)--Oriental Cuckoo and Coccyzus
erythrophthalmus (Wilson)--Black-billed Cuckoo.

Cuculiphilus alternatus (Osborn, 1902)

Menopon alternatum Osborn, 1902. Ohio Nat., 2:175,
pl. 2, fig. 1.

Falcophilus coragypsis Eichler, 1948. Entomologist,
81:251, figs. 1-7.

Type host: Cathartes aura (Linnaeus)--Turkey Vulture.

Other North American hosts: Coragyps atratus (Bechstein)--
Black Vulture.

Gymnogyps californianus (Shaw)--California Condor.

Cuculiphilus decoratus (Kellogg, 1896)

Menopon decoratum Kellogg, 1896. Proc. Calif.

Acad. Sci., 6:526, pl. 72, fig. 2.

Type host: Elanus leucurus (Vieillot)--White-tailed Kite.

Other North American host: Elanoides forficatus
(Linnaeus)--Swallow-tailed Kite.

Cuculiphilus snodgrassi (Kellogg and Kuwana, 1902)

Menopon snodgrassi Kellogg and Kuwana, 1902.

Proc. Wash. Acad. Sci., 4:486, pl. 31, fig. 3.

Menopon galapagensis Kellogg and Kuwana, 1902.

Proc. Wash. Acad. Sci., 4:487, pl. 31, fig. 4.

Cuculiphilus coromandus Uchida, 1926. J. Coll.

Agri., Tokyo, 9:49, fig. 17.

Cuculiphilus coromandus centropi Qadri, 1935.

Z. Parasit., 8:231, fig. 4.

Cuculiphilus pupiya Ansari, 1951. Proc. Nat. Inst.

Sci., India, 17:158, fig. 13a-3.

Type host: Coccyzus melanocoryphus Vieillot.

North American hosts: Coccyzus americanus (Linnaeus)--
Yellow-billed Cuckoo.

Coccyzus minor (Gmelin)--Mangrove Cuckoo.

Genus DENNYUS

Nitzschia Denny, 1842 (nec Baer, 1827). Mon. Anopl. Brit.: 230.

Type species: Nitzschia burmeisteri Denny, 1842
(A synonym of Pediculus hirundinis Linnaeus, 1761).

Dennyus Neumann, 1906. Bull. Soc. Zool. Fr., 20:60

(nn for Nitzschia Denny, 1842).

Takamatsuaia Uchida, 1926. J. Coll. Agri., Tokyo, 9:32.

Type species: Takamatsuaia major Uchida, 1926.

Ctenodennyus Ewing, 1930. Proc. U. S. Nat. Mus., 77:9.

Type species: Dennyus (Ctenodennyus) spiniger
Ewing, 1930.

For a review of the North American species, see Emersor.
and Pratt, 1956 (J. Kansas Ent. Soc., 29:21). It is doubtful that
any additional species will be found on North American hosts.

Dennyus bruneri (Carriker, 1903)

Nitzschia pulicaris tibialis Carriker, 1902 (nec Piaget,
1880). J. N. Y. Ent. Soc., 10:225, pl. 22, figs. 4-5.

Nitzschia bruneri Carriker, 1903. Univ. Stud. Nebr.,
3:177 (nn for N. tibialis Carriker, 1902).

Type host: Aëronautes saxatalis (Woodhouse)--White-
throated Swift.

Dennyus clayae Nakagawa, 1959

Dennyus clayae Nakagawa, 1959. Jap. J. Sanitary Zool.,
10:164, figs. 1-4.

Type host: Apus pacificus (Latham)--White-rumped Swift.

Dennyus dubius (Kellogg, 1896)

Nitzschia dubius Kellogg, 1896. Proc. Calif. Acad.
Sci., 6:540, pl. 73, fig. 6.

Type host: Chaetura pelagica (Linnaeus)--Chimney Swift.

Dennyus hirundinis (Linnaeus, 1761)

Pediculus hirundinis Linnaeus, 1761. Fauna Suecica, ed. 2:479.

Nirmus truncatus Olfers, 1816. De Veget. : 91.

Nitzschia burmeisteri Denny, 1842. Mon. Anopl. Brit. : 202 and 231, pl. 22, fig. 5.

Menopon pulicare Denny, 1842 (nn for N. burmeisteri Denny, 1842). Mon. Anopl. Brit. : 231.

Nitzschia tibialis Piaget, 1880. Les Pediculines: 576, pl. 48, fig. 5.

Type host: Apus apus (Linnaeus)--Common Swift.

Dennyus spiniger Ewing, 1930

Dennyus spiniger Ewing, 1930. Proc. U.S. Nat. Mus., no. 2843, 77:9, figs. 4 and 7d.

Type host: Cypseloides niger (Gmelin)--Black Swift.

Dennyus vauxi Emerson and Pratt, 1956

Dennyus vauxi Emerson and Pratt, 1956. J. Kansas Ent. Soc., 29:23, figs. 3-5.

Type host: Chaetura vauxi (Townsend)--Vaux's Swift.

Genus EIDMANNIELLA

Eidmanniella Keler, 1938. Ann. Mus. Zool. Polon., 13:81.

Type species: Menopon brevipalpe Piaget, 1880 (A synonym of Menopon pellucidum Rudow, 1869)

This genus has been revised by Ryan and Price, 1969 (Ann. Ent. Soc. Amer., 62:815). Species of this genus are found on hosts of the families Sulidae and Phalacrocoracidae; order Pelecaniformes. No species of Menoponidae are known from the family Anhingidae, but extensive collecting might yield this genus or a related one.

Hosts which should harbor species of Eidmanniella, but for which no data are available include:

Phalacrocorax pelagicus Pallas--Pelagic Cormorant.
Phalacrocorax urile (Gmelin)--Red-faced Cormorant.
Anhinga anhinga (Linnaeus)--Anhinga.

Eidmanniella albescens (Piaget, 1880)

Menopon albescens Piaget, 1880. Les Pediculines: 491, pl. 41, fig. 4.

Menopon singularis Kellogg and Kuwana, 1902. Proc. Wash. Acad. Sci., 4:485, pl. 31, fig. 1.

Eidmanniella sula Tendeiro, 1958. Garcia de Orta, 6:443, figs. 1-2, photo plates 1-4.

Type host: unknown.

North American hosts: Sula dactylatra Lesson--Blue-faced Booby.

Sula nebouxii Milne-Edwards--Blue-footed Booby.

Sula leucogaster (Boddaert)--Brown Booby.

Sula sula Linnaeus--Red-footed Booby.

Eidmanniella eurygaster (Nitzsch, 1866)

Menopon eurygaster Nitzsch, 1866. Z. ges. NatWiss., 28:393.

Type host: Phalacrocorax olivaceus (Humboldt)--Olivaceous Cormorant.

Eidmanniella pellucida (Rudow, 1869)

Menopon pellucidum Rudow, 1869. Z. ges. NatWiss.,
34:400.

Menopon brevipalpe Piaget, 1880. Les Pediculines:
498, pl. 40, fig. 5.

Menopon sigmoidalis Picaglia, 1885. Atti. Soc. Ital.
Sci. Nat., 28:87.

Menopon kuwani Kellogg and Chapman, 1902. J. N. Y.
Ent. Soc., 10:26, pl. 3, fig. 4.

Type host: Phalacrocorax capensis (Sparman).

North American hosts: Phalacrocorax carbo (Linnaeus)--
Great Cormorant.

Phalacrocorax auritus (Lesson)--Double-crested
Cormorant.

Phalacrocorax penicillatus (Brandt)--Brandt's
Cormorant.

Eidmanniella pustulosa (Nitzsch, 1866)

Menopon pustulosum Nitzsch, 1866. In Giebel, Z. ges.
NatWiss., 28:393.

Type host: Morus bassanus (Linnaeus)--Gannet.

Genus EUCOLPOCEPHALUM

Eucolpocephalum Bedford, 1930. Rept. Vet. Res. S. Africa, 16:161.

Type species: Menopon femorale Piaget, 1880.

This genus is apparently found only on the Spoonbills, and, at present, is monotypic. For a discussion of the genus see Tuff, 1966 (J. Kansas Ent. Soc., 39:379).

Eucolpocephalum femorale (Piaget, 1880)

Menopon femorale Piaget, 1880. Les Pediculines: 484, pl. 39, fig. 8.

Eucolpocephalum robustum Bedford, 1930. Rept. Vet. Res. S. Africa, 16:161, fig. 6.

Type host: Platalea leucorodia Linnaeus--White Spoonbill.

North American host: Ajaia ajaja (Linnaeus)--Roseate Spoonbill.

Genus EUREUM

Eureum Nitzsch, 1818. Mag. Ent. Germar, 3:301.

Type species: Eureum cimicoides Burmeister, 1838
(By subsequent designation by Harrison, 1916.
Parasitology, 9:21).

Arndtiella Eichler, 1948. Naturwissenschaftlichen Rundschau,
2:81 (nn for Eureum Nitzsch, 1818).

Species of this genus are found only on hosts of the family
Apodidae. For a discussion of the North American species see
Emerson and Pratt, 1956 (J. Kansas Ent. Soc., 29:21).

Probable North American hosts for which no data are
available include:

Chaetura vauxi (Townsend)--Vaux's Swift.
Aëronautes saxatalis (Woodhouse)--White-
throated Swift.

Eureum cimicoides Burmeister, 1838

Eureum cimicoides Burmeister, 1838. Handb. Ent.,
2:441.

Type host: Apus apus (Linnaeus)--Common Swift.

Eureum ewingi Eichler, 1942

"Eureum cimicoides Nitzsch" Ewing, 1930 (nec Burmeister,
1838). Proc. U. S. Nat. Mus., no. 2843, 77:10, figs. 5
and 7e.

Eureum ewingi Eichler, 1942. Zool. Anz., 138:179 (nn for
"Eureum cimicoides Nitzsch" Ewing, 1930).

Type host: Chaetura pelagica (Linnaeus)--Chimney Swift.

Eureum hasegawai Nakagawa, 1959

Eureum hasegawai Nakagawa, 1959. Jap. J. Sanitary Zool.,
10:166, figs. 7-11.

Type host: Apus pacificus (Latham)--White-rumped Swift.

Eureum spenceri Emerson and Pratt, 1956

Eureum spenceri Emerson and Pratt, 1956. J. Kansas
Ent. Soc. 29:25, figs. 10 and 10a.

Type host: Cypseloides niger (Gmelin)--Black Swift.

Genus FREGATIELLA

Fregatiella Ryan and Price, 1969. Ann. Ent. Soc. Amer.,
62:823.

Type species: Menopon aurifasciatum Kellogg, 1899.

A monotypic genus.

Fregatiella aurifasciata (Kellogg, 1899).

Menopon intermedium Piaget, 1880.

Les Pediculines: 497 (nec 430), pl. 40, fig. 4.

Menopon aurifasciatum Kellogg, 1899.

Occ. Pap. Calif. Acad. Sci., 6:43, pl. 43, pl. 4, fig. 5.

Menopon intermissum Harrison, 1916.

Parasitology, 9:39. (nn for M. intermedium Piaget,
1880, p. 497).

Type host: Fregata magnificens Mathews--Magnificent
Frigate-bird.

Genus GRUIMENOPON

Gruimenopon Clay and Meinertzhagen, 1941. Ann. Mag.
Nat. Hist., (11), 7:339.

Type species: Menopon longum Giebel, 1874.

The genus is apparently restricted to hosts of the family
Gruidae. Only a few species are known, all of which are
adequately illustrated.

The genus is known to occur on Grus americana (Linnaeus)--
Whooping Crane, the only other possible North American host.

Gruimenopon canadense Edwards, 1949

Gruimenopon canadensum Edwards, 1949. Psyche,
56:116, pl. 6, figs. 1-4.

Type host: Grus canadensis (Linnaeus)--Sandhill Crane.

Genus HELEONOMUS

Heleonomus Ferris, 1916. *Canad. Ent.*, 48:305.

Type species: Colpocephalum truncatum Piaget,
1880.

This genus apparently is restricted to hosts of the family Gruidae. For a discussion of the genus, see Price, 1970 (*Ann. Ent. Soc. Amer.*, 63:1162).

All possible North American hosts are listed.

Heleonomus assimilis (Piaget, 1880)

Colpocephalum assimile Piaget, 1880. *Les*

Pediculines: 544.

Type host: Grus americana (Linnaeus)--Whooping
Crane.

Other North American host: Grus canadensis (Linnaeus)--
Sandhill Crane.

Genus HOHORSTIELLA

Hohorstiella Eichler, 1940. Zbl. Bakt. (I. Orig.), 145: 362.

Type species: Menopon latum Piaget, 1880.

Columbimenopon Ansari, 1951. Proc. Nat. Inst. Sci. India, 17:130.

Type species: Columbimenopon modestum Ansari, 1951.

No revision of the genus is available, but a limited discussion appears in Carriker, 1949, (Rev. Brasil. Biol. 9:300). Species of the genus are found only on the family Columbidae.

Probable North American hosts for which no data are available include:

Columba leucocephala Linnaeus--White-crowned Pigeon.

Columba squamosa Bonnaterrre--Scaly-naped Pigeon.

Columba flavirostris Wagler--Red-billed Pigeon.

Zenaida aurita (Temminck)--Zenaida Dove.

Zenaida asiatica (Linnaeus)--White-winged Dove.

Zenaidura macroura (Linnaeus)--Mourning Dove.

Streptopelia chinensis (Scopoli)--Spotted Dove.

Streptopelia risoria (Linnaeus)--Ringed Turtle Dove.

Columbigallina passerina (Linnaeus)--Ground Dove.

Scardafella inca (Lesson)--Inca Dove.

Leptotila verreauxi Bonaparte--White-fronted Dove.

Geotrygon chrysia Bonaparte--Key West Quail-Dove.

Hohorstiella corpulenta Carriker, 1963

Hohorstiella corpulenta Carriker, 1963. Rev. Brasil. Biol., 23:296, figs. 5 and 6.

Type host: Geotrygon montana (Linnaeus)--Ruddy Quail-Dove.

Hohorstiella frontalis Carriker, 1949

Hohorstiella frontalis Carriker, 1949. Rev. Brasil.
Biol., 9:302, figs. 6 and 7.

Type host: Columba fasciata Say--Band-tailed
Pigeon.

Hohorstiella lata (Piaget, 1880)

Menopon latum Piaget, 1880. Les Pediculines:
457, pl. 37, fig. 1.

Type host: Domestic Pigeon.

Genus HOLOMENOPON

Holomenopon Eichler, 1941. Stettin. Ent. Ztg., 102:125.

Type species: Menopon albofasciatum Piaget, 1880 (A synonym of Menopon leucoxanthum Burmeister, 1838).

This genus has been revised by Price, 1971 (Ann. Ent. Soc. Amer., 64:633).

Species of this genus are found on hosts of the order Anseriformes. Any host of Anseriformes not listed probably also harbors species of Holomenopon.

Holomenopon acutae Price, 1971

Holomenopon acutae Price, 1971. Ann. Ent. Soc. Amer., 64:637.

Type host: Anas acuta Linnaeus--Pintail.

Holomenopon bucephalae Price, 1971

Holomenopon bucephalae Price, 1971. Ann. Ent. Soc. Amer., 64:640.

Type host: Bucephala albeola (Linnaeus)--Bufflehead.

Other North American hosts: Bucephala clangula (Linnaeus)
Common Goldeneye.

Holomenopon clauseni Price, 1971

Holomenopon clauseni Price, 1971. Ann. Ent. Soc. Amer., 64:637, figs. 19 and 20.

Type host: Aix sponsa (Linnaeus)--Wood Duck.

Other North American hosts: Anas discors Linnaeus--
Blue-winged Teal.

Bucephala albeola (Linnaeus)--Bufflehead.

Holomenopon clypeilargum Eichler, 1943

Holomenopon clypeilargum Eichler, 1943. Mitt. Münch. Ent. Ges., 33:236, figs. 3-4.

Type host: Anas acuta Linnaeus--Pintail.

Other North American hosts: Anas rubripes Brewster--
Black Duck.

Anas strepera Linnaeus--Gadwall.

Anas crecca Linnaeus--Common Teal.

Anas discors Linnaeus--Blue-winged Teal.

Anas cyanoptera Vieillot--Cinnamon Teal.
Mareca penelope (Linnaeus)--European Widgeon.
Mareca americana (Gmelin)--American Widgeon.
Spatula clypeata (Linnaeus)--Shoveler.
Aythya collaris (Donovan)--Ring-necked Duck.
Aythya valisineria (Wilson)--Canvasback.
Aythya marila (Linnaeus)--Greater Scaup.
Lophodytes cucullatus (Linnaeus)--Hooded Merganser.
Mergus merganser Linnaeus--Common Merganser.

Holomenopon leucoxanthum (Burmeister, 1838)

Menopon leucoxanthum Burmeister, 1838. Handb.
Ent., 2:440.

Menopon lunarium Rudow, 1869. Z. ges. NatWiss.,
34:402.

Menopon albofasciatum Piaget, 1880. Les Pediculines:
496, pl. 40, fig. 6.

Menopon nyrocae Blagoveshtchensky, 1940. Mag. Parasit.,
Leningr., 8:25 and 76, fig. 1.

Menopon leucoxanthum marecae Blagoveshtchensky, 1940.
Mag. Parasit., Leningr., 8:27 and 77, fig. 2.

Holomenopon concii Eichler, 1943. Mitt. Münch. Ent.
Ges., 33:237, figs. 5 and 6.

Holomenopon dendrocyni Carriker, 1955. Bol. Ent.
Venezol., 11:3, figs. 1 and 2.

Holomenopon hanslöhrl Eichler, 1958. Nachr. Natur. Mus.
Aschaffenburg, 58:62, figs. 4 and 5.

Type host: Anas crecca Linnaeus--Common Teal.

Other North American hosts: Branta canadensis (Linnaeus)--
Canada Goose.

Anser anser Linnaeus--Domestic Goose.

Dendrocynna bicolor (Vieillot)--Fulvous Tree Duck.

Anas platyrhynchos Linnaeus--Mallard.

Anas strepera Linnaeus--Gadwall.

Anas cyanoptera Vieillot--Cinnamon Teal.

Mareca americana (Gmelin)--American Widgeon.

Aythya americana (Eyton)--Redhead.

Aythya ferina (Linnaeus)--Common Pochard.

Aythya collaris (Donovan)--Ring-necked Duck.

Aythya valisineria (Wilson)--Canvasback.

Aythya marila (Linnaeus)--Greater Scaup.

Aythya affinis (Eyton)--Lesser Scaup.

Aythya fuligula (Linnaeus)--Tufted Duck.

Bucephala albeola (Linnaeus)--Bufflehead.

Clangula hyemalis (Linnaeus)--Oldsquaw.
Oidemia nigra (Linnaeus)--Common Scoter.
Oxyura jamaicensis (Gmelin)--Ruddy Duck.

Holomenopon loomisii (Kellogg, 1896)

Menopon loomisii Kellogg, 1896. Proc. Calif. Acad. Sci.,
6:162, pl. 15, fig. 6.

Type host: Melanitta fusca (Linnaeus)--Velvet Scoter.

Other North American hosts: Melanitta deglandi (Bonaparte)-
White-winged Scoter.

Somateria spectabilis (Linnaeus)--King Eider.

Somateria mollissima (Linnaeus)--Common Eider.

Mergus serrator Linnaeus--Red-breasted Merganser.

Holomenopon maxbeieri Eichler, 1954.

Holomenopon maxbeieri Eichler, 1954. Mh. Vet. Med.,
9:284, figs. 1-5.

Type host: Anas platyrhynchos Linnaeus--Mallard.

Holomenopon setigerum (Blagoveshtchensky, 1948)

Menopon setigerum Blagoveshtchensky, 1948. Mag.
Parasit., Leningr., 10:260, fig. 1.

Type host: Spatula clypeata (Linnaeus)--Shoveler.

Other North American hosts: Anas crecca Linnaeus--
Common Teal.

Anas discors Linnaeus--Blue-winged Teal.

Anas cyanoptera Vieillot--Cinnamon Teal.

Anas strepera Linnaeus--Gadwall.

Holomenopon tadornae (Gervais, 1844)

Philoapterus tadornae Gervais, 1844. In Walckenaer,
Hist. Nat. Ins., 3:323, pl. 49, fig. 6.

Type host: Tadorna tadorna (Linnaeus)--Sheld Duck.

Other North American hosts: Branta bernicla (Linnaeus)--
Brant.

Genus KURODAIA

Kurodaia Uchida, 1926. J. Coll. Agri., Tokyo, 9:50.

Type species: Colpocephalum haliaeeti Denny, 1842.

Nosopoius Eichler, 1940. Zbl. Bakt. (I. Orig.), 145:363.

Type species: Menopon fulvofasciatum Piaget, 1880.

Conciella Eichler, 1949. Boll. Soc. Ent. Ital., 79:11.

Type species: Colpocephalum painei McGregor, 1912.

Ululoecus Ansari, 1951. Proc. Nat. Inst. Sci. India, 17:160.

Type species: Cuculiphilus (Ululoecus) panjabensis
Ansari, 1951.

For a recent revision of the genus, see Price and Beer,
1963 (Ann. Ent. Soc. Amer., 56:849).

Probable North American hosts for which no data
are available include:

Elanus leucurus (Vieillot)--White-tailed Kite.

Ictinia misisippiensis (Wilson)--Mississippi
Kite.

Rostrhamus sociabilis (Vieillot)--Everglade
Kite.

Accipiter gentilis (Linnaeus)--Goshawk.

Accipiter striatus Vieillot--Sharp-shinned
Hawk.

Accipiter cooperii (Bonaparte)--Cooper's
Hawk.

Buteo harlani (Audubon)--Harlan's Hawk.

Buteo albonotatus Kaup--Zone-tailed Hawk.

Buteo albicaudatus Vieillot--White-tailed
Hawk.

Buteo brachyurus Vieillot--Short-tailed
Hawk.

Buteo regalis (Gray)--Ferruginous Hawk.

Buteo nitidus (Latham)--Gray Hawk.

Buteogallus anthracinus (Deppe)--Black Hawk.

Aquila chrysaetos (Linnaeus)--Golden Eagle.

Haliaeetus pelagicus (Pallas)--Steller's Sea Eagle.

Otus trichopsis (Wagler)--Whiskered Owl.

Otus flammeolus (Kaup)--Flammulated Owl.

Nyctea scandiaca (Linnaeus)--Snow Owl.

Surnia ulula (Linnaeus)--Hawk-Owl.

Micrathene whitneyi (Cooper)--Elf Owl.

Strix occidentalis (Xantus)--Spotted Owl.

Strix nebulosa Forster--Great Gray Owl.

Asio otus (Linnaeus)--Long-eared Owl.

Aegolius funereus (Linnaeus)--Boreal Owl.

Kurodaia acadicae Price and Beer, 1963

Kurodaia acadicae Price and Beer, 1963. Ann. Ent. Soc. Amer., 56:851, fig. 26.

Type host: Aegolius acadicus (Gmelin)--Saw-whet Owl.

Kurodaia caputonis (Carriker, 1966)

Conciella caputonis Carriker, 1966. Amer. Midland Nat., 76:77, figs. 1 and 2.

Conciella clamator Carriker, 1966. Amer. Midland Nat., 76:78, fig. 3.

Conciella setosa Carriker, 1966. Amer. Midland Nat., 76:79, figs. 4 and 5.

Conciella glaucidiae Carriker, 1966. Amer. Midland Nat., 76:79, fig. 6.

Type host: Ciccaba virgata (Cassin).

North American host: Glaucidium brasilianum (Gmelin)--Ferruginous Owl. (For a discussion of this form, see Price and Emerson, 1967 (Proc. Ent. Soc. Wash., 69:250).

Kurodaia flammei Price and Beer, 1963

Kurodaia flammei Price and Beer, 1963. Ann. Ent. Soc. Amer., 56:851, figs. 16 and 17.

Type host: Asio flammeus (Pontoppidan)--Short-eared Owl.

Kurodaia fulvofasciata (Piaget, 1880)

Menopon fulvofasciatum Piaget, 1880. Les Pediculines:
492, pl. 11, fig. 9.

Colpocephalum menoponoides Ewing, 1930. Proc. Ent.
Soc. Wash., 32:117.

Kurodaia taguatoi Eichler, 1952. Zool. Anz., 149:
258, figs. 12-14.

Type host: Buteo buteo (Linnaeus).

North American hosts: Buteo jamaicensis (Gmelin)--
Red-tailed Hawk.

Buteo lineatus (Gmelin)--Red-shouldered Hawk.

Buteo swainsoni Bonaparte--Swainson's Hawk.

Buteo lagopus (Pontoppidan)--Rough-legged Hawk.

Buteo platypterus (Vieillot)--Broad-winged Hawk.

Circus cyaneus (Linnaeus)--Marsh Hawk.

Haliaeetus leucocephalus (Linnaeus)--Bald Eagle.

Kurodaia gnomae Price, 1964

Kurodaia gnomae Price, 1964. Ent. News, 75:145,
figs. 1-3.

Type host: Glaucidium gnoma Wagler--Pygmy Owl.

Kurodaia haliaeeti (Denny, 1842)

Colpocephalum haliaeeti Denny, 1842. Mon. Anopl.
Brit.: 199 and 216, pl. 19, fig. 1.

Colpocephalum pachygaster Giebel, 1874. Insecta
Epizoa: 264.

Type host: Pandion haliaetus (Linnaeus)--Osprey.

Kurodaia koepckeji Eichler, 1953

Kurodaia koepckeji Eichler. In Niethammer, Bonn.
Zool. Beitr., 4:265, fig. 32a.

Type host: Parabuteo unicinctus (Temminck)--
Harris' Hawk.

Kurodaia macrocybe (Carriker, 1903)

Menopon macrocybe Carriker, 1903. Univ. Stud.
Nebr., 3:181, pl. 7, fig. 2.

Type host: Buteo platypterus (Vieillot)--Broad-
winged Hawk.

Kurodaia magna Emerson, 1960

Kurodaia magna Emerson, 1960. Ent. News, 71:
169, figs. 1-3.

Kurodaia edwardsi Emerson, 1961. Proc. Biol.
Soc. Wash., 74:190, figs. 3-4.

Type host: Strix varia Barton--Barred Owl.

Other North American host: Bubo virginianus
(Gmelin)--Great Horned Owl.

Kurodaia painei (McGregor, 1912)

Colpocephalum painei McGregor, 1912. Ent. News,
23:305, fig. 1.

Type host: Otus asio (Linnaeus)--Screech Owl.

Kurodaia subpachygaster (Piaget, 1880)

Colpocephalum subpachygaster Piaget, 1880. Les
Pediculines: 517, pl. 43, fig. 2.

Type host: Tyto alba (Scopoli)--Barn Owl.

Genus LONGIMENOPON

Longimenopon Thompson, 1948. Occ. Pap. Bishop. Mus., 19:197.

Type species: Longimenopon puffinus Thompson, 1948.

This genus has been reviewed by Timmermann, 1957 (Results Norwegian Sci. Exped. Tristan da Cunha 1937-1938, no. 41:7). Species of the genus are found on hosts of the order Procellariformes. Collections of this genus are not numerous, and the distribution on the families of the order Procellariformes is not known.

Longimenopon dominicanum (Kellogg and Mann, 1912)

Colpocephalum dominicanum Kellogg and Mann, 1912.
Ent. News, 23:63.

Type host: Oceanodroma macrodactyla W. E. Bryant--
Guadalupe Petrel.

Longimenopon galeatum Timmermann, 1957

Longimenopon galeatum Timmermann, 1957. Results
Norwegian Sci. Exped. Tristan da Cunha 1937-1938,
no. 41:9, figs. 2c, 6 and 7.

Type host: Pelagodroma marina (Latham)--White-
faced Petrel.

Longimenopon puffinus Thompson, 1940

Longimenopon puffinus Thompson, 1940. Occ. Pap.
Bishop Mus., 19:197, figs. 1a-d.

Type host: Puffinus pacificus (Gmelin)--Wedge-
tailed Shearwater.

Genus MACHAERILAEMUS

Machaerilaemus Harrison, 1915. Parasitology, 7:389.

Type species: Machaerilaemus latifrons Harrison, 1915.

Hirundoecus Ewing, 1930. Proc. U. S. Nat. Mus., 77:12.

Type species: Hirundoecus americanus Ewing, 1930.

This genus was reviewed by Emerson, 1947 (Canad. Ent., 79:209). Since that action, M. maestum was redefined, all of the specimens mentioned in that paper have not been re-examined. The specimens mentioned in that paper as being M. laticorpus (Carriker, 1903) have not been included in this paper, since they are probably M. laticorpus sen. lat.

Species of this genus are not numerous, but appear to be limited in North America to hosts of the order Passeriformes where they do not appear to be host specific. A list of probable hosts would be extensive and has not been compiled.

Machaerilaemus americanus (Ewing, 1930)

Hirundoecus americanus Ewing, 1930. Proc. U. S. Nat. Mus., 77: art. 20: 13, figs. 6 and 7f.

Type host: Progne subis (Linnaeus)--Purple Martin.

Machaerilaemus complexus Malcomson, 1937

Machaerilaemus complexus Malcomson, 1937. Ann. Ent. Soc. Amer., 30:53, figs. 1-2.

Type host: Spizella pusilla (Wilson)--Field Sparrow.

Machaerilaemus maestus (Kellogg and Chapman, 1899)

Menopon maestum Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6:130, pl. 9, fig. 2.

Type host: Zonotrichia atricapilla (Gmelin)--Golden-crowned Sparrow (See Emerson, 1954, J. Kansas Ent. Soc., 27:44).

Machaerilaemus malleus (Burmeister, 1838)

Eureum malleus Burmeister, 1838. Handb. Ent.,
2:441.

Type host: Hirundo rustica Linnaeus -- Barn Swallow.

Other North American host: Riparia riparia
(Linnaeus) -- Bank Swallow.

Macherilaemus melospizae Emerson, 1954

Macherilaemus melospizae Emerson, 1954.

J. Kansas Ent. Soc., 27:45, fig. 1.

Type host: Melospiza melodia (Wilson) -- Song
Sparrow.

Genus MENACANTHUS

Menacanthus Neumann, 1912. Arch. Parasit., 15:353.

Type species: Menopon robustum Kellogg, 1896.

Neumannia Uchida, 1926 (nec Trouessart, 1888). J. Coll. Agr., Tokyo, 9:27.

Type species: Neumannia okadai Uchida, 1926.

Eomenacanthus Uchida, 1926. J. Coll. Agri., Tokyo, 9:30.

Type species: Menopon biseriatum Piaget, 1880
(A synonym of Menopon stramineum Nitzsch, 1818).

Uchida Ewing, 1930. Proc. Biol. Soc. Wash., 43:125
(nn for Neumannia Uchida, 1926).

Zemiodes Eichler, 1944. Z. hyg. Zool., 35:172.

Type species: Zemiodes zumpti Eichler, 1944.
(A synonym of Menopon stramineum Nitzsch, 1818).

Picacanthus Eichler, 1953. Beiträge Vogel., 3:180.

Type species: Picacanthus dryobates Eichler, 1953.

Lanicanthus Zlotorzycska, 1965. Acta Parasit. Polon., 13:57.

Type species: Lanicanthus aequalis Zlotorzycska, 1965.
(A synonym of Menopon inaequalis Piaget, 1880)

This genus needs revision. A complete review of the genus would probably reduce some of the presently recognized forms to synonyms, and also indicate that additional old-world species are also found in North America.

In North America, the genus is known from hosts of the orders Galliformes, Piciformes, and Passeriformes. Since the number of probable hosts is so large, a list has not been compiled.

Menacanthus alaskensis (Kellogg and Chapman, 1902)

Menopon alaskensis Kellogg and Chapman, 1902.

J. N. Y. Ent. Soc., 10:27, pl. 3, fig. 5.

Type host: Pinicola enucleator (Linnaeus)--Pine Grosbeak (See Carriker, 1957, Microentomology, 22:104).

Menacanthus alaudae (Schrank, 1776)

Pediculus alaudae Schrank, 1776. *Beytr. Naturgesch.*: 115, pl. 5, figs. 5 and 6.

Type host: Alauda arvensis Linnaeus--Skylark.

Menacanthus aurocapillus Carriker, 1958

Menacanthus aurocapillus Carriker, 1958. *Proc. Ent. Soc. Wash.*, 60:172, figs. 6-8.

Type host: Seiurus aurocapillus (Linnaeus)--Ovenbird.

Menacanthus annulatus (Giebel, 1874)

Menopon annulatum Giebel, 1874. *Insecta Epizoa*: 285.

Type host: Passer domesticus (Linnaeus)--House Sparrow.

Menacanthus bruneri Carriker, 1967

Menacanthus bruneri Carriker, 1967. *Bull. U.S. N. M.*, 28:20, fig. 1:10a.

Type host: Dendrocopos villosus (Linnaeus)--Hairy Woodpecker.

Menacanthus camelinus (Nitzsch, 1874)

Menopon camelinum Nitzsch, 1874. *In Giebel, Insecta Epizoa*: 288, pl. 15, fig. 3.

Menacanthus dudiyalatora Ansari, 1951. *Proc. Nat. Inst. Sci. India*, 17:143, figs. 7 a-k.

Type host: Lanius excubitor Linnaeus--Northern Shrike.

Menacanthus carduelis (Denny, 1842)

Menopon carduelis Denny, 1842. *Mon. Anopl. Brit.*: 201 and 228, pl. 20, fig. 7.

Type host: Carduelis carduelis (Linnaeus)--European Goldfinch.

Menacanthus chrysophaeus (Kellogg, 1896)

Colpocephalum chrysophaeum Kellogg, 1896. *Proc. Calif. Acad. Sci.*, 6:520, pl. 71, fig. 1.

Type host: Melospiza melodia (Wilson)--Song Sparrow.

Menacanthus colaptis (Durrant, 1908)

Menopon colaptis Durrant, 1908. *Ohio Nat.*, 8:355, fig. 1h.

Type host: Colaptes auratus (Linnaeus)--Yellow-shafted Flicker.

Menacanthus cornutus (Schrömmmer, 1913)

Menopon cornutum Schrömmmer, 1913. Über die Mallophagen.: 64 and 71, pl. 7, fig. 29.

Type host: Chicken

Menacanthus distinctus (Kellogg and Chapman, 1899)

Menopon distinctum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6:126, pl. 8, fig. 7.

Type host: Myiarchus cinerascens (Lawrence)--Ash-throated Flycatcher or Campylorhynchus brunneicapillum (Lafresnaye)--Cactus Wren.

Menacanthus eury sternus (Burmeister, 1838)

Menopon eury sternum Burmeister, 1838. Handb. Ent., 2:439.

Menopon picae Piaget, 1880. Les Pediculines: 433, pl. 34, fig. 2.

Type host: Pica pica (Linnaeus)--Black-billed Magpie.
Other North American host: Pica nuttalli (Audubon)--Yellow-billed Magpie.

Menacanthus exilis (Nitzsch, 1866)

Menopon exilis Nitzsch, 1866. Z. ges. NatWiss., 27:121.

Type host: Oenanthe oenanthe (Linnaeus)--Wheatear.

Menacanthus expansus (Osborn, 1896)

Menopon expansum Osborn, 1896. Bull. U. S. Bur. Ent. (n. s.), 5:245, pl. 2, fig. j.

Type host: Dolychonyx oryzivorus (Linnaeus)--Bobolink.

Menacanthus foxi (Ewing, 1927)

Philandesia foxi Ewing, 1927. J. Wash. Acad. Sci., 17:87.

Type host: unknown, collected at Brewster, Washington.

Menacanthus fuscocinctus (Denny, 1842)

Menopon fusco-cinctum Denny, 1842. Mon. Anopl. Brit.: 199 and 219, pl. 21, fig. 4.

Type host: unknown, and distribution is also unknown.

Menacanthus gonophaeus (Burmeister, 1838)

Menopon gonophaeum Burmeister, 1838. Handb.
Ent., 2:440.

Type host: Corvus corax Linnaeus--Common Raven.

Menacanthus hoffmanni Carriker, 1967.

Menacanthus hoffmanni Carriker, 1967. Bull. U. S. N.
M., 28:20, figs. 1:11, a and b.

Type host: Centurus aurifrons (Wagler)--Golden-fronted
Woodpecker.

Menacanthus inscitus Zlotorzyska, 1965

Pediculus pyrrhulae Panzer, 1798 (nec Schrank, 1776).
Deutschlands Insecten, 51:24, fig.

Menacanthus inscitus Zlotorzyska, 1965 (nn for P.
pyrrhulae Panzer). Acta Parasit. Polon., 13:48.

Type host: Pyrrhula pyrrhula (Linnaeus)--Bullfinch.

Menacanthus laticeps Blagoveshtchensky, 1948

Menacanthus laticeps Blagoveshtchensky, 1948. Mag.
Parasit., Leningr., 10:264, figs. 5 and 5a.

Type host: Corvus frugilegus Linnaeus--Rook.

Menacanthus meniscus (Piaget, 1880)

Menopon meniscus Piaget, 1880. Les Pediculines:
447, pl. 36, fig. 7.

Type host: Calcarius lapponicus (Linnaeus)--
Lapland Longspur.

Menacanthus mutabilis Blagoveshtchensky, 1940

Menacanthus mutabilis Blagoveshtchensky, 1940.
Mag. Parasit., Leningr., 8:31 and 78, fig. 5.

Menacanthus himalayicus Ansari, 1951. Proc. Nat.
Inst. Sci. India, 17:148, figs. 9a-f.

Menacanthus hopkinsi Eichler, 1953. Beiträge zur
Vogelkunde, 3:172 (nn for M. mutabilis
Blagoveshtchensky, 1940).

Type host: Sturnus vulgaris Linnaeus--Starling.

Menacanthus nogoma Uchida, 1926

Menacanthus nogoma Uchida, 1926. J. Coll. Agric., Tokyo:
9:20, fig. 5.

Type host: Luscinia calliope (Pallas)--Siberian Rubythroat.

Menacanthus numidae (Giebel, 1874)

Menopon numidae Giebel, 1874. Insecta Epizoa: 292.

Type host: Guinea Fowl.

Menacanthus pallidulus (Neumann, 1912)

Menopon pallidulum Neumann, 1912. Arch. Parasit.,
15:361, figs. 7-9.

Type host: Chicken.

Menacanthus parvulus (Piaget, 1880)

Menopon parvulum Piaget, 1880. Les Pediculines:
444, pl. 35, fig. 4.

Type host: unknown. Distribution is also unknown.

Menacanthus perforatus (Piaget, 1880)

Menopon perforatum Piaget, 1880. Les Pediculines:
453, pl. 42, fig. 9.

Type host: Eremophila alpestris (Linnaeus)--Horned
Lark.

Menacanthus persignatus (Kellogg and Chapman, 1899)

Menopon persignatum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6:128, pl. 9, fig. 1.

Type host: Aphelocoma coerulescens (Bosc)--Scrub
Jay.

Menacanthus picicola (Packard, 1873)

Menopon picicola Packard, 1873. Rept. U. S. Geol.
Surv., 1872:731, fig. 58.

Type host: Pico'des arcticus (Swainson)--Black-backed
Three-toed Woodpecker or Pico'des tridactylus
(Linnaeus)--Northern Three-toed Woodpecker.

Menacanthus pius Eichler and Zlotorzzycka, 1963

Menacanthus pius Eichler and Zlotorzzycka, 1963. Z.
Parasit., 23:369, figs. 2 and 7.

Type host: Turdus merula Linnaeus--Blackbird.

Menacanthus polonicus Eichler and Zlotorzzycka, 1963

Menacanthus polonicus Eichler and Zlotorzzycka, 1963.
Z. Parasit., 23:371, figs. 3 and 8.

Type host: Turdus pilaris Linnaeus--Fieldfare.

Menacanthus praecursor (Kellogg, 1899)

Menopon praecursor Kellogg, 1899. Occ. Pap. Calif. Acad. Sci., 6:46, pl. 4, fig. 8.

Type host: Centurus uropygialis Baird--Gila Woodpecker.

Menacanthus pricei Wiseman, 1968

Menacanthus pricei Wiseman, 1968. J. Kansas Ent. Soc., 41:59, pl. I.

Type host: Colinus virginianus (Linnaeus)--Bob-white.

Menacanthus pusillus (Nitzsch, 1866)

Menopon pusillum Nitzsch, 1866. Z. ges. Natwiss., 27:120.

Type host: Motacilla alba Linnaeus--White Wagtail.

Menacanthus quercus Carriker, 1967

Menacanthus quercus Carriker, 1967. Bull. U.S. N. M., 28:20, figs. I:11, c and d.

Type host: Melanerpes formicivorus (Swainson)--Acorn Woodpecker.

Menacanthus ralli (Neumann, 1912)

Menopon ralli Neumann, 1912. Arch. Parasit., 15:366.

Type host: unknown, and distribution is also unknown.

Menacanthus robustus (Kellogg, 1896)

Menopon robustum Kellogg, 1896. Proc. Calif. Acad. Sci., 6:528, pl. 72, fig. 3.

Type host: Psaltriparus minimus (Townsend)--Common Bushtit.

Menacanthus setosus (Piaget, 1885)

Menopon setosum Piaget, 1885. Les Pediculines, Supplement: 103, pl. 11, fig. 4.

Type host: Coccothraustes coccothraustes (Linnaeus)--Hawfinch.

Menacanthus spinosus (Piaget, 1880)

Menopon spinosum Piaget, 1880. Les Pediculines: 449, pl. 36, figs. 4-5.

Type host: Richmondena cardinalis (Linnaeus)--Cardinal.

Menacanthus stramineus (Nitzsch, 1818)

Pediculus meleagridis Panzer, 1793. (nec Linnaeus, 1758). Faun. Ins. Germ.: 51, fig. 20.

Menopon stramineum Nitzsch, 1818. Mag. Ent. Germar, 3:300 (nn for P. meleagridis Panzer, 1793).

Menopon biseriatum Piaget, 1880. Les Pediculines: 469, pl. 37, fig. 2.

Zemiodes zumpti Eichler, 1944. Z. hyg. Zool., 35:172, fig. 1.

Type host: Meleagris gallopavo Linnaeus -- Turkey.

Other North American hosts: Chicken, guinea fowl, peafowl; and quail and pheasants raised with chickens.

Menacanthus tenuifrons Blagoveshtchensky, 1940

Menacanthus tenuifrons Blagoveshtchensky, 1940.

Mag. Parasit., Leningr., 8:37, and 81, fig. 10.

Type host: Troglodytes troglodytes (Linnaeus) -- Winter Wren.

Genus MENOPON

Menopon Nitzsch, 1818. Mag. Ent. Germar, 3:299.

Type species: Pediculus gallinae Linnaeus, 1758
(By subsequent designation by Johnston and
Harrison, 1911, Proc. Linn. Soc. N. S. W., 36:327).

Emerson, 1954 (Ann. Mag. Nat. Hist., (12), 7:225)
has reviewed the known species of the genus.

Menopon gallinae (Linnaeus, 1758)

Pediculus gallinae Linnaeus, 1758. Syst. Nat.,
ed. 10:613.

Nirmus trigonocephalus Olfers, 1816. De Veget...
1:90.

Liotheum pallidum Nitzsch, 1818. Mag. Ent. Germar,
3:299.

Menopon productum Piaget, 1880. Les Pediculines:
461, pl. 37, fig. 8.

Menopon productum major Piaget, 1880. Les
Pediculines: 462.

Menopon subaequale producta Piaget, 1885. Les
Pediculines, Supplement: 109.

Menopon brevipes Piaget, 1885. Les Pediculines,
Supplement: 110, pl. 12, fig. 1.

Menopon longicephalum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6:535, pl. 73, fig. 4.

Menopon lunatae Eichler, 1947. Ark. Zool., 39A, no.
2:17, figs. 35-38.

Type host: Chicken.

Other North American hosts: Numida meleagris
(Linnaeus)--Guinea Fowl. Pheasants and turkeys
raised in association with chickens often have
populations of this species.

Menopon pallens Clay, 1949

Menopon pallescens Nitzsch, 1874 (nec Giebel, 1866).
In Giebel, Insecta Epizoa: 293.

Menopon pallescens major Piaget, 1880. Les
Pediculines: 471.

Menopon pallescens pallida Piaget, 1880. Les
Pediculines: 471.

Menopon pallens Clay, 1949. Ann. Mag. Nat. Hist.,
(12) 2:901 (nn for M. pallescens Nitzsch, 1874).

Menopon pallens Hopkins, 1950 (nec Clay, 1949).
Ann. Mag. Nat. Hist., (12), 3:240 (nn for M.
pallescens Nitzsch, 1874).

Type host: Perdix perdix (Linnaeus)--Gray Partridge.

Other North American hosts: Alectoris graeca
(Meisner)--Chukar. Elsewhere this species is found
on many species of the genera Perdix and Alectoris.

Genus MYRSIDEA

Myrsidea Waterston, 1915. Ent. Mon. Mag., 51:12.

Type species: Myrsidea victrix Waterston, 1915.

Acolpocephalum Ewing, 1927. J. Wash. Acad. Sci.,
17:88.

Type species: Acolpocephalum brevipes Ewing,
1927.

Allomyrsidea Conci, 1942. Boll. Soc. Ent. Ital., 74:31.

Type species: Myrsidea struthidea Thompson, 1939.

Corvomenopon Conci, 1942. Boll. Soc. Ent. Ital., 74:31.

Type species: Menopon robsoni Cummings, 1914.

Ramphasticola Carriker, 1949. Rev. Brasil. Biol., 9:305.

Type species: Ramphasticola hirsuta Carriker, 1949.

Alcediniphilus Ansari, 1951. Proc. Nat. Inst. Sci. India,
18:189.

Type species: Myrsidea (Alcediniphilus) kuluensis
Ansari, 1951.

Myrsidella Eichler, 1951. Zool. Anz., 146:49.

Type species: Menopon consimilis Piaget, 1885.

Densidea Zlotorzycza, 1964. Acta Parasit. Polon., 12:171.

Type species: Menopon rusticum Giebel, 1874.

Vulgidea Zlotorzycza, 1964. Acta Parasit. Polon., 12:172.

Type species: Menopon cucullaris Nitzsch, 1818.

Liquidea Zlotorzycza, 1964. Acta Parasit. Polon., 12:173.

Type species: Liquidea proterva Zlotorzycza, 1964.

Lanimenopon Zlotorzycza, 1964. Acta Parasit. Polon., 12:177.

Type species: Lanimenopon abhorrens Zlotorzycza, 1964.

Eichlerinopon Zlotorzycza, 1964. Acta Parasit. Polon., 12:179.

Type species: Eichlerinopon celeripes Zlotorzycza, 1964.

Neomyrsidella Zlotorzycska, 1964. Acta Parasit. Polon., 12:182.

Type species: Neomyrsidella usitata Zlotorzycska, 1964.

In North America, this genus is found on hosts of the order Passeriformes. Dr. Clay, British Museum (Nat. Hist.), is presently revising this difficult genus.

Myrsidea abhorrens (Zlotorzycska, 1964)

Lanimenopon abhorrens Zlotorzycska, 1964. Acta Parasit. Polon., 12:177, fig. 3 and photographs 6 and 7.

Type host: Lanius excubitor Linnaeus--Northern Shrike.

Myrsidea anaspila (Nitzsch, 1866)

Menopon anaspilum Nitzsch, 1866. In Giebel, Z. ges. NatWiss., 27:119.

Type host: Corvus corax Linnaeus--Common Raven.

Myrsidea aquilonia Clay, 1968

Myrsidea aquilonia Clay, 1968. Bull. Brit. Mus. (N.H.), Ent., 21:225, t.f. 32, pl. 1, fig. 3, and pl. 2, figs. 2 and 4.

Myrsidea baktitar (Ansari, 1951)

Neomenopon baktitar Ansari, 1951. Proc. Nat. Inst. Sci. India., 17:169, fig. 17.

Type host: unknown, and distribution is also unknown.

Myrsidea balteri Clay, 1968

Myrsidea balteri Clay, 1968. Bull. Brit. Mus. (N.H.), Ent., 21:222, t.f. 9, 16 and 30, pl. 4, fig. 5.

Type host: Crassidix mexicanus (Gmelin)--Boat-tailed Grackle.

Myrsidea conspica (Kellogg and Chapman, 1902)

Colpocephalum conspicum Kellogg and Chapman, 1902. J. N. Y. Ent. Soc., 10:163, pl. 14, fig. 4.

Type host: Carpodacus mexicanus (Müller)--House Finch.

Myrsidea cornicis (deGeer, 1778)

Ricinus cornicis deGeer, 1778. Mem. Hist. Ins., 7:76,
pl. 4, fig. 11.

Menopon mesoleucum Nitzsch, 1818. Mag. Ent. Germar,
3:300 (nn for R. cornicis deGeer).

Colpocephalum subaequalis deHaan, 1829. Mem. Mus.,
18:309, pl. 4, fig. 5.

Colpocephalum deperditum Giebel, 1874. Insecta Epizoa:
281, pl. 13, fig. 9.

Menopon consimile Piaget, 1885. Les Pediculines,
Supplement: 97, pl. 10, fig. 7.

Type host: Corvus cornix Linnaeus--Hooded Crow.

Myrsidea cucullaris (Nitzsch, 1818)

Menopon cucullare Nitzsch, 1818. Mag. Ent. Germar,
3:300 (nn for Redi's "Pollino del Storno Bianco").

Type host: Sturnus vulgaris Linnaeus--Starling.

Myrsidea dissimilis (Kellogg, 1896)

Menopon dissimile Kellogg, 1896. Proc. Calif. Acad.
Sci., 6:536, pl. 73, fig. 5.

Type host: Progne subis (Linnaeus)--Purple Martin.

Myrsidea dukhunensis Ansari, 1951

Myrsidea dukhunensis Ansari, 1951. Proc. Nat.
Inst. Sci. India, 17:187, fig. 24.

Type host: Motacilla alba Linnaeus--White Wagtail.

Myrsidea emersoni Clay, 1966

Myrsidea emersoni Clay, 1966. Bull. Brit. Mus.
(N. H.), 17:346, text-figs. 28 and 65.

Type host: Turdus migratorius Linnaeus--Robin.

Myrsidea funerea (Kellogg and Chapman, 1899)

Menopon funereum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6:124, pl. 8, fig. 6.

Type host: unknown, but probably from a species of
Corvidae found in California.

Myrsidea fuscomarginata (Osborn, 1896)

Menopon fusco-marginatus Osborn, 1896. Bull. U. S. Bur. Ent. (n. s.), 5:245.

Type host: Agelaius phoeniceus (Linnaeus)--Redwinged Black-bird (see Clay, 1968, Bull. Brit. Mus. (N. H.), Ent., 21:225).

Other North American hosts: Quiscalus quiscula (Linnaeus)--Common Grackle.

Tangavius aeneus (Wagler)--Bronzed Grackle.

Myrsidea iliaci Eichler, 1951

Myrsidea iliaci Eichler, 1951. Zool. Anz., 146:52.

Type host: Turdus musicus Linnaeus--Red-wing.

Myrsidea incerta (Kellogg, 1896)

Menopon incertum Kellogg, 1896. Proc. Calif. Acad. Sci. 6:533, pl. 73, fig. 2.

Myrsidea scabrej Ansari, 1956. Pakistan J. Health, 5:167, figs. 4a-e.

Type host: Hylocichla ustulata (Nuttall)--Swainson's Thrush.

Other North American host: Hylocichla mimima (Lafresnaye)--Gray-checked Thrush.

Myrsidea interrupta (Osborn, 1896)

Menopon interruptum Osborn, 1896. Bull. U. S. Bur. Ent. (n. s.), 5:245, pl. 2, fig. h.

Menopon mesoleucum americanum Kellogg, 1896. Proc. Calif. Acad. Sci., 6:539, pl. 73, fig. 3.

Type host: Corvus brachyrhynchos Brehm--Common Crow.

Myrsidea latifrons (Carriker, 1910)

Nitzschia latifrons Carriker, 1910. In Carriker and Shull, Ent. News, 21:56, pl. 5, fig. 4.

Nitzschia piageti Kistiakowsky, 1926. (nec Harrison, 1916). Zool. Anz., 68:11, fig. 2.

Type host: Riparia riparia (Linnaeus)--Bank Swallow.

Myrsidea magnidens Stafford, 1943

Myrsidea magnidens Stafford, 1943. Bol. Ent. Venezol., 2:41, figs. 10-17.

Type host: Pitangus sulfuratus (Linnaeus)--Kiskadee Flycatcher.

Myrsidea major (Piaget, 1880)

Menopon quadrifasciatum major Piaget, 1880. Les
Pediculines: 441.

Type host: Plectrophenax nivalis (Linnaeus)--Snow Bunting.

Myrsidea melanorum (Kellogg, 1896)

Menopon melanorum Kellogg, 1896. Proc. Calif. Acad.
Sci., 6:532, pl. 73, fig. 1.

Type host: Pipilo erythrophthalmus (Linnaeus)--Rufous-
sided Towhee.

Myrsidea mera (Piaget, 1885)

Menopon merum Piaget, 1885. Les Pediculines,
Supplement: 108, pl. 11, fig. 10.

Type host: unknown, and distribution is also unknown.

Myrsidea palloris (Carriker, 1903)

Menopon palloris Carriker, 1903. Univ. Stud. Nebr.,
3:189, pl. 8, fig. 3.

Type host: Stelgidopteryx ruficollis (Vieillot)--
Rough-winged Swallow.

Myrsidea picae (Linnaeus, 1758)

Pediculus picae Linnaeus, 1758. Syst. Natr., ed.
10:612.

Colpocephalum eury sternum Denny, 1842 (nec. M.
eury sternum Burmeister, 1838). Mon. Anopl. Brit.:
199 and 213, pl. 18, fig. 6.

Type host: Pica pica (Linnaeus)--Black-billed Magpie.
Other North American host: Pica nuttalli (Audubon)--
Yellow-billed Magpie.

Myrsidea pricei Clay, 1966

Myrsidea pricei Clay, 1966. Bull. Brit. Mus. (N. H.),
17:351, text-figs. 31 and 49.

Type host: Hylocichla guttata (Pallas)--Hermit Thrush.

Myrsidea quadrifasciata (Piaget, 1880)

Menopon quadrifasciatum Piaget, 1880. Les Pediculines:
440, pl. 35, fig. 6.

Type host: Passer domesticus (Linnaeus)--House Sparrow.

Myrsidea quadrimaculata (Carriker, 1902)

Colpocephalum quadrimaculatum Carriker, 1902.

J. N. Y. Ent. Soc., 10:223, pl. 21, fig. 4.

Type host: Loxia curvirostra Linnaeus--Red Crossbill.

Myrsidea ridulosa (Kellogg and Chapman, 1899)

Menopon ridulosum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6:135, pl. 9, fig. 4.

Type host: Dendroica petechia (Linnaeus)--Yellow Warbler.

Myrsidea rustica (Giebel, 1874)

Menopon rusticum Giebel, 1874. Insecta Epizoa: 288.

Nitzschia femoralis Kistiakowsky, 1926. Zool. Anz.,
68:10, fig. 1.

Type host: Hirundo rustica Linnaeus--Barn Swallow.

Myrsidea thoracica (Giebel, 1874)

Menopon thoracicum Giebel, 1874. Insecta Epizoa: 287.

Type host: Turdus viscivorus Linnaeus.

North American host: Turdus merula Linnaeus--Blackbird.

Myrsidea troglodyti (Denny, 1842)

Menopon troglodyti Denny, 1842. Mon. Anopl. Brit.:
220 and 201, pl. 18, fig. 7.

Type host: Troglodytes troglodytes (Linnaeus)--Winter Wren.

Genus NOSOPON

Nosopon Hopkins, 1950. Ann. Mag. Nat. Hist., (12),
3:239.

Type species: Menopon fulvofasciatum minor
Piaget, 1880.

For a discussion of the genus, see Tendeiro, 1959
(Bol. Cult. Guine Port., 14:193). Very little is known about
the distribution of the genus in North America, but it appears
to be rare. No list of probable hosts can be compiled until
more is known about the genus.

Nosopon lucidum (Rudow, 1869)

Menopon lucidum Rudow, 1869. Z. ges. NatWiss.,
34:402.

Type host: Falco vespertinus Linnaeus.

North American hosts: Falco sparverius Linnaeus--
Sparrow Hawk.

Falco tinnunculus Linnaeus--Kestrel.

Genus NUMIDICOLA

Numidicola Ewing, 1927. J. Wash. Acad. Sci., 17:90.

Type species: Numidicola antennatus (Kellogg and Paine, 1911).

This genus is monotypic.

Numidicola antennatus (Kellogg and Paine, 1911)

Menopon antennatum Kellogg and Paine, 1911. Bull. Ent. Res., 2:150, pl. 5, fig. 1.

Numidicola longicornis Ewing, 1927. J. Wash. Acad. Sci., 17:91.

Type host: Numida meleagris (Linnaeus)--Guinea Fowl.

Genus OSBORNIELLA

Osborniella Thompson, 1948. Ann. Mag. Nat. Hist.,
(12), 1:58.

Type species: Colpocephalum crotophagae Stafford,
1943.

Cuculigogus Eichler, 1952. Zool. Anz., 149:76.

Type species: Colpocephalum crotophagae Stafford,
1943.

This genus is apparently found only on hosts of the subfamily Crotophaginae. No additional species are expected from North American hosts.

Osborniella crotophagae (Stafford, 1943)

Ent. Venezol., 2:47, figs. 29-36.

Ardephilus incertus Carriker, 1964. Rev. Brasil.

Biol., 24:106, figs. 24-27.

Type host: Crotophaga ani Linnaeus -- Smooth-billed Ani.

Osborniella sulcirostris Wiseman, 1963

Osborniella sulcirostris Wiseman, 1963. J. Kansas

Ent. Soc., 36:103, pl. 1.

Type host: Crotophaga sulcirostris Swainson -- Groove-billed Ani.

Genus PIAGETIELLA

Tetrophthalmus Grosse, 1885 (nec Hope, 1845). Z. wiss. Zool., 42:534.

Type species: Tetrophthalmus chilensis Grosse, 1885.

Piagetia Picaglia, 1884 (nec Ritsema, 1874). Atti. Soc. Nat. Hist. Modena, 2:104.

Type species: Piagetia ragazzii Picaglia, 1884
(By subsequent designation by Harrison, 1916, Parasitology, 9:24).

Piagetiella Neumann, 1906. Bull. Soc. Zool. Fr., 20:60
(nn for Piagetia Picaglia).

For a revision of the genus, see Price, 1970 (Canad. Ent., 102:389). Specimens of this genus normally inhabit the inside of the pouch of hosts of the families Pelecanidae and Phalacrocoracidae.

Possible North American hosts for which no data are available include:

Phalacrocorax carbo (Linnaeus)--Great Cormorant.

Phalacrocorax pelagicus Pallas--Pelagic Cormorant.

Phalacrocorax urile (Gmelin)--Red-faced Cormorant.

Piagetiella bursaepelecani (Perry, 1876)

Trinotia bursaepelecani Perry, 1876. Proc. Lit. Phil. Soc. Lpool, 30: lxxx.

Menopon titan linearis Kellogg, 1896. Proc. Calif. Acad. Sci., 6:165, pl. 15, fig. 2.

Type host: Pelecanus occidentalis Linnaeus--Brown Pelican.

Piagetiella incomposita (Kellogg and Chapman, 1899)

Menopon titan incompositum Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6:123, pl. 8, figs. 4-5.

Type host: Phalacrocorax penicillatus (Brandt)--
Brandt's Cormorant.

Other North American host: Phalacrocorax auritus
(Lesson)--Double-crested Cormorant.

Piagetiella peralis (Leidy, 1878)

Menopon peralis Leidy, 1878. Proc. Acad. Nat.
Sci. Philad., 1878:100.

Menopon consanguineum Piaget, 1884. Notes Leyden
Museum, 6:111.

Piagetia ragazzii Picaglia, 1884. Att. Soc. Nat.
Mat., Modena, 2:105.

Menopon titan impar Kellogg, 1896 (nec Piaget, 1880).
Proc. Calif. Acad. Sci., 6:165.

Type host: Pelecanus erythrorhynchos Gmelin--
White Pelican.

Piagetiella vigua (Eichler, 1943)

Tetrophthalmus vigus Eichler, 1943. Zool. Anz.,
141:135, fig. 1.

Type host: Phalacrocorax olivaceus (Humboldt)--
Olivaceous Cormorant.

Genus PLEGADIPHILUS

Plegadiphilus Bedford, 1939. Onderstepoort J. Vet. Sci., 12:138.

Type species: Plegadiphilus threskiornis Bedford, 1939.

This genus is found only on the Ibises. The only forms likely to be found in North America are listed. For a limited discussion of the genus see Tuff, 1965 (J. Kansas Ent. Soc., 38:233).

Plegadiphilus eudocimus Tuff, 1965

Plegadiphilus eudocimus Tuff, 1965. J. Kansas Ent. Soc., 38:233, figs. 1-2.

Type host: Eudocimus albus (Linnaeus)--White Ibis.

Plegadiphilus plegadis (Dubinin, 1938)

Menopon plegadis Dubinin, 1938. Trav. Reserve Etaf. Astrakhan, 2:178, fig.

Type host: Plegadis falcinellus (Linnaeus)--Glossy Ibis.

Other North American host: Plegadis chihi (Vieillot)--White-faced Ibis.

Genus PROCELLARIPHAGA

Procellariphaga Eichler, 1949. Boll. Soc. Ent. Ital.,
79:12.

Type species: Procellariphaga ossifragae Eichler,
1949.

No adequate study of this genus has been published. Clay, 1959 (Proc. R. Ent. Soc. London, (B), 28:157) considers this genus to be a synonym of Austromenopon. Timmermann, 1963 (Z. Parasit., 22:401) also considers the genus to be a synonym of Austromenopon in his limited review of the group. Based only upon examination of a limited number of species, I think Eichler was justified in erecting the genus Procellariphaga. The genus as presently defined includes several taxa, some of which are close to Austromenopon.

Dr. Roger D. Price is revising the complex, and contributed to the synonymies listed here.

Procellariphaga affinis (Piaget, 1890)

Menopon affinis Piaget, 1890. Tijdschr. Ent., 33:248,
pl. 10, fig. 3.

Type host: Diomedea exulans Linnaeus.

North American hosts: Diomedea cauta Gould--White-
capped Albatross.

Procellariphaga albemarlei (Kellogg and Kuwana, 1902)

Menopon albemarlei Kellogg and Kuwana, 1902.

Proc. Wash. Acad. Sci., 4:448, pl. 31, fig. 5.

Type host: unknown, and distribution is also unknown.

Procellariphaga brevifimbriata (Piaget, 1880)

Menopon brevifimbriatum Piaget, 1880. Les
Pediculines: 499, pl. 41, fig. 1.

Menopon numerosum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6:159, pl. 15, fig. 1.

Procellariphaga daptionis Eichler, 1949. Rev. Brasil.
Biol., 9:344, figs. 21-23.

Austromenopon oscheli Timmermann, 1963.
Z. Parasit., 22:412, fig. 6.

Type host: Fulmarus glacialis (Linnaeus)--Fulmar.

Other North American host: Daption capensis (Linnaeus)--
Cape Petrel.

Procellariphaga eliotti (Timmermann, 1954)

Austromenopon eliotti Timmermann, 1954. Bonn.
Zool. Beitr., 5:205, fig. 19.

Type host: Pelecanoides urinatrix (Gmelin).

North American host: Pterodroma inexpectata
(J. R. Forster)--Scaled Petrel.

Procellariphaga echinata (Edwards, 1960)

Austromenopon echinatum Edwards, 1960. Canad. Ent.,
92:817, fig. 1.

Type host: Puffinus diomedea (Scopoli)--Cory's Shearwater.

Procellariphaga enigki (Timmermann, 1963)

Austromenopon enigki Timmermann, 1963. Zeitr.
Parasit., 22:425, fig. 14.

Type host: Pelagodroma marina (Latham)--White-faced
Petrel.

Procellariphaga longithoracica (Piaget, 1880)

Menopon longithoracicum Piaget, 1880. Les
Pediculines: 500, pl. 41, fig. 5.

Type host: Adamastor cinereus (Gmelin)--Black-
tailed Shearwater.

Procellariphaga narboroughi (Kellogg and Kuwana, 1902)

Menopon narboroughi Kellogg and Kuwana, 1902. Proc.
Wash. Acad. Sci., 4:485, pl. 31, fig. 2.

Type host: Puffinis lherminieri Lesson--Audubon's
Shearwater.

Procellariphaga navigans (Kellogg, 1896)

Menopon navigans Kellogg, 1896. Proc. Calif. Acad. Sci., 6:156, pl. 14, figs. 4-5.

Menopon irrumpens Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6:117, pl. 8, fig. 1.

Type host: Diomedea albatross Pallas--Short-tailed Albatross.

Other North American hosts: Diomedea melanophris Temminck--Brown-bowed Albatross.

Diomedea cauta Gould--White-capped Albatross.

Procellariphaga paulula (Kellogg and Chapman, 1899)

Menopon paululum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6:119, pl. 8, fig. 2.

Austromenopon fraterculae Timmermann, 1954. Bonn. Zool. Beitr., 5:198.

Austromenopon pierkarskij Timmermann, 1963.

Zeitr. Parasit., 22:417, fig. 9.

Type host: Puffinus opisthomelas Coues--Black-vented Shearwater.

Other North American hosts: Puffinus puffinus (Brünnich)--Manx Shearwater.

Puffinus gravis (O'Reilly)--Greater Shearwater.

Puffinus griseus (Gmelin)--Sooty Shearwater.

Puffinus carneipes Gould--Pale-footed Shearwater.

Puffinus lherminieri Lesson--Audubon's Shearwater.

Puffinus tenuirostris (Temminck)--Slender-billed Shearwater.

Puffinus pacificus (Gmelin)--Wedge-tailed Shearwater.

Procellariphaga pinguis (Kellogg, 1896)

Colpocephalum pingue Kellogg, 1896. Proc. Calif.

Acad. Sci., 6:144, pl. 12, fig. 4.

Menopon petulans Kellogg and Chapman, 1899. Occ.

Pap. Calif. Acad. Sci., 6:121, pl. 8, fig. 3.

Type host: Diomedea albatrus Pallas--Short-tailed Albatross.

Other North American hosts: Diomedea nigripes Audubon--Black-footed Albatross.

Diomedea immutabilis Rothschild--Laysan Albatross.

Diomedea melanophris Temminck--Black-browed Albatross.

Procellariphaga popellus (Piaget, 1890)

Menopon popellus Piaget, 1890. Tijdschr. Ent.,
33:251, pl. 10, fig. 5.

Type host: Unknown (probably Pelagodroma or
Pterodroma sp.)

North American host: Pelagodroma inexpectata
(Forster)-Scaled Petrel.

Genus PSEUDOMENOPON

Pseudomenopon Mjöberg, 1910. Ark. Zool., 6:50.

Type species: Menopon tridens Burmeister, 1838
(A synonym of Pediculus pilosum Scopoli, 1763).

No revision of this genus is available. Species of the genus are found on hosts of the families Podicipitidae, order Podicipitiformes; Rallidae, and Aramidae, order Gruiformes; and Jacanidae, order Charadriiformes. The forms found on each North American host family are closely related, and it is possible that only one species of Mallophaga is found on hosts of each family.

The only revision of this genus available is Lucinska, 1969, Bull. Ent. Polon., 39:355.

Probable North American hosts for which no data on distribution are available include:

Podiceps dominicus (Linnaeus)--Least Grebe.

Podilymbus podiceps (Linnaeus)--Pied-billed Grebe.

Rallus elegans Audubon--King Rail.

Rallus longirostris Boddaert--Clapper Rail.

Rallus limicola Vieillot--Virginia Rail.

Coturnicops noveboracensis (Gmelin)--Yellow Rail.

Laterallus jamaicensis (Gmelin)--Black Rail.

Porphyryla martinica (Linnaeus)--Purple Gallinule.

Jacana spinosa (Linnaeus)--Jacana.

Pseudomenopon crecis Bechet, 1963

Pseudomenopon crecis Bechet, 1963. Stud. Univ. Babes-Bolyai, Ser. Biol., 2:75, figs. 6-8.

Type host: Crex crex (Linnaeus)--Corn Crane.

Pseudomenopon delicatulum (Piaget, 1880)

Menopon delicatulum Piaget, 1880. Les Pediculines: 448, pl. 42, fig. 7.

Type host: unknown, and distribution is also unknown.

Pseudomenopon insolens (Kellogg, 1896)

Menopon tridens insolens Kellogg, 1896. Proc. Calif. Acad. Sci., 6:166, pl. 15, figs. 3 and 4.

Type host: Podiceps caspicus (Hablizl)--Eared Grebe as reported by Kellogg may be in error. It is possible that the type host is Fulica americana Gmelin--American Coot and that the species is a synonym of P. pilosum (Scopoli, 1763).

Pseudomenopon janiszewskae Lucinska, 1969

Pseudomenopon janiszewskae Lucinska, 1969. Bull. Ent. Polon., 39:365, figs. 25-28.

Type host: Podiceps auritus (Linnaeus)--Horned Grebe.

Pseudomenopon par (Kellogg, 1896)

Menopon tridens par Kellogg, 1896. Proc. Calif. Acad. Sci., 6:166.

Type host: Aechmophorus occidentalis (Lawrence)--Western Grebe as reported by Kellogg may be in error. It is possible that the type host is Fulica americana Gmelin--American Coot and that the species is a synonym of P. pilosum (Scopoli, 1763).

Pseudomenopon parumpilosum (Piaget, 1880)

Menopon parumpilosum Piaget, 1880. Les Pediculines: 421, pl. 33, fig. 6.

Type host: unknown, and distribution is also unknown.

Pseudomenopon pilosum (Scopoli, 1763)

Pediculus pilosum Scopoli, 1763. Ent. Carniolica: 384.

Menopon tridens Burmeister, 1838. Handb. Ent., 2:440.

Menopon tridens major Piaget, 1880 (nec p. 441). Les Pediculines: 480.

Menopon tridens pacificum Kellogg, 1896. Proc. Calif. Acad. Sci., 6:166.

Pseudomenopon thompsoni Eichler, 1937. S. B. Ges. Naturf. Fr. Berlin, 1937:97 (nn for Menopon tridens major Piaget, 1880).

Pseudomenopon zlotorzyskae Lucinska, 1969. Bull. Ent. Polon., 39:359, figs. 5-8.

Type host: Fulica atra (Linnaeus)--European Coot.

Other North American hosts: Fulica americana Gmelin--
American Coot.

Gallinula chloropus (Linnaeus)--Common Gallinule.

Pseudomenopon qadrii Eichler, 1952

Pseudomenopon qadrii Eichler, 1952. Zool. Anz.,
148:35, figs, 12-14.

Type host: Porzana porzana (Linnaeus).

North American host: Porzana carolina (Linnaeus)--Sora.

Pseudomenopon scitum (Piaget, 1880)

Menopon scitum Piaget, 1880. Les Pediculines:
442, pl. 42, fig. 6.

Type host: unknown, and distribution is also unknown.

Pseudomenopon scopulacorne (Denny, 1842)

Menopon scopulacorne Denny, 1842. Mon. Anopl.

Brit.: 200 and 221, pl. 18, fig. 9.

Type host: Rallus aquaticus Linnaeus--Water Rail.

Pseudomenopon stresemanni Eichler, 1949

Pseudomenopon stresemanni Eichler, 1949.

Ornithologie als biologische Wissenschaft: 250,
figs. 1-6.

Type host: Aramus guarauna (Linnaeus)--Limpkin.

Pseudomenopon stuchlyi Lucinska, 1969

Pseudomenopon stuchlyi Lucinska, 1969. Bull. Ent.

Polon., 39:364, figs. 21-24.

Type host: Podiceps grisegena (Boddaert)--Red-necked
Grebe.

Genus SOMAPHANTUS

Somaphantus Paine, 1914. Smithsonian Misc. Coll.,
61 No. 23:1.

Type species: Somaphantus lusius Paine, 1914.

The two species of this genus are discussed by Emerson, 1958 (Ann. Mag. Nat. Hist., (13), 1:102). Individuals of this genus live inside the primary quills; consequently, few collection are known. Distribution on the Galliformes is unknown. The species S. spencei Emerson, 1958 found on Pavo muticus Linnaeus-- Green Peafowl, may also be found on Pavo cristatus (Linnaeus)-- Domestic Peafowl.

Somaphantus lusius Paine, 1914

Somaphantus lusius Paine, 1914. Smithsonian Misc.
Coll., 61, no. 23; fig. 1.

Type host: Numida meleagris (Linnaeus)--Guinea Fowl.

Genus TRINOTON

Trinoton Nitzsch, 1818. Mag. Ent. Germar, 3:300.

Type species: Trinoton conspurcatum Nitzsch, 1818
(A synonym of Pediculus anserinum J. C. Fabricius, 1805).

Trinotum Burmeister, 1838. Handb. Ent., 2:440 (nn for Trinoton Nitzsch, 1818).

Trinotion Perry, 1876. Proc. Lit. Phil. Soc. Liverpool, 30: LXXX (misprint).

Ewingella Eichler, 1941. Stettin. Ent. Ztg., 102:126.

Type species: Trinoton femoratum Piaget, 1880.

Species of this genus are found on hosts of the family Phoenicopteridae, order Ciconiiformes, and the order Anseriformes. No revision of the genus is available.

Clay and Hopkins, 1960 (Bull. Brit. Mus., (N. H.), Ent., 9:21) divide the genus into four main groups: femoratum on the flamingos; aculeatum on the genus Dendrocygna; gambense on the genus Plectropterus; and querquedulae on Anas, Anser and related genera. The querquedulae group can be separated into querquedulae on Anas and related genera, and anserinum on Anser and related genera.

Each species of the family Phoenicopteridae and the order Anseriformes harbors a species of Trinoton; therefore, birds which have not been listed below are probable hosts.

Trinoton aculeatum Piaget, 1885

Trinoton aculeatum Piaget, 1885. Les Pediculines, Supplement: 136, pl. 15, fig. 1.

Type host: Dendrocygna viduata (Linnaeus).

North American hosts: Dendrocygna autumnalis (Linnaeus)--Black-bellied Tree Duck.

Dendrocygna bicolor (Vieillot)--Fulvous Tree Duck.

Dendrocygna arborea (Linnaeus)--West Indian Tree Duck.

Trinoton anserinum (J. C. Fabricius, 1805)

Pediculus anserinus J. C. Fabricius, 1805. Syst.
Antliatorum: 345.

Pediculus anseris Sulzer, 1776 (nec Linnaeus, 1758).
Abgek. Gesch. Insekten: 241, pl. 29, fig. 4.

Liotheum conspurcatum Nitzsch, 1818.

Mag. Ent. Germar, 3:300 (nn for P. anseris Sulzer, 1776).

Trinoton squalidum Denny, 1842. Mon. Anopl. Brit.:
202 and 235, pl. 22, fig. 3.

Trinoton continuuum Piaget, 1880. Les Pediculines:
591.

Trinoton anserinum cygni Eichler, 1943. Stettin.
Ent. Ztg., 104:97, figs. 3-5.

Type host: Anser anser (Linnaeus)--Domestic Goose
Other North American hosts: Cygnus olor (Gmelin)--
Mute Swan.

Olor cygnus (Linnaeus)--Whooper Swan

Olor columbianus (Ord)--Whistling Swan

Olor buccinator Richardson--Trumpeter Swan

Branta canadensis (Linnaeus)--Canada Goose

Anser albifrons (Scopoli)--White-fronted Goose

Chen hyperborea (Pallas)--Snow Goose

Chen caerulescens (Linnaeus)--Blue Goose

Trinoton femoratum Piaget, 1880

Trinoton femoratum Piaget, 1880. Les Pediculines: 593,
pl. 49, fig. 4.

Type host: Phoenicopterus antiquorum Temminck.

North American host: Phoenicopterus ruber Linnaeus--
American Flamingo.

Trinoton querquedulae (Linnaeus, 1758)

Pediculus querquedulae Linnaeus, 1758. Syst. Natr.,
ed. 10:612.

Ricinus lari deGeer, 1778. Mem. Hist. Ins.,
7:77, pl. 4, fig. 12.

Trinoton lituratum Burmeister, 1838. Handb. Ent.,
2:441.

Trinoton luridum Burmeister, 1838. Handb. Ent.,
2:441.

Trinoton pygmaeum Kolenati, 1846. Melet. Ent.,
5:138, pl. 19, fig. 5.

Trinoton gracile Grube, 1851. In Middendorf, Sibir.
Reise, 2:494, pl. 32, fig. 6.

- Trinoton spinosum Piaget, 1880. Les Pediculines: 596, pl. 49, fig. 6.
- Trinoton minor Osborn, 1896. Bull. U.S. Bur. Ent. (n. s.), 5:248.
- Trinoton nyrocae Eichler, 1943. Stettin. Ent. Ztg., 104:97, figs. 6 and 7.
- Trinoton querquedulae mergi Eichler, 1943. Stettin. Ent. Ztg., 104:100, fig. 9.
- Trinoton querquedulae künzeli Eichler, 1954. Beitr. Fauna Perus., 4:43, figs. 24-26.
- Trinoton querquedulae ludwigfreundi Eichler, 1954. Mh. Vet. Med., 9:409, figs. 1-5.
- Type host: Anas crecca Linnaeus--Common Teal.
Other North American hosts: Anas platyrhynchos Linnaeus--Mallard.
- Anas rubripes Brewster--Black Duck.
- Anas strepera Linnaeus--Gadwall.
- Anas acuta Linnaeus--Pintail.
- Anas carolinensis Gmelin--Green-winged Teal.
- Anas discors Linnaeus--Blue-winged Teal.
- Anas cyanoptera Vieillot--Cinnamon Teal.
- Mareca penelope (Linnaeus)--European Widgeon.
- Mareca americana (Gmelin)--American Widgeon.
- Spatula clypeata (Linnaeus)--Shoveler.
- Aix sponsa (Linnaeus)--Wood Duck.
- Aythya americana (Eyton)--Redhead.
- Aythya ferina (Linnaeus)--Common Pochard.
- Aythya collaris (Donovan)--Ring-necked Duck.
- Aythya valisineria (Wilson)--Canvasback.
- Aythya affinis (Eyton)--Lesser Scaup.
- Histrionicus histrionicus (Linnaeus)--Harlequin Duck.
- Oidemia nigra (Linnaeus)--Common Scoter.
- Lophodytes cucullatus (Linnaeus)--Hooded Merganser.
- Mergus merganser Linnaeus--Common Merganser.
- Mergus serrator Linnaeus--Red-breasted Merganser.

Family RICINIDAE

Genus RICINUS

Ricinus de Geer, 1778. Mem. Hist. Ins., 7:69.

Type species: Ricinus fringillae de Geer, 1778

(By subsequent designation by Neumann, 1906, Bull. Soc. Zool. Fr., 20:56).

Nirmus Herman, 1804. Mem. Apterolog: 12 (nn for Ricinus de Geer, 1778).

Physostomum Nitzsch, 1818. Mag. Ent. Germar, 3:302.

Type species: Ricinus nitidissimum Nitzsch, 1819

(A synonym of Ricinus fringillae de Geer, 1778).

For an excellent review of North American species, see Nelson, 1972 (Univ. Calif. Pub. Ent., 68:1). Rheinwald, 1968 (Mitt. Hamburg. Zool. Mus. Inst., 68:181) is an excellent revision of the non-American forms, and it contains several records from North America.

Most species of Passeriformes (except Hirundinidae and Corvidae) probably harbor species of this genus.

Ricinus arcuatus (Kellogg and Mann, 1912)

Physostomum fasciatum arcuatum Kellogg and Mann, 1912. Ent. News, 23:65.

Ricinus pronotus pronotus Carriker, 1964. Mem. Soc. Cienc. Nat. La Salle, 24:52, figs. 5 and B-10.

Ricinus pronotus rufus Carriker, 1964. Mem. Soc. Cienc. Nat. La Salle, 24:53 and fig. 5a.

Ricinus pronotus niger Carriker, 1964. Mem. Soc. Cienc. Nat. La Salle, 24:53, fig. 5b.

Ricinus tristis Carriker, 1964. Mem. Soc. Cienc. Nat. La Salle, 24:57, figs. 11 and B-8.

Ricinus polychropterus Carriker, 1964. Mem. Soc. Cienc. Nat. La Salle, 24:57, figs. 12 and B-11.

Type host: Tyrannus vociferans Swainson--Cassin's Kingbird.

Other North American hosts: Tyrannus tyrannus (Linnaeus)--Eastern Kingbird

Tyrannus dominicensis (Gmelin)--Gray Kingbird.

Tyrannus melancholicus Vieillot--Tropical Kingbird.
Tyrannus verticalis Say--Western Kingbird.
Muscivora forficata (Gmelin)--Scissor-tailed Flycatcher.
Pitangus sulphuratus (Linnaeus)--Kiskadee Flycatcher.

Ricinus australis (Kellogg, 1896)

Physostomum australe Kellogg, 1896. Proc. Calif. Acad. Sci., 6:516, pl. 70, fig. 4.

Type host: Passerina versicolor (Bonaparte)--Varied Bunting.

Other North American hosts: Passerina cyanea (Linnaeus)--Indigo Bunting

Passerina amoena (Say)--Lazuli Bunting.

Passerina ciris (Linnaeus)--Painted Bunting.

Guiraca caerulea (Linnaeus)--Blue Grosbeak.

Ricinus calcarii Nelson, 1972

Ricinus calcarii Nelson, 1972. Univ. Calif. Pub. Ent., 68:104, pl. 37, figs. 2.

Type host: Calcarius ornatus (Townsend)--Chestnut-collared Longspur.

Other North American host: Calcarius lapponicus (Linnaeus)--Lapland Longspur.

Ricinus carolynae Nelson, 1972

Ricinus carolynae Nelson, 1972. Univ. Calif. Pub. Ent., 68:107, pl. 41, figs. 1-5.

Type host: Spinus psaltria (Say)--Lesser Goldfinch.

Other North American host: Spinus pinus Wilson--Pine Siskin.

Ricinus dalglishi Nelson, 1972

Ricinus dalglishi Nelson, 1972. Univ. Calif. Pub. Ent., 68:82, pl. 22, figs. 1-5.

Type host: Geothlypis trichas (Linnaeus)--Yellowthroat.

Ricinus dendroicae Nelson, 1972

Ricinus dendroicae Nelson, 1972. Univ. Calif. Pub. Ent., 68:85, pl. 25, figs. 1-6.

Type host: Dendroica striata (Forster)--Blackpoll Warbler.

Other North American hosts:

Dendroica petechia (Linnaeus)--Yellow Warbler.

Dendroica magnolia (Wilson)--Magnolia Warbler.

Dendroica coronata (Linnaeus)--Myrtle Warbler.
Dendroica virens (Gmelin)--Black-throated Green Warbler.

Dendroica fusca (Muller)--Blackburnian Warbler.
Dendroica castanea (Wilson)--Bay-breasted Warbler.
Dendroica pinus (Wilson)--Pine Warbler.
Dendroica discolor (Vieillot)--Prairie Warbler.
Dendroica palmarum (Gmelin)--Palm Warbler.

Ricinus diffusus (Kellogg, 1896)

Physostomum diffusum Kellogg, 1896. Proc. Calif. Acad. Sci., 6:518, pl. 70, fig. 3.

Physostomum melospizae McGregor, 1917. Ent. News, 28:436, pl. 28, figs. 3 and 6.

Type host: Passerculus sandwichensis (Gmelin)--Sparrow (See Carriker, 1957, Microentomology, 22:105).

Other North American hosts: Passerculus princeps Maynard--Ipswich Sparrow

Ammodramus savannarum (Gmelin)--Grasshopper Sparrow.

Ammospiza maritima (Wilson)--Seaside Sparrow.

Junco oreganus (Townsend)--Oregon Junco.

Spizella arborea (Wilson)--Tree Sparrow.

Spizella passerina (Bechstein)--Chipping Sparrow.

Zonotrichia leucophrys (Forster)--White-crowned Sparrow.

Zonotrichia atricapilla (Gmelin)--Golden-crowned Sparrow.

Zonotrichia albicollis (Gmelin)--White-throated Sparrow.

Passerella iliaca (Merrem)--Fox Sparrow.

Melospiza georgiana (Latham)--Swamp Sparrow.

Melospiza melodia (Wilson)--Song Sparrow.

Melospiza lincolni (Audubon)--Lincoln's Sparrow.

Plectrophenax nivalis (Linnaeus)--Snow Bunting.

Ricinus elongatus (Olfers, 1816)

Nirmus elongatus Olfers, 1816. De Veget., etc.: 88.

Physostomum mystax Burmeister, 1838. Handb. Ent., 2: 422.

Physostomum bombycillae Denny, 1842. Mon. Anopl. Brit.: 203 and 242, pl. 23, fig. 5.

Physostomum intermedium Piaget, 1880. Les Pediculines: 605, pl. 50, fig. 4.

Physostomum merulae Durrant, 1906. Ohio Nat., 7:35, fig. 1d.

Ricinus ernstlangi Eichler, 1941. Arch. Naturgesch., 10:375.

Type host: Turdus viscivorus Linnaeus.
North American hosts: Turdus merula Linnaeus--
Blackbird.
Turdus migratorius Linnaeus--Robin.
Turdus pilaris Linnaeus--Fieldfare.
Bombycilla garrula (Linnaeus)--Bohemian Waxwing.

Ricinus emersoni Nelson, 1972

Ricinus emersoni Nelson, 1972. Univ. Calif. Pub. Ent.,
68:84, pl. 24, figs. 1-6.

Type host: Wilsonia canadensis (Linnaeus)--Canada
Warbler.

Other North American host: Oporornis tolmiei (Townsend)--
MacGillivray's Warbler.

Ricinus frenatus (Burmeister, 1838)

Physostomum frenatum Burmeister, 1838. Handb. Ent.,
2:442.

Type host: Regulus regulus (Linnaeus).

North American host: Regulus calendula (Linnaeus)--
Ruby-throated Kinglet.

Ricinus fringillae de Geer, 1778

Ricinus fringillae de Geer, 1778. Mem. Hist. Ins., 7:
71, pl. 4, figs. 5-8.

Physostomum nitidissimum Nitzsch, 1818. Mag. Ent.
Germar, 3:302 (nn for R. fringillae de Geer, 1778).

Physostomum irascens Nitzsch, 1818. Mag. Ent. Germar,
3:302 (nn for R. fringillae de Geer, 1778).

Physostomum diffusum pallidum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6:519.

Physostomum hastatum Osborn, 1902. Ohio Nat., 2:203,
pl. 14, fig. 3.

Physostomum intermedium Uchida, 1915 (nec Piaget, 1880).
Annot. Zool. Jap., 9:68, fig. 1.

Ricinus uchidae Fresca, 1924. Bol. Soc. Esp. Hist. Nat.,
24:274, fig. 1.

Ricinus medius Uchida, 1926. J. Coll. Agri., Tokyo,
9:54 (nn for P. intermedium Uchida, 1915).

Type host: Emberiza citrinella Linnaeus.

North American hosts: Parus atricapillus Linnaeus--Black
capped Chickadee.

Junco hyemalis (Linnaeus)--Slate-colored Junco.

Junco oreganus (Townsend)--Oregon Junco.
Junco phaeonotus Wagler--Mexican Junco.
Pipilo erythrophthalmus (Linnaeus)--Rufous-sided Towhee.
Pipilo fuscus Swainson--Brown Towhee.
Poocetes gramineus (Gmelin)--Vesper Sparrow.
Amphispiza bilineata (Cassin)--Black-throated Sparrow.
Amphispiza belli (Cassin)--Sage Sparrow.
Spizella arborea (Wilson)--Tree Sparrow.
Spizella passerina (Bechstein)--Chipping Sparrow.
Spizella breweri Cassin--Brewer's Sparrow.
Zonotrichia querula (Nuttall)--Harris' Sparrow.
Zonotrichia leucophrys (Forster)--White-crowned Sparrow.
Zonotrichia atricapilla (Gmelin)--Golden-crowned Sparrow.
Zonotrichia albicollis (Gmelin)--White-throated Sparrow.
Passerella iliaca (Merrem)--Fox Sparrow.
Melospiza melodia (Wilson)--Song Sparrow.
Plectrophenax nivalis (Linnaeus)--Snow Bunting.
Plectrophenax hyperboreus Ridgway--McKay's Bunting.
Emberiza rustica Pallas--Rustic Bunting.
Fringilla montifringilla Linnaeus--Brambling.
Carduelis carduelis (Linnaeus)--European Goldfinch.
Pyrrhula pyrrhula (Linnaeus)--Bullfinch.
Acanthis flammea (Linnaeus)--Common Redpoll.

Ricinus ivanovi Blagoveshtchensky, 1951

Ricinus ivanovi Blagoveshtchensky, 1951. Mag. Parasit.,
Leningr., 13:283, figs. 5 and 5c.

Type host: Leucosticte brandti (Bonaparte).

North American host: Leucostricte tephrocotis (Swainson)--
Gray-crowned Rosy Finch.

Ricinus japonicus (Uchida, 1915)

Physostomum japonicum Uchida, 1915. Annot. Zool. Jap.,
9:70.

Type host: Anthus spinoletta (Linnaeus)--Water Pipit.

Ricinus leptosomus (Carriker, 1903)

Physostomum leptosomum Carriker, 1903. Univ. Stud.
Nebr., 3:166, pl. 5, fig. 2.

Type host: Myiozetetes similis (Spix).

North American hosts: Myiarchus cinerascens (Lawrence)--
Ash-throated Flycatcher.

Myiarchus tuberculifer (Lafresnaye and D'Orbigny)--
Olivaceous Flycatcher.

Ricinus mandibulatus Nelson, 1972

Ricinus mandibulatus Nelson, 1972. Univ. Calif. Pub. Ent. 68:69, pl. 12, figs. 1-5.

Type host: Chamaethlypis poliocephala (Baird)--Ground-chat.

Ricinus marginatus (Children, 1836)

Physostomum marginatum Children, 1836. In Back, Arctic Land Exped.; 539.

Physostomum angulatum Kellogg, 1896. Proc. Calif. Acad. Sci., 6:515, pl. 70, fig. 5.

Ricinus rubinus Carriker, 1964. Mem. Soc. Cienc. Nat. La Salle, 24:49, figs. 3 and B-4.

Ricinus tuberculifer Carriker, 1964. Mem. Soc. Cienc. Nat. La Salle, 24:50, fig. 3a.

Ricinus similis Carriker, 1964 (nec Giebel, 1874). Mem. Soc. Cienc. Nat. La Salle, 24:56, figs. 9 and B-5.

Type host: Empidonax trailli (Audubon)--Traill's Flycatcher.

Other North American hosts: Tyrannus tyrannus (Linnaeus)--Eastern Kingbird.

Tyrannus dominicensis (Gmelin)--Gray Kingbird.

Tyrannus melancholicus Vieillot--Tropical Kingbird.

Tyrannus vociferans Swainson--Cassin's Kingbird.

Muscivora forficata (Gmelin)--Scissor-tailed Flycatcher.

Myiarchus crinitus (Linnaeus)--Great Crested Flycatcher.

Myiarchus tyrannulus (Müller)--Wied's Crested Flycatcher.

Myiarchus tuberculifer (Lafresnaye and D'Orbigny)--Olivaceous Flycatcher.

Sayornis phoebe (Latham)--Eastern Phoebe.

Empidonax minimus (Baird and Baird)--Least Flycatcher.

Empidonax wrightii Baird--Gray Flycatcher.

Empidonax difficilis Baird--Western Flycatcher.

Contopus virens (Linnaeus)--Eastern Wood Pewee.

Contopus sordidulus Sclater--Western Wood Pewee.

Pyrocephalus rubinus (Boddaert)--Vermilion Flycatcher.

Ricinus microcephalus (Kellogg, 1896)

Physostomum microcephalum Kellogg, 1896. Proc. Calif. Acad. Sci., 6:513, pl. 70, fig. 1.

Type host: Carpodacus mexicanus (Müller)--House Finch.

Ricinus myiarchi Nelson, 1972

Ricinus myiarchi Nelson, 1972. Univ. Calif. Pub. Ent., 68:52, pl. 6, figs. 1-4.

Type host: Myiarchus crinitus (Linnaeus)--Great Crested Flycatcher.

Ricinus pallens (Kellogg, 1899)

Physostomum pallens Kellogg, 1899. Occ. Pap. Calif. Acad. Sci., 6:49, pl. 4, fig. 7.

Type host: Protonotaria citrea (Boddaert)--Prothonotary Warbler. (See Carriker, 1957, Microentomology, 22:105.)

Ricinus picturatus (Carriker, 1902)

Physostomum picturatum Carriker, 1902. J. N. Y. Ent. Soc., 10:224, pl. 23, fig. 3.

Type host: Vermivora celata (Say)--Orange-crowned Warbler.

Other North American hosts: Vermivora pinus (Linnaeus)--Blue-winged Warbler.

Vermivora peregrina (Wilson)--Tennessee Warbler.

Mniotilta varia (Linnaeus)--Black-and-White Warbler.

Vermivora ruficapilla (Wilson)--Nashville Warbler.

Parula americana (Linnaeus)--Parula Warbler.

Ricinus seiuri Nelson, 1972

Ricinus seiuri Nelson, 1972. Univ. Calif. Pub. Ent., 68:88, pl. 26, figs. 1-6.

Type host: Seiurus noveboracensis (Gmelin)--Northern Waterthrush.

Ricinus serratus (Durrant, 1906)

Physostomum serratum Durrant, 1906. Ohio Nat., 6:528, fig. 1b.

Physostomum clypeatum Mjöberg, 1910. Ark. Zool., 6:60, figs. 35-36, and pl. 2, fig. 1.

Ricinus serratus magnus Uchida, 1926. J. Coll. Agri., Tokyo, 9:52.

Type host: Eremophila alpestris (Linnaeus)--Horned Lark.

Other North American host: Alauda arvensis Linnaeus--Skylark.

Ricinus sittae Nelson, 1972

Ricinus sittae Nelson, 1972. Univ. Calif. Pub. Ent.,
68:98, pl. 35, figs. 1-6.

Type host: Sitta canadensis Linnaeus--Red-breasted
Nuthatch.

Ricinus subdiffusus Nelson, 1972

Ricinus subdiffusus Nelson, 1972. Univ. Calif. Pub. Ent.,
68:97, pl. 34, figs. 1-6.

Type host: Spizella passerina (Bechstein)--Chipping
Sparrow.

Other North American hosts:

Amphispiza belli (Cassin)--Sage Sparrow.

Spizella breweri Cassin--Brewer's Sparrow.

Spizella pusilla (Wilson)--Field Sparrow.

Ricinus subhastatus (Durrant, 1906)

Physostomum sub-hastatum Durrant, 1906. Ohio Nat.,
6:528, fig. 1a.

Type host: Pipilo erythrophthalmus (Linnaeus)--Rufous-
sided Towhee.

Other North American hosts: Pipilo fuscus Swainson--
Brown Towhee.

Chlorura chlorura (Audubon)--Green-tailed Towhee.

Ricinus sucinaceus (Kellogg, 1896)

Physostomum sucinaceum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6:514, pl. 70, fig. 2.

Ricinus subtenius Carriker, 1964. Mem. Soc. Cienc. Nat.
La Salle, 24:61, figs. 18, 19 and B-6.

Type host: Empidonax difficilis Baird--Western Flycatcher.

Other North American hosts: Empidonax traillii (Audubon)--
Traill's Flycatcher.

Sayornis saya (Bonaparte)--Say's Phoebe.

Ricinus thoracicus (Packard, 1870)

Nirmus thoracicus Packard, 1870. Amer. Nat., 4:94,
pl. 1, fig. 5.

Type host: Plectrophenax nivalis (Linnaeus)--Snow Bunting.

Ricinus vireoensis Nelson, 1972

Ricinus vireoensis Nelson, 1972. Univ. Calif. Pub. Ent.,
68:95, pl. 33, figs. 1-6.

Type host: Vireo griseus (Boddaert)--White-eyed Vireo.

Other North American hosts:

Vireo huttoni Cassin--Hutton's Vireo.

Vireo bellii Audubon--Bell's Vireo.

Vireo flavifrons Vieillot--Yellow-throated Vireo.

Vireo flavoviridis (Cassin)--Yellow-green Vireo.

Vireo olivaceus (Linnaeus)--Red-eyed Vireo.

Ricinus wolfi Nelson, 1972

Ricinus wolfi Nelson, 1972. Univ. Calif. Pub. Ent.,
68:90, pl. 28, figs. 1-5.

Type host: Aimophila aestivalis (Lichtenstein)--Bachman's
Sparrow.

Other North American host:

Aimophila ruficeps (Cassin)--Rufous-crowned Sparrow.

Genus TROCHILIPHAGUS

Trochiliphagus Carriker, 1960. Proc. U.S. Nat. Mus., 112:331.

Type species: Trochiliphagus lazulus Carriker, 1960.

The study by Carriker is the only one available. All hummingbirds not listed are probable hosts for this genus.

Trochiliphagus ochoterenai (Zavaleta, 1943)

Trochiloecetes ochoterenai Zavaleta, 1943. Tesis Univ. Mexico Fac. Cien., Dep. Biol.: 54, pl. 5, fig. 6.

Type host: Selasphorus rufus (Gmelin)--Rufous Hummingbird.

Genus TROCHILOECETES

Trochiloecetes Paine and Mann, 1913. Psyche, 20:21.

Type species: Physostomum prominens Kellogg and Chapman, 1899.

For a revision of this genus, see Carriker, 1960 (Proc. U.S. Nat. Mus., 112:312).

All hummingbirds not listed are probable hosts for this genus.

Trochiloecetes lineatus (Osborn, 1896)

Physostomum lineatum Osborn, 1896. Bull. U.S. Bur. Ent. (n. s.), 5:248.

Type host: Archilochus colubris (Linnaeus)--Ruby-throated Hummingbird.

Trochiloecetes prominens (Kellogg and Chapman, 1899)

Physostomum prominens Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6:137, pl. 9, fig. 5.

Type host: Calypte costae (Bourcier)--Costa's Hummingbird.

Family TRIMENOPONIDAE

Genus TRIMENOPON

Trimenopon Cummings, 1913. Bull. Ent. Res. 4:39.

Type species: Trimenopon echinoderma Cummings, 1913
(A synonym of Trimenopon hispidum (Burmeister, 1838).

The species listed is probably the only one of the genus to be found in North America.

Trimenopon hispidum (Burmeister, 1838)

Cyropus hispidum Burmeister, 1838. Handb. Ent., 2:443.

Menopon jenningsi Kellogg and Paine, 1910. Ent. News, 21:461, fig. 1.

Trimenopon echinoderma Cummings, 1913. Bull. Ent. Res. 4:40, fig. 4.

Trimenopon roseboomi Emerson, 1940. Ann. Ent. Soc. Amer., 33:339, figs. 1-4.

Type host: Cavia porcellus (Linnaeus)--Guinea Pig.

Checklist of the Mallophaga of North America
(North of Mexico)

Part II. - Suborder AMBLYCERA

By

K. C. Emerson, PhD.

DEFENSE PEST MGMT INFO ANALYSIS CTR
AFPMB, FOREST GLEN SECTION, WRAMC
WASHINGTON, DC 20307-5001

*Check-off
MS.*

INTRODUCTION

In 1899, V. L. Kellogg published "A list of the biting lice (Mallophaga) taken from birds and mammals of North America". Since that time, great advances have been made in the systematics of this group of parasitic insects.

In 1952, G. H. E. Hopkins and Theresa Clay published "A check list of the genera and species of Mallophaga". In the excellent publication by Hopkins and Clay, no attempt was made to include hosts except for the type host, and subspecies were included in their list as species.

This list has been compiled from a review of published papers, data provided by most of the modern taxonomists working with Mallophaga, and specimens examined by the author. Many of the host records are included in earlier publications by the author "A tentative list of Mallophaga for North American birds (north of Mexico)" and "A tentative list of Mallophaga for North American mammals (north of Mexico)". These two publications were host oriented as ready references for personnel not particularly interested in taxonomy. This volume is designed to be of greater assistance to the taxonomists. The same host classification and criteria for locality are used in all volumes.

Suborder AMBLYCERA

Family BOOPIDAE

Genus HETERODOXUS

Heterodoxus LeSouef and Bullen, 1902. Vict. Nat., 18: 159.

Type host: Heterodoxus macropus LeSouef and Bullen, 1902.

Macropophila Mjöberg, 1919. Ent. Tidskr., 40: 95.

Type host: Macropophila forcipata Mjöberg, 1919.

The only species of this genus likely to be collected in North America is well known. The only probable host is Canis lupus Linnaeus--Gray Wolf.

Heterodoxus spiniger (Enderlein, 1909)

Menopon spiniger Enderlein, 1909. Jenais. Denkschr., 14: 80, pl. 8, figs. 4-5.

Heterodoxus armiferus Paine, 1912. Ent. News., 23: 362, figs. A-D.

Menopon spinigerum Neumann, 1912. Arch. Parasit., 15: 364, fig. 12.

Type host: Domestic Dog.

Other North American hosts: Canis latrans Say-Coyote.
Canis niger Bartram--Red Wolf.

Family GYROPIDAE

Genus GLIRICOLA

Micropus Denny, 1842 (nec Meyer and Wolf, 1818). Mon. Anopl. Brit.: 247.

Type species: Gyropus gracilis Nitzsch, 1818 (A synonym of Gliricola porcelli (Schrank, 1781).

Gliricola Mjöberg, 1910. Zool. Anz., 35: 292.

Type species: Gyropus gracilis Nitzsch, 1818
(A synonym of Gliricola porcelli (Schrank, 1781).

Paraglricola Ewing, 1924. Proc. U. S. Nat. Mus., 63: 29.

Type species: Paraglricola quadrisetosa Ewing, 1924.

This genus is not found on native mammals of North America. The only species found in North America is well known.

Gliricola porcelli (Schrank, 1781)

Pediculus porcelli Schrank, 1781. Enum. Ins. Austr. Indig.: 500, pl. 1, fig. 1.

Pediculus saviae Schrank, 1803. Fauna Boica: 186 (nn for P. porcelli Schrank, 1781).

Pediculus bifurcatus Olfers, 1816. De Veget., 1: 83 (nn for P. porcelli Schrank, 1781).

Gyropus gracilis Nitzsch, 1818. Germar's Mag. Ent., 3: 304 (nn for P. porcelli Schrank, 1781).

Gyropus porcelli perfoliatus Neumann, 1912. Bull. Soc. Zool. Fr., 37: 216.

Gyropus bicaudatus Paine, 1912. Ent. News, 23: 441, pl. 20, fig. 3.

Gliricola mexicanus Zavaleta, 1946. Ann. Inst. Biol. Mex., 16: 435, fig. 1.

Type host: Cavia porcellus (Linnaeus)--Guinea Pig.

Genus GYROPUS

Gyropus Nitzsch, 1818. Germar's Mag. Ent., 3: 303.

Type species: Gyropus ovalis Burmeister, 1838
(By subsequent designation by the International
Commission of Zoological Nomenclature).

Haemabarus Nitzsch, 1874. In Giebel, Insecta Epizoa: 6
(nn for Gyropus Nitzsch, 1818).

Diplocerus Nitzsch, 1874. In Giebel, Insecta Epizoa: 6
(nn for Gyropus Nitzsch, 1818).

Monogyropus Ewing, 1924. Proc. U. S. Nat. Mus., 63: 10.
Type species: Gyropus longus Neumann, 1912.

Tetragyropus Ewing, 1924. Proc. U. S. Nat. Mus., 63: 21.
Type species: Gyropus lineatus Neumann, 1912.

Eogyropus Eichler, 1952. Zool. Anz., 149: 76.
Type species: Gyropus lenti lenti Werneck, 1936.

This genus is not found on native mammals of North
America. The only species found in North America is well
known.

Gyropus ovalis Burmeister, 1838

Gyropus ovalis Burmeister, 1838. Handb. Ent., 2:
443.

Gyropus turbinatus Piaget, 1880. Les Pediculines:
612, pl. 50, fig. 7.

Gyropus recifensis Torres, 1938. Bol. Soc. Brasil.
Med. Vet., 8: 279, and 288, figs. 1-4.

Macrogyropus mexicanus Zavaleta, 1946. Ann. Inst.
Biol. Mex., 16: 438, fig. 2.

Type host: Cavia porcellus (Linnaeus)--Guinea Pig.

Genus MACROGYROPUS

Macrogyropus Ewing, 1924. Proc. U. S. Nat. Mus.,
63: 25.

Type species: Macrogyropus dentatus Ewing, 1924
(A synonym of Macrogyropus dicotylis (Macalister,
1869).

Heterogyropus Ewing, 1924. Proc. U. S. Nat. Mus.,
63: 27.

Type species: Heterogyropus heteronychus Ewing,
1924.

The species listed is probably the only one of this
genus to be found in North America.

Macrogyropus dicotylis (Macalister, 1869)

Gyropus dicotylis Macalister, 1869. Proc. Zool.
Soc. London, 1869: 420, fig.

Macrogyropus dentatus Ewing, 1924. Proc. U. S.
Nat. Mus., 63: 26, pl. 1, fig. 5.

Type host: Pecari tajacu (Linnaeus)--Collared
Peccary.

Genus PITRUFQUENIA

Pitrufoquia Marelli, 1932. La Chacra, 3: 9.

Type species: Pitrufoquia coypus Marelli, 1932.

A monotypic genus.

Pitrufoquia coypus Marelli, 1932

Pitrufoquia coypus Marelli, 1932. LaChacra, 3: 9,
figs. 1-6.

Pitrufoquia mollis Marelli, 1933. Rev. Soc. Ent.
Argentina, 5: 299.

Type host: Myocastor coypus (Molina)--Nutria.

Family LAEMOBOTHRIIDAE

Genus LAEMOBOTHRION

Laemobothrion Nitzsch, 1818. Germar's Mag. Ent., 3: 301.

Type species: Laemobothrion maximum (Scopoli, 1763) (By subsequent designation by Johnston and Harrison, 1911, Proc. Linn. Soc. N. S. W., 36: 327).

Laemobothrium Burmeister, 1838. Handb. Ent., 2: 441 (Emendation).

Eulaemobothrion Ewing, 1929. Manual External Parasites: 189.

Type species: Laemobothrion nigrum Burmeister, 1838 (A synonym of Laemobothrion atrum (Nitzsch, 1818).

Ornithopeplechthos Eichler, 1941. Stettin. Ent. Ztg., 102: 127.

Type species: Laemobothrion opisthocomi Cummings, 1913.

Pterophagus Eichler, 1941. Stettin. Ent. Ztg., 102: 128.

Type species: Laemobothrion gracilentum Harrison, 1915 (A synonym of Laemobothrion gracile Giebel, 1874).

Plegadilymantikos Eichler, 1941. Stettin. Ent. Ztg., 102: 128.

Type species: Laemobothrion pallescens Kellogg, 1908.

No revision or study of the genus is available, but a limited discussion is given by Clay and Hopkins, 1960 (Bull. Brit. Mus. (N. H.), Ent., 9: 52). The species found on the Falconiformes are in the subgenus Laemobothrion. The species found on the Gruiformes and Podicipitidae are in the subgenus Eulaemobothrion.

Probable North American hosts include all species of Podicipitidae, Falconiformes and Gruiformes (except Gruidae) not listed. It is also possible that a species of this genus may be found on Jacana spinosa (Linnaeus)--Jacana.

Laemobothrion atrum (Nitzsch, 1818)

Liotheum atrum Nitzsch, 1818. Germar's Mag. Ent., 3: 302.

Laemobothrion nigrum Burmeister, 1838. Handb. Ent., 2: 442.

Laemobothrion lathrobium Kolenati, 1846. Melet. Ent., 5: 139, pl. 19, fig. 6.

Type host: Fulica atra Linnaeus--European Coot.

Other North American host: Fulica americana Gmelin--American Coot.

Laemobothrion buteonivorum (Packard, 1872)

Nirmus buteonivorus Packard, 1872. Rept. U. S. Geol. Surv., 6: 733, fig. 61.

Laemobothrion oligothrix Carriker, 1903. Univ. Stud. Nebr. 3: 161, pl. 4, fig. 7.

Type host: Buteo swainsoni Bonaparte--Swainson's Hawk.

Laemobothrion bureschi Eichler, 1943

Laemobothrion bureschi Eichler, 1943. Mitt. Naturw. Inst. Sofia., 16: 209, fig. 4.

Type host: Pandion haliaetus (Linnaeus)--Osprey.

Laemobothrion canalense Eichler, 1942

Laemobothrion delogramma Kellogg, and Paine, 1910 (nec Carriker, 1903). Ent. News, 21: 460.

Laemobothrion canalense Eichler, 1942. Zool. Anz., 139: 31 (nn for L. delogramma Kellogg and Paine, 1910).

Type host: Cathartes aura (Linnaeus)--Turkey Vulture.

Laemobothrion chloropodis (Schrank, 1803)

Pediculus chloropodis Schrank, 1803. Fauna Boica: 189.

Type host: Gallinula chloropus (Linnaeus)--Common Gallinule.

- Laemobothrion cubense Kellogg and Ferris, 1915
Laemobothrion setigerum cubensis Kellogg and Ferris, 1915. Ann. Durban Mus., 1: 149, pl. 15, fig. 2.
Type host: Aramus scolopaceus (Linnaeus)--Limkin.
- Laemobothrion intermedium McGregor, 1917
Laemobothrium intermedium McGregor, 1917. Ent. News. 28: 434, pl. 28, figs. 2 and 5.
Type host: Falco sparverius Linnaeus--Sparrow Hawk.
- Laemobothrion longetarsatum (Piaget, 1895)
Physostomum longetarsatum Piaget, 1895. Tijdschr. Ent., 38: 101.
Type host: unknown, and distribution is also unknown.
- Laemobothrion loomisi Kellogg and Chapman, 1902.
Laemobothrion loomisi Kellogg and Chapman, 1902. J. N. Y. Ent. Soc., 10: 23, pl. 3, fig. 8.
Type host: unknown, some species of Falconiformes found in California.
- Laemobothrion mendesi Tendeiro, 1955
Laemobothrion mendesi Tendeiro, 1955. Bol. Cult. Guine. Port., 9: 211, figs. 7-8.
Type host: Aquila chrysaetos (Linnaeus)--Golden Eagle.
- Laemobothrion museihamburgi Eichler, 1954
Laemobothrion museihamburgi Eichler, 1954. Beitr. Fauna Perus, 4: 34, figs. 10-11.
Type host: Coragyps atratus (Bechstein)--Black Vulture.
- Laemobothrion nocturnum Giebel, 1874
Laemobothrion nocturnum Giebel, 1874. Insecta Epizoa: 302.
Type host: unknown, distribution is also unknown.
- Laemobothrion semicirculus Carriker, 1961
Laemobothrion semicirculus Carriker, 1961. Nov. Cien. Mus. Hist. Nat. LaSalle, No. 28: 39, fig. 4.
Type host: Falco columbarius Linnaeus--Pigeon Hawk.

Laemobothrion simile Kellogg, 1896

Laemobothrium similis Kellogg, 1896. Proc.

Calif. Acad. Sci., 6: 153, pl. 14, figs. 1 and 2.

Type host: Podiceps caspicus (Hablizl)--Eared
Grebe.

Family MENOPONIDAE

Genus ACTORNITHOPHILUS

Actornithophilus Ferris, 1916. *Canad. Ent.*, 48: 303.

Type species: Colpocephalum uniseriatum Piaget, 1880.

Diactornithophilus Balat, 1953. *Zool. Ent. Listy*, 2: 96 and 104.

Type species: Actornithophilus (Diactornithophilus) svobodyae Balat, 1953.

Clypeodon Timmermann, 1954. *Ann. Mag. Nat. Hist.*, (12), 7: 830.

Type species: Colpocephalum incisum Piaget, 1880.

Clay, 1962 (*Bull. Brit. Mus. (N. H.)*, Ent., 11: 191) provides: a key to the known species, illustrations for many species, and an excellent discussion of host-parasite relationships.

Hosts which may harbor species of Actornithophilus but for which no data are available include:

Aphriza virgata (Gmelin)--Surfbird.

Philohela minor (Gmelin)--American Woodcock.

Numenius americanus Bechstein--Long-billed Curlew.

Numenius tahitiensis (Gmelin)--Bristle-thighed Curlew.

Numenius borealis (Forster)--Eskimo Curlew.

Bartramia longicauda (Bechstein)--Upland Plover.

Tringa solitaria Wilson--Solitary Sandpiper.

Limosa haemastica (Linnaeus)--Hudsonian Curlew.

Rhodostethia rosea (MacGillivray)--Ross' Gull.

Actornithophilus bicolor (Piaget, 1880)

Colpocephalum bicolor Piaget, 1880. Les Pediculines:
561, pl. 47, fig. 1.

Colpocephalum paetulum Kellogg and Kuwana, 1900.

Proc. Acad. Sci. Philad., 23: 157, pl. 7, fig. 4.

Colpocephalum spinulosm obscurum Carriker, 1910.
(nec Giebel, 1874). Ent. News, 21: 52.

Colpocephalum oculare Carriker, 1910. Ent. News,
21: 52, pl. 5, fig. 1.

Colpocephalum tigrum Kellogg and Mann, 1912. Ent.
News, 23: 64.

Type host: Arenaria interpres (Linnaeus)--Ruddy
Turnstone.

Other North American host: Arenaria melanocephala
(Vigors)--Black Turnstone.

Actornithophilus ceruleus (Timmermann, 1954)

Clypeodon ceruleus Timmermann, 1954. Ann. Mag.
Nat. Hist., (12), 7: 830, figs. 2c and d, and pl. 26,
fig. c.

Type host: Procelsterna cerulea (F. D. Bennett),
(This may be in error see Clay, 1962 (Bull. Brit.
Mus. (N. H.), Ent., 11: p. 201).

Other North American host: Anotis stolidus (Linnaeus)--
Noddy Tern.

Actornithophilus flumineus Clay, 1962

Actornithophilus flumineus Clay, 1962. Bull. Brit.
Mus. (N. H.), Ent., 11: 217, pl. 4, fig. 5.

Type host: Actitis hypoleucos (Linnaeus).

North American host: Actitis macularis (Linnaeus)--
Spotted Sandpiper.

Actornithophilus gracilis (Piaget, 1880)

Colpocephalum gracile Piaget, 1880. Les Pediculines:
555, pl. 46, fig. 5.

Liotheum scopularium Neumann, 1912, Arch. Parasit.,
15: 370, fig. 16.

Actornithophilus svobodae Balat, 1953. Zool. Ent.
Listy. 2: 100, 101, 105, fig. 4.

Actornithophilus svobodai Balat, 1957. Acta
Veterinaria, 7: 445 (nn for A. svobodae Balat, 1953).

Type host: Vanellus vanellus (Linnaeus)--Lapwing.

Actornithophilus grandiceps (Piaget, 1880)

Colpocephalum grandiceps Piaget, 1880. Les
Pediculines: 558, pl. 46, fig. 7.

Colpocephalum laticeps Mjöberg, 1910 (nec Kellogg,
1896). Ark. Zool., 6: 42, pl. 2, fig. 4.

Type host: Haematopus ostralegus Linnaeus.

North American hosts: Haematopus palliatus
Temminck--American Oystercatcher. Haematopus
bachmani Audubon--Black Oystercatcher.

Actornithophilus hoplopteri maculosus Carriker, 1963

Actornithophilus hoplopteri maculosus Carriker,
1963. Rev. Brasil. Biol., 23: 294, figs. 1-2.

Actornithophilus hoplopteri peruvianus Carriker,
1963. Rev. Brasil. Biol., 23: 295, fig. 3.

Type host: Charadrius vociferus Linnaeus--Killdeer.

Actornithophilus incisus (Piaget, 1880)

Colpocephalum incisum Piaget, 1880. Les Pediculines:
569, pl. 47, fig. 9.

Colpocephalum milleri Kellogg and Kuwana, 1902.
Proc. Wash. Acad. Sci., 4: 483, pl. 30, fig. 6.

Colpocephalum epiphanes Kellogg and Chapman, 1902.
J. N. Y. Ent. Soc., 10: 161, pl. 14, fig. 2.

Clypeodon pacificus Timmermann, 1955. Ann. Mag.
Nat. Hist., (12), 8: 534.

Type host: Anotts stolidus (Linnaeus)--Noddy Tern.

Actornithophilus kilauensis (Kellogg and Chapman, 1902)

Colpocephalum kilauensis Kellogg and Chapman, 1902,
J. N. Y. Ent. Soc., 10: 161, pl. 14, fig. 1.

Type host: Heteroscelus incanum (Gmelin)--Wandering
Tattler.

Actornithophilus lacustris Clay, 1962

Actornithophilus lacustris Clay, 1962. Bull. Brit.
Mus. (N. H.) Ent., 11: 220, pl. 5, figs. 1 and 4;
pl. 11, fig. 5 and t.f. 20.

Type host: Catoptrophorus semipalmatus (Gmelin)--
Willet.

Actornithophilus limarius Clay, 1962

Actornithophilus limarius Clay, 1962. Bull. Brit. Mus. (N. H.), Ent., 11: 222, pl. 5, figs. 2 and 5; pl. 11, fig. 4.

Type host: Limnodromus scolopaceus (Say)--Long-tailed Dowitcher.

Other North American host: Limnodromus griseus (Gmelin)--Short-tailed Dowitcher.

Actornithophilus limosae (Kellogg, 1908)

Colpocephalum ochraceum Grube, 1851 (nec Nitzsch, 1818). Middendorff's sibir. Reise, 2: 490.

Colpocephalum limosae Kellogg, 1908. In Wytzman's Gen. Ins., Mallophaga: 56 (nn for C. ochraceum Grube, 1851).

Type host: Limosa lapponica (Linnaeus)--Bar-tailed Godwit.

Other North American host: Limosa fedoa (Linnaeus)--Marbled Godwit.

Actornithophilus mexicanus Emerson, 1953

Actornithophilus mexicanus Emerson, 1953. J. Kansas Ent. Soc., 26: 134, fig. 4.

Type host: Himantopus mexicanus (Müller)--Black-necked Stilt.

Actornithophilus ocellatus (Rudow, 1869)

Colpocephalum ocellatum Rudow, 1869. Z. ges. NatWiss., 34: 392.

Type host: Numenius phaeopus (Linnaeus)--Whimbrel.

Other North American hosts: None recorded, but probably found on other species of Numenius.

Actornithophilus ochraceus (Nitzsch, 1818)

Liotheum ochraceum Nitzsch, 1818. Germar's Mag. Ent., 3: 299.

Colpocephalum flavipes Giebel, 1874. Insecta Epizoa: 276.

Colpocephalum timidum Kellogg, 1896. Proc. Calif. Acad. Sci., 6: 145, pl. 12, fig. 6.

Colpocephalum perplanum Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6: 109, pl. 7, fig. 8.

Actornithophilus perrarus Blagoveshtchensky, 1948.

Mag. Parasit., Leningr., 10: 270, fig. 8.

Actornithophilus laveni Eichler, 1953. Die
Vögelwarte, 16: 173.

Type host: Pluvialis apricaria (Linnaeus).

Other North American hosts: Charadrius semipalmatus
Bonaparte--Semipalmated Plover. Charadrius
melodus Ord--Piping Plover. Charadrius alexandrinus
Linnaeus--Snowy Plover. Charadrius wilsonia Ord--
Wilson's Plover. Eupoda montana (Townsend)--
Mountain Plover. Pluvialis dominica (Müller)--
American Golden Plover. Squatarola squatarola
(Linnaeus)--Black-bellied Plover.

Actornithophilus paludosus Clay, 1962

Actornithophilus paludosus Clay, 1962. Bull. Brit.

Mus. (N. H.), Ent., 11: 219, pl. 5, figs. 3 and 6;
t.f. 47.

Type host: Tringa nebularia (Gunnerus).

North American host: Totanus melanoleucus (Gmelin)--
Greater Yellowlegs.

Actornithophilus pediculoides (Mjöberg, 1910)

Colpocephalum pediculoides Mjöberg, 1910. Ark.

Zool., 6: 44, pl. 2, fig. 6.

Type host: Arenaria interpres (Linnaeus)--Ruddy
Turnstone.

Other North American hosts: None recorded, but
probably found on Arenaria melanocephala (Vigors)--
Black Turnstone.

Actornithophilus piceus lari (Packard, 1870)

Colpocephalum lari Packard, 1870. Amer. Nat.,

4: 96, pl. 1, fig. 1.

Colpocephalum fuscipes Piaget, 1880. Les Pediculines:

567, pl. 47, fig. 7.

Colpocephalum funebre Kellogg, 1896. Proc. Calif.

Acad. Sci., 6: 147, pl. 12, fig. 7.

Colpocephalum fumidum Kellogg, 1896. Proc. Calif.

Acad. Sci., 6: 523, pl. 71, fig. 5.

Colpocephalum abbotti Kellogg, 1899. Occ. Pap.

Calif. Acad. Sci. 6: 36, pl. 4, fig. 9.

Colpocephalum grandiculum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6: 113, pl. 7, fig. 10.

Type host: Larus marinus Linnaeus--Great Black-backed Gull.

Other North American hosts: Larus hyperboreus

Gunnerus--Glaucous Gull. Larus glaucoides Meyer--

Iceland Gull. Larus glaucescens Naumann--Glaucous-

winged Gull. Larus schististisagus Stejneger--Slaty-

backed Gull. Larus occidentalis Audubon--Western Gull.

Larus argentatus Pontoppidan--Herring Gull. Larus

californicus Lawrence--California Gull. Larus

delawarensis Ord--Ring-billed Gull. Larus canus

Linnaeus--Mew Gull. Larus atricilla Linnaeus--

Laughing Gull. Larus pipixcan Wagler--Franklin's

Gull. Larus philadelphia (Ord)--Bonaparte's Gull.

Larus minutus Pallas--Little Gull. Larus heermanni

Cassin--Heermann's Gull. Pagophila eburnea

(Phipps)--Ivory Gull. Rissa tridactyla (Linnaeus)--

Black-legged Kittiwake. Rissa brevirostris (Bruch)--

Red-legged Kittiwake. Xema sabini (Sabine)--Sabine's

Gull.

Actornithophilus piceus piceus (Denny, 1842)

Colpocephalum piceum Denny, 1842. Mon. Anopl.

Brit.: 198 and 212, pl. 18, fig. 4.

Colpocephalum maurum Nitzsch, 1866. In Giebel,

Z. ges. NatWiss., 28: 395.

Colpocephalum sulcatum Piaget, 1880. Les Pediculines:

565, pl. 47, fig. 5.

Colpocephalum crassipes Piaget, 1880. Les

Pediculines: 566, pl. 47, fig. 6.

Actornithophilus funebre candidus Carriker, 1949.

Proc. U. S. Nat. Mus., no. 3254, 100: 17.

Type host: Thalasseus sandvicensis (Latham)--
Sandwich Tern.

Other North American hosts: Gelochelidon nilotica
(Gmelin)--Gull-billed Tern. Sterna forsteri Nuttall--
Forster's Tern. Sterna hirundo Linnaeus--Common
Tern. Sterna paradisaea Pontoppidan--Arctic Tern.
Sterna dougallii Montagu--Roseate Tern. Sterna
aleutica Baird--Aleutian Tern. Sterna fuscata
Linnaeus--Sooty Tern. Sterna anaethetus Scopoli--
Bridled Tern. Sterna albifrons Pallas--Least Tern.
Thalasseus maximus (Boddaert)--Royal Tern.
Thalasseus elegans (Gambel)--Elegant Tern.
Hydroprogne caspia (Pallas)--Caspian Tern.
Chlidonias nigra (Linnaeus)--Black Tern.

Actornithophilus pustulosus (Piaget, 1880)

Colpocephalum cornutum Giebel, 1866 (nec Rudow,
1866). Z. ges. NatWiss., 28: 395.

Colpocephalum pustulosum Piaget, 1880. Les Pediculines:
559, pl. 46, fig. 8.

Type host: Philomachus pugnax (Linnaeus)--Ruff.

Actornithophilus sabulosus Clay, 1962

Actornithophilus sabulosus Clay, 1962. Bull. Brit.
Mus. (N. H.), Ent., 11: 228, pl. 4, fig. 3; pl. 9,
fig. 1; and t. f. 7, 12, 18, 61 and 62.

Type host: Charadrius semipalmatus Bonaparte--
Semipalmated Plover.

Actornithophilus stictus (Kellogg and Paine, 1911)

Colpocephalum stictum Kellogg and Paine, 1911. Ent.
News, 22: 77, fig. 2.

Type host: Capella gallinago (Linnaeus)--Common Snipe.

Actornithophilus totani (Schrank, 1803)

Pediculus totani Schrank, 1803. Fauna Boica: 191.

Colpocephalum affine Nitzsch, 1874. In Giebel,
Insecta Epizoa: 276.

Type host: Totanus totanus (Linnaeus)--Redshank.

Other North American host: Totanus flavipes (Gmelin)--
Lesser Yellowlegs.

Actornithophilus umbrinus (Burmeister, 1838)

Colpocephalum umbrinum Burmeister, 1838. Handb.

Ent., 2: 438.

Colpocephalum trilobatum Giebel, 1874. Insecta

Epizoa: 275.

Colpocephalum umbrinum Piaget, 1880 (nec

Burmeister, 1838). Les Pediculines: 556, pl.

46, fig. 6.

Colpocephalum spinulosum minor Kellogg and

Chapman, 1899 (nec Piaget, 1880). Occ. Pa.

Calif. Acad. Sci., 6: 112, pl. 7, fig. 9.

Colpocephalum morsitans Kellogg and Mann, 1912.

Ent. News, 23: 15, fig. 3.

Colpocephalum umbrosum Harrison, 1916. Parasitology,

9: 56 (nn for C. umbrinum Piaget, 1880).

Actornithophilus albus Emerson, 1948. Ent. News,

59: 178, figs. 1-2 (nn for C. spinulosum minor

Kellogg and Chapman, 1899).

Actornithophilus hrabei Balat, 1953. Zool. Ent.

Listy, 2: 98 and 104, fig. 2.

Actornithophilus hirsutus Carriker, 1954. Florida

Ent., 37: 139, fig. 1.

Type host: Erolia testacea (Pallas)--Curlew Sandpiper.

Other North American hosts: Actitis macularis

(Linnaeus)--Spotted Sandpiper. Calidris canutus

(Linnaeus)--Knot. Erolia maritima (Brünnich)--

Purple Sandpiper. Erolia ptilocnemis (Coues)--

Rock Sandpiper. Erolia acuminata (Horsfield)--Short-

tailed Sandpiper. Erolia melanotos (Vieillot)--

Pectoral Sandpiper. Erolia fuscicollis (Vieillot)--

White-rumped Sandpiper. Erolia bairdii (Coues)--

Baird's Sandpiper. Erolia minutilla (Vieillot)--

Least Sandpiper. Erolia ferruginea (Pontoppidan)--

Curlew Sandpiper. Erolia alpina (Linnaeus)--Dunlin.

Micropalama himantopus (Bonaparte)--Stilt

Sandpiper. Ereunetes pusillus (Linnaeus)--Semi-

palmed Sandpiper. Ereunetes mauri Cabanis--

Western Sandpiper. Tryngites subruficollis (Vieillot)--

Buff-breasted Sandpiper. Crocethia alba (Pallas)--

Sanderling. Phalaropus fulicarius (Linnaeus)--Red

Phalarope. Steganopus tricolor (Vieillot)--Wilson's

Phalarope. Lobipes lobatus (Linnaeus)--Northern

Phalarope.

Actornithophilus uniseriatus (Piaget, 1880)

Colpocephalum uniseriatum Piaget, 1880. Les
Pediculines: 562, pl. 47, fig. 2.

Colpocephalum uniforme Kellogg, 1896. Proc.
Calif. Acad. Sci., 6: 142, pl. 12, fig. 4.

Type host: Recurvirostra avosetta Linnaeus.

North American host: Recurvirostra americana
Gmelin -> American Avocet.

Genus AMYRSIDEA

Amyrsidea Ewing, 1927. J. Wash. Acad. Sci., 17: 90.

Type species: Menopon ventrale Nitzsch, 1866.

Argimenopon Eichler, 1947. Ark. Zool., 39A, No. 2: 5.

Type species: Argimenopon polytrichum Eichler, 1947.

Cracimenopon Carriker, 1954. Novedades Colombianas, 1(1): 22.

Type species: Cracimenopon mituensis Carriker, 1954.

Desumenopon Carriker, 1954. Novedades Colombianas, 1(1): 25.

Type species: Amyrsidea praegracilis Carriker, 1950.

No revision of this genus is available. An undescribed species has been reported from the Guinea Fowl.

Hosts which may harbor species of Amyrsidea, but for which no data are available include:

Dendragapus obscurus (Say)--Blue Grouse.

Canachites canadensis (Linnaeus)--Spruce Grouse.

Tympanuchus pallidicinctus (Ridgway)--Lesser Prairie Chicken.

Centrocercus urophasianus (Bonaparte)--Sage Grouse.

Colinus virginianus (Linnaeus)--Bob-white.

Callipepla squamata (Vigors)--Scaled Quail.

Lophortyx californica (Shaw)--California Quail.

Lophortyx gambelii Gambel--Gambel's Quail.

Oreortyx pictus (Douglas)--Mountain Quail.

Cyrtonyx montezumae (Vigors)--Harlequin Quail.

Alectoris graeca (Meisner)--Chukar.

Amyrsidea desousai (Keler, 1953)

Menacanthus desousai Keler, 1953. Mocambique, no. 72: 29, figs. 12-13.

Type host: Numida meleagris (Linnaeus)--Guinea Fowl.

Amyrsidea lagopi (Grube, 1851)

Menopon lagopi Grube, 1851. Middendorff's sibir. Reise, 2: 491, pl. 31, fig. 7.

Menopon striatum Kellogg, 1899. Occ. Pap. Calif. Acad. Sci., 6: 44, pl. 4, fig. 6.

Type host: Lagopus lagopus (Linnaeus)--Willow Ptarmigan.

Other North American hosts: Lagopus mutus (Montin)--Rock Ptarmigan. Lagopus leucurus (Richardson)--White-tailed Ptarmigan.

Amyrsidea megalosoma (Overgaard, 1943)

Menopon megalosomum Overgaard, 1943. Ent. Medd., 23: 13, figs. 5-6.

Menopon hexapilosus Vrazic, 1956. Vet. Arhiv. Zagreb, 26: 121, 126, and 129.

Type host: Phasianus colchicus Linnaeus--Ring-necked Pheasant.

Other North American hosts: Bonasa umbellus (Linnaeus)--Ruffed Grouse. Tympanuchus cupido (Linnaeus)--Greater Prairie Chicken. Pedioecetes phasianellus (Linnaeus)--Sharp-tailed Grouse.

Amyrsidea minuta Emerson, 1961

Amyrsidea minuta Emerson, 1961. Florida Ent., 44: 117, figs. 1-3.

Type host: Pavo cristatus (Linnaeus)--Peafowl.

Amyrsidea perdicis (Denny, 1842)

Menopon perdicis Denny, 1842. Mon. Anopl. Brit.: 200 and 225, pl. 21, fig. 9.

Type host: Perdix perdix (Linnaeus)--Gray Partridge.

Amyrsidea phaeostoma (Nitzsch, 1866)

Menopon phaeostomum Nitzsch, 1866. In Giebel,
Z. ges. NatWiss., 28: 391.

Type host: Pavo cristatus (Linnaeus)--Peafowl.

Amyrsidea spicula Carriker, 1950

Amyrsidea spicula spicula Carriker, 1950. Rev.
Acad. Colomb. Sci., 7: 506, figs. 54-55a.

Type host: Ortalis vetula (Wagler)--Chachalaca.

Genus ANCISTRONA

Ancistrona Westwood, 1874. Thesaurus Entomologicus Oxoniensis: 197.

Type species: Ancistrona procellariae Westwood, 1874 (This may be a synonym of Ancistrona vagelli (J. C. Fabricius, 1787)).

No revision of this genus is available; however, a good discussion and illustrations are given in Clay and Hopkins, 1960 (Bull. Brit. Mus. (N.H.), Ent., 9: 4). Clay and Hopkins state that specimens have been "seen from various species of Procellariformes."

Ancistrona vagelli (J. C. Fabricius, 1787)

Pediculus vagelli J. C. Fabricius, 1787. Mantissa Ins.: 369.

Menopon giganteum Rudow, 1869. Z. ges. NatWiss., 27: 403.

Ancistrona gigas Piaget, 1883. Tijdschr. Ent., 26: 152, pl. 9, fig. 1.

Type host: Fulmarus glacialis (Linnaeus)--
Fulmar.

Other North American hosts: Puffinus diomedea (Scopoli)--Cory's Shearwater. Puffinus creatopus Coues--Pink-footed Shearwater. Puffinus gravis (O'Reilly)--Greater Shearwater. Puffinus griseus (Gmelin)--Sooty Shearwater. Puffinus tenuirostris (Temminck)--Slender-billed Shearwater. Puffinus opisthomelas Coues--Black-vented Shearwater. Oceanites oceanicus (Kuhl)--Wilson's Petrel.

Ardeiphilus Bedford, 1939. Onderstepoort J. Vet. Sci.,
12: 139.

Type host: Colpocephalum trochioxum (Burmeister,
1838).

This genus is not well known. At present it contains three species found on hosts of the family Ardeidae, order Ciconiiformes. Future collections may reveal its presence in North America.

Genus AUSTROMENOPON

Austromenopon Bedford, 1939. Onderstepoort J. Vet. Sci., 12: 122.

Type species: Menopon crocatum Nitzsch, 1866.

Australmenopon Conci, 1942. Boll. Soc. Ent. Ital., 74: 30.

Type species: Menopon cinerea Thompson, 1939.

Clay, 1959 (Proc. R. Ent. Soc. London, (B), 28: 157) contains a key and limited discussion of distribution of species found on the Charadriiformes. Timmermann, 1954 (Bonn. Zool. Beitr., 5: 195) discusses the species found on the family Phaethontidae, order Pelecaniformes.

Hosts which probably have species of Austromenopon, but for which no data are available include:

Eupoda montana (Townsend)--Mountain Plover.
Pulvalis dominica (Müller)--American Golden Plover.

Aphriza virgata (Gmelin)--Surfbird.
Arenaria interpres (Linnaeus)--Ruddy Turnstone.

Philohela minor (Gmelin)--American Woodcock.

Numenius americanus Beckstein--Long-billed Curlew.

Numenius tahitiensis (Gmelin)--Bristle-thighed Curlew.

Numenius borealis (J. R. Forster)--Eskimo Curlew.

Bartramia longicauda (Bechstein)--Upland Plover.

Actitis macularia (Linnaeus)--Spotted Sandpiper.

Tringa solitaria Wilson--Solitary Sandpiper.
Heteroscelus incanum (Gmelin)--Wandering Tattler.

Totanus melanoleucus (Gmelin)--Greater Yellowlegs.

Totanus flavipes (Gmelin)--Lesser Yellowlegs.

Calidris canutus (Linnaeus)--Knot.
Erolia maritima (Brunnich)--Purple
Sandpiper.
Erolia ptilocnemis (Coues)--Rock Sandpiper.
Erolia acuminata (Horsfield)--Short-tailed
Sandpiper.
Erolia melanotos (Vieillot)--Pectoral
Sandpiper.
Erolia fuscicollis (Vieillot)--White-rumped
Sandpiper.
Erolia bairdii (Coues)--Baird's Sandpiper.
Erolia minutilla (Vieillot)--Least Sandpiper.
Limnodromus griseus (Gmelin)--Short-tailed
Dowitcher.
Limnodromus scolopaceus (Say)--Long-tailed
Dowitcher.
Micropalama himantopus (Bonaparte)--Stilt
Sandpiper.
Ereunetes pusillus (Linnaeus)--Semipalmated
Ereunetes mauri Cabanis--Western Sandpiper.
Tryngites subruficollis (Vieillot)--Buff-breasted
Sandpiper.
Limosa haemastica (Linnaeus)--Hudsonian
Godwit.
Crocethia alba (Pallas)--Sanderling.
Steganopus tricolor (Vieillot)--Wilson's
Phalarope.
Rhodostethia rosea (MacGillivray)--Ross' Gull.
Hydroprogne caspia (Pallas)--Caspian Tern.
Chlidonias nigra (Linnaeus)--Black Tern.
Anous stolidus (Linnaeus)--Noddy Tern.
Uria lomvia (Linnaeus)--Thick-billed Murre.
Cephus grylle (Linnaeus)--Black Guillemot.
Cephus columba Pallas--Pigeon Guillemot.
Brachyramphus marmoratum (Gmelin)--
Marbled Murrelet.
Brachyramphus brevirostre (Vigors)--Kittlitz's
Murrelet.
Endomychura hypoleuca (Xantus)--Xantus'
Murrelet.
Endomychura craveri (Salvadori)--Craveri's Murrelet.
Synthliboramphus antiquum (Gmelin)--Ancient
Murrelet.

Ptychoramphus aleutica (Pallas)--Cassin's
Auklet.

Cyclorhynchus psittacula (Pallas)--Parakeet
Auklet.

Aethia cristatella (Pallas)--Crested Auklet.

Aethia pusilla (Pallas)--Least Auklet.

Aethia pygmaea (Gmelin)--Whiskered Auklet.

Cerorhinca monocerata (Pallas)--Rhinceros
Auklet.

Fratercula arctica (Linnaeus)--Common Puffin.

Fratercula corniculata (Naumann)--Horned
Puffin.

Lunda cirrhata (Pallas)--Tuffed Puffin.

Rynchops nigra Linnaeus--Black Skimmer.

Austromenopon aegialitidis (Durrant, 1906)

Menopon aegialitidis Durrant, 1906. Ohio. Nat.,
6: 529, fig. 1c.

Type host: Charadrius vociferus Linnaeus--Killdeer.

Other North American hosts: Vanellus vanellus
(Linnaeus)--Lapwing. Charadrius semipalmatus
Bonaparte--Semipalmated Plover. Charadrius
melodus Ord--Piping Plover. Charadrius alexandrinus
Linnaeus--Snowy Plover. Charadrius wilsonia Ord--
Wilson's Plover.

Austromenopon alpinum Timmermann, 1954

Austromenopon alpinum Timmermann, 1954. Bonn.
Zool. Beitr., 5: 202, fig. 8.

Type host: Erolia alpina (Linnaeus)--Dunlin.

Austromenopon atrofulvum (Piaget, 1880)

Menopon atrofulvum Piaget, 1880. Les Pediculines:
483, pl. 39, fig. 2.

Menopon sternophilum Ferris, 1932. Bull. Bishop.
Mus., 98: 59, fig. 12.

Menopon fuscifasciatum minor Piaget, 1937 (nec 1880).

In Thompson, Ann. Mag. Nat. Hist., (10), 20: 24.

Type host: Thalasseus bergi (Lichtenstein).

Other North American hosts: Gelochelidon nilotica
(Gmelin)--Gull-billed Tern.

Sterna forsteri Nuttall--Forster's Tern. Sterna
hirundo Linnaeus--Common Tern. Sterna
paradisaea Pontoppidan--Arctic Tern. Sterna
dougallii Montagu--Roseate Tern. Sterna aleutica
Baird--Aleutian Tern. Sterna fuscata Linnaeus--
Sooty Tern. Sterna anaethetus Scopoli--Bridled
Tern. Sterna albifrons Pallas--Least Tern.
Thalasseus maximus (Boddaert)--Royal Tern.
Thalasseus elegans (Gambel)--Elegant Tern.
Thalasseus sandvicensis (Latham)--Sandwich Tern.

Austromenopon beckii (Kellogg, 1906)

Menopon beckii Kellogg, 1906. Trans. Amer. Ent.
Soc., 32: 322.

Type host: Phaethon aethereus Linnaeus--Red-billed
Tropic-bird.

Austromenopon corporosum (Kellogg and Kuwana, 1900)

Menopon corporosum Kellogg and Kuwana, 1900. Proc.
Acad. Nat. Sci. Philad., 23: 158, pl. 7, fig. 5.

Type host: Phalaropus fulicarius (Linnaeus)--Red
Phalarope.

Austromenopon durisetosum (Blagoveshtchensky, 1948)

Menopon durisetosum Blagoveshtchensky, 1948. Mag.
Parasit., Leningr., 10: 263, fig. 3.

Type host: Capella gallinago (Linnaeus)--Common
Snipe.

Austromenopon fuscofasciatum (Piaget, 1880)

Menopon fuscofasciatum Piaget, 1880. Les
Pediculines: 492, pl. 40, fig. 9.

Menopon circinatum Piaget, 1890. Tijdschr. Ent.
33: 249, pl. 10, fig. 4.

Type host: Stercorarius pomarinus (Temminck)--
Pomarine Jaeger.

Other North American hosts: Stercorarius parasiticus
(Linnaeus)--Parasitic Jaeger. Stercorarius
longicaudus Vieillot--Long-tailed Jaeger. Catharacta
skua Brtännich--Skua.

- Austromenopon haematopi Timmermann, 1954
Austromenopon haematopi Timmermann, 1954. Bonn. Zool. Beitr., 5: 199, fig. 6.
 Type host: Haematopus ostralegus Linnaeus.
 Other North American hosts: Haematopus palliatus Temminck--American Oystercatcher. Haematopus bachmani Audubon--Black Oystercatcher.
- Austromenopon himantopi Timmermann, 1954
Austromenopon himantopi Timmermann, 1954. Bonn. Zool. Beitr., 5: 199, fig. 6a.
Austromenopon mohini Ansari, 1955. Indian J. Ent., 17: 400.
 Type host: Himantopus himantopus (Linnaeus).
 Other North American host: Himantopus mexicanus (Müller)--Black-necked Stilt.
- Austromenopon limosae Timmermann, 1954
Austromenopon limosae Timmermann, 1954. Bonn. Zool. Beitr., 5: 202, fig. 10.
 Type host: Limosa limosa (Linnaeus)--Black-tailed Godwit.
 Other North American host: Limosa fedoa (Linnaeus)--Marbled Godwit.
- Austromenopon lutescens (Burmeister, 1838)
Menopon lutescens Burmeister, 1838. Handb. Ent., 2: 440.
 Type host: Philomachus pugnax (Linnaeus)--Ruff.
- Austromenopon merguli Timmermann, 1954
Austromenopon merguli Timmermann, 1954. Bonn. Zool. Beitr., 5: 197.
 Type host: Plautus alle (Linnaeus)--Dovekie.
- Austromenopon meyeri (Giebel, 1874)
Menopon meyeri Giebel, 1874. Insecta Epizoa: 296.
 Type host: Limosa lapponica (Linnaeus)--Bar-tailed Godwit.
- Austromenopon micrandum (Nitzsch, 1866)
Menopon micrandum Nitzsch, 1866. In Giebel, Z. ges NatWiss., 28: 392.

Menopon indistinctum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6: 157, pl. 14, figs. 6-7.
Type host: Recurvirostra avosetta Linnaeus.
Other North American host: Recurvirostra
americana Gmelin--American Avocet.

Austromenopon miloni (Seguy, 1949)
Menopon miloni Seguy, 1949. Mem. Inst. Sci.,
Madagascar, 3A: 165, figs. 1-2.
Type host: Phaethon lepturus Daudin--White-tailed
Tropic-bird.

Austromenopon nigropleurum (Denny, 1842)
Menopon nigro-pleurum Denny, 1842. Mon. Anopl.
Brit.: 200 and 224, pl. 20, fig. 1.
Type host: Alca torda Linnaeus--Razorbill.

Austromenopon phaeopodis (Schrank, 1802)
Pediculus phaeopodis Schrank, 1802. Briefe Natur. ---:
361.
Menopon ambiguum Nitzsch 1874. In Giebel, Insecta
Epizoa: 295.
Type host: Numenius phaeopus (Linnaeus)--Whimbrel.

Austromenopon sachtlebeni Timmermann, 1954
Austromenopon sachtlebeni Timmermann, 1954.
Bonn. Zool. Beitr., 5: 202, fig. 11.
Type host: Catoptrophorus semipalmatus (Gmelin)--
Willet.

Austromenopon spenceri Timmermann, 1956
Austromenopon spenceri Timmermann, 1956
Bonn. Zool. Beitr., 7: 192, fig. 7.
Type host: Lobipes lobatus (Linnaeus)--Northern
Phalarope.

Austromenopon squatarolae Timmermann, 1954
Austromenopon squatarolae Timmermann, 1954. Bonn.
Zool. Beitr., 5: 199.
Type host: Squatarola squatarola (Linnaeus)--Black-
bellied Plover.

Austromenopon transversum (Denny, 1842)

Menopon transversum Denny, 1842. Mon. Anopl.

Brit: 201 and 226, pl. 21, fig. 7.

Menopon ridibundis Denny, 1842. Mon. Anopl. Brit.:

201 and 227, pl. 20, fig. 3.

Menopon obtusum Giebel, 1866. Z. ges. NatWiss.,
28: 392.

Menopon phaeopus Nitzsch, 1866. In Giebel, Z. ges.
NatWiss., 28: 392.

Menopon pachypus Piaget, 1888. Tijdschr. Ent.,
31: 161, pl. 4, fig. 4.

Menopon infrequens Kellogg, 1896. Proc. Calif.
Acad. Sci., 6: 161, pl. 15, fig. 5.

Menopon lemniscatum Enderlein, 1908. Dtsch.
stdpolar Exped. Zool., 2: 456, pl. 62, figs. 203,
207, and 210.

Type host: Rissa tridactyla (Linnaeus)--Black-
legged Kittiwake.

Other North American hosts: Larus hyperboreus
Glaucous Gull. Larus glaucoides Meyer--Iceland
Gull. Larus glaucescens Naumann--Glaucous-
winged Gull. Larus marinus Linnaeus--Great Black-
backed Gull. Larus schistisagus Stejneger--Slaty-
backed Gull. Larus occidentalis Audubon--Western
Gull. Larus argentatus Pontoppidan--Herring Gull.
Larus californicus Lawrence--California Gull.
Larus delawarensis Ord--Ring-billed Gull. Larus
canus Linnaeus--Mew Gull. Larus atricilla Linnaeus--
Laughing Gull. Larus pipixcan Wagler--Franklin's
Gull. Larus philadelphia (Ord)--Bonaparte's Gull.
Larus minutus Pallas--Little Gull. Larus heermani
Cassin--Heermann's Gull. Pagophila eburnea (Phipps)--
Ivory Gull. Rissa brevirostris (Brunch)--Red-legged
Kittiwake. Xema sabini (Sabine)--Sabine's Gull.

Austromenopon uriae Timmermann, 1954

Austromenopon uriae Timmermann, 1954. Bonn. Zool.
Beitr., 5: 196, fig. 2.

Type host: Uria aagle (Pontoppidan)--Common Murre.

Genus BONOMIELLA

Bonomiella Conci, 1942. Riv. Soc. Stud. Venezia
Tridentina, 23: 1.

Type species: Bonomiella insolitunguicolata Conci,
1942.

For a discussion of species of this genus, see
Emerson, 1957 (Florida Ent., 40: 63). Specimens of this
genus are seldom collected, but forms probably are
present on:

Columba fasciata Say--Band-tailed Pigeon.

Columba flavirostris Wagler--Red-billed
Pigeon.

Zenaida asiatica (Linnaeus)--White-winged
Dove.

Streptopelia chinensis (Scopoli)--Spotted Dove.

Streptopelia risoria (Linnaeus)--Ringed Turtle
Dove.

Columbigallina passerina (Linnaeus)--Ground
Dove.

Scardafella inca (Lesson)--Inca Dove.

Leptotila verreauxi Bonaparte--White-fronted
Dove.

Bonomiella columbae Emerson, 1957

Bonomiella columbae Emerson, 1957. Florida Ent.,
40: 60, figs. 1-3.

Type host: Domestic Pigeon.

Other North American host: Zenaidura macroura
(Linnaeus)--Mourning Dove.

Genus CICONIPHILUS

Ciconiphilus Bedford, 1939. Onderstepoort J. Vet. Sci.,
12: 141.

Type species: Colpocephalum quadripustulatum
Burmeister, 1838.

Anseriphilus Eichler, 1944. Dtsch. Ent. Zeitr., 1943: 57.

Type species: Colpocephalum pectiniventre Harrison,
1916.

No revision of the genus is available. Species of the
genus are abundant on hosts of the order Ciconiiformes
and found in limited numbers on certain hosts of the order
Anseriformes.

Very little is known of the distribution on the order
Anseriformes, but species have been collected from two
species of geese (one from North America).

Probable North American hosts of the order
Ciconiiformes from which no data are available include:

Ardea occidentalis Audubon--Great White Heron.

Ardea herodias Linnaeus--Great Blue Heron.

Butorides virescens (Linnaeus)--Green Heron.

Florida caerulea (Linnaeus)--Little Blue Heron.

Dichromanassa rufescens (Gmelin)--Reddish
Heron.

Leucophoyx thula (Molina)--Snowy Egret.

Hydranassa tricolor (Müller)--Louisiana Heron.

Nyctanassa violacea (Linnaeus)--Yellow-crowned
Night Heron.

Ixobrychus exilis (Gmelin)--Least Bittern.

Botaurus lentiginosus (Rackett)--American
Bittern.

Eudocimus albus (Linnaeus)--White Ibis.

Ajaia ajaja (Linnaeus)--Roseate Spoonbill.

Ciconiphilus cingulatus (Piaget, 1885)

Menopon cingulatum Piaget, 1885. Les Pediculines, Supplement: 91, pl. 9, fig. 9.

Type host: unknown, and distribution is unknown.

Ciconiphilus doriabagla (Ansari, 1951)*

Colpocephalum tochioxum minor Piaget, 1885 (nec 1880). Les Pediculines, Supplement: 128.

Pseudocolpocephalum doriabagla Ansari, 1951.

Proc. Nat. Inst. Sci. India, 17: 154, figs. 11 a-f.

Type host: Bubulcus ibis (Linnaeus)--Cattle Egret.

Ciconiphilus femoratus (Piaget, 1885)

Colpocephalum femoratum Piaget, 1885. Les Pediculines, Supplement: 124, pl. 13, fig. 7.

Type host: unknown, and distribution is also unknown.

Ciconiphilus maculipes (Giebel, 1874)

Menopon maculipes Giebel, 1874. Insecta Epizoa: 298.

Menopon tantali Giebel, 1874. Insecta Epizoa: 298

(nn for M. maculipes Giebel, 1874).

Type host: Mycteria americana Linnaeus--Wood Ibis.

Ciconiphilus nyctardis (Denny, 1842)*

Colpocephalum nyctarde Denny, 1842. Mon. Anopl.

Brit.: 199 and 215, pl. 20, fig. 9.

Colpocephalum tamamurensis Uchida, 1926. J.

Coll. Agri., Tokyo, 9: 37, fig. 13.

Type host: Nycticorax nycticorax (Linnaeus)--Black-crowned Night Heron.

Ciconiphilus obscurus (Giebel, 1874)*

Colpocephalum obscurum Giebel, 1874. Insecta Epizoa: 273.

* These are probably not more than subspecies of Ciconiphilus decimfasciatus (Boisduval and Lacordaire, 1835) Faune Ent. Environs Paris: 123.--Type host: Ardea cinerea Linnaeus.

Menopon sulcatum Piaget, 1880. *Les Pediculines*:
485, pl. 39, fig. 7.

Colpocephalum laticeps Kellogg, 1896. *Proc. Calif.*
Acad. Sci. 6: 149, pl. 12, fig. 8.

Colpocephalum veratrum Kellogg, 1910. *Wiss.*
Ergebn. Schwed. Zool. Exped. Kilimanjaro, 3, abt.
15: 52, pl. 7, fig. 9.

Type host: Casmerodius albus (Linnaeus)--Common
Egret.

Ciconiphilus pectiniventris (Harrison, 1916)

Menopon pectinatum Neumann, 1912 (nec Osborn,
1902). *Arch. Parasit.*, Paris, 15: 368, fig. 15.

Colpocephalum pectiniventre Harrison, 1916. *Parasit.*,
9: 53 (nn for M. pectinatum Neumann, 1912).

Colpocephalum pectiniventre parvum Blagoveshtchensky,
1948. *Mag. Parasit.*, Leningr., 10: 269, fig. 7.

Type host: Domestic Goose.

Genus CLAYIA

Clavia Hopkins, 1941. J. Ent. Soc. S. Africa, 4: 46.

Type species: Colpocephalum mjøbergi Cummings,
1914.

Diasiella Tendeiro, 1955. Garcia de Orta, 3: 136.

Type species: Diasiella cruzi Tendeiro, 1955.

For a discussion of the genus see Emerson, 1954
(Proc. Ent. Soc. Wash., 56: 203). The only species of the
genus expected in North America is listed. Normal hosts
are species of Old-World Galliformes.

Clayia theresae Hopkins, 1941

Clayia theresae Hopkins, 1941. J. Ent. Soc. S.
Afr., 4: 46.

Type host: Numida meleagris (Linnaeus)--Guinea
Fowl.

Genus COLPOCEPHALUM

Colpocephalum Nitzsch, 1818. Germar's Mag. Ent., 3: 298.

Type host: Colpocephalum zebra Burmeister, 1838
(By designation by the International Commission of
Zoological Nomenclature).

Ferrisia Uchida, 1926 (nec Fullaway, 1923). J. Coll. Agri.
Tokyo, 9: 43.

Type species: Colpocephalum turbinatum Denny, 1842.

Neocolpocephalum Ewing, 1933. J. Parasit., 20: 65 (n. sp. for
Ferrisia Uchida, 1926).

Pseudocolpocephalum Qadri, 1936. Z. Parasit., 8: 640.

Type species: Pseudocolpocephalum uchidi Qadri,
1936.

Allocolpocephalum Qadri, 1936. Ind. J. Ent., 1: 66.

Type species: Colpocephalum semicinctum Rudow,
1866 (A synonym of Colpocephalum fregili Denny,
1842).

Corvocephalum Conci, 1942. Boll. Soc. Ent. Ital., 74: 30.

Type species: Colpocephalum subaequale Burmeister,
1838 (A synonym of Colpocephalum fregili Denny,
1842).

Dimorphiventer Eichler, 1944. Dtsch. Ent. Zeitr., 1943: 60.

Type species: Colpocephalum spineum Kellogg, 1899.

Galligogus Eichler, 1947. Ark. Zool., 39A: 10.

Type species: Colpocephalum appendiculatum
Nitzsch, 1866.

Liothella Eichler, 1947. Ark. Zool., 39A: 15.

Type species: Colpocephalum leptopygus Nitzsch,
1874.

Pelecanigogus Eichler, 1949. Boll. Soc. Ent. Ital., 79: 12.

Type species: Colpocephalum eucarenum Burmeister,
1838.

Galliferrisia Ansari, 1951. Proc. Nat. Inst. Sci. India,
17: 150.

Type species: Galliferrisia tausi Ansari, 1951.

Picusphilus Ansari, 1951. Proc. Nat. Inst. Sci. India,
17: 163.

Type species: Cuculiphilus (Pisusphilus) tirkhan
Ansari, 1951.

Gariamigogus Eichler, 1952. Zool. Anz., 149: 76.

Type species: Colpocephalum breve Giebel, 1866.

Scopigogus Eichler, 1952. Zool. Anz., 149: 77.

Type species: Colpocephalum scopinum Mjßberg, 1910.

This genus contains many closely related taxa, which pending a comprehensive review are herewith retained as a single genus. Price and Beer, 1963 (J. Kansas Ent. Soc., 36: 58 and Canad. Ent., 95: 731) have reviewed the species found on hosts of the Strigiformes and Falconiformes. The genus is known to occur also on hosts of the orders Pelecaniformes, Ciconiiformes, Galliformes, Columbiformes, Piciformes and Passeriformes (Corvidae). Because of the large number of probable hosts for which no data are available, a list has not been compiled.

Colpocephalum ajajae Ewing, 1930

Colpocephalum ajajae Ewing, 1930. Proc. Biol.
Soc. Wash., 43: 126.

Type host: Ajaia ajaja (Linnaeus)--Roseate Spoonbill.

Colpocephalum brachysomum Kellogg and Chapman, 1902

Colpocephalum brachysomum Kellogg and Chapman,
1902. J. N. Y. Ent. Soc., 10: 162, pl. 14, fig. 3.

Colpocephalum discrepans Kellogg and Chapman,
1902, J. N. Y. Ent. Soc., 10: 164, pl. 15, fig. 1.

Kurodaia keleri Emerson, 1961. Proc. Biol. Soc.
Wash., 74: 191, figs. 7-9.

Type host: Asio flammeus (Pontoppidan)--Short-eared Owl.

Other North American host: Bubo virginianus (Gmelin)--Great Horned Owl.

Colpocephalum californici Price and Beer, 1963

Colpocephalum californici Price and Beer, 1963.

Canad. Ent., 95: 740, figs. 5 and 9.

Type host: Gymnogyps californianus (Shaw)--California Condor.

Colpocephalum flavescens (deHaan, 1829)

Liotheum flavescens deHaan, 1829. Mem. Mus.

Hist. Nat. Paris, 18: 309.

Type host: Haliaeetus albicilla (Linnaeus).

Other North American hosts: Aquila chrysaetos (Linnaeus)--Golden Eagle. Haliaeetus leucocephalus (Linnaeus)--Bald Eagle. Haliaeetus pelagicus (Pallas)--Steller's Sea Eagle.

Colpocephalum foetens (Eichler, 1954)

Neocolpocephalum foetens Eichler, 1954. Beitr.

Fauna Perus, 4: 44, figs. 27-29.

Type host: Coragyps atratus (Bechstein)--Black Vulture.

Colpocephalum fregili Denny, 1842

Colpocephalum subaequale Burmeister, 1838 (nec deHaan, 1829). Handb. Ent., 2: 438.

Colpocephalum fregili Denny, 1842. Mon. Anopl. Brit.: 198 and 208, pl. 20, fig. 4.

Colpocephalum semicinatum Rudow, 1866. Z. ges. NatWiss., 27: 475.

Colpocephalum trimaculatum Piaget, 1880. Les Pediculines: 525, pl. 43, fig. 8.

Colpocephalum elongatum Piaget, 1880. Les Pediculines: 529, pl. 44, fig. 2.

Colpocephalum ellipticum Piaget, 1880. Les Pediculines: 570, pl. 48, fig. 1.

Colpocephalum splendens Ansari, 1955. Proc. VII Pakistan Sci. Conf.: 51.

Colpocephalum laurencei Ansari, 1955. Proc. VII Pakistan Sci. Conf.: 51 (nn for C. subaequale Burmeister, 1838).

Colpocephalum bengalensis Ansari, 1955. Proc. VII Pakistan Sci. Conf.: 58.

Colpocephalum bengalensis Ansari, 1955. Proc. VII Pakistan Sci. Conf.: 58.

Type host: Pyrrhocorax pyrrhocorax (Linnaeus).
North American hosts: Corvus corax Linnaeus--
Common Raven. Corvus cryptoleucus Couch--
White-necked Raven. Corvus ossifragus Wilson--
Fish Crow.

Colpocephalum fusconigrum Giebel, 1874

Colpocephalum fusconigrum Giebel, 1874. Insecta
Epizoa: 274.

Type host: Eudocimus albus (Linnaeus)--White Ibis.

Colpocephalum impressum Rudow, 1866

Colpocephalum impressum Rudow, 1866. Z. ges.
NatWiss.; 27, 475.

Type host: Aquila chrysaetos (Linnaeus)--Golden
Eagle.

Colpocephalum kelloggi Osborn, 1902

Colpocephalum kelloggi Osborn, 1902. Ohio Nat.,
2: 175, pl. 2, fig. 2.

Type host: Cathartes aura (Linnaeus)--Turkey
Vulture.

Colpocephalum leptopygos Nitzsch, 1874

Colpocephalum leptopygos Nitzsch, 1874. In Giebel,
Insecta Epizoa: 273.

Ferribia gracilis Dubinin, 1938. Trav. Reserve
Etat. Astrakhan, 2: 184, fig. 14.

Ferribia blagoweschenskii Dubinin, 1938. Trav.
Reserve Etat. Astrakhan, 2: 182, fig.

Liothella humboldti Eichler, 1954. Beitr. Fauna.
Perus 4: 47, fig. 31.

Type host: Plegadis falcinellus (Linnaeus)--Glossy
Ibis.

Other North American host: Plegadis chihi (Vieillot)--
White-faced Ibis.

Colpocephalum menoponoides Ewing, 1930

Colpocephalum menoponoides Ewing, 1930. Proc.
Ent. Soc. Wash., 32: 117.

Type host: Nyctea scandiaca (Linnaeus)--Snowy Owl.

Colpocephalum napiforme Rudow, 1869

Colpocephalum napiforme Rudow, 1869. Z. ges. NatWiss., 24: 395.

Type host: Buteo jamaicensis (Gmelin)--Red-tailed Hawk.

Colpocephalum nanum Piaget, 1890

Colpocephalum nanum Piaget, 1890. Tijdschr. Ent., 33: 257, pl. 10, fig. 10.

Type host: unknown, see Price and Beer, 1963. Canad. Ent., 95: 731.

Other North American hosts: Buteo lineatus (Gmelin)--Red-shouldered Hawk. Buteo jamaicensis (Gmelin)--Red-tailed Hawk. Buteo lagopus (Pontoppidan)--Rough-legged Hawk. Accipiter gentilis (Linnaeus)--Goshawk. Accipiter cooperii (Bonaparte)--Cooper's Hawk.

Colpocephalum osborni Kellogg, 1896

Colpocephalum osborni Kellogg, 1896. Proc. Calif. Acad. Sci., 6: 521, pl. 71, figs. 2-3.

Type host: Elanus leucurus (Vieillot)--White-tailed Kite.

Other North American host: Elanoides forficatus (Linnaeus)--Swallow-tailed Kite.

Colpocephalum pectinatum Osborn, 1902

Colpocephalum pectinatum Osborn, 1902. Ohio Nat., 2: 201, pl. 14, fig. 2.

Conciella pectinata neotropicalis Carriker, 1963. Mem. Soc. Cien. Nat. LaSalle, 23: 16, pl. 2, fig. 1; pl. 3, fig. 3c.

Type host: Speotyto cunicularia (Molina)--Burrowing Owl.

Colpocephalum polybori Rudow, 1869

Colpocephalum polybori Rudow, 1869. Z. ges. NatWiss., 34: 397.

Type host: Caracara plancus (J. F. Miller).

Other North American host: Caracara cheriway (Jacquin)--Caracara.

Colpocephalum scalariforme Rudow, 1866

Colpocephalum scalariforme Rudow, 1866. Z. ges. NatWiss., 27: 471.

Type host: Mycteria americana Linnaeus--Wood Ibis.

Colpocephalum spineum Kellogg, 1899

Colpocephalum spineum Kellogg, 1899. Occ. Pap. Calif. Acad. Sci., 6: 38, pl. 4, fig. 1.

Type host: Fregata magnificens Mathews--Magnificent Frigate-bird.

Colpocephalum tausi (Ansari, 1951)

Galliferrisia tausi Ansari, 1951. Proc. Nat. Inst. Sci. India, 17: 151, fig. 10.

Type host: Pavo cristatus (Linnaeus)--Peafowl.

Other North American host: Meleagris gallopavo Linnaeus--Turkey.

Colpocephalum turbinatum Denny, 1842

Colpocephalum turbinatum Denny, 1842. Mon. Anopl. Brit.: 198 and 209, pl. 21, fig. 1.

Colpocephalum oxyurum Nitzsch, 1861. In Giebel, Z. ges. NatWiss., 17: 519.

Colpocephalum ailurum Nitzsch, 1861. In Giebel, Z. ges. NatWiss., 17: 522.

Colpocephalum bicinctum Nitzsch, 1861. In Giebel, Z. ges. NatWiss., 17: 524.

Colpocephalum tricinctum Nitzsch, 1861. In Giebel, Z. ges. NatWiss., 17: 254.

Colpocephalum longicaudum Nitzsch, 1866. In Giebel, Z. ges. NatWiss., 28: 392.

Colpocephalum caudatum Giebel, 1874. Insecta Epizoa: 261.

Colpocephalum caudatum setosum Piaget, 1880. Les Pediculines: 519.

Colpocephalum dissimile Piaget, 1880. Les Pediculines: 520.

Colpocephalum intermedium Piaget, 1880. Les Pediculines: 521 (nn for C. tricinctum Nitzsch, 1861).

Colpocephalum dissimile major Piaget, 1885 (nec 1880). Les Pediculines, Supplement: 119, pl. 13, fig. 2.

Colpocephalum caudatum longipes Piaget, 1885 (nec 1880). Les Pediculines, Supplement: 125.

Colpocephalum latifasciatum Piaget, 1885. Les
Pediculines, Supplement: 130, pl. 14, fig. 2.

Colpocephalum osborni costaricense Carriker, 1903.
Univ. Stud. Nebr., 3: 172.

Colpocephalum abruptofasciatum Mjöberg, 1910.
Ark. Zool. 6: 36, fig. 23.

Neocolpocephalum gypae Qadri, 1935. Zeit. Parasit.,
8: 229, fig. 3.

Neocolpocephalum tricinctum wetzeli Eichler, 1941.
Arch. Naturgesch., B (n.f.), 10: 374, fig. 23.

Type host: Domestic Pigeon.

Other North American hosts: Haliaeetus leucocephalus
(Linnaeus)--Bald Eagle. Circus cyaneus (Linnaeus)--
Marsh Hawk. Buteo jamaicensis (Gmelin)--Red-tailed
Hawk. Buteo swainsoni Bonaparte--Swainson's Hawk.
Falco mexicanus Schlegel--Prairie Falcon. Streptopelia
chinensis (Scopoli)--Spotted Dove.

Colpocephalum unciferum Kellogg, 1896

Colpocephalum unciferum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6: 140, pl. 12, figs. 1-3.

Type host: Pelecanus erythrorhynchos Gmelin--White
Pelican or Pelecanus occidentalis Linnaeus--Brown
Pelican.

Colpocephalum zerfae Ansari, 1955

Colpocephalum zerfae Ansari, 1955. Proc. VII Pak.
Sci. Conf., : 52. (Also described as a new species
in Ind. J. Ent., 17 (1956): 399 and Ind. J. Ent., 18
(1957): 428).

Colpocephalum falconii falconii Carriker, 1963. Mem.
Soc. Cien. Nat. LaSalle, 23: 9, pl. 1b, figs. 1, 3a and 4c.

Colpocephalum falconii caeruleascens Carriker, 1963.
Mem. Soc. Cien. Nat. LaSalle, 23: pl. 1b, fig. 4b;
pl. 4, fig. 4.

Colpocephalum falconii rufigularis Carriker, 1963.
Mem. Soc. Cien. Nat. LaSalle, 23: pl. 1b, fig. 2;
pl. 2, fig. 2a; pl. 4, fig. 3b.

Type host: Falco jugger J. E. Gray.

Other North American hosts: Falco peregrinus Turnstall--
Peregrine Falcon. Falco sparverius Linnaeus--Sparrow
Hawk. Falco mexicanus Schlegel--Prairie Falcon.
Falco columbarius Linnaeus--Pigeon Hawk.

Genus COMATOMENOPON

Comatomenopon Uchida, 1920. Annot. Zool. Japan.,
9: 648.

Type species: Comatomenopon elongatum Uchida,
1920.

A discussion of the genus is contained in Emerson,
1957 (Ann. Mag. Nat. Hist., (12), 10: 710). Distribution is
apparently restricted to the family Ardeidae where specimens
are not numerous.

A few new species have been examined and the
probable North American hosts are:

Ardea occidentalis Audubon--Great White
Heron.

Ardea herodias Linnaeus--Great Blue Heron.

Butorides virescens (Linnaeus)--Green Heron.

Florida caerulea (Linnaeus)--Little Blue Heron.

Dichromanassa rufescens (Gmelin)--Reddish
Egret.

Casmerodius albus (Linnaeus)--Common Egret.

Leucophoyx thula (Molina)--Snowy Egret.

Hydranassa tricolor (Müller)--Louisiana Heron.

Nycticorax nycticorax (Linnaeus)--Black-crowned
Night Heron.

Nycticorax violacea (Linnaeus)--Yellow-crowned
Night Heron.

Ixobrychus exilis (Gmelin)--Least Bittern.

Botaurus lentiginosus (Rackett)--American
Bittern.

Comatomenopon ibis Emerson, 1957

Comatomenopon ibis Emerson, 1957. Ann. Mag. Nat.
Hist., (12), 10: 711, fig. 3.

Type host: Bubulcus ibis (Linnaeus)--Cattle Egret.

Genus CUCULIPHILUS

Cuculiphilus Uchida, 1926. J. Coll. Agri. Tokyo, 9: 47.

Type species: Pediculus fasciatus Scopoli, 1763.

Falcophilus Guimaraes, 1942. Pap. Avulsos. Dept. Zool. S. Paulo, 2: 241.

Type species: Menopon alternatum Osborn, 1902.

Aegypiphilus Eichler, 1944. Dtsch. Ent. Zeitr., 1943: 56.

Type species: Aegypiphilus gypsis Eichler, 1944.

Vulturiphilus Eichler, 1948. Entomologist, 81: 251 (nn for Falcophilus Guimaraes, 1942).

No revision of this genus is available. Species of the genus are found on hosts of the family Cathartidae, order Falconiformes and the family Cuculidae, order Cuculiformes. The two species found on North American Vultures are discussed by Eichler, 1948 (Entomologist, 81: 251). Sufficient differences exist between the taxa found on the two groups of hosts to warrant a subgenus for each group -- Falcophilus for the species found on the Vultures and Cuculiphilus for those found on the Cuckoos.

Probable North American hosts for which no data exist are:

Gymnogyps californianus (Shaw)--California Condor.

Coccyzus minor (Gmelin)--Mangrove Cuckoo.

Coccyzus erythrophthalmus (Wilson)--Black-billed Cuckoo.

Cuculiphilus alternatus (Osborn, 1902)

Menopon alternatum Osborn, 1902. Ohio Nat., 2: 175, pl. 2, fig. 1.

Type host: Cathartes aura (Linnaeus)--Turkey Vulture.

Cuculiphilus coragypsis (Eichler, 1948)

Falcophilus coragypsis Eichler, 1948. Entomologist,
81: 251, figs. 1-7.

Type host: Coragyps atratus (Bechstein)--Black
Vulture.

Cuculiphilus decoratum (Kellogg, 1896)

Menopon decoratum Kellogg, 1896. Proc. Calif.
Acad. Sci., 6: 526, pl. 72, fig. 2.

Type host: Coccyzus americanus (Linnaeus)--
Yellow-billed Cuckoo.

Genus DENNYUS

Nitzschia Denny, 1842 (nec Baer, 1827). Mon. Anopl.
Brit.: 230.

Type species: Nitzschia burmeisteri Denny, 1842
(A synonym of Dennyus hirundinis (Linnaeus, 1761).

Dennyus Neumann, 1906. Bull. Soc. Zool. Fr., 20: 60
(nn for Nitzschia Denny, 1842).

Takamatsua Uchida, 1926. J. Coll. Agri. Tokyo, 9: 32.

Type species: Takamatsua major Uchida, 1926.

Ctenodennyus Ewing, 1930. Proc. U. S. Nat. Mus., 77: 9.

Type species: Dennyus (Ctenodennyus) spiniger
Ewing, 1930.

For a review of the North American species, see
Emerson and Pratt, 1956 (J. Kansas Ent. Soc., 29: 21).
It is doubtful that any additional species will be found on
North American hosts.

Dennyus bruneri (Carriker, 1903)

Nitzschia pulicaris tibialis Carriker, 1902 (nec
Piaget, 1880). J. N. Y. Ent. Soc., 10: 225, pl. 22,
figs. 4-5.

Nitzschia bruneri Carriker, 1903. Univ. Stud. Nebr.,
3: 177 (nn for N. tibialis Carriker, 1902).

Type host: Aëronautes saxatalis (Woodhouse)--
White-throated Swift.

Dennyus dubius (Kellogg, 1896)

Nitzschia dubius Kellogg, 1896. Proc. Calif. Acad.
Sci., 6: 540, pl. 73, fig. 6.

Type host: Chaetura pelagica (Linnaeus)--Chimney
Swift.

Dennyus spiniger Ewing, 1930

Dennyus spiniger Ewing, 1930. Proc. U. S. Nat.
Mus., no. 2843, 77: 9, figs. 4 and 7d.

Type host: Cypseloides niger (Gmelin)--Black
Swift.

Dennyus vauxi Emerson and Pratt, 1956

Dennyus vauxi Emerson and Pratt, 1956. J. Kansas
Ent. Soc., 29: 23, figs. 3-5.

Type host: Chaetura vauxi (Townsend)--Vaux's Swift.

Genus EIDMANIELLA

Eidmaniella Keler, 1938. Ann. Mus. Zool. Polon., 13: 81.

Type species: Menopon brevipalpe Piaget, 1880.

No good revision of this genus is available. Discussions in addition to Keler are: Bedford, 1939 (Onderstepoort J. Vet. Sci., 12: 125) and Emerson, 1947 (Canad. Ent., 79: 135). Species of this genus are found on the families Sulidae, Phalacrocoracidae and Fregatidae, order Pelecaniformes. No species of Menoponidae are known from the family Anhingidae, but extensive collecting might yield this genus or a related one.

Hosts which should harbor species of Eidmaniella, but for which no data are available include:

Sula dactylatra Lesson--Blue-faced Booby.

Phalacrocorax auritus (Lesson)--Double-crested Cormorant.

Phalacrocorax pelagicus Pallas--Pelagic Cormorant.

Phalacrocorax urile (Gmelin)--Red-faced Cormorant.

Eidmaniella aurifasciata (Kellogg, 1899)

Menopon aurifasciatum Kellogg, 1899. Occ. Pap. Calif. Acad. Sci., 6: 43, pl. 4, fig. 5.

Type host: Fregata magnificens Mathews--Magnificent Frigate-bird.

Eidmaniella brevipalpis (Piaget, 1880)

Menopon brevipalpe Piaget, 1880. Les Pediculines: 498, pl. 40, fig. 5.

Menopon sigmoidalis Picaglia, 1885. Atti. Soc. Ital. Sci. Nat., 28: 87.

Type host: Phalacrocorax carbo (Linnaeus)--Great Cormorant.

Eidmaniella kuwani (Kellogg and Chapman, 1902)

Menopon kuwani Kellogg and Chapman, 1902. J. N. Y.
Ent. Soc. 10: 26, pl. 3, fig. 4.

Type host: Phalacrocorax penicillatus (Brandt)--
Brandt's Cormorant.

Eidmaniella pustulosa (Nitzsch, 1866)

Menopon pustulosum Nitzsch, 1866. In Giebel, Z. ges.
NatWiss., 28: 393.

Type host: Morus bassanus (Linnaeus)--Gannet.

Eidmaniella singularis (Kellogg and Kuwana, 1902)

Menopon singularis Kellogg and Kuwana, 1902. Proc.
Wash. Acad. Sci. 4: 485, pl. 31, fig. 1.

Type host: Originally reported as Anous stolidus
(Linnaeus) which is in error. Emerson, 1947 (Canad.
Ent., 79: 135) discussed the type material and provided
illustrations. Subsequent work indicates that the type
host is one of the species of Sula found on the Galapagos
Islands. Therefore, it is possible that the species may
be found in North America (north of Mexico).

Eidmaniella sula Tendeiro, 1958

Eidmaniella sula Tendeiro, 1958. Garcia de Orta,
6: 443, figs. 1-2, photo plates 1-4.

Type host: Sula leucogaster (Boddaert)--Brown Booby.

Genus EUCOLPOCEPHALUM

Eucolpocephalum Bedford, 1930. Rept. Vet. Res. S. Africa, 16: 161.

Type species: Menopon femorale Piaget, 1880.

This genus is apparently found only on the Spoonbills, and at present, is monotypic.

Eucolpocephalum femorale (Piaget, 1880)

Menopon femorale Piaget, 1880. Les Pediculines: 484, pl. 39, fig. 8.

Eucolpocephalum robustum Bedford, 1930. Rept. Vet. Res. S. Africa, 16: 161, fig. 6.

Type host: Platalea leucorodia Linnaeus.

North American host: Ajaia ajaja (Linnaeus)--Roseate Spoonbill.

Genus EUREUM

Eureum Nitzsch, 1818. Germar's Mag. Ent., 3: 301.

Type species: Eureum cimicoides Burmeister, 1838
(By subsequent designation by Harrison, 1916.
Parasitology, 9: 21).

Arndtiella Eichler, 1948. Naturwissenschaftlichen Rundschau,
2: 81 (nn for Eureum Nitzsch, 1818).

Species of this genus are found only on hosts of the family Apodidae. For a discussion of the North American species see Emerson and Pratt, 1956 (J. Kansas Ent. Soc., 29: 21).

Probable North American hosts for which no data are available include:

Chaetura vauxi (Townsend)--Vaux's Swift.
Aëronautes saxatalis (Woodhouse)--White-throated Swift.

Eureum ewingi Eichler, 1942

"Eureum cimicoides Nitzsch" Ewing, 1930 (nec Burmeister, 1838). Proc. U. S. Nat. Mus., no. 2843, 77: 10, figs. 5 and 7e.

Eureum ewingi Eichler, 1942. Zool. Anz., 138: 179 (nn for "Eureum cimicoides Nitzsch" Ewing, 1930).

Type host: Chaetura pelagica (Linnaeus)--Chimney Swift.

Eureum spenceri Emerson and Pratt, 1956

Eureum spenceri Emerson and Pratt, 1956. J. Kansas Ent. Soc. 29: 25, figs. 10 and 10a.

Type host: Cypseloides niger (Gmelin)--Black Swift.

Genus GRUIMENOPON

Gruimenopon Clay and Meinertzhagen, 1941. Ann. Mag. Nat. Hist., (11), 7: 339.

Type species: Menopon longum Giebel, 1874.

The genus is apparently restricted to hosts of the family Gruidae. Only a few species are known, all of which are adequately illustrated.

A series of this genus has been collected from Grus americana (Linnaeus)--Whooping Crane, the only other possible North American host. These specimens appear to represent at least a new subspecies of G. canadense Edwards, 1949.

Gruimenopon canadense Edwards, 1949

Gruimenopon canadensum Edwards, 1949. Psyche, 56: 116, pl. 6, figs. 1-4.

Type host: Grus canadensis (Linnaeus)--Sandhill Crane.

Genus HELENOMUS

Helenomus Ferris, 1916. *Canad. Ent.*, 48: 305.

Type species: Colpocephalum truncatum Piaget,
1880.

This genus apparently is restricted to hosts of the family Gruidae. For illustrations of the one North American species see Emerson, 1947 (*Canad. Ent.*, 19: 139).

A species of the genus is known to occur on Grus canadensis (Linnaeus)--Sandhill Crane, the only other possible North American host.

Helenomus assimilis (Piaget, 1880)

Colpocephalum assimile Piaget, 1880. *Les*
Pediculines: 544.

Type host: Grus americana (Linnaeus)--Whooping
Crane.

Genus HOHORSTIELLA

Hohorstiella Eichler, 1940. Zbl. Bakt. (I. Orig.), 145:
362.

Type species: Menopon latum Piaget, 1880.

Columbimenopon Ansari, 1951. Proc. Nat. Inst. Sci.
India, 17: 130.

Type species: Columbimenopon modestum Ansari,
1951.

No revision of the genus is available, but a limited discussion appears in Carriker, 1949, (Rev. Brasil. Biol. 9: 300). Species of the genus are found only on the family Columbidae.

Probable North American hosts for which no data are available include:

Columba leucocephala Linnaeus--White-crowned Pigeon.

Columba flavirostris Wagler--Red-billed Pigeon.

Zenaida aurita (Temminck)--Zenaida Dove.

Zenaida asiatica (Linnaeus)--White-winged Dove.

Zenaidura macroura (Linnaeus)--Mourning Dove.

Streptopelia chinensis (Scopoli)--Spotted Dove.

Streptopelia risoria (Linnaeus)--Ringed Turtle Dove.

Columbigallina passerina (Linnaeus)--Ground Dove.

Scardafella inca (Lesson)--Inca Dove.

Leptotila verreauxi Bonaparte--White-fronted Dove.

Hohorstiella frontalis Carriker, 1949

Hohorstiella frontalis Carriker, 1949. Rev. Brasil.
Biol., 9: 302, figs. 6 and 7.

Type host: Columba fasciata Say--Band-tailed
Pigeon.

Hohorstiella lata (Piaget, 1880)

Menopon latum Piaget, 1880. Les Pediculines:
457, pl. 37, fig. 1.

Type host: Domestic Pigeon.

Genus HOLOMENOPON

Holomenopon Eichler, 1941. Stettin. Ent. Ztg., 102: 125.

Type species: Menopon albofasciatum Piaget, 1880.

No revision of this genus is available. Clay, 1961 (Bull. Brit. Mus. (N. H.), Ent., 11: 45) has a short discussion of the genus. Detailed study of the genus will probably indicate that some of the forms presently accepted as valid should be subspecies or synonyms.

Probable hosts in North America include:

Phoenicopterus ruber Linnaeus--American Flamingo.

Cygnus olor (Gmelin)--Mute Swan.

Olor columbianus (Ord)--Whistling Swan.

Olor buccinator Richardson--Trumpeter Swan.

Branta canadensis (Linnaeus)--Canada Goose.

Branta bernicla (Linnaeus)--Brant.

Branta nigricans (Lawrence)--Black Brant.

Branta leucopsis (Bechstein)--Barnacle Goose.

Philacte canagica (Sewastianov)--Emperor Goose.

Anser albifrons (Scopoli)--White-fronted Goose.

Chen hyperborea (Pallas)--Snow Goose.

Chen caerulescens (Linnaeus)--Blue Goose.

Chen rossii (Cassin)--Ross' Goose.

Dendrocygna autumnalis (Linnaeus)--Black-bellied Tree Duck.

Dendrocygna bicolor (Vieillot)--Fulvous Tree Duck.

Anas diazi Ridgway--Mexican Duck.

Anas rubripes Brewster--Black Duck.

Anas fulvigula Ridgway--Mottled Duck.

Anas strepera Linnaeus--Gadwall.

Anas bahamensis Linnaeus--Bahama Duck.

Anas carolinensis Gmelin--Green-winged Teal.

Anas formosa Georgi--Baikal Teal.

Anas discors Linnaeus--Blue-winged Teal.
Anas cyanoptera Vieillot--Cinnamon Teal.
Mareca americana (Gmelin)--American
Widgeon.
Aix sponsa (Linnaeus)--Wood Duck.
Aythya americana (Eyton)--Redhead.
Aythya collaris (Donovan)--Ring-necked Duck.
Aythya valisineria (Wilson)--Canvasback.
Aythya marila (Linnaeus)--Greater Scaup.
Aythya affinis (Eyton)--Lesser Scaup.
Bucephala clangula (Linnaeus)--Common
Goldeneye.
Bucephala islandica (Gmelin)--Barrow's
Goldeneye.
Bucephala albeola (Linnaeus)--Bufflehead.
Clangula hyemalis (Linnaeus)--Oldsquaw.
Histrionicus histrionicus (Linnaeus)--
Harlequin Duck.
Polysticta stelleri (Pallas)--Steller's Eider.
Somateria mollissima (Linnaeus)--Common
Eider.
Somateria spectabilis (Linnaeus)--King Eider.
Lampronetta fischeri (Brandt)--Spectacled
Eider.
Melanitta fusca (Linnaeus)--Velvet Scoter.
Melanitta perspicillata (Linnaeus)--Surf
Scoter.
Oxyura jamaicensis (Gmelin)--Ruddy Duck.
Oxyura dominica (Linnaeus)--Masked Duck.
Lophodytes cucullatus (Linnaeus)--Hooded
Merganser.
Mergus merganser Linnaeus--Common
Merganser.
Mergus serrator Linnaeus--Red-breasted
Merganser.

Holomenopon clypeilargum Eichler, 1943

Holomenopon clypeilargum Eichler, 1943. Mitt.

Münch. Ent. Ges., 33: 236, figs. 3-4.

Type host: Anas acuta Linnaeus--Pintail.

- Holomenopon eulasium (Kellogg, 1910)
Menopon eulasium Kellogg, 1910. *Wiss. Engebn.*
Schwed. Zool. Exped Kilimandjaro, 3, abt. 15: 54,
pl. 7, fig. 11.
Type host: unknown, and distribution is unknown.
- Holomenopon extraneum (Piaget, 1880)
Menopon extraneum Piaget, 1880. *Les Pediculines*:
506, pl. 42, fig. 2.
Type host: unknown, and distribution is unknown.
- Holomenopon leucoxanthum (Burmeister, 1838)
Menopon leucoxanthum Burmeister, 1838. *Handb.*
Ent., 2: 440.
Type host: Anas crecca Linnaeus--Common Teal.
- Holomenopon loomisii (Kellogg, 1896)
Menopon loomisii Kellogg, 1896. *Proc. Calif.*
Acad. Sci. 6: 162, pl. 15, fig. 6.
Type host: Melanitta deglandi (Bonaparte)--White-
winged Scoter.
- Holomenopon lunarium (Rudow, 1869)
Menopon lunarium Rudow, 1869. *Z. ges. NatWiss.*,
34: 402.
Type host: Oidemia nigra (Linnaeus)--Common Scoter.
- Holomenopon marecae (Blagoveshtchensky, 1940)
Menopon leucoxanthum marecae Blagoveshtchensky,
1940. *Mag. Parasit., Leningr.*, 8: 27, and 77, fig. 2.
Type host: Mareca penelope (Linnaeus)--European
Widgeon.
- Holomenopon nyrocae (Blagoveshtchensky, , 1940)
Menopon nyrocae Blagoveshtchensky, 1940. *Mag.*
Parasit., Leningr., 8: 25 and 76, fig. 1.
Holomenopon hanslöhrl Eichler, 1958. *Nachr. Natr.*
Mus. Aschaffenburg, 58: 62, figs. 4-5.
Type host: Aythya ferina (Linnaeus)--Common
Pochard.

Holomenopon setigerum (Blagoveshtchensky, 1948)

Menopon setigerum Blagoveshtchensky, 1948. Mag. Parasit., Leningr., 10: 260, fig. 1.

Type host: Spatula clypeata (Linnaeus)--Shoveler.

Holomenopon transvaalense (Bedford, 1920)

Menopon africanum transvaalensis Bedford, 1920.

Rept. Vet. Res. S. Africa, 7-8: 716.

Holomenopon maxbeieri Eichler, 1954. Mh. Vet. Med., 9: 284, figs. 1-5.

Type host: Domestic duck (This could be Anas platyrhynchos Linnaeus or Cairina moschata (Linnaeus). I have considered it is probably Anas platyrhynchos Linnaeus--Mallard, since Eichler in 1943 (Mitt. Münch. Ent. Ges., 33: 236, figs. 1 and 2) described H. cairinae from Cairina moschata (Linnaeus). Type host of H. maxbeieri was given as "Wildente" which is assumed to be Anas platyrhynchos Linnaeus).

Genus KURODAIA

Kurodaia Uchida, 1926. J. Coll. Agri. Tokyo, 9: 50.

Type species: Colpocephalum haliaeeti Denny, 1842.

Nosopois Eichler, 1940. Zbl. Bakt. (L. Orig.), 145: 363.

Type species: Menopon fulvofasciatum Piaget, 1880.

Conciella Eichler, 1949. Boll. Soc. Ent. Ital., 79: 11.

Type species: Colpocephalum painei McGregor, 1912.

Ululoecus Ansari, 1951. Proc. Nat. Inst. Sci. India, 17:
160.

Type species: Cuculiphilus (Ululoecus) panjabensis
Ansari, 1951.

For a recent revision of the genus, see Price and Beer,
1963 (Ann. Ent. Soc. Amer., 56: 849).

Probable North American hosts for which no data
are available include:

Elanus leucurus (Vieillot)--White-tailed Kite.
Ictinia mississippiensis (Wilson)--Mississippi
Kite.

Rostrhamus sociabilis (Vieillot)--Everglade
Kite.

Accipiter gentilis (Linnaeus)--Goshawk.

Accipiter striatus Vieillot--Sharp-shinned
Hawk.

Accipiter cooperii (Bonaparte)--Cooper's
Hawk.

Buteo harlani (Audubon)--Harlan's Hawk.

Buteo albonotatus Kaup--Zone-tailed Hawk.

Buteo albicaudatus Vieillot--White-tailed
Hawk.

Buteo brachyurus Vieillot--Short-tailed
Hawk.

Buteo regalis (Gray)--Ferruginous Hawk.

Buteo nitidus (Latham)--Gray Hawk.

Buteogallus anthracinus (Deppe)--Black Hawk.
Aquila chrysaetos (Linnaeus)--Golden Eagle.
Haliaeetus leucocephalus (Linnaeus)--Bald Eagle.
Haliaeetus pelagicus (Pallas)--Steller's Sea Eagle.
Otus trichopsis (Wagler)--Whiskered Owl.
Otus flammeolus (Kaup)--Flammulated Owl.
Nyctea scandiaca (Linnaeus)--Snowy Owl.
Surnia ulula (Linnaeus)--Hawk-Owl.
Glaucidium gnoma Wagler--Pygmy Owl.
Glaucidium brasilianum (Gmelin)--
Ferruginous Owl.
Micrathene whitneyi (Cooper)--Elf Owl.
Strix occidentalis (Xantus)--Spotted Owl.
Strix nebulosa Forster--Great Gray Owl.
Asio otus (Linnaeus)--Long-eared Owl.
Aegolius funereus (Linnaeus)--Boreal Owl.

Kurodaia acadicae Price and Beer, 1963

Kurodaia acadicae Price and Beer, 1963. Ann. Ent. Soc. Amer., 56: 851, fig. 26.

Type host: Aegolius acadicus (Gmelin)--Saw-whet Owl.

Kurodaia flammei Price and Beer, 1963

Kurodaia flammei Price and Beer, 1963. Ann. Ent. Soc. Amer., 56: 851, figs. 16 and 17.

Type host: Asio flammeus (Pontoppidan)--Short-eared Owl.

Kurodaia fulvofasciata (Piaget, 1880)

Menopon fulvofasciatum Piaget, 1880. Les Pediculines: 492, pl. 11, fig. 9.

Kurodaia taguatoi Eichler, 1952. Zool. Anz., 149: 258, figs. 12-14.

Type host: Buteo buteo (Linnaeus).

North American hosts: Buteo jamaicensis (Gmelin)--Red-tailed Hawk. Buteo swainsoni Bonaparte--Swainson's Hawk. Buteo lagopus (Pontoppidan)--Rough-legged Hawk. Buteo lineatus (Gmelin)--Red-shouldered Hawk.

Kurodaia haliaeeti (Denny, 1842)

Colpocephalum haliaeeti Denny, 1842. Mon. Anopl.
Brit.: 199 and 216, pl. 19, fig. 1.

Colpocephalum pachygaster Giebel, 1874. Insecta
Epizoa: 264.

Type host: Pandion haliaetus (Linnaeus)--Osprey.

Kurodaia koepckeii Eichler, 1953

Kurodaia koepckeii Eichler, In Niethammer, Bonn.
Zool. Beitr., 4: 265, fig. 32a.

Type host: Parabuteo unicinctus (Temminck)--
Harris' Hawk.

Kurodaia macrocybe (Carriker, 1903)

Menopon macrocybe Carriker, 1903. Univ. Stud.
Nebr., 3: 181, pl. 7, fig. 2.

Type host: Buteo platypterus (Vieillot)--Broad-
winged Hawk.

Kurodaia magna Emerson, 1960

Kurodaia magna Emerson, 1960. Ent. News, 71:
169, figs. 1-3.

Kurodaia edwardsi Emerson, 1961. Proc. Biol.
Soc. Wash., 74: 190, figs. 3-4.

Type host: Strix varia Barton--Barred Owl.

Other North American host: Bubo virginianus (Gmelin)--
Great Horned Owl.

Kurodaia painei (McGregor, 1912)

Colpocephalum painei McGregor, 1912. Ent. News,
23: 305, fig. 1.

Type host: Otus asio (Linnaeus)--Screech Owl.

Kurodaia subpachygaster (Piaget, 1880)

Colpocephalum subpachygaster, Piaget., 1880. Les
Pediculines: 517, pl. 43, fig. 2.

Type host: Tyto alba (Scopoli)--Barn Owl.

Genus LONGIMENOPON

Longimenopon Thompson, 1948. Occ. Pap. Bishop. Mus.,
19: 197.

Type species: Longimenopon puffinus Thompson,
1948.

This genus has been reviewed by Timmermann, 1957
(Results Norwegian Sci. Exped. Tristan da Cunha 1937-1938,
no. 41: 7). Species of the genus are found on hosts of the
order Procellariiformes. Collections of this genus are not
numerous, and the distribution on the families of the order
Procellariiformes is not known.

Longimenopon galeatum Timmermann, 1957

Longimenopon galeatum Timmermann, 1957. Res.
Norwegian Sci. Exped. Tristan da Cunha 1937-1938,
no. 41: 9, figs. 2c, 6 and 7.

Type host: Pelagodroma marina (Latham)--White-
faced Petrel.

Genus MACHAERILAEMUS

Machaerilaemus Harrison, 1915. Parasitology, 7: 389.

Type species: Machaerilaemus latifrons Harrison, 1915.

Hirundoecus Ewing, 1930. Proc. U. S. Nat. Mus., 77: 12.

Type species: Hirundoecus americanus Ewing, 1930.

This genus was reviewed by Emerson, 1947 (Canad. Ent., 79: 209). Since that action, M. maestus was re-defined, all of the specimens mentioned in that paper have not been reexamined. The specimens mentioned in that paper as being M. laticorpus (Carriker, 1903) have not been included in this paper, since they are probably M. laticorpus sen. lat.

Species of this genus are not numerous, but appear to be limited in North America to hosts of the order Passeriformes where they do not appear to be host specific. A list of probable hosts would be extensive and has not been compiled.

Machaerilaemus americanus (Ewing, 1930)

Hirundoecus americanus Ewing, 1930. Proc. U. S. Nat. Mus., 77: art. 20: 13, figs. 6 and 7f.

Type host: Progne subis (Linnaeus)--Purple Martin.

Machaerilaemus complexus Malcomson, 1937

Machaerilaemus complexus Malcomson, 1937. Ann. Ent. Soc. Amer., 30: 53, figs. 1-2.

Type host: Spizella pusilla (Wilson)--Field Sparrow.

Machaerilaemus maestus (Kellogg and Chapman, 1899)

Menopon maestum Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6: 130, pl. 9, fig. 2.

Type host: Zonotrichia atricapilla (Gmelin)--Golden-crowned Sparrow (See Emerson, 1954, J. Kansas Ent. Soc., 27: 44).

Machaerilaemus malleus (Burmeister, 1838)

Eureum malleus Burmeister, 1838. Handb. Ent.,
2: 441.

Type host: Hirundo rustica Linnaeus--Barn Swallow.

Machaerilaemus melospizae Emerson, 1954

Machaerilaemus melospizae Emerson, 1954. J.
Kansas Ent. Soc., 27: 45, fig. 1.

Type host: Melospiza melodia (Wilson)--Song
Sparrow.

Genus MENACANTHUS

Menacanthus Neumann, 1912. Arch. Parasit., 15: 353.

Type host: Menopon robustum Kellogg, 1896.

Neumannia Uchida, 1926. (nec Trouessart, 1888). J. Coll.

Agri. Tokyo, 9: 27.

Type species: Neumannia okadai Uchida, 1926.

Eomenacanthus Uchida, 1926. J. Coll. Agri. Tokyo,

9: 30.

Type species: Menopon biseriatum Piaget, 1880

(A synonym of Menopon stramineum Nitzsch, 1818).

Uchida Ewing, 1930. Proc. Biol. Soc. Wash., 43: 125

(nn for Neumannia Uchida, 1926).

Zemiodes Eichler, 1944. Z. hyg. Zool., 35: 172.

Type species: Zemiodes zumpti Eichler, 1944.

(A synonym of Menopon stramineum Nitzsch, 1818).

This genus needs revision. A complete review of the genus would probably reduce some of the presently recognized forms to synonyms, and also indicate that additional old-world species are also found in North America.

In North America, the genus is known from hosts of the orders Galliformes, Piciformes, and Passeriformes. Since the number of probable hosts is so large, a list has not been compiled.

Menacanthus alaskensis (Kellogg and Chapman, 1902)

Menopon alaskensis Kellogg and Chapman, 1902.

J. N. Y. Ent. Soc., 10: 27, pl. 3, fig. 5.

Type host: Pinicola enucleator (Linnaeus)--Pine Grosbeak (See Carriker, 1957, Microentomology, 22: 104).

Menacanthus aurocapillus Carriker, 1958

Menacanthus aurocapillus Carriker, 1958. Proc.
Ent. Soc. Wash., 60: 172, figs. 6-8.

Type host: Seiurus aurocapillus (Linnaeus)--Ovenbird.

Menacanthus annulatus (Giebel, 1874)

Menopon annulatum Giebel, 1874. Insecta Epizoa: 285.

Type host: Passer domesticus (Linnaeus)--House
Sparrow.

Menacanthus camelinus (Nitzsch, 1874)

Menopon camelinum Nitzsch, 1874. In Giebel,
Insecta Epizoa: 288, pl. 15, fig. 3.

Menacanthus dudiyalatora Ansari, 1951. Proc.
Nat. Inst. Sci. India, 17: 143, figs. 7 a-k.

Type host: Lanius excubitor Linnaeus--Northern
Shrike.

Menacanthus chrysophaeus (Kellogg, 1896)

Colpocephalum chrysophaeum Kellogg, 1896. Proc.
Calif. Acad. Sci. 6: 520, pl. 71, fig. 1.

Type host: Melospiza melodia (Wilson)--Song Sparrow.

Menacanthus colaptis (Durrant, 1908)

Menopon colaptis Durrant, 1908. Ohio Nat., 8: 355,
fig. 1h.

Type host: Colaptes auratus (Linnaeus)--Yellow-
shafted Flicker.

Menacanthus cornutus (Schrömmmer, 1913)

Menopon cornutum Schrömmmer, 1913. Über die
Mallophagen.: 64 and 71, pl. 7, fig. 29.

Type host: Chicken.

Menacanthus distinctus (Kellogg and Chapman, 1899)

Menopon distinctum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6: 126, pl. 8, fig. 7.
Type host: Myiarchus cinerascens (Lawrence)--Ash-
throated Flycatcher or Campylorhynchus
brunneicapillum (Lafresnaye)--Cactus Wren.

Menacanthus eury sternum (Burmeister, 1838)

Menopon eury sternum Burmeister, 1838. Handb.
Ent., 2: 439.

Menopon picae Piaget, 1880. Les Pediculines:
433, pl. 34, fig. 2.

Type host: Pica pica (Linnaeus)--Black-billed Magpie.

Menacanthus exilis (Nitzsch, 1866)

Menopon exilis Nitzsch, 1866. Z. ges. NatWiss.,
27: 121.

Type host: Oenanthe oenanthe (Linnaeus)--Wheatear.

Menacanthus expansus (Osborn, 1896)

Menopon expansum Osborn, 1896. Bull. U. S. Bur.
Ent. (n. s.), 5: 245, pl. 2, fig. j.

Type host: Dolychonyx oryzivorus (Linnaeus)--
Bobolink,

Menacanthus foxi (Ewing, 1927)

Philandesia foxi Ewing, 1927. J. Wash. Acad. Sci.,
17: 87.

Type host: unknown, collected at Brewster, Washington.

Menacanthus fuscocinctus (Denny, 1842)

Menopon fusco-cinctum Denny, 1842. Mon. Anopl.
Brit.: 199 and 219, pl. 21, fig. 4.

Type host: unknown, and distribution is also unknown.

Menacanthus gracilis (Piaget, 1880)

Menopon gracile Piaget, 1880. Les Pediculines:
482, pl. 40, fig. 1.

Type host: unknown, and distribution is also unknown.

Menacanthus gonophaeus (Burmeister, 1838)

Menopon gonophaeum Burmeister, 1838. Handb.
Ent., 2: 440.

Type host: Corvus corax Linnaeus--Common Raven.

Menacanthus meniscus (Piaget, 1880)

Menopon meniscus Piaget, 1880. Les Pediculines:
447, pl. 36, fig. 7.

Type host: Calcarius lapponicus (Linnaeus)--
Lapland Longspur.

Menacanthus mutabilis Blagoveshtschensky, 1940

Menacanthus mutabilis Blagoveshtschensky, 1940.

Mag. Parasit., Leningr., 8: 31 and 78, fig. 5.

Menacanthus himalayicus Ansari, 1951. Proc. Nat.

Inst. Sci. India, 17: 148, figs. 9a-f.

Menacanthus hopkinsi Eichler, 1953. Beiträge zur

Vogelkunde, 3: 172 (n for M. mutabilis

Blagoveshtschensky, 1940).

Type host: Sturnus vulgaris Linnaeus--Starling.

Menacanthus numidae (Giebel, 1874)

Menopon numidae Giebel, 1874. Insecta Epizoa: 292.

Type host: Guinea Fowl.

Menacanthus pallidulus (Neumann, 1912)

Menopon pallidulum Neumann, 1912. Arch. Parasit.,

15: 361, figs. 7-9.

Type host: Chicken.

Menacanthus parvulus (Piaget, 1880)

Menopon parvulum Piaget, 1880. Les Pediculines:

444, pl. 35, fig. 4.

Type host: unknown. Distribution is also unknown.

Menacanthus perforatus (Piaget, 1880)

Menopon perforatum Piaget, 1880. Les Pediculines:

453, pl. 42, fig. 9.

Type host: Eremophila alpestris (Linnaeus)--Horned Lark.

Menacanthus persignatus (Kellogg and Chapman, 1899)

Menopon persignatum Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6: 128, pl. 9, fig. 1.

Type host: Aphelocoma coerulescens (Bosc)--Scrub Jay.

Menacanthus picicola (Packard, 1873)

Menopon picicola Packard, 1873. Rept. U. S. Geol.

Surv., 1872: 731, fig. 58.

Type host: Pico'ides arcticus (Swainson)--Black-backed

Three-toed Woodpecker or Pico'ides tridactylus

(Linnaeus)--Northern Three-toed Woodpecker.

Menacanthus praecursor (Kellogg, 1899)

Menopon praecursor Kellogg, 1899. Occ. Pap. Calif. Acad. Sci., 6: 46, pl. 4, fig. 8.

Type host: Centurus uropygialis Baird--Gila Woodpecker.

Menacanthus pusillus (Nitzsch, 1866)

Menopon pusillum Nitzsch, 1866. Z. ges. NatWiss., 27: 120.

Type host: Motacilla alba Linnaeus--White Wagtail.

Menacanthus ralli (Neumann, 1912)

Menopon ralli Neumann, 1912. Arch. Parasit., 15: 366.

Type host: unknown, and distribution is also unknown.

Menacanthus robustus (Kellogg, 1896)

Menopon robustum Kellogg, 1896. Proc. Calif. Acad. Sci., 6: 528, pl. 72, fig. 3.

Type host: Psaltriparus minimus (Townsend)--Common Bushtit.

Menacanthus spinosus (Piaget, 1880)

Menopon spinosum Piaget, 1880. Les Pediculines: 449, pl. 36, figs. 4-5.

Type host: Richmondia cardinalis (Linnaeus)--Cardinal.

Menacanthus stramineus (Nitzsch, 1818)

Pediculus meleagridis Panzer, 1793. (nec Linnaeus, 1758). Faun. Ins. Germ.: 51, fig. 20.

Menopon stramineum Nitzsch, 1818. Germar's Mag. Ent., 3: 300 (nm for P. meleagridis Panzer, 1793).

Menopon biseriatum Piaget, 1880. Les Pediculines: 469, pl. 37, fig. 2.

Zemiodes zumpti Eichler, 1944. Z. hyg. Zool., 35: 172, fig. 1.

Type host: Meleagris gallopavo Linnaeus--Turkey.

Other North American hosts: Chicken, guinea fowl, peafowl; and quail and pheasants raised with chickens.

Menacanthus tenuifrons Blagoveschtchensky, 1940

Menacanthus tenuifrons Blagoveschtchensky, 1940.

Mag. Parasit., Leningr., 8: 37, and 81, fig. 10.

Type host: Troglodytes troglodytes (Linnaeus)--
Winter Wren.

Genus MENOPON

Menopon Nitzsch, 1818. Germar's Mag. Ent., 3: 299.

Type species: Menopon gallinae Linnaeus, 1758
(By subsequent designation by Johnston and
Harrison, 1911, Proc. Linn. Soc. N. S. W.,
36: 327).

Emerson, 1954 (Ann. Mag. Nat. Hist., (12),
7: 225) has reviewed the known species of the genus.

Menopon gallinae (Linnaeus, 1758)

Pediculus gallinae Linnaeus, 1758. Syst. Nat.,
ed. 10: 613.

Nirmus trigonocephalus Olfers, 1816. De Veget...
1: 90.

Liotheum pallidum Nitzsch, 1818. Germar's Mag.
Ent. 3: 299.

Menopon productum Piaget, 1880. Les Pediculines:
461, pl. 37, fig. 8.

Menopon productum major Piaget, 1880. Les
Pediculines: 462.

Menopon subaequale producta Piaget, 1885. Les
Pediculines, Supplement: 109.

Menopon brevipes Piaget, 1885. Les Pediculines,
Supplement: 110, pl. 12, fig. 1.

Menopon longicephalum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6: 535, pl. 73, fig. 4.

Menopon lunalale Eichler, 1947. Ark. Zool.,
39A, no. 2: 17, figs. 35-38.

Type host: Chicken.

Other North American hosts: Numida meleagris
(Linnaeus)--Guinea Fowl. Pheasants and turkeys
raised in association with chickens often have small
populations of this species.

Menopon pallens Clay, 1949

Menopon palleescens Nitzsch, 1874 (nec Giebel, 1866).
In Giebel, Insecta Epizoa: 293.

Menopon palleescens major Piaget, 1880. Les
Pediculines: 471.

Menopon pallescens pallida Piaget, 1880. Les
Pediculines: 471.

Menopon pallens Clay, 1949. Ann. Mag. Nat. Hist.,
(12) 2: 901 (nn for M. pallescens Nitzsch, 1874).

Menopon pallens Hopkins, 1950 (nec Clay, 1949).
Ann. Mag. Nat. Hist., (12), 3: 240 (nn for M.
pallescens Nitzsch, 1874).

Type host: Perdix perdix (Linnaeus)--Gray Partridge.

Other North American hosts: Alectoris graeca
(Meisner)--Chukar. Elsewhere this species is
found on many species of the genera Perdix and
Alectoris.

Genus MYRSIDEA

Myrsidea Waterston, 1915. Ent. Mon. Mag., 51: 12.

Type species: Myrsidea victrix Waterston, 1915.

Acolpocephalum Ewing, 1927. J. Wash. Acad. Sci.,
17: 88.

Type species: Acolpocephalum brevipes Ewing,
1927.

Allomyrsidea Conci, 1942. Boll. Soc. Ent. Ital., 74: 31.

Type species: Myrsidea struthidea Thompson, 1939.

Corvomenopon Conci, 1942. Boll. Soc. Ent. Ital., 74: 31.

Type species: Menopon robsoni Cummings, 1914.

Ramphasticola Carriker, 1949. Rev. Brasil. Biol., 9: 305.

Type species: Ramphasticola hirsuta Carriker, 1949.

Alcediniphilus Ansari, 1951. Proc. Nat. Inst. Sci. India,
18: 189.

Type species: Myrsidea (Alcediniphilus) kuluensis
Ansari, 1951.

Myrsidella Eichler, 1951. Zool. Anz., 146: 49.

Type species: Menopon consimilis Piaget, 1885.

In North America, this genus is found on hosts of the order Passeriformes. Dr. Clay, British Museum (Nat. Hist.), is presently revising this difficult genus. No list of probable hosts has been compiled because of the large number for which no data are available.

Myrsidea anaspila (Nitzsch, 1866)

Menopon anaspilum Nitzsch, 1866. In Giebel, Z. ges.
NatWiss., 27: 119.

Type host: Corvus corax Linnaeus--Common Raven.

Myrsidea bakttitar (Ansari, 1951)

Neomenopon bakttitar Ansari, 1951. Proc. Nat. Inst.
Sci. India., 17: 169, fig. 17.

Type host: unknown, and distribution is also unknown.

- Myrsidea conspicua (Kellogg and Chapman, 1902)
Colpocephalum conspicuum Kellogg and Chapman,
1902. J. N. Y. Ent. Soc., 10: 163, pl. 14, fig. 4.
Type host: Carpodacus mexicanus (Müller)--House
Finch.
- Myrsidea cucullaris (Nitzsch, 1818)
Menopon cucullare Nitzsch, 1818. Germar's Mag.
Ent., 3: 300 (nn for Redi's "Pollino del Storno
Bianco").
Type host: Sturnus vulgaris Linnaeus--Starling.
- Myrsidea dissimilis (Kellogg, 1896)
Menopon dissimile Kellogg, 1896. Proc. Calif.
Acad. Sci., 6: 536, pl. 73, fig. 5.
Type host: Progne subis (Linnaeus)--Purple Martin.
- Myrsidea dukhunensis Ansari, 1951
Myrsidea dukhunensis Ansari, 1951. Proc. Nat.
Inst. Sci. India, 17: 177, fig. 24.
Type host: Motacilla alba Linnaeus--White Wagtail.
- Myrsidea funerea (Kellogg and Chapman, 1899)
Menopon funereum Kellogg and Chapman, 1899. Occ.
Pap. Calif. Acad. Sci., 6: 124, pl. 8, fig. 6.
Type host: unknown, but probably from a species of
Corvidae found in California.
- Myrsidea fuscomarginata (Osborn, 1896)
Menopon fusco-marginatus Osborn, 1896. Bull. U. S.
Bur. Ent. (n. s.), 5: 245.
Type host: Hylocichla fuscescens (Stephens)--Veery.
- Myrsidea incerta (Kellogg, 1896)
Menopon incertum Kellogg, 1896. Proc. Calif. Acad.
Sci. 6: 533, pl. 73, fig. 2.
Type host: Spinus tristis (Linnaeus)--American
Goldfinch or Hylocichla ustulata (Nuttall)--Swainson's
Thrush.
- Myrsidea interrupta (Osborn, 1896)
Menopon interruptum Osborn, 1896. Bull. U. S. Bur.
Ent. (n. s.), 5: 245, pl. 2, fig. h.

Menopon mesoleucum americanum Kellogg, 1896.

Proc. Calif. Acad. Sci., 6: 539, pl. 73, fig. 3.

Type host: Corvus brachyrhynchos Brehm--Common Crow.

Myrsidea latifrons (Carriker, 1910)

Nitzschia latifrons Carriker, 1910. In Carriker and Shull, Ent. News, 21: 56, pl. 5, fig. 4.

Nitzschia piageti Kistiakowsky, 1926 (nec Harrison, 1916). Zool. Anz., 68: 11, fig. 2.

Type host: Riparia riparia (Linnaeus)--Bank Swallow.

Myrsidea magnidens Stafford, 1943

Myrsidea magnidens Stafford, 1943. Bol. Ent. Venezol, 2: 41, figs. 10-17.

Type host: Pitangus sulfuratus (Linnaeus)--Kiskadee Flycatcher.

Myrsidea major (Piaget, 1880)

Menopon quadrifasciatum major Piaget, 1880. Les Pediculines: 441.

Type host: Plectrophenax nivalis (Linnaeus)--Snow Bunting.

Myrsidea melanorum (Kellogg, 1896)

Menopon melanorum Kellogg, 1896. Proc. Calif. Acad. Sci., 6: 532, pl. 73, fig. 1.

Type host: Pipilo erythrophthalmus (Linnaeus)--Rufous-sided Towhee.

Myrsidea mera (Piaget, 1885)

Menopon merum Piaget, 1885. Les Pediculines, Supplement: 108, pl. 11, fig. 10.

Type host: unknown, and distribution is also unknown.

Myrsidea palloris (Carriker, 1903)

Menopon palloris Carriker, 1903. Univ. Stud. Nebr., 3: 189, pl. 8, fig. 3.

Type host: Stelgidopteryx ruficollis (Vieillot)--Rough-winged Swallow.

- Myrsidea picae (Linnaeus, 1758)
Pediculus picae Linnaeus, 1758. Syst. Natr.,
ed. 10: 612.
Colpocephalum eury sternum Denny, 1842 (nec. M.
eury sternum Burmeister, 1838). Mon. Anopl. Brit.:
199 and 213, pl. 18, fig. 6.
Type host: Pica pica (Linnaeus)--Black-billed Magpie.
- Myrsidea quadrifasciata (Piaget, 1880)
Menopon quadrifasciatum Piaget, 1880. Les
Pediculines: 440, pl. 35, fig. 6.
Type host: Passer domesticus (Linnaeus)--House
Sparrow.
- Myrsidea quadrimaculata (Carriker, 1902)
Colpocephalum quadrimaculatum Carriker, 1902.
J. N. Y. Ent. Soc., 10: 223, pl. 21, fig. 4.
Type host: Loxia curvirostra Linnaeus--Red
Crossbill.
- Myrsidea ridulosa (Kellogg and Chapman, 1899)
Menopon ridulosum Kellogg and Chapman, 1899. Occ.
Pap. Calif. Acad. Sci., 6: 135, pl. 9, fig. 4.
Type host: Dendroica petechia (Linnaeus)--Yellow
Warbler.
- Myrsidea rustica (Giebel, 1874)
Menopon rusticum Giebel, 1874. Insecta Epizoa: 288.
Nitzschia femoralis Kistiakowsky, 1926. Zool. Anz.,
68: 10, fig. 1.
Type host: Hirundo rustica Linnaeus--Barn Swallow.
- Myrsidea scabrei Ansari, 1956
Myrsidea scabrei Ansari, 1956. Pakistan J. Health,
5: 167, figs. 4a-e (This form will probably be
conspecific with M. incerta (Kellogg, 1896) if
Hylocichla ustulata is designated type host).
Type host: Hylocichla ustulata (Nuttall)--Swainson's
Thrush.

Myrsidea straminea (Giebel, 1874)

Trinotum stramineum Giebel, 1874. Insecta Epizoa: 302.

Type host: Hirundo rustica Linnaeus--Barn Swallow
(This is probably in error since the species has
not been collected from this host since the original
description).

Myrsidea troglodyti (Denny, 1842)

Menopon troglodyti Denny, 1842. Mon. Anopl. Brit.:
220 and 201, pl. 18, fig. 7.

Type host: Troglodytes troglodytes (Linnaeus)--
Winter Wren.

Nosopon Hopkins, 1950. Ann. Mag. Nat. Hist., (12),
3: 239.

Type species: Menopon fulvofasciatum minor
Piaget, 1880.

For a discussion of the genus, see Tendeiro, 1959
(Bol. Cult. Guine Poët., 14: 193). Very little is known
about the distribution of the genus in North America, but
it appears to be rare. No list of probable hosts can be
compiled until more is known about the genus.

Nosopon lucidum (Rudow, 1869)

Menopon lucidum Rudow, 1869. Z. ges. NatWiss.,
34: 402.

Kurodaia macrura Eichler, 1952. Zool. Anz.,
149: 257, fig. 11 (?).

Type host: Falco vespertinus Linnaeus.

North American host: Falco sparverius Linnaeus--
Sparrow Hawk.

Genus NUMIDICOLA

Numidicola Ewing, 1927. J. Wash. Acad. Sci., 17: 30.

Type species: Numidicola antennatus (Kellogg and Paine, 1911).

This genus is monotypic.

Numidicola antennatus (Kellogg and Paine, 1911)

Menopon antennatum Kellogg and Paine, 1911. Bull. Ent. Res., 2: 150, pl. 5, fig. 1.

Numidicola longicornis Ewing, 1927. J. Wash. Acad. Sci., 17: 91.

Type host: Numida meleagris (Linnaeus)--Guinea Fowl.

Genus OSBORNIELLA

Osborniella Thompson, 1948. Ann. Mag. Nat. Hist.,
(12), 1: 58.

Type species: Colpocephalum crotophagae Stafford,
1943.

Cuculigogus Eichler, 1952. Zool. Anz., 149: 76.

Type species: Colpocephalum crotophagae Stafford,
1943.

This genus is apparently found only on hosts of the subfamily Crotophaginae. No additional species are expected from North American hosts.

Osborniella crotophagae (Stafford, 1943)

Colpocephalum crotophagae Stafford, 1943. Bol.
Ent. Venezol., 2: 47, figs. 29-36.

Type host: Crotophaga ani Linnaeus--Smooth-billed Ani.

Osborniella sulcirostris Wiseman, 1963

Osborniella sulcirostris Wiseman, 1963. J. Kansas
Ent. Soc., 36: 103, pl. 1.

Type host: Crotophaga sulcirostris Swainson--Groove-billed Ani.

Genus PIAGETIELLA

Tetrophthalmus Grosse, 1885 (nec Hope, 1845). Z. wiss. Zool., 42: 534.

Type species: Tetrophthalmus chilensis Grosse, 1885.
(A synonym of Piagetiella bursaepelecani (Perry, 1876).)

Piagetia Picaglia, 1884 (nec Ritsema, 1874). Atti. Soc. Nat. Hist. Modena, 2: 104.

Type species: Piagetia ragazzii Picaglia, 1884
(By subsequent designation by Harrison, 1916, Parasitology, 9: 24).

Piagetiella Neumann, 1906. Bull. Soc. Zool. Fr., 20: 60
(nn for Piagetia Picaglia).

No revision of this genus is available. Specimens of this genus normally inhabit the inside of the pouch of hosts of the families Pelecanidae and Phalacrocoracidae.

Probable North American hosts for which no data are available include:

Phalacrocorax carbo (Linnaeus)--Great Cormorant.

Phalacrocorax auritus (Lesson)--Double-crested Cormorant.

Phalacrocorax pelagicus Pallas--Pelagic Cormorant.

Phalacrocorax urile (Gmelin)--Red-faced Cormorant.

Piagetiella bursaepelecani (Perry, 1876)

Trinotia bursaepelecani Perry, 1876. Proc. Lit. Phil. Soc. Lpool, 30: lxxx.

Tetrophthalmus chilensis Grosse, 1885. Z. wiss. Zool., 42: 534, pl. II, figs. 1, 6, 8, 9, 12, 13, 15, 16, 18-20.

Menopon titan linearis Kellogg, 1896. Proc. Calif. Acad. Sci., 6: 165, pl. 15, fig. 2.

Type host: Pelecanus occidentalis Linnaeus--Brown Pelican.

Piagetiella incomposita (Kellogg and Chapman, 1899)

Menopon titan incompositum Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6: 123, pl. 8, figs. 4-5.

Type host: Phalacrocorax penicillatus (Brandt)--Brandt's Cormorant.

Piagetiella peralis (Leidy, 1878)

Menopon peralis Leidy, 1878. Proc. Acad. Nat. Sci. Philad., 1878: 100.

Menopon consanguineum Piaget, 1884. Notes Leyden Museum, 6: 111.

Piagetiella ragazzii Picaglia, 1884. Att. Soc. Nat. Mat., Modena, 2: 105.

Menopon titan impar Kellogg, 1896 (nec Piaget, 1880). Proc. Calif. Acad. Sci., 6: 165.

Type host: Pelecanus erythrorhynchos Gmelin--White Pelican.

Piagetiella vigua (Eichler, 1943)

Tetrophthalmus vigus Eichler, 1943. Zool. Anz., 141: 135, fig. 1.

Type host: Phalacrocorax olivaceus (Humboldt)--Olivaceous Cormorant.

Genus PLEGADIPHILUS

Plegadiphilus Bedford, 1939. Onderstepoort J. Vet.
Sci., 12: 138.

Type species: Plegadiphilus threskiornis Bedford,
1939.

Specimens of this genus are not numerous. The form
found on Eudochimus albus (Linnaeus)--White Ibis, the only
other likely North American host, is probably new.

Plegadiphilus plegadis (Dubinin, 1938)

Menopon plegadis Dubinin, 1938. Trav. Reserve
Etat. Astrakhan, 2: 178, fig.

Type host: Plegadis falcinellus (Linnaeus)--Glossy
Ibis.

Other North American host: Plegadis chihi (Vieillot)--
White-faced Ibis.

Procellariphaga Eichler, 1949. Boll. Soc. Ent. Ital.,
79: 12.

Type host: Procellariphaga ossifragae Eichler,
1949.

No adequate study of this genus is available. Clay, 1959 (Proc. R. Ent. Soc. London, (B), 28: 157) considers this genus to be a synonym of Austromenopon. Timmermann, 1963 (Zeitr. Parasit., 22: 401) also considers the genus to be a synonym of Austromenopon in his limited review of the group. Based only upon examination of a limited number of species, Eichler appears to have been justified in separating the taxa.

Species of this genus are found only on hosts of the order Procellariformes. The number of specimens on each host is few, and the difficulty in collecting hosts has limited the number of specimens in collections. This lack of availability of material has hampered efforts for a comprehensive study of the genus.

All species of Procellariformes are suspected of harboring species of this genus. Therefore, all hosts not listed should be considered in future collecting.

Procellariphaga albemarlei (Kellogg and Kuwana, 1902)

Menopon albemarlei Kellogg and Kuwana, 1902.

Proc. Wash. Acad. Sci., 4: 488, pl. 31, fig. 5.

Type host: unknown, and distribution is also unknown.

Procellariphaga brevifimbriata (Piaget, 1880)

Menopon brevifimbriatum Piaget, 1880. Les

Pediculines: 499, pl. 41, fig. 1.

Menopon numerosum Kellogg, 1896. Proc. Calif.

Acad. Sci., 6: 159, pl. 15, fig. 1.

Type host: Fulmar glacialis (Linnaeus)--Fulmar.

Procellariphaga enigki (Timmermann, 1963)

Austromenopon enigki Timmermann, 1963. Zeitr. Parasit., 22: 425, fig. 14.

Type host: Pelagodroma marina (Latham)--White-faced Petrel.

Procellariphaga fraterculae (Timmermann, 1954)

Austromenopon fraterculae Timmermann, 1954. Bonn. Zool. Beitr., 5: 198.

Type host: Probably Puffinus puffinus (Bonninich)--Manx Shearwater (See Timmermann, 1963, Zeitr. Parasit., 22: 414).

Procellariphaga longithoracica (Piaget, 1880)

Menopon longithoracicum Piaget, 1880. Les Pediculines: 500, pl. 41, fig. 5.

Austromenopon echinatum Edwards, 1960. Canad. Ent., 92: 817, fig. 1.

Type host: Adamastor cinereus (Gmelin).

North American host: Puffinus diomedea (Scopoli)--Cory's Shearwater. (This record from Timmermann may be in error).

Procellariphaga narboroughi (Kellogg and Kuwana, 1902)

Menopon narboroughi Kellogg and Kuwana, 1902.

Proc. Wash. Acad. Sci., 4: 485, pl. 31, fig. 2.

Type host: Puffinus l'herminieri Lesson--Audubon's Shearwater.

Procellariphaga paulula (Kellogg and Chapman, 1899)

Menopon paululum Kellogg and Chapman, 1899. Occ.

Pap. Calif. Acad. Sci., 6: 119, pl. 8, fig. 2.

Menopon petulans Kellogg and Chapman, 1899. Occ.

Pap. Calif. Acad. Sci., 6: 121, pl. 8, fig. 3.

Type host: Puffinus griseus (Gmelin)--Sooty Shearwater.

Procellariphaga piekarskii (Timmermann, 1963)

Austromenopon piekarskii Timmermann, 1963.

Zeitr. Parasit., 22: 417, fig. 9.

Type host: Puffinus gravis (O'Reilly)--Greater Shearwater.

Procellariphaga pinguis (Kellogg, 1896)

Colpocephalum pingue Kellogg, 1896. Proc.

Calif. Acad. Sci., 6: 144, pl. 12, fig. 4.

Menopon navigans Kellogg, 1896. Proc. Calif.

Acad. Sci., 6: 156, pl. 14, figs. 4-5.

Menopon irrumpens Kellogg and Chapman, 1899.

Occ. Pap. Calif. Acad. Sci., 6: 117, pl. 8, fig. 1.

Type host: Diomedea albatrus Pallas--Short-tailed
Albatross.

Genus PSEUDOMENOPON

Pseudomenopon Mjöberg, 1910. Ark. Zool., 6: 50.

Type species: Menopon tridens Burmeister, 1838
(A synonym of Pseudomenopon pilsoum (Scopoli,
1763).

No revision of this genus is available. Species of the genus are found on hosts of the families Podicipitidae, order Podicipitiformes; Rallidae, and Aramidae, order Gruiformes; and Jacanidae, order Charadriiformes. The forms found on each North American host family are closely related, and it is possible that only one species of Mallophaga is found on hosts of each family.

Probable North American hosts for which no data on distribution are available include:

Podiceps grisegena (Boddaert)--Red-necked Grebe.

Podiceps dominicus (Linnaeus)--Least Grebe.

Podilymbus podiceps (Linnaeus)--Pied-billed Grebe.

Rallus elegans Audubon--King Rail.

Rallus longirostris Boddaert--Clapper Rail.

Rallus limicola Vieillot--Virginia Rail.

Coturnicops noveboracensis (Gmelin)--Yellow Rail.

Laterallus jamaicensis (Gmelin)--Black Rail.

Porphyryula martinica (Linnaeus)--Purple Gallinule.

Jacana spinosa (Linnaeus)--Jacana.

Pseudomenopon crecis Bechet, 1963

Pseudomenopon crecis Bechet, 1963. Stud. Univ. Babes-Bolyai, Ser. Biol., 2: 75, figs. 6-8.

Type host: Crex crex (Linnaeus)--Corn Crake.

Pseudomenopon delicatum (Piaget, 1880)

Menopon delicatum Piaget, 1880. Les Pediculines:
448, pl. 42, fig. 7.

Type host: unknown, and distribution is also unknown.

Pseudomenopon insolens (Kellogg, 1896)

Menopon tridens insolens Kellogg, 1896. Proc. Calif.
Acad. Sci., 6: 166, pl. 15, figs. 3 and 4.

Type host: Podiceps caspicus (Hablizl)--Eared Grebe
as reported by Kellogg may be in error. It is
possible that the type host is Fulica americana
Gmelin--American Coot and that the species is a
synonym of P. pilosum (Scopoli, 1763).

Pseudomenopon par (Kellogg, 1896)

Menopon tridens par Kellogg, 1896. Proc. Calif. Acad.
Sci., 6: 166.

Type host: Aechmophorus occidentalis (Lawrence)--
Western Grebe as reported by Kellogg may be in error.
It is possible that the type host is Fulica americana
Gmelin--American Coot and that the species is a
synonym of P. pilosum (Scopoli, 1763).

Pseudomenopon parumpilosum (Piaget, 1880)

Menopon parumpilosum Piaget, 1880. Les Pediculines:
421, pl. 33, fig. 6.

Type host: unknown, and distribution is also unknown.

Pseudomenopon pilosum (Scopoli, 1763)

Pediculus pilosum Scopoli, 1763. Ent. Carniolica:
384.

Menopon tridens Burmeister, 1838. Handb. Ent.,
2: 440.

Menopon tridens major Piaget, 1880 (nec p. 441).
Les Pediculines: 480.

Menopon tridens pacificum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6: 166.

Pseudomenopon thompsoni Eichler, 1937. S. B.
Ges. Naturf. Fr. Berlin, 1937: 97. (nn for Menopon
tridens major Piaget, 1880).

Type host: Fulica atra (Linnaeus)--European Coot.
Other North American hosts: Fulica americana Gmelin--
American Coot. Gallinula chloropus (Linnaeus)--
Common Gallinule.

Pseudomenopon qadrii Eichler, 1952

Pseudomenopon qadrii Eichler, 1952. Zool. Anz.,
148: 35, figs. 12-14.

Type host: Porzana porzana (Linnaeus).

North American host: Porzana carolina (Linnaeus)--
Sora.

Pseudomenopon scitum (Piaget, 1880)

Menopon scitum Piaget, 1880. Les Pediculines:
442, pl. 42, fig. 6.

Type host: unknown, and distribution is also unknown.

Pseudomenopon stresemanni Eichler, 1949

Pseudomenopon stresemanni Eichler, 1949.

Ornithologie als biologische Wissenschaft: 250,
figs. 1-6.

Type host: Aramus guarauna (Linnaeus)--Limpkin.

Genus SOMAPHANTUS

Somaphantus Paine, 1914. Smithsonian Misc. Coll.,
61 No. 23: 1.

Type species: Somaphantus lusus Paine, 1914.

The two species of this genus are discussed by Emerson, 1958 (Ann. Mag. Nat. Hist., (13), 1: 102). Individuals of this genus live inside the primary quills; consequently, few collections are known. Distribution on the Galliformes is unknown. The species S. spencei Emerson, 1958 found on Pavo muticus Linnaeus--Green Peafowl, may also be found on Pavo cristatus (Linnaeus)--Domestic Peafowl.

Somaphantus lusus Paine, 1914

Somaphantus lusus Paine, 1914. Smithsonian
Misc. Coll., 61, no. 23; fig. 1.

Type host: Numida meleagris (Linnaeus)--Guinea
Fowl.

Genus TRINOTON

Trinoton Nitzsch, 1818. Germar's Mag. Ent., 3: 300.

Type species: Trinoton conspurcatum Nitzsch, 1818 (A synonym of Trinoton anserinum (J. C. Fabricius, 1805).

Trinotum Burmeister, 1838. Handb. Ent., 2: 440 (nn for Trinoton Nitzsch, 1818).

Trinotion Perry, 1876. Proc. Lit. Phil. Soc. Liverpool, 30: Lxxx (misprint).

Ewingella Eichler, 1941. Stettin. Ent. Ztg., 102: 126.

Species of this genus are found on hosts of the family Phoenicopteridae, order Ciconiiformes, and the order Anseriformes. No revision of the genus is available.

Clay and Hopkins, 1960 (Bull. Brit. Mus., (N. H.), Ent., 9: 21) divide the genus into four main groups: femoratum on the flamingos; aculeatum on the genus Dendrocygna; gambense on the genus Plectropterus; and querquedulae on Anas, Anser and related genera. The querquedulae group can be separated into querquedulae on Anas and related genera, and anserinum on Anser and related genera. Whether or not the subspecies listed here are valid or not must await detailed study. If they are not valid, other synonyms should be added to those shown here.

Each host of the family Phoenicopteridae and the order Anseriformes harbors a species of Trinoton; therefore, hosts which have not been included in the following list should be considered for additional forms.

Trinoton aculeatum Piaget, 1885

Trinoton aculeatum Piaget, 1885. Les Pediculines, Supplement: 136, pl. 15, fig. 1.

Type host: Dendrocygna viduata (Linnaeus).

North American hosts: Dendrocygna autumnalis

(Linnaeus)--Black-bellied Tree Duck. Dendrocygna bicolor (Vieillot)--Fulvous Tree Duck.

Trinoton anserinum anserinum (J. C. Fabricius, 1805)
Pediculus anserinus J. C. Fabricius, 1805. Syst.
Antliatorum: 345.
Pediculus anseris Sulzer, 1776 (nec Linnaeus, 1758).
Abgek. Gesch. Insekten: 241, pl. 29, fig. 4.
Liotheum conspurcatum Nitzsch, 1818. Germar's
Mag. Ent. 3: 300 (nn for P. anseris Sulzer, 1776).
Trinoton continuum Piaget, 1880. Les Pediculines:
591.
Type host: Anser anser (Linnaeus)--Domestic
Goose.

Trinoton anserinum squalidum Denny, 1842
Trinoton squalidum Denny, 1842. Mon. Anopl. Brit.:
202 and 235, pl. 22, fig. 3.
Type host: Anser albifrons (Scopoli)--White-fronted
Goose. Anser anser (Linnaeus)--Domestic Goose,
and Spatula clypeata (Linnaeus)--Shoveller (A
lectotype has not been designated, which would
fix the type host. The view taken is to use the
name for the form found on Anser albifrons).

Trinoton cygni cygni Eichler, 1943
Trinoton anserinum cygni Eichler, 1943. Stettin.
Ent. Ztg., 104: 97, figs. 3-5.
Type host: Cygnus olor (Gmelin)--Mute Swan.

Trinoton querquedulae ludwigfreundi Eichler, 1954.
Trinoton querquedulae ludwigfreundi Eichler, 1954.
Mh. Vet. Med., 9: 409, figs. 1-5.
Type host: probably Anas platyrhynchos Linnaeus--
Mallard.

Trinoton querquedulae luridum Burmeister, 1838
Trinoton luridum Burmeister, 1838. Handb. Ent.,
2: 441.
Type host: Anas acuta Linnaeus--Pintail.*

* A lectotype for Trinoton gracile Grube, 1851 has not been
designated. It is assumed that specimens from Anas acuta
will not be so designated. If they are, the species then
becomes a synonym of this subspecies. This possibility,
of course, exists regardless of this action.

Trinoton querquedulae mergi Eichler, 1943

Trinoton querquedulae mergi Eichler, 1943. Stettin.
Ent. Ztg., 104: 100, fig. 9.

Type host: Mergus serrator Linnaeus--Red-breasted
Merganser.

Trinoton quequedulae minus Osborn, 1896

Trinoton minor Osborn, 1896. Bull. U. S. Bur.
Ent. (n. s.), 5: 248.

Type host: Oidemia nigra (Linnaeus)--Common
Scoter.

Trinoton querquedulae nyrocae Eichler, 1943

Trinoton nyrocae Eichler, 1943. Stettin. Ent.
Ztg., 104: 97, figs. 6-7.

Type host: Aythya ferina (Linnaeus)--Common
Pochard.

Trinoton querquedulae querquedulae (Linnaeus, 1758)

Pediculus querquedulae Linnaeus, 1758. Syst.
Nat., éd. 10: 612.

Ricinus lari DeGeer, 1778. Mem. Hist. Ins.,
7: 77, pl. 4, fig. 12 (?).

Trinoton pygmaeum Kolenati, 1846. Melet. Ent.,
5: 138, pl. 19, fig. 5 (?).

Type host: Anas crecca Linnaeus--Common Teal.

Trinoton querquedulae spinosum Piaget, 1880

Trinoton spinosum Piaget, 1880. Les Pediculines:
596, pl. 49, fig. 6.

Type host: Marcea penelope (Linnaeus)--European
Widgeon.

Family RICINIDAE

Genus RICINUS

Ricinus DeGeer, 1778. Mem. Hist. Ins., 7: 69.

Type species: Ricinus fringillae DeGeer, 1778
(By subsequent designation by Neumann, 1906,
Bull. Soc. Zool. Fr., 20: 56).

Nirmus Herman, 1804. Mem. Apterolog: 12 (nn for Ricinus
DeGeer, 1778).

Physostomum Nitzsch, 1818. Germar's Mag. Ent., 3:
302.

Type species: Ricinus nitidissimum Nitzsch, 1818
(A synonym of Ricinus fringillae DeGeer, 1778).

No revision or study of the genus is available.

Except for a few families, species of the
Passeriformes are hosts to members of this genus. The
probable hosts are too numerous to list.

Ricinus angulatus (Kellogg, 1896)

Physostomum angulatum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6: 515, pl. 70, fig. 5.

Type host: Tyrannus tyrannus (Linnaeus)--Eastern
Kingbird (See Carriker, 1957, Microentomology,
22: 105).

Ricinus arcuatus (Kellogg and Mann, 1912)

Physostomum fasciatus arcuatus Kellogg and Mann,
1912. Ent. News, 23: 65.

Type host: Tyrannus vociferans Swainson--Cassin's
Kingbird.

Ricinus australis (Kellogg, 1896)

Physostomum australe Kellogg, 1896. Proc. Calif.
Acad. Sci., 6: 516, pl. 70, fig. 4.

Type host: Passerina versicolor (Bonaparte)--Varied
Bunting.

Ricinus bombycillae (Denny, 1842)

Physostomum bombycillae Denny, 1842. Mon.
Anopl. Brit.: 203 and 242, pl. 23, fig. 5.

Physostomum intermedium Piaget, 1880. Les
Pediculines: 605, pl. 50, fig. 4.

Type host: Bombycilla garrula (Linnaeus)--
Bohemian Waxwing.

Ricinus diffusus (Kellogg, 1896)

Physostomum diffusum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6: 518, pl. 70, fig. 3.

Type host: Passercula sandwichensis (Gmelin)--
Sparrow (See Carriker, 1957, Microentomology,
22: 105).

Ricinus fasciatus (Piaget, 1885)

Physostomum fasciatum Piaget, 1885. Les
Pediculines, Supplement: 134, pl. 14, fig. 6.

Type host: unknown, and distribution is also unknown.

Ricinus frenatus (Burmeister, 1838)

Physostomum frenatum Burmeister, 1838. Handb.
Ent., 2: 442.

Type host: Troglodytes troglodytes (Linnaeus)--
Winter Wren or Regulus regulus (Linnaeus).

Ricinus hastatus (Osborn, 1902)

Physostomum hastatum Osborn, 1902. Ohio Nat.
2: 203, pl. 14, fig. 3.

Type host: Junco aikenii Ridgway--White-winged
Junco (See Emerson, 1960, Proc. Biol. Soc.
Wash., 73: 162).

Ricinus japonicus (Uchida, 1915)

Physostomum japonicum Uchida, 1915. Annot.
Zool. Jap., 9: 70.

Type host: Anthus spinoletta (Linnaeus)--Water
Pipit.

Ricinus maculatus (Piaget, 1885)

Physostomum maculatum Piaget, 1885. Les
Pediculines, Supplement: 133, pl. 14, fig. 5.

Type host: unknown, and distribution is also unknown.

Ricinus magnus Uchida, 1926

Ricinus serratus magnus Uchida, 1926. J. Coll.

Agri. Tokyo, 9: 52.

Type host: Alauda arvensis Linnaeus--Skylark.

Ricinus marginatus (Children, 1836)

Physostomum marginatum Children, 1836. In Back,
Arctic Land. Exped.: 539.

Type host: unknown, and distribution is also unknown.

Ricinus medius Uchida, 1926

Physostomum intermedium Uchida, 1915 (nec Piaget,
1880). Annot. Zool. Jap., 9: 68, fig. 1.

Ricinus medius Uchida, 1926. J. Coll. Agri. Tokyo,
9: 54 (nn for P. intermedium Uchida, 1915).

Type host: Parus ater insularis Hellmayr or Parus
atricapillus Linnaeus--Black-capped Chickadee.

Ricinus melospizae (McGregor, 1917)

Physostomum melospizae McGregor, 1917. Ent.
News, 28: 436, pl. 28, figs. 3 and 6.

Type host: Melospiza melodia Wilson--Song Sparrow.

Ricinus merulae (Durrant, 1906)

Physostomum merulae Durrant, 1906. Ohio Nat.,
7: 35, fig. 1d.

Type host: Turdus migratorius Linnaeus--Robin.

Ricinus microcephalus (Kellogg, 1896)

Physostomum microcephalum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6: 513, pl. 70, fig. 1.

Type host: Carpodacus mexicanus (Müller)--House
Finch.

Ricinus pallens (Kellogg, 1899)

Physostomum pallens Kellogg, 1899. Occ. Pap.
Calif. Acad. Sci., 6: 49, pl. 4, fig. 7.

Type host: Protonotaria citrea (Boddaert)--
Prothonotary Warbler. (See Carriker, 1957,
Microentomology, 22: 105).

Ricinus pallidus (Kellogg, 1896)

Physostomum diffusum pallidum Kellogg, 1896.
Proc. Calif. Acad. Sci., 6: 519.

Type host: Junco sp. from Lawrence, Kansas
(Probably Junco hyemalis (Linnaeus)--Slate-colored Junco or Junco oreganus (Townsend)--Oregon Junco).

Ricinus picturatus (Carriker, 1902)

Physostomum picturatum Carriker, 1902. J. N. Y.
Ent. Soc., 10: 224, pl. 23, fig. 3.

Type host: Vermivora celata (Say)--Orange-crowned Warbler.

Ricinus serratus (Durrant, 1906)

Physostomum serratum Durrant, 1906. Ohio Nat.,
6: 528, fig. 1b.

Physostomum clypeatum Mjöberg, 1910. Ark.
Zool., 6: 60, figs. 35-36, and pl. 2, fig. 1.

Type host: Eremophila alpestris (Linnaeus)--Horned Lark.

Ricinus subhastatus (Durrant, 1906)

Physostomum sub-hastatum Durrant, 1906. Ohio
Nat., 6: 528, fig. 1a.

Type host: Pipilo erythrophthalmus (Linnaeus)--Rufous-sided Towhee.

Ricinus sucinaceus (Kellogg, 1896)

Physostomum sucinaceum Kellogg, 1896. Proc.
Calif. Acad. Sci., 6: 514, pl. 70, fig. 2.

Type host: Empidonax difficilis Baird--Western Flycatcher.

Ricinus thoracicus (Packard, 1870)

Nirmus thoracicus Packard, 1870. Amer. Nat.,
4: 94, pl. 1, fig. 5.

Type host: Plectrophenax nivalis (Linnaeus)--Snow Bunting.

Ricinus tinctus Harrison, 1916

Physostomum thoracicum Piaget, 1880 (nec Packard, 1870). Les Pediculines: 606, pl. 51, fig. 1.

Ricinus tinctus Harrison, 1916. Parasitology, 9: 68
(nn for P. thoracicum Piaget, 1880).

Type host: unknown, and distribution is also unknown.

Genus TROCHILIPHAGUS

Trochiliphagus Carriker, 1960. Proc. U. S. Nat. Mus.,
112: 331.

Type species: Trochiliphagus lazulus Carriker, 1960.

The study by Carriker is the only one available. All hummingbirds not listed are probable hosts for this genus.

Trochiliphagus ochoterenai (Zavaleta, 1943)

Trochiloecetes ochoterenai Zavaleta, 1943. Tesis
Univ. Mexico Fac. Cien., Dep. Biol.: 54, pl. 5,
fig. 6.

Type host: Selasphorus rufus (Gmelin)--Rufous
Hummingbird.

Genus TROCHILOECETES

Trochiloecetes Paine and Mann, 1913. Psyche, 20: 21.

Type species: Physostomum prominens Kellogg and Chapman, 1899.

For a revision of this genus, see Carriker, 1960 (Proc. U. S. Nat. Mus., 112: 312).

All hummingbirds not listed are probable hosts for this genus.

Trochiloecetes lineatus (Osborn, 1896)

Physostomum lineatum Osborn, 1896. Bull. U. S. Bur. Ent. (n. s.), 5: 248.

Type host: Archilochus colubris (Linnaeus)--Ruby-throated Hummingbird.

Trochiloecetes prominens (Kellogg and Chapman, 1899)

Physostomum prominens Kellogg and Chapman, 1899. Occ. Pap. Calif. Acad. Sci., 6: 137, pl. 9, fig. 5.

Type host: Calypte costae (Bourcier)--Costa's Hummingbird.

Family TRIMENOPONIDAE

Genus TRIMENOPON

Trimenopon Cummings, 1913. Bull. Ent. Res. 4: 39.

Type species: Trimenopon echinoderma Cummings, 1913 (A synonym of Trimenopon hispidum (Burmeister, 1838).

The species listed is probably the only one of the genus to be found in North America.

Trimenopon hispidum (Burmeister, 1838)

Gyropus hispidum Burmeister, 1838. Handb. Ent., 2: 443.

Menopon jenningsi Kellogg and Paine, 1910. Ent. News, 21: 461, fig. 1.

Trimenopon echinoderma Cummings, 1913. Bull. Ent. Res. 4: 40, fig. 4.

Trimenopon rozeboomi Emerson, 1940. Ann. Ent. Soc. Amer., 33: 339, figs. 1-4.

Type host: Cavia porcellus (Linnaeus)--Guinea Pig.