

SMITHSONIAN MISCELLANEOUS COLLECTIONS
PART OF VOLUME XLVI

A CATALOGUE OF
NORTH AMERICAN DIPTERA
(OR TWO-WINGED FLIES)

BY
J. M. ALDRICH



No. 1444

CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION

1905

PELOREMPIS.

- JOHANNSEN, Bull. 68, N. Y. St. Mus., 402, 1903 (Aug. II).
 UNDERWOOD, Science, Aug. 7, 1903, mentioned as *Eucorethra*, an undescribed genus of Coquillett.
 COQUILLET, Canad. Ent., Oct., 1903, 272 (*Eucorethra* UNDERWOOD). [Joh. in litt.]
americana JOHANNSEN, Bull. 68, N. Y. St. Mus., 403, pl. xli, larva and pupa desc. and fig.—Saranac Inn, N. Y.
 UNDERWOOD, Science, Aug. 7, 1903, notes on habits (mentioned as *Eucorethra underwoodi*, an unpublished species of Coquillett).—Me. [Joh.]
 COQUILLET, Cand. Ent., xxxv, 1903, 272 (*Eucorethra underwoodi* UNDERWOOD—sic).—Kaslo, B. C., and woods of Maine.

CORETHRELLA.

- COQUILLET, Jour. N. Y. Ent. Soc., x, 191, 1902.
 JOHANNSEN, Bull. 68, N. Y. St. Mus., 399, 1903.
brakeleyi COQUILLET, Ent. News, xiii, 85 (*Corethra*); Jour. N. Y. Ent. Soc., x, 192, note.—Lahaway, N. J.
 SMITH, Canad. Ent., xxxiv, 139, notes on larval stages (*Corethra*).—N. J.
 DYAR, Jour. N. Y. Ent. Soc., x, 200, pl. xix, f. 1, larva (*Corethra*).
 JOHANNSEN, Bull. 68, N. Y. St. Mus., 399, pl. xl, larva, pupa and adult.—N. J.

MYCETOPHILIDÆ.

MYCETOBIA.

- MEIGEN, Syst. Besch., i, 229, 1818.
 ZETTERSTEDT, Dipt. Scand., x, 4069, 1851.
 WINNERTZ, Mon., 666, 1863.
 SCHINER, Fauna Austr., ii, 426, 1864.
divergens WALKER, Dipt. Saund., 418.—United States.
 OSTEN SACKEN, Cat., 1878, p. 8, could not find the type in the British Museum.
marginalis ADAMS, Kans. Univ. Sci. Bull., ii, 21.—Atherton, Mo.

DITOMYIA.

- WINNERTZ, Stett. Ent. Zeit., vii, 15, 1846; Mon., 668, 1863.
 SCHINER, Fauna Austr., ii, 427, 1864.
euzona LOEW, Cent., ix, 1.—N. Y.

PLESIASTINA.

- WINNERTZ, Stett. Ent. Zeit., vii, 15, 1846; Mon., 670, 1863.
 SCHINER, Fauna Austr., ii, 428, 1864.
annulata MEIGEN, Syst. Besch., vi, 294 (*Mycetobia*).—Europe.
 ZETTERSTEDT, Dipt. Scand., ix, 3447 (*Ceroplastus flavus*); x, 4072 (*Mycetobia*).
 WALKER, List, i, 88 (*Symmerus ferrugineus*).
 WINNERTZ, Mon. Pilzm., 670.
 SCHINER, Fauna Austr., ii, 429.
 SMITH, Cat. Ins. N. J., oc. in N. A.
bifasciata WILLISTON, Biologia, Dipt., Suppl., 217, pl. iv, f. 1.—Guerrero, Mex.
lauta LOEW, Cent., ix, 3.—N. Y.
tristis LOEW, Cent., ix, 2.—D. C.

ASINDULUM.

- LATREILLE, Hist. Nat. Crust. et. Ins., XIV, 290, 1804.
 WINNERTZ, Mon., 705, 1863.
 SCHINER, Fauna Austr., II, 440, 1864.
 coxale LOEW, Cent., IX, 4.—Huds. B. Terr.
 montanum ROEDER, Wien. Ent. Zeit., VI, 116.—Wh. Mts.; N. H.
 N. J.—Smith Cat.; Wh. Mts.—Slosson List.

CEROPLATUS.

- BOSC, Actes Soc. d'Hist. nat. de Paris, I, I, 42, 1792.
 WINNERTZ, Mon., 684, 1863.
 SCHINER, Fauna, II, 433, 1864.
 apicalis ADAMS, Kans. Univ. Sci. Bull., II, 22.—Douglass Co., Kans.
 bellulus WILLISTON, Biologia, Dipt., Suppl., 219, pl. IV, f. 3.—Tabasco, Mex.
 carbonarius BOSC, Nouv. Dict. d'Hist. Nat., 1st ed., IV, 543; 2d ed., V, 585, pl. B,
 21, f. 4.—Carolina.
 FABRICIUS, Syst. Antl., 16.
 WIEDEMANN, Auss. Zw., I, 61 (*Platyura*).
 DUFOUR, Ann. des Sci. nat., 2d ser., XI, 202.
 MACQUART, Dipt. Exot., I, I, 77, pl. XI, f. I.—All give Carolina as the
 locality.
 clausus COQUILLET, Proc., U. S. N. M., XXIII, 594.—N. H.; N. J.
 Wh. Mts.—Slosson List.
 fasciola COQUILLET. See *Platyura*.
 longimanus WILLISTON, Dipt. St. Vincent, 258, pl. VIII, f. 12.—St. Vincent, W. I.

PLATYURA.

- MEIGEN, Illig. Mag., II, 264, 1803; Syst. Besch., I, 231, 1818.
 ZETTERSTEDT, Dipt. Scand., X, 4076, 1851.
 WINNERTZ, Mon., 689, 1863.
 SCHINER, Fauna Austr., II, 435, 1864.
 WILLISTON, Dipt. St. Vincent, 256, 1896, table of W. Indian species.
 clausa COQUILLET (of Smith's N. J. Cat.), see *Ceroplatus*.
 diluta LOEW, Cent., IX, 9.—D. C. Also N. J.—Smith Cat.
 divaricata LOEW, Cent., IX, 8.—Ga.
 elegans COQUILLET, Proc. Acad. Nat. Sci. Phil., 1895, 307.—Fla., N. C.
 N. J.—Smith Cat.; White Mts., N. H.—Slosson.
 elegantula WILLISTON, Biologia, Dipt., Suppl., 218, pl. IV, f. 2.—Gurrero, Mex.
 fasciola COQUILLET, Ent. News, V, 126 (*Ceroplatus*).—Wash. Can. Ent., XXVII,
 200, refers to this genus.
 fascipennis SAY, Long's Exped., Appendix, 360; Compl. Works, I, 244.—N. W.
 Terr.
 WIEDEMANN, Auss. Zw., I, 61.—N. W. Terr.
 fasciventris WILLISTON, Dipt. St. Vincent, 258, pl. VIII, f. II.—St. Vincent, W. I.
 gracilis WILLISTON, Kans. Univ. Quart., II, 60.—Wash.
 ignobilis WILLISTON, Dipt. St. Vincent, 257, pl. VIII, f. 9.—St. Vincent, W. I.
 inops COQUILLET, Proc. U. S. N. M., XXIII, 594.—Del. Water Gap, N. J.
 lurida COQUILLET, Can. Ent., XXVII, 199.—Wash.
 maudæ COQUILLET, Can. Ent., XXVII, 199.—Wash.
 melasoma LOEW, Cent., IX, 12.—D. C.

- mendica* LOEW, Cent., ix, 10.—N. Y.
mendosa LOEW, Cent., ix, 11.—D. C., Tenn. Also N. J.—Smith Cat.
notabilis WILLISTON, Kans. Univ. Quart., ii, 59.—Wash.
parva WILLISTON, Dipt. St. Vincent, 257.—St. Vincent, W. I.
pectoralis COQUILLET, Can. Ent., xxvii, 199.—Nev.
pictipennis WILLISTON, Dipt. St. Vincent, 257, pl. viii, f. 10 (St. Vincent, W. I.);
 Biologia, Diptera, Suppl., 218, oc. in Guerro, Mex.
pulchra WILLISTON, Kans. Univ. Quart., ii, 59.—Wash.
subterminalis SAY, Jour. Acad. Sci. Phil., vi, 152; Compl. Works, ii, 430.—Ind.
tæniata WINNERTZ, Mon., 701.—Europe.
 SCHINER, Fauna Austr., ii, 438.
 Identified from N. J. by Coquillett—Smith Cat.

TETRAGONEURA.

- WINNERTZ, Stett. Ent. Zeit., 1846, 5; Mon., 764, 1863.
 SCHINER, Fauna Austriaca, ii, 451, 1864.
 LOEW, Mon. N. A. Dipt., i, 14, oc. in N. A., 1862.
bicolor COQUILLET, Proc. U. S. N. M., xxiii, 595.—Franconia, N. H.
nitida ADAMS, Kans. Univ. Sci. Bull., ii, 23—Atherton, Mo.
pimpla COQUILLET, Proc. U. S. N. M., xxiii, 595.—Montgomery Co., Pa.

SCIOPHILA.

- MEIGEN, Syst. Besch., i, 245, 1818.
 ZETTERSTEDT, Dipt. Scand., xi, 4096, 1852.
 WINNERTZ, Mon., 707, 1863.
 SCHINER, Fauna Austr., ii, 441, 1864.
angulata ADAMS, Kans. Univ. Sci. Bull., ii, 22.—Manitou Park, Col.
appendiculata LOEW, Cent., ix, 19.—N. Y.
bifasciata SAY, Long's Exped., Appendix, 363; Compl. Works, i, 246.—N. W. Terr.
 WIEDEMANN, Auss. Zw., i, 62.
 "Perhaps a *Neoempheria*," Loew, quoted by Osten Sacken, Cat., 9.
 Wh. Mts., N. H.—Slosson.
biseriata LOEW, Cent., ix, 20.—Red R. of the North.
diluta WILLISTON, Dipt. St. Vincent, 263, pl. viii, f. 17.—St. Vincent, W. I.
flavohirta COQUILLET, Proc. U. S. N. M., xxiii, 596.—Franconia, N. H.
grisea WALKER, see *Polylepta*.
hirticollis SAY, Long's Exped., Appendix, 362; Compl. Works, i, 246.—N. W. Terr.
 WIEDEMANN, Auss. Zw., i, 64.
 Wh. Mts., N. H.—Slosson.
littoralis SAY, Long's Exped., Appendix, 361; Compl. Works, i, 245.—Lake Superior.
 WIEDEMANN, Auss. Zw., i, 64.
 N. J.—Smith Cat.
nigricauda ADAMS, Kans. Univ. Sci. Bull., ii, 23.—Colorado City, Colo.
obliqua SAY, Long's Exped., Appendix, 363; Compl. Works, i, 247.—N. W. Terr.
 WIEDEMANN, Auss. Zw., i, 63.
 Wh. Mts.—Mrs. Slosson.
obtruncata LOEW, Cent., ix, 18.—D. C.
onusta LOEW, Cent., ix, 17.—D. C.
popocatapetli BELLARDI, Saggio, i, 11.—Mex., Mt. Popocatapetli.

- pulchra** JOHANNSEN, Ent. News, XIV, 14.—Axton, N. Y.
subcærulea COQUILLET, Proc. U. S. N. M., XXIII, 595.—N. H., Pa., and Ottawa, Can.
tantilla LOEW, Cent., IX, 21.—D. C.

LASIOSOMA.

- WINNERTZ, Mon., 748, 1863.
 SCHINER, Fauna Austr., II, 448, 1864.
fasciata SAY, Jour. Acad. Sci. Phil., III, 26; Compl. Works, II, 50 (*Sciophila*).
 —Pa. and Md.
 WIEDEMANN, Auss. Zw., I, 62 (id.).
 OSTEN SACKEN, Cat., 10, gen. ref.
 Beulah, N. M.—Skinner.
hirta MEIGEN, Syst. Besch., I, 251 (196) (*Sciophila*).—Europe.
 ZETTERSTEDT, Ins. Lapp., 860 (*Sciophila pilosula*); Dipt. Scand. XI, 4133 (*Sciophila*).
 WINNERTZ, Mon., 749.
 SCHINER, Fauna Austr., II, 449.
 LUNDBECK, Dipt. Groenlandica, 257, oc. in Greenland.
pallipes SAY, Long's Exped., Appendix, 361; Compl. Works, I, 245 (*Sciophila*).
 —N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 62 (id.).
 OSTEN SACKEN, Cat., 10, gen. ref.
quadratura LOEW, Cent., IX, 22.—Me.

NEOEMPHERIA.

- OSTEN SACKEN, Cat., 9, change of name, 1878.
 WINNERTZ, Mon. 738, 1863 (*Empheria*, preoc.)
 SCHINER, Fauna Austr., II, 446, 1864 (id.).
balioptera LOEW, Cent., IX, 13.—Ill. Also N. J.—Smith Cat.
didyma LOEW, Cent., VII, 9 (*Sciophila bimaculata*, preoc.); IX, 14, change of name and redescr.—English Riv., Canada.
 N. J.—Smith Cat., and Montreal—Chagnon.
kincaidii COQUILLET, Proc. Wash. Acad. Sci., II, 391.—Popoff Id., Alaska.
maculipennis WILLISTON, Dipt. St. Vincent, 262, pl. VIII, f. 16.—St. Vincent, W. I.
nepticula LOEW, Cent., IX, 15.—Ga. Also N. J.—Smith Cat.

POLYLEPTA.

- WINNERTZ, Mon., 745, 1863.
 SCHINER, Fauna Austr., II, 447, 1864.
fragilis LOEW, Cent., IX, 16.—Mass.
grisea WALKER, List, I, 92 (*Sciophila*).—Huds. Bay Terr.
 White Mts., N. H.—Slosson.
leptogaster WINNERTZ, Mon., 746.—Europe.
 SCHINER, Fauna Austr., II, 448.
 COQUILLET, Ent. News, Jan., 1902, oc. in White Mts., N. H.
tibialis COQUILLET, Proc. U. S. N. M., XXIII, 596.—White Mts., N. H.
 N. J.—Smith Cat.

DIOMONUS.

- WALKER, List, I, 87, 1848.
 TOWNSEND, Trans. Amer. Ent. Soc., XIX, 155, 1892; notes—doubts validity.
nebulosus WALKER, loc. cit.—Martin Falls, Canada.

ACNEMIA.

- WINNERTZ, Mon., 798, 1863.
 SCHINER, Fauna Austr., II, 461, 1864.
flaveola COQUILLET, Proc. U. S. N. M., XXIII, 598.—Delaware Water Gap, N. J.
 N. J.—Smith Cat.
psylla LOEW, Cent., IX, 34.—Md.

GNORISTE.

- MEIGEN, Syst. Besch., I, 243, 1818.
 ZETTERSTEDT, Dipt. Scand., XI, 4091, 1852.
 WINNERTZ, Mon., 777, 1863.
 SCHINER, Fauna Austr., II, 455, 1864.
grœnlandica LUNDBECK, Dipt. Grœnlandica, I, 259.—Greenland.
megarrhina OSTEN SACKEN, West. Dipt., 193.—Yosemite, Cal.
 N. J.—Smith Cat.

PROBOLÆUS.

- WILLISTON, Dipt. St. Vincent, 261, 1896.
singularis WILLISTON, loc. cit., pl. VIII, f. 15.—St. Vincent, W. I.

SYSTEMNA.

- WINNERTZ, Mon., 767, 1863.
 SCHINER, Fauna Austr., II, 452, 1864.
mutor ADAMS, Kans. Univ. Sci. Bull., II, 24.—Atherton, Mo.
polyzona LOEW, Cent., IX, 24.—Mid. States. Also N. J.—Smith Cat.

ANACLINIA.

- WINNERTZ, Mon., 770, 1863.
 SCHINER, Fauna Austr., II, 453, 1864.
nemorialis MEIGEN, Syst. Besch., I, 265 (*Mycetophila*).—Europe.
 WINNERTZ, Mon., 771.
 SCHINER, Fauna Austr., II, 454.
 COQUILLET, Proc. Wash. Acad. Sci., II, 394, oc. at Sitka, Alaska.

BOLETINA.

- STAEGER, Krøyer's Tidsskr., III, 234, 1840.
 WINNERTZ, Mon., 762, 1863.
 SCHINER, Fauna Austr., II, 454, 1864.
abdominalis ADAMS, Kans. Univ. Sci. Bull., II, 24.—Atherton, Mo.
arctica HOLMGREN, Ins. Nordgrœnl., in Oefv. kongl. vetensk. Akad. Fôrh., 1872,
 100.—North Greenland.
 ?RÛBSAAMEN, Bibl. Zoolog., 1898, 104, notes, etc., with a doubt.—Green-
 land.
 LUNDBECK, Dipt. Grœnl., I, 258, notes.
beringensis COQUILLET, Dipt. of Commander Ids., 342 (*Neoglaphyoptera*).—
 Bering Id. Gen. ref. corrected in Proc. U. S. N. M., XXIII, 599.
grœnlandica STAEGER, Grœnl. Antliater, 17.—Greenland.
 ZETTERSTEDT, Dipt. Scand., XI, 4154.
 SCHIÖDTE, in Rink's Greenland, 68.
 HOLMGREN, Ins. Nordgrœnl., 105.
 ZETTERSTEDT, Ins. Lapp., 862 (*Leia trivittata*, in part; from Grœnl.)
 LUNDBECK, Dipt. Grœnl., I, 258.—Various parts of Greenland.

inops COQUILLET, Proc. Wash. Acad. Sci., II, 391.—Alaska.

sciarina STAEGER, Kröyer's Tidsskr., III, 336.—Europe.

ZETTERSTEDT, Ins. Lapp., 866 (*Mycetophila obscura*); Dipt. Scand., XI, 4159.

SCHINER, Fauna Austr., II, 454.

RÜBSAAMEN, Bibl. Zool., 1898, 106, note, pl. VI, f. 27, 29.

LUNDBECK, Dipt. Groenl., I, 258, oc. in Greenland.

White Mts., N. H.—Slosson.

tricincta LOEW, Cent., IX, 25.—Md., Wis. Also N. J.—Smith Cat.

LEPTOMORPHUS.

CURTIS, Brit. Ent., 365, 1831.

WINNERTZ, Mon., 769, 1863.

SCHINER, Fauna Austr., II, 453, 1864.

halinus COQUILLET, Proc. U. S. N. M., XXIII, 598.—White Mts., N. H.

parvulus COQUILLET, loc. cit., 597.—Del. Water Gap, N. J.

LEIA.

MEIGEN, Syst. Besch., I, 253, 1818.

ZETTERSTEDT, Dipt. Scand., XI, 4139, 1852.

WINNERTZ, Mon., 792, 1863.

SCHINER, Fauna Austr., II, 459, 1864.

abbreviata LOEW, Cent., IX, 33.—Mid. States.

hopkinsii COQUILLET, Can. Ent., XXVII, 200 (*Mycetophila*).—W. Va. Refers to *Leia* in Proc. U. S. N. M., XXIII, 599.

punctata BELLARDI, Saggio, Appendix, 5, pl. III, f. 3.—Mex.

sororcula LOEW, Cent., IX, 32.—N. Y. Also N. J.—Smith Cat.

unicolor WALKER, List, I, 93.—Hudson's Bay Terr.

EPICYPTA.

WINNERTZ, Mon., 909, 1863.

SCHINER, Fauna Austr., II, 482, 1864.

pulicaria LOEW, Cent., IX, 41.—Pa.

punctum STANNIUS, Observ. de Mycet. 16, f. 4, 1831.—Europe.

WINNERTZ, Mon., 910.

SCHINER, Fauna Austr., II, 483.

Occurs in N. J.—Smith Cat.

DOCOSIA.

WINNERTZ, Mon., 802, 1863.

SCHINER, Fauna Austr., II, 462, 1864.

dichroa LOEW, Cent., IX, 35.—D. C.

longicornis COQUILLET, Proc. U. S. N. M., XXIII, 597.—White Mts., N. H.

obscura COQUILLET, loc. cit., 597.—White Mts., N. H.

vittata COQUILLET, loc. cit., 597.—Franconia, N. H.

PHTHINIA.

WINNERTZ, Mon., 779, 1863.

SCHINER, Fauna Austr., II, 456, 1864.

fraudulenta WILLISTON, Dipt. St. Vincent, 263, pl. VIII, f. 18.—St. Vincent, W. I.

tanypus LOEW, Cent., IX, 26.—N. Y.

PHRONIA.

- WINNERTZ, Mon., 875, 1863.
 SCHINER, Fauna Austr., II, 1864.
rustica WINNERTZ, Mon., 875.—Europe.
 SCHINER, Fauna Austr., II, 472.
 LUNDBECK, Dipt. Groenl., I, 262, oc. in Greenland.

ZYGOMYIA.

- WINNERTZ, Mon., 901, 1863.
 SCHINER, Fauna Austr., II, 480, 1864.
ignobilis LOEW, Cent., IX, 39.—Mid. States.
ornata LOEW, Cent., IX, 40.—Pa.

NEOGLAPHYROPTERA.

- OSTEN SACKEN, Catalogue, 1878, change of name.
 WINNERTZ, Mon., 781, 1863 (*Glaphyroptera*, preoc.).
 SCHINER, Fauna Austr., II, 456, 1864 (id.).
amabilis WILLISTON, Biologia, Dipt., Suppl., 219.—Mexico, several places.
beringensis COQUILLET, see *Boletina*.
bivittata SAY, Jour. Acad. Sci. Phil., VI, 152; Compl. Works, II, 351 (*Leia*).—Indiana.
 VAN DER WULP, Tijdschr. v. Ent., XI, 131, pl. III, f. 3, 4 (*lateralis*).—Wis. [Syn. by Loew, in O. S. Cat.]. Also N. J.—Smith Cat. I have seen the species from Kans., Ia., and Wis.
cincta COQUILLET, Proc. Acad. Nat. Sci., 1895, 308.—Fla.
concinna WILLISTON, Dipt. St. Vincent, 259.—St. Vincent, W. I.
cuneola ADAMS, Kans. Univ. Sci. Bull., II, 25.—Colorado Spr., Colo.
decora LOEW, Cent., IX, 28.—Ga.
lineola ADAMS, Kans. Univ. Sci. Bull., II, 25.—Kern Co., Calif.
melæna LOEW, Cent., IX, 27.—N. Y.
nitens WILLISTON, Dipt. St. Vincent, 259, pl. VIII, f. 13.—St. Vincent, W. I.
oblectabilis LOEW, Cent., IX, 31.—Mid. States.
opima LOEW, Cent., IX, 29.—Conn. Also N. J.—Smith Cat.
striata WILLISTON, Kans. Univ. Quart., II, 60.—Wash.
sublunata LOEW, Cent., IX, 30.—N. Y.
varia WALKER, List I, 93 (*Leia*).—Huds. Bay Terr.
ventralis SAY, Long's Exped., Appendix, 364; Compl. Works, I, 247 (*Leia*).—N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 65 (id.). Also N. J.—Smith Cat. (*Leia*), and White Mts., N. H.—Slosson, the last referred to this genus by Coquillett.
winthemii LEHMANN, Ins. Spec. Nonnullæ, etc., 18, 1822 (*Leia*).—Europe.
 MEIGEN, Syst. Besch., VI, 296 (id.)
 SAY, Long's Exped., Appendix, 365; Compl. Works, I, 248 (*Mycetophila maculipennis*).—N. W. Terr. [Loew, in O. S. Cat.].
 WIEDEMANN, Auss., Zw., I, 66 (id.).
 WALKER, List I, 93 (*Leia trifasciata*).—Huds. Bay Terr. [Loew, in O. S. Cat.]. Also White Mts., N. H.—Slosson.
 WINNERTZ, Mon., 789. SCHINER, Fauna Austr., II, 457.

ODONTOPODA.

- ALDRICH, 21st Report Geol. Ind., 1896, 187 (published 1897).
sayi ALDRICH, loc. cit., 187, fig.—Marengo Cave, Ind.

TRICHONTA.

- WINNERTZ, Mon., 847, 1863.
 SCHINER, Fauna Austr., II, 469, 1864.
fœda LOEW, Cent., IX, 38.—Mid. States.
obesa WINNERTZ, Mon., 854.—Europe.
 SCHINER, Fauna Austr., II, 469.
 LUNDBECK, Dipt. Groenlandica, I, 261, oc. in Greenland.
perspicua VAN DER WULP, Tijdschr. v. Ent., XXIV, 142.—Quebec.
 N. J.—Smith Cat.
vulgaris LOEW, Cent., IX, 37.—D. C.

RHYMOSIA.

- WINNERTZ, Mon., 810, 1863.
 SCHINER, Fauna Austr., II, 463, 1864.
filipes LOEW, Cent., IX, 36.—Conn.

ALLODIA.

- WINNERTZ, Mon., 826, 1863.
 SCHINER, Fauna Austr., II, 466, 1864.
crassicornis STANNIUS, Observ. de Mycetophil., 1831, 22 (*Mycetophila*).—Europe.
 ZETTERSTEDT, Dipt. Scand., XI, 4223 (*Mycetophila spinicoxa*) [Schiner].
 WINNERTZ, Mon., 828.
 SCHINER, Fauna Austr., II, 467.
 Oc. in N. A. reported by Loew in O. S. Cat.—Md., Pa.

BRACHYCAMPYA.

- WINNERTZ, Mon., 833, 1863.
 SCHINER, Fauna Austr., II, 468, 1864.
unicolor LUNDBECK, Dipt. Groenlandica, I, 260.—Greenland.

MYCOTHERA.

- WINNERTZ, Mon., 913, 1863.
 SCHINER, Fauna Austr., II, 483, 1864.
paula LOEW, Cent., IX, 42.—Mid. States.

EXECHIA.

- WINNERTZ, Mon., 879, 1863.
 SCHINER, Fauna Austr., II, 475, 1864.
analis COQUILLET, Proc. U. S. N. M., XXIII, 598.—Del. Water Gap, N. J.
fungorum DEGEER, Ins., VI, 142 (*Tipula*).—Europe.
 LATREILLE, Gen. Crust., IV, 264 (*Mycetophila fusca*) [Meigen].
 MEIGEN, Syst. Besch., I, 266 (208) (id.).
 MACQUART, Hist. Nat. Dipt., I, 134 (id.).
 ZETTERSTEDT, Dipt. Scand., XI, 4235 (id.).
 WINNERTZ, Mon., 886.
 SCHINER, Fauna Austr., II, 478.
 LUNDBECK, Dipt. Groenlandica, I, 262, oc. in Greenland.
interrupta ZETTERSTEDT, Dipt. Scand., XI, 4240 (*Mycetophila*).—Europe.
 WINNERTZ, Mon., 896.
 SCHINER, Fauna Austr., II, 477.
 LUNDBECK, Dipt. Groenlandica, I, 262, oc. in Greenland.

MYCETOPHILA.

- MEIGEN, Illig. Mag., II, 263, 1803; Syst. Besch., I, 260, 1818.
 ZETTERSTEDT, Dipt. Scand., x, 4170, 1852.
 WINNERTZ, Mon., 915, 1863.
 SCHINER, Fauna Austr., II, 484, 1864.
- bifasciata* WALKER, List I, 96—Martin Falls, Canada.
 White Mts., N. H.—Slosson.
- bipunctata* LOEW, Cent., IX, 44.—Wis. Also N. J.—Smith Cat.
- contigua* WALKER, List I, 96.—Nova Scotia. Also N. J.—Smith Cat.
- despecta* WALKER, List I, 101.—Martin Falls, Canada.
- discoidea* SAY, Jour. Acad. Sci. Phil., VI, 153; Compl. Works, II, 351.—Indiana.
- dolosa* WILLISTON, Dipt. St. Vincent, 264.—St. Vincent, W. I.
- extincta* LOEW, Cent., IX, 43.—Mid. States.
- fallax* LOEW, Cent., IX, 50.—Mid. States.
- hopkinsii* COQUILLET, see *Leia*.
- ichneumonea* SAY, Jour. Acad. Sci. Phil., III, 16; Compl. Works, II, 43.—Pa.
 WIEDEMANN, Auss. Zw., I, 67.
 Beulah, N. M.—Skinner.
- inculta* LOEW, Cent., IX, 46.—Mid. States.
- insipiens* WILLISTON, Dipt. St. Vincent, 264, pl. VIII, f. 19.—St. Vincent, W. I.
- læta* WALKER, List I, 97.—Nova Scotia.
- monochæta* LOEW, Cent., IX, 54.—D. C.
- mutica* LOEW, Cent., IX, 45.—Mid. States.
- nodulosa* WILLISTON, Dipt. St. Vincent, 264, pl. VIII, f. 20.—St. Vincent, W. I.
- nubila* SAY, Jour. Acad. Sci. Phil., VI, 153; Compl. Works, II, 351.—Ind.
- obscura* WALKER, List I, 101.—Martin Falls, Canada. Also N. J.—Smith Cat.,
 and White Mts., N. H.—Slosson.
- parva* WALKER, List I, 97.—Martin Falls, Canada.
- pinguis* LOEW, see *Dynatosoma*.
- plebeja* WALKER, List I, 100.—Martin Falls, Canada.
- polita* LOEW, Cent., IX, 53.—N. Y.
- procera* LOEW, Cent., IX, 55.—N. Y.
- propinqua* WALKER, List I, 96.—Nova Scotia.
- punctata* MEIGEN, Klassifikation, 91; Syst. Besch., I, 264 (the latter as *punctata*,
semicincta and *cunctans*); VI, 30 (*trivialis*); VII, 43 (*unicolor*), 44 (*rufa*
 MACQ.).—Europe. [Winnertz.]
 FABRICIUS, Syst. Antl., 58 (*Sciara striata*). [Winnertz.]
 ZETTERSTEDT, Dipt. Scand., XI, 4200.
 WINNERTZ, Mon., 916.
 SCHINER, Fauna Austr., II, 484.
 LUNDBECK, Dipt. Groenl., I, 262, oc. in Greenland.
 Axton, N. Y.—M. & H.; N. J.—Smith Cat.; White Mts., N. H.—Slosson;
 Montreal—Chagnon.
- Note*.—The authorities all omit Meigen's description in his Klassifikation, thus giving Fabricius priority; Coquillett, however, gives me this reference, the work being inaccessible to me.
- quatuornotata* LOEW, Cent., IX, 52.—Md.
- sericea* SAY, Long's Exped., Appendix, 365; Compl. Works, I, 248.—N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 66.
- sigmoides* LOEW, Cent., IX, 51.—Mid. States. Also N. J.—Smith Cat.; White
 Mts., N. H.—Slosson.
- trichonota* LOEW, Cent., IX, 49.—D. C.
- umbatica* ALDRICH, 21st Rept. Geol. Indiana, 1896, 186, fig.—Shiloh Cave, Ind.

DYNATOSOMA.

- WINNERTZ, Mon., 947, 1863.
 SCHINER, Fauna Austr., II, 491, 1864.
 COQUILLET, Can. Ent., XXVII, 201, 1895.
fulvida COQUILLET, Can. Ent., XXVII, 200.—Wash.
 Beulah, N. M.—Skinner.
pinguis LOEW, Cent., IX, 47 (*Mycetophila*).—English Riv., Br. Amer.
 White Mts., N. H.—Slosson (determined and referred to this genus by
 COQUILLET, as is the following species).
scalaris LOEW, Cent., IX, 48 (*Mycetophila*).—Mid. States.
 N. J.—Smith Cat.; White Mts., N. H.—Slosson.
thoracica COQUILLET, Proc. U. S. N. M., XXIII, 598.—Ill. and White Mts., N. H.

BOLITOPHILA.

- MEIGEN, Syst. Besch., I, 220, 1818.
 ZETTERSTEDT, Dipt. Scand., X, 4053, 1851.
 WINNERTZ, Mon., 672, 1863.
 SCHINER, Fauna Austr., II, 429, 1864.
cinerea MEIGEN, Syst. Besch., I, 221, pl. VIII, f. 1, 2.—Europe.
 MACQUART, Hist. Nat. Dipt., I, 126.
 ZETTERSTEDT, Dipt. Scand., X, 4057.
 WINNERTZ, Mon., 674.
 SCHINER, Fauna Austr., II, 430.
 OSTEN SACKEN, Cat., 8, occurrence in N. A., authority of Loew.
disjuncta LOEW, in O. S. Cat., is a MS. species.
fusca MEIGEN, see *hybrida*.
hybrida MEIGEN, Klassifikation, I, 47 (*Macrocera*); Syst. Besch., I, 221, pl. VIII,
 f. 1, 2 (*fusca*).—Europe.
 DUFOUR, Ann. d. Sc. Nat., 1839, 20 (*Macrocera*).
 CURTIS, Brit. Ent., VIII, 581 (*Messala saundersii*).
 WALKER, Ent. Mag., III, 179 (*maculipennis*).
 WINNERTZ, Mon., 673.
 SCHINER, Fauna Austr., II, 430.
 White Mts.—Slosson (det. Coquillett).
montana COQUILLET, Proc. U. S. N. M., XXIII, 593.—Mt. Wash, N. H.

MACROCERA.

- MEIGEN, Illig. Mag., II, 261, 1803; Syst. Besch., I, 222, 1818.
 WINNERTZ, Mon., 675, 1864.
 SCHINER, Fauna Austr., II, 430, 1864.
clara LOEW, Cent., IX, 6.—D. C. Also N. J.,—Smith Cat.
concinna WILLISTON, Dipt. St. Vincent, 255, pl. VIII, f. 7.—St. Vincent, W. I.
 WILLISTON, Biologia, Dipt., I, 217, oc. in Guerrero, Mex.
diluta ADAMS, Kans. Univ. Sci. Bull., II, 22.—Arizona.
formosa LOEW, Cent., IX, 8.—N. Y. Also N. J.,—Smith Cat.
hirsuta LOEW, Cent., IX, 5.—D. C. Also N. J.,—Smith Cat.
 ALDRICH, 21st Rept. Geol. Indiana, 1896.—Truitt's Cave, Ind.
immaculata JOHNSON, Canad. Ent., 1902, 240.—Pa., N. Y.
inconcinna LOEW, Cent., IX, 7.—D. C. Also White Mts., N. H.,—Slosson.
nebulosa COQUILLET, Proc. U. S. N. M., XXIII, 594.—N. H., N. J.

DIADOCIDIA.

RUTHE, Isis, xi, 1210, 1831.

WINNERTZ, Mon., 665, 1863.

SCHINER, Fauna Austr., ii, 426, 1864.

borealis COQUILLET, Proc. Wash. Acad. Sci., ii, 390.—Lowe Inlet, Br. Col.

ferruginosa MEIGEN, Syst. Besch., vi, 294 (*Mycetobia*).—Europe.

SCHINER, Fauna Austr., ii, 426.

COQUILLET, Proc. Wash. Acad. Sci., ii, 390, oc. in White Mts., N. H.

EPIDAPUS.

HALIDAY, Ins. Brit., Dipt., i, 7, 1851.

SCHINER, Fauna Austr., ii, 416, 1864.

WINNERTZ, Mon. Sciarinen, 182, 1867.

scabiei HOPKINS, Proc. Ent. Soc. Wash., iii, 149-159, full life hist., etc.; 20 figs.—West Va.; larva causes a form of scab in potatoes.

HOPKINS, Special Bull. W. Va. Exp. Station, No. 2, 97-106, figs., life hist., etc. Both papers issued in 1895.

HOWARD, Ins. Life, vii, 279, oc. in Missouri.

EUGNORISTE.

COQUILLET, Proc. Ent. Soc. Wash., iii, 321, 1896.

MIK, Wien. Ent. Zeitung, 1896, 300, doubts relation to *Gnoriste*; 1897, 39, says is entirely different, and quotes Osten Sacken's opinion (*in litt.*) that it is a *Sciara*.

occidentalis COQUILLET, loc. cit.—Las Cruces, N. M.

Note.—The species is common on golden-rod in fall at Moscow, Idaho; I consider it a distinct genus of the Sciarinæ, not closely related to *Gnoriste*.

ZYGONEURA.

MEIGEN, Syst. Besch., vi, 304, 1830.

SCHINER, Fauna Austr., ii, 416, 1864.

WINNERTZ, Mon. Sciarinen, 186, 1867.

sciastica WILLISTON, Dipt. St. Vincent, 286, pl. viii, f. 24.—St. Vincent, W. I.

toxoneura OSTEN SACKEN, Proc. Ent. Soc. Phil., 1862, 165 (*Sciara*).—D. C. Gen. ref. in Cat., 13.

TRICHOSIA.

WINNERTZ, Mon. Sciarinen, 173, 1867.

hebes LOEW, Cent., ix, 58.—N. Y.

SCIARA.

MEIGEN, Illig. Mag., ii, 263, 1803; Syst. Besch., i, 276, 1818.

LATREILLE, Hist. nat. Crust. et Ins., xiv, 288 (*Molobrus*), 1804.

ZETTERSTEDT, Dipt. Scand., x, 3711, 1851.

SCHINER, Fauna Austr., ii, 417, 1864.

WINNERTZ, Mon. Sciarinen, ii, 1867: a classic monograph of the European species of the subfamily.

WILLISTON, Dipt. St. Vincent, 265, table of St. Vincent species.

LINTNER, 10th N. Y. Rept., 387, 391, extended bibliographical notes.

Note.—For the occurrence in this country of the march of masses of larvæ, called "Heerwurm" in Germany, and "Snake-worm" in the United States, see

- GLOVER, Rept. Dept. Ag., 1872, 115; two cases in Va., with figs. of larva and fly.
- RILEY and HOWARD, Insect Life, iv, 1891, 214.
- WEBSTER, Science, Feb. 23, 1894, 109.
- E. D. COPE, letter to Osten Sacken, published in Psyche, 1897, 75.
- FELT, 16th N. Y. Rept., 992-994, 1901, at Franklin, N. Y.
- For *Sciara* sp. infesting roots of grass, see FORBES, Ill. Report, 1883, 57, pl. iv, f. 5-9.
- For occurrence of *Sciara* in caves, see ALDRICH, 21st Report Geol. Ind., 1896, 186; also below.
- abbreviata** WALKER, List I, 109.—Martin Falls, Canada. Also N. J.—Smith Cat., and White Mts., N. H.,—Slosson.
- I consider Walker's three-line description quite unrecognizable.
- agraria** FELT, in Lintner's 12th N. Y. Report, 225, pl. vi, f. 5, 6, 10. N. Y.; collected in a mushroom cellar.
- alternata** RÜBSAAMEN, Bibl. Zool., xx, Lief. 4, 106.—Greenland.
- americana** WIEDEMANN, Auss. Zw., I, 68.—Brazil.
- SCHINER, Novara, II, Brazil and Columbia; would include *atra* McQ. and *cognata* and *precipua* WALKER, all South American, in the synonymy.
- OSTEN SACKEN, Biologia, Dipt., I, I, oc. in Mexico and Central America; remarks on the synonymy.
- RILEY, Amer. Nat., 1881, 150 (The Yellow Fever Fly), biology.
- WILLISTON, Biologia, Dipt., Suppl., 221, oc. in several places in Mex.
- aprilina** MEIGEN, Syst. Besch., I, 285 (223).—Europe.
- ZETTERSTEDT, Dipt. Scand., x, 3754.
- SCHINER, Fauna Austr., II, 424.
- LUNDBECK, Dipt. Groenl., I, 250, oc. in Greenland.
- atra** MACQUART, Dipt. Exot., I, I, 78.—Brazil.
- BELLARDI, Ditt. Mess., I, 12, oc. in Mexico.
- See *americana*.
- atrata** SAY, Long's Exped., App., 366; Compl. Works, I, 249.—N. W. Terr.
- WIEDEMANN, Auss. Zw., I, 70.
- attenuata** RÜBSAAMEN, Bibl. Zool., 1898, Heft xx, Lief. 4, 106.—Greenland.
- LUNDBECK, Dipt. Groenl., I, 242, pl. v, f. 1 (*latipennis*) [Lundbeck]. Greenland.
- biformis** LUNDBECK, Dipt. Groenl., I, 256.—Greenland.
- borealis** RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 109, pl. vi, f. 14.—Greenland.
- COQUILLET, Proc. Wash. Sci., II, 392, oc. in Sitka, Alaska.
- caldaria** LINTNER, Lintner, 10th N. Y. Report, 397, figs.—Boise, Idaho; larvæ in greenhouse pots.
- cochleata** RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 108, pl. vi, f. 22.—Greenland.
- ?RÜBSAAMEN, loc. cit., 107 (*marginata*) [Lundbeck, with ?] Greenland.
- LUNDBECK, Dipt. Groenl., I, 247, pl. v, f. 6 (*hemorrhoidalis*) [Lundbeck].—Greenland.
- concinna** WILLISTON, Dipt. St. Vincent, 266.—St. Vincent, W. I.
- coprophila** LINTNER, 10th N. Y. Rept., 391.—New York. The Manure Fly; desc. of habits, etc.
- debilis** WILLISTON, Dipt. St. Vincent, 266, pl. VIII, f. 22.—St. Vincent, W. I.
- delectata** WILLISTON, Dipt. St. Vincent, 267.—St. Vincent, W. I.
- dimidiata** SAY, Species of American Insects found by Jos. Barabino, sec. ed., 15; Compl. Works, I, 308.—New Orleans, La.
- exigua** SAY, Long's Exped., App., 367; Compl. Works, I, 249.—N. W. Terr.
- WIEDEMANN, Auss. Zw., I, 69.

- exilis** SAY, Jour. Acad. Sci. Phil., VI, 154; Compl. Works, II, 352.—Ind.
- expolita** COQUILLET, Proc. Wash. Acad. Sci., II, 392.—Sitka, Alaska.
- femorata** SAY, Jour. Acad. Sci. Phil., III, 78; Compl. Works, II, 70.—Pa.
WIEDEMANN, Auss. Zw., I, 70.
- flavipes** PANZER, Fauna Germ., CIII, 15, 1806.—Europe.
MEIGEN, Syst. Besch., I, 283; VI, 306.
STAEGER, Dipt. Dan., 1840, 286; Groenl. Antl., 1845, 357, oc. in Greenland.
ZETTERSTEDT, Dipt. Scand., X, 3762.
SCHINER, Fauna Austr., II, 424.
MACQUART, Hist. Nat. Dipt., I, 149.
WALKER, Dipt. Brit., III, 55.
WINNERTZ, Mon. Sciarinen, 133.
- forcipulata** LUNDBECK, Dipt. Groenl., I, 244.—Greenland.
- fraterna** SAY, Long's Exped., App., 367; Compl. Works, I, 249.—N. W. Terr.
WIEDEMANN, Auss. Zw., I, 69.
- fuliginosa** FITCH, 2d N. Y. Rept., 487 (*Molobrus*).—N. Y.
N. J.—Smith Cat.
- fulvicauda** FELT, in Lintner's 12th N. Y. Rept., 227, pl. VI, f. 7, 13.—Reared from decaying blackberry roots, New Jersey.
- fumatella** LUNDBECK, Dipt. Groenl., I, 249.—Greenland.
- germana** WILLISTON, Dipt. St. Vincent, 266, pl. VIII, f. 21.—St. Vincent, W. I.
- gigantea** MACQUART, Dipt. Exot., Suppl. I, 19.—Colombia.
BELLARDI, Saggio, I, 13, oc. in Mexico.
OSTEN SACKEN, Biologia, Dipt., I, 2, oc. in Guatemala and Costa Rica.
- glacialis** RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 109, pl. VI, f. 16.—Greenland.
- glacialis** LUNDBECK, Dipt. Groenl., I, 254.—Greenland.
The one by Rübсаamen is prior.
See *humicola*.
- grønlandica** HOLMGREN, Ins. Nordgroenl., 104.—Greenland.
COQUILLET, Proc. Wash. Acad. Sci., II, 392, oc. in Popoff Ids., Alaska.
- hæmorrhoidalis** LUNDBECK, see *cochleata*.
- humicola** LUNDBECK, Dipt. Groenl., I, 252.—Greenland. Op. cit., II, 313, perhaps is same as *glacialis*.
- inconstans** FITCH, 2d N. Y. Report, 487 (*Molobrus*).—N. Y.
COQUILLET, Amer. Nat., XXXI, 385, oc. in Mammoth Cave, Ky.; comp. with type; larva in decaying apple in the cave.
CHITTENDEN, Bull. 27, n. s., Div. of Ent., 108, figs.; habits,—injurious in greenhouses.—N. Y.; Ottawa; Me.; Pa.; N. J.; Va.; Ill.; O.; Nebr.
HINE, Ent. News, Sept. 1899, 201, figs., no desc.; larva bores inside stems of carnations (Det. by Dept. of Agric.).
- iridipennis** ZETTERSTEDT, Ins. Lapp., 827.—Lapland. Dipt. Scand., X, 3740.
STAEGER, Groenl. Antl., 357, 1845, oc. in Greenland.
COQUILLET, Proc. Wash. Acad. Sci., II, 392, oc. in Alaska.
- latipennis** LUNDBECK, see *attenuata*.
- lurida** WALKER, List, I, 106.—Trenton Falls, N. Y. Dipt. Saund., 418.
- mali** FITCH, 2d N. Y. Report, 485 (*Molobrus*).—New York. In burrows of codling moth in apple.
- marginata** RÜBSAAMEN, see *cochleata*.
- multisetata** FELT, in Lintner's 12th N. Y. Report, 223, pl. VI, f. 11.—N. J. Larva reared from mushrooms.
- nigra** WIEDEMANN, Dipt. Exot., 44; Auss. Zw., I, 68.—Savannah, Ga.
BEULÄH, N. M.—Skinner.
- ocellaris** OSTEN SACKEN, of Comstock, see *Cecidomyia*.

- ochrolabis* LOEW, Cent., IX, 57.—N. Y. Also White Mts., N. H.—Slosson.
pauciseta FELT, in Lintner's 12th N. Y. Report, 224, pl. vi, f. 12.—N. J. Larva bred from decaying potatoes.
perpusilla WALKER, List, I, 106.—Martin Falls, Canada.
polita SAY, Long's Exped., App., 366; Compl. Works, I, 249.—N. W. Terr. WIEDEMANN, Auss. Zw., I, 70. Also N. J.—Smith Cat.
prolifera FELT, in Lintner's 12th N. Y. Report, 226.—Mass. In greenhouses.
punctata WALKER, List, I, 106.—N. Amer.
robusta WALKER, List, I, 105.—Martin Falls, Canada.
rotundipennis MACQUART, Dipt. Exot., I, 2, 178.—Carolina.
 BELLARDI, Saggio, I, 13, oc. in Mexico.
sciophila LOEW, Cent., IX, 56.—D. C.
septemtrionalis RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 109, pl. vi, f. 12.—Greenland.
 LUNDBECK, Dipt. Groenl., II, 312, note.
striata RÜBSAAMEN, Berl. Ent. Zeitsch., 1894, 37.—Mex.
tilicola OSTEN SACKEN, quoted by Comstock, Ag. Report, 1881, with gall, and this by Packard, 5th Report U. S. Ent. Comm., 412. I do not find the original desc.—it may not have been previously described.
tridentata RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 107, pl. vi, f. 13, 24.—Greenland. COQUILLET, Proc. Wash. Acad. Sci., II, 392, oc. in Lowe Inlet, Br. Col. LUNDBECK, Dipt. Groenl., I, 243, pl. v, f. 2 (*validicornis*). [Lundbeck.]
tritici COQUILLET, Ins. Life, VII, 406, figs., life hist., etc.—D. C. Larvæ live at the roots of young wheat plants.
unicolor SAY, Jour. Acad. Sci. Phil., VI, 153; Compl. Works, II, 351.—Mex.
validicornis LUNDBECK, see *tridentata*.
vulgaris FITCH, 2d N. Y. Report, 487 (*Molobrus*).—N. Y. Also White Mts.,—Slosson.
zygoneura WILLISTON, Dipt. St. Vincent, 267, pl. VIII, f. 23.—St. Vincent, W. I.

MANOTA.

WILLISTON, Dipt. St. Vincent, 260, 1896.

Note.—The wing having a very incomplete venation, I cannot place the genus in any of the established subfamilies.

defecta WILLISTON, loc. cit., pl. VIII, f. 14.—St. Vincent, W. I.

HESPERODES.

COQUILLET, Ent. News, 1900, 429.

Note.—This genus is said to be "near *Hesperinus*," which Osten Sacken, after seeing the type, placed in the Bibionidæ.

johnsoni COQUILLET, loc. cit.—Delaware Water Gap, N. J.

CECIDOMYIDÆ.

There are peculiar difficulties in the task of properly representing this family in the present Catalogue. On account of the fact that many species make galls on plants, we encounter here a mixture of botanical and zoological science, which has tended to separate the study of the Cecidomyidæ from that of the other Diptera. Only those who have made a special study of the family are at all informed about it. Unfortunately, not one of the present generation of American entomologists has given this special attention.

To make matters ten-fold worse, the European specialists in Cecidomyidæ

have come to a practical unanimity in accepting certain principles of nomenclature which radically change the generic names used by Osten Sacken, who followed Loew. The change hinges on the application of the name *Cecidomyia* (disregarding for the time being the new genera which have naturally come into existence), and will be found fully discussed in the following papers:

KARSCH, Revision der Gallmücken, Münster, 1878, 10-20.

OSTEN SACKEN, Catalogue, 215, note 1, 1878.

RÜBSAAMEN, Berl. Ent. Zeitsch., xxxvii, 324-327, 1892.

KIEFFER, Annales Soc. Ent. France, 1900, 436.

OSTEN SACKEN, Ent. Mo. Mag., 1901, 40-43.

The practical effect of the changes adopted by Karsch, Rübsaamen and Kieffer is to apply the name *Cecidomyia* to the *Diplosis* of Osten Sacken's Catalogue, and to divide up his *Cecidomyia* between *Rhabdophaga* and *Dasyneura*. As nearly all the species in the family were referred to *Cecidomyia* and *Diplosis* in Osten Sacken's Catalogue, the adoption of the changed nomenclature will leave few members of the family in the same genera to which Osten Sacken referred them.

Realizing the immense practical disadvantage of such an overturning of names, I should have been well content to let the problems of nomenclature lie in abeyance; but they have been already threshed out in Europe, and the conclusions reached and put in use there cannot be ignored.

After much consideration, I can find no better course to follow than to adopt the generic distribution of Kertész, in his *Catalogus Dipteriorum*, vol. II. Not having much knowledge of the family myself, and not being able to consult an American authority on it, I have carried out this plan. I take occasion to remark, however, that Osten Sacken thoroughly disapproves of the changes, and has given, in the last reference above, his reasons for his views.

Some of the species still included under *Cecidomyia* doubtless belong to other established genera, but are not yet sufficiently described to allow of a positive reference; in fact, many of the species need further study, and at best the present scheme must be considerably modified by more thorough investigation. No family of the Diptera offers greater inducements to a worker who will patiently carry on the biological and systematic study of it conjointly.

The status of those names which have been applied to larvæ and galls only, or to pupæ, larvæ and galls, or even to galls alone, need not be settled at the present time. I have placed all such names in a division by themselves. My opinion is that when the adult is at last described, the same old specific name should be used, unless impracticable, but that thenceforth the description of the adult should be regarded as the real description of the species. Meanwhile, it is very convenient, and thoroughly in accord with the objects of nomenclature, that the provisional name should stand.

A few species described since Kertész have been added, in harmony with his general distribution.

Cross-references have not been thought necessary, considering the small size of the family.

The European literature is voluminous; Kieffer gives over 800 references. His *Monographie des Cécidomyides d'Europe et d'Algérie*, in *Annales Soc. Ent. France*, 1900, 181-472, 30 plates, is indispensable to any student of the family. I add here only a few references.

COMSTOCK, Dept. Agric. Rept., 1880, 270, 271, list of references on parasitic and inquilinous species.

BRAUER, *Zweifel. d. Kaiserl. Mus.*, III, 1883, 20 and 53, references to descriptions of larvæ.

MIK, Wien. Ent. Zeit., xvi, 284-289, on mounting and describing specimens.

OSTEN SACKEN, Western Dipt., 192, 1877, describes several galls without naming them.

MRS. SLOSSON, Ent. News, vii, 238, a species attaching itself to wing of a lace-wing fly to be carried about.

SMITH, Dept. Agric. Rept., 1884, 396-398, a species infesting pears in Conn.

RILEY and HOWARD, Ins. Life, iii, 294, note on a species destroying buds of roses grown under glass—see *Neocerata rhodophaga*.

TRICHOPTEROMYIA.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 255.

modesta WILLISTON, loc. cit., pl. viii, f. 6.—St. Vincent, W. I.

CAMPYLOMYZA.

MEIGEN, Syst. Besch., i, 101, 1818.

LOEW, Mon. N. A. Dipt., i, 178, 1862.

SCHINER, Fauna Austr., ii, 411, 1864.

atra MEIGEN, Syst. Besch., i, 102; vi, 271.—Europe.

ZETTERSTEDT, Dipt. Scand., ix, 3670.

SCHINER, Fauna Austr., ii, 412.

WINNERTZ, Verh. Zool.-Bot. Ges., xx, 25.

LUNDBECK, Dipt. Grœnl., i, 239, oc. in Greenland.

scutellata SAY, Jour. Acad. Sci. Phil., iii, 17; Compl. Works, ii, 44.—Mo.

WIEDEMANN, Auss. Zweifl., i, 22.

LESTREMIA.

MACQUART, Dipt. Nord. de la France, i, 123, 1826; Hist. Nat. Dipt., i, 157, 1834.

LOEW, Stett. Ent. Zeit., v, 324, 1844 (*Cecidogona*).

SCHINER, Fauna Austr., ii, 413, 1864.

leucophæa MEIGEN, Syst. Besch., i, 281 (*Sciara*); vi, 308, pl. lxxv, f. 16.—Europe.

ZETTERSTEDT, Dipt. Scand., x, 3768.

SCHINER, Fauna Austr., ii, 413.

COQUILLET, Ent. News, 1896, 263, records from White Mts., N. H.

LASIOPTERA.

MEIGEN, Syst. Besch., i, 88, 1818.

WINNERTZ, Mon. Gallmücken, 191, 1853.

OSTEN SACKEN, Mon. N. A. Dipt., i, 175, 1862.

SCHINER, Fauna Austr., ii, 406, 1864.

carbonitens COCKERELL, Canad. Ent., xxxiv, 183.—Las Valles, N. M.; larvæ in "aborted shoots of grass."

ephedræ COCKERELL, Ann. & Mag. Nat. Hist., ser. vii, vol. ii, 327.—N. M.; bred from *Ephedra trifurca*.

ephedricola COCKERELL, Canad. Ent., xxxiv, 184.—Mesilla Park, N. M.; gall on *Ephedra trifurca*, a swelling of the twig.

muhlenbergiæ MARTEN, Bull. Ohio Ex. Sta., Technical ser., i, No. 3, p. 155.—Ohio; gall in tip of *Muhlenbergia mexicana*, shown in pl. ii, f. 6.

parva WALKER, List, i, 29.—Martin Falls, Canada.

- solidaginis** OSTEN SACKEN, Proc. Ent. Soc. Phil., I, 370.—D. C.; larvæ probably inquilinous in galls on *Solidago*.
- tertia** COCKERELL, Ann. and Mag. Nat. Hist., ser. VII, vol. II, 328.—N. M.
- ventralis** SAY, Long's Exped., App., 357; Compl. Works, I, 242.—Philadelphia.
WIEDEMANN, Auss. Zw., I, 21.
- vitis** OSTEN SACKEN, Mon. N. A. Dipt., I, 201.—D. C.; larvæ in "swellings of the stem and leafstalks of the wild grape."
WALSH and RILEY, Amer. Ent., I, 1869, 247, fig. of gall.
RILEY, 5th Mo. Rept., 1873, 117, fig. of gall.—Mo.
REED, 13th Rept. Ent. Soc. Ontario, 1883, 49, fig.—Canada.
SAUNDERS, Insects. Inj. to Fruits, 295, fig.
LINTNER, Country Gentleman, XLIV, 407, 1879; LIII, 511, 1888; Fourth N. Y. Rept., 63-67.—N. Y.
N. J.—Smith Cat.
- willistonii** COCKERELL, Ann. and Mag. Nat. Hist., ser. VII, vol. II, 327.—N. M.; bred from *Atriplex canescens*.

RHABDOPHAGA.

- WESTWOOD, Gardener's Chronicle, 1847, 588.
H. LOEW, Dipt. Beitr., IV, 21, 1850 (*Cecidomyia* MEIG., in part).
RONDANI, Atti Soc. Sc. Nat. Milano, II, 286, 1860 (id.).
RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 346 (*Dichelomyia*, in part).
KIEFFER, Bull. Soc. Ent. France, 1896, 189 (*Bertieria*).
- batatas** WALSH, Proc. Ent. Soc. Phil., III, 601; VI, 225 (both *Cecidomyia salicis-batatas*).—Rock Id., III; makes a potato-like, polythalamous gall on *Salix humilis* and other species.
BERGENSTAMM and LOEW, Synopsis, 71, note.
N. J.—Smith Cat.
- brassicoides** WALSH, Proc. Ent. Soc. Phil., III, 577; Amer. Entomologist, I, 105, f. 84 (both *Cecidomyia salicis-brassicoides*).—Rock Id., III; makes a cabbage-like gall on *Salix longifolia*.
PACKARD, Guide to the Study of Insects, 377, f. 282 (id.).—III., etc.
TOWNSEND, Canad. Ent., XXVII, 205, oc. in Arizona; parasites, etc. (id.).
N. J.—Smith Cat.
- cornu** WALSH, Proc. Ent. Soc. Phil., III, 590, gall and larva (*Cecidomyia salicis-cornu*); VI, 224, adult (id.).—Rock Id., III; gall a deformed, hornlike lateral bud of *Salix humilis*.
- gnaphaloides** WALSH, Proc. Ent. Soc. Phil., III, 583, all stages (*Cecidomyia salicis-gnaphaloides*).—Rock Id., III; gall a rather open cone on *Salix humilis*.
Additional notes, op. cit., VI, 223.
- rhodoides** WALSH, Proc. Ent. Soc. Phil., III, 586, all stages (*Cecidomyia salicis-rhodoides*).—Rock Id., III; rose-like single gall on tip of twig of *Salix humilis*.
Additional note, VI, 224.
- salicis** SCHRANK, Fauna Boica, III, 69, 1803 (*Tipula*).—Europe.
LOEW, Dipt. Beitr., IV, 37 (*Cecidomyia*).
WINNERTZ, Linnæa Ent., VIII, 215 (id.).
SCHINER, Fauna Austr., II, 370 (id.).
RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 347, pl. VIII, XII, XV, and XVIII (*Dichelomyia*).
- FELT, 17th N. Y. Rept., 1902, 750, figs. and pl. II, oc. in N. Y.; "produces many-celled galls in the stems of small willows."

- siliqua** WALSH, Proc. Ent. Soc. Phil., III, 591; VI, 224 (both *Cecidomyia salicis-siliqua*).—Rock Id., Ill.; makes a pod-like gall on *Salix humilis*, *cordata*, and *discolor*.
- BAKER, Ent. News, VI, 173, oc. at Fort Collins, Col., on *S. amygdaloides*.
- strobiliscus** WALSH, Proc. Ent. Soc. Phil., III, 582, gall only; VI, 223 (both *Cecidomyia salicis-strobiliscus*).—Winnebago Co., Ill.; a pine-cone-like gall on *Salix rostrata*.
- strobiloides** WALSH, Proc. Ent. Soc. Phil., III, 580, all stages (*Cecidomyia salicis-strobiloides*).—Rock Id., Ill.; makes a pine-cone-like gall on *Salix rostrata*.
- OSTEN SACKEN, Mon. N. A. Dipt., I, 203, gall (id.).
- RILEY and WALSH, Amer. Entomologist, I, 105, f. 82 (id.).
- BERGENSTAMM and LÖW, Synopsis, 71, suggest that *rhodoides*, *gnaphaloides*, *strobiliscus* and *coryloides* may all be the same as this; quoted by Osten Sacken, Cat., 215.
- PETTIT, Bull. 186, Mich. Ex. Sta., oc. at Chatham, Northern Mich. (id.).
- N. J.—Smith Cat.
- DAŚYNEURA.**
- RONDANI, Nuovi Annal. Sc. Nat. Bologna, ser. 2, VI, 12, 1846; op. cit., 371, note (*Perrisia*).
- LOEW, Dipt. Beitr., IV, 21, 1850 (*Cecidomyia* MEIG., in part).
- RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 346, 1892 (*Dichelomyia*, in part).
- grossulariæ** FITCH, Trans. N. Y. State Agl. Soc., 1854, 880; 1st N. Y. Rept., 176; 2d Rept., 150; 3d Rept., 437 (all *Cecidomyia*).—N. Y.; larvæ in gooseberries
- hirtipes** OSTEN SACKEN, Mon. N. A. Dipt., I, 195 (*Cecidomyia*).—D. C., on *Solidago*.
- leguminicola** LINTNER, Canad. Ent., 1879, 44 and 121; Amer. Nat., 1879, 190 (*trifolii*); Rept. Ent. Soc. Ont., 1879, 128; 5th N. Y. Rept., 262; 13th Rept., 359 (all *Cecidomyia*).—N. Y.; larvæ in clover heads, destroying the seed; "The Clover-seed Midge."
- COMSTOCK, Rept. Dept. Agric., 1879, 193 (id.).
- SAUNDERS, Rept. Ent. Soc. Ont., 1881, 38, fig. (id.).
- FORBES, Ill. Rept., 1888, 15, note on first oc. in Ill. (id.).
- RILEY and HOWARD, Ins. Life, I, 142, notes; oc. in Ohio (id.).
- ORMEROD, Ins. Life, III, 293, oc. in England; Rept. on Inj. Ins., 1890, 23 (id.).
- pseudacaciæ** FITCH, 2d N. Y. Rept., 331 (*Cecidomyia*); 5th N. Y. Rept., 833 (id.).—N. Y.; the larvæ in young leaflets of locust, *Robinia pseudacacia*.
- PACKARD, 5th Rept. U. S. Ent. Comm., 368, abstract of Fitch.
- N. J.—Smith Cat.
- rhois** COQUILLET, Ins. Life, VII, 348 (*Cecidomyia*).—N. Y.; galls on the roots of poison ivy, *Rhus toxicodendron*.
- serrulatæ** OSTEN SACKEN, Mon. N. A. Dipt., I, 198 (*Cecidomyia*).—D. C., on *Alnus serrulata*.
- TOWNSEND, Proc. Ent. Soc. Wash., II, 388, desc. of gall (*Cecidomyia*).—Va.
- N. J.—Smith Cat.
- solidaginis** LOEW, Mon. N. A. Dipt., I, 194, pl. I, f. 8 (*Cecidomyia*).—D. C., on *Solidago*.
- N. J.—Smith Cat.
- ? **spongivora** WALKER, List, I, 30 (*Cecidomyia*).—Martin Falls, Canada.
- Gen. ref. by Kertész, but very doubtful.

- strobiloides** TOWNSEND, Psyche, 1894, 176 (*Cecidomyia bigeloviae-strobiloides*).—N. M.; makes galls on *Bigelovia*.
- trifolii** LÖW, Verh. Zool.-Bot. Ges., 1874, 143 (*Cecidomyia*).—Europe; larvæ in fold of the leaf of white clover.
- COMSTOCK, Dept. Agric. Rept., 1879, 197-199, pl. 1, f. 5, oc. in U. S., life hist., etc. (id.).

NEOCERATA.

- COQUILLET, Bull. 22, n. ser., Div. of Ent., 1900, 47.
- rhodophaga** COQUILLET, loc. cit., with fig.—D. C.; infests buds of roses grown under glass.

ASPHONDYLIA.

- LOEW, Dipt. Beitr., IV, 21, 1850.
- WINNERTZ, Mon. Gallmücken, 187, 1853.
- OSTEN SACKEN, Mon. N. A. Dipt., I, 176, 1862; Trans. Amer. Ent. Soc., 1869, 299.
- SCHINER, Fauna Austr., II, 395, 1864.
- atriplicis** TOWNSEND, Ann. and Mag. Nat. Hist., XXVII, 1893, 1021 (*Cecidomyia*).—N. M.; on *Atriplex canescens*. Gall only described.
- COCKERELL, op. cit., XXIX (id.).—N. M.
- Gen. ref. by Cockerell in *litt.*, and doubtfully in footnote in Jour. N. Y. Ent. Soc., VI, 204.
- conspicua** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 51 (*rudbeckiæ-conspicua*).—Pa., on *Rudbeckia triloba*.
- globulus** OSTEN SACKEN, Trans. Amer. Ent. Soc., II, 301 (*helianthi-globulus*).—Rock Id., Ill., on *Helianthus*.
- MARTEN, Psyche, 1888, 102 (id.).—Ill.
- gutierreziae** COCKERELL, Canad. Ent., XXXIII, 23.—Las Vegas, N. M., on *Gutierrezia sarothra*.
- mentzeliae** COCKERELL, Entomologist, Nov., 1900, 302.—Raton, N. M., breeding in ovaries of *Mentzelia multiflora*.
- monacha** OSTEN SACKEN, Trans. Amer. Ent. Soc., II, 300; III, 347; Biologia, Dipt., I, I (oc. and biology).—N. Y.; Mexico; bred in N. Y. from *Solidago altissima*.
- neomexicana** COCKERELL, Jour. N. Y. Ent. Soc., IV, 204 (*Cecidomyia*).—N. M.; makes galls on *Atriplex canescens*. Gen. ref. by Cockerell in *litt.*, and also doubtfully in footnote under description.
- prosoyidis** COCKERELL, Ann. and Mag. Nat. Hist., 1898.—N. M., on *Prosopis juliflora* var. *glandulosa*.
- recondita** OSTEN SACKEN, Canad. Ent., Nov., 1875.—Long Id., N. Y., on *Aster patens*.

RHOPALOMYIA.

- RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 370, 1892.
- tridentatæ** RÜBSAAMEN, Ent. Nachricht., XIX, 163, 1893.—N. A., on *Artemisia tridentata*.

OLIGOTROPHUS.

- LATREVILLE, Hist. Nat. Crust. et Ins., XIV, 288, 1805.
- H. LOEW, Dipt. Beiträge, IV, 21, 1850 (*Cecidomyia* MEIG., in part).
- RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 376, 1892.
- betulæ** WINNERTZ, Linnæa Ent., VIII, 234 (*Cecidomyia*).—Europe; the larvæ infest the catkins of white birch, *Betula alba*.
- SCHINER, Fauna Austr., II, 381 (id.).

- F. Löw, Verh. Zool.-Bot. Ges., 1878, 15, pl. iv, f. 4 (id.).
 WACHTEL, Entom. Biol. Stud., ser. I, 1878, 9-11, on var. of *Betula pendula* (id.).
 LINTNER, Country Gentleman, LI, 287, 1886, oc. in N. A.; 3d N. Y. Rept., 85, 86, 141, 143; 4th Rept., 27, 205, 206 (parasites); 11th Rept., 162-165, pl., life hist., etc. (all *Cecidomyia*).
 RÜBSAAMEN, Berl. Ent. Zeitsch., xxxvii, 377, pl. vii and xii.

MAYETIOLA.

KIEFFER, Miscellanea Entomologica, Jan., 1896; Wien. Ent. Zeit., xv, 89, 1896.

Note.—The only North American representative is the well-known "Hessian Fly," so-called from the supposition that it was introduced from Europe along with the Hessian soldiers in the Revolution. It has uniformly been referred to the genus *Cecidomyia* in the past by American writers. The larva injures young wheat plants; it is found between the stalk and the sheathing portion of one of the lower leaves.

The literature is very voluminous. Kertész, in his Catalogue, II, 76, gives three pages of references; Osborn, in Bull. 16, mentioned below, gives a far more lengthy list. I give a few of the early references, paying more attention to the newer publications, since the time of Osborn's paper. From the first, the articles are biological and economic in their scope. The European references are omitted here.

← **destructor** SAY, Jour. Acad. Sci. Phil., I, 45, pl. III, f. 1-3; Compl. Works, I, 4-4 Eastern U. S.

FITCH, Amer. Quart. Jour. Ag. and Sci., IV, 244-264, 1846; v, 1-27, 1847; revised and republished, Trans. N. Y. State Ag. Soc., 1846, 316-373, I pl.; 3d N. Y. Rept., 133-144; 7th Rept., 819-830, pl. III, f. 2, 3; 8th Rept., 685, note.

PACKARD, Bull. 4, U. S. Ent. Comm.; full life hist. and figs.; the same with additions, 3d Rept. U. S. Ent. Comm., 198-248, pl. IV, v; also in the appendix to the third Report is a transl. of an article by Löw and Wagner.

FORBES, Ill. Rept., 1885, 14; 1886, 21-34; 1890, 54-63.—Ill. and Mississippi Valley generally.

LINTNER, 5th N. Y. Rept., 263, notes.

RILEY, Ins. Life, I, 32, 107, 131, 322; Dept. Agric. Rept., 1891, 235; 1892, 158; 1893, 211,—various notes on life history, parasites, etc.

MARTEN, Ins. Life, III, 265, notes on habits.

RILEY and HOWARD, Ins. Life, III, 306, affecting grasses in Cal.

WEBSTER, Ins. Life, VI, 146, general article.

LUGGER, 2d Rept. Ent. Minn. Ex. Sta., 1896, 11-15, good figure.

OSBORN, Bull. 16, n. ser., Div. of Ent., 1896; full discussion, bibliog., etc.

ASHMEAD, Psyche, 1897, 135, parasites.

JOHNSON, Bull. 58, Md. Ex. Sta., 1898, 117-122, figs.

MARLATT, Farmers' Bull. 132, Dept. of Agric.

FLETCHER, Rept. Ent. and Bot., 1898, 173; 1899, 163.

PETTIT, Bull. 175, Mich. Ex. Sta., 1899, 358; repeated in the Annual Rept. for same year, 137.

STEDMAN, 34th Annual Rept. Bd. of Agric. of Mo., 75-86.

HOPKINS, Bull. 67, W. Va. Ex. Sta., 1900.

LOCHHEAD, Bull. 116, Ont. Ag. Coll. and Ex. Sta., 1901.

FELT, 17th N. Y. Rept., 1902, 705-730, figs. and pl.

GARMAN, Bull. 103, Ky. Ex. Station, 1902, experiments.

WASHBURN, Bull. 77, Minn. Ex. Sta., 1-7, figs.; Canad. Ent., xxv, 317, notes.

Note.—The species occurs in Europe and New Zealand.

BREMIA.

RONDANI, Atti Soc. Sci. Nat. Milano, II, 287, 1860.

cucumeris LINTNER, 11th N. Y. Rept., 165-168, pl. II (*Diplosis*).—Mass.; the larva transforms smaller leaves of musk-melon into hairy galls. Called "The Melon-vine Midge."

CONTARINIA.

RONDANI, Atti Soc. Sci. Nat. Milano, II, 287, 1860.

KIEFFER, Bull. Soc. Ent. France, LXIII, 28, 1894 (*Eudiplosis* and *Stictodiplosis*); Wien. Ent. Zeit., xv, 94, 1896, syn., etc.

pyrivora RILEY, Dept. Agric. Rept., 1885, 283, pl. VII, f. 2-4 (*Diplosis*).—E. U. S.; larvæ in fruit of pears.

? MEIGEN, Klassifikation, I, 39, pl. II, f. 8 (*Cecidomyia nigra*); Syst. Besch., I, 95, pl. III, f. II (id.).—Europe.

? NORDLINGER, Die Kleine Feinde d. Landwirthschaft, 622, 1869 (*Cecidomyia pyricola*).—Europe.

RILEY, Wien. Ent. Zeit., VI, 203, f. 1-3 (*Diplosis*).

MEADE, Entomologist, XXI, 123-131, 1888 (id.).

LINTNER, 8th N. Y. Rept., 140-151, full discussion, bibliog., etc. (id.); 10th Rept., 386, 387, notes (id.); Canad. Ent., XXIII, 223, abstract of habits and oc. (id.).—N. Y.

SMITH, Ent. News, IV, 297-299, experiments for destruction of (id.).

KIEFFER, Synops. Cécid. Europe et Alg., 33, 1898, oc. in Europe.

setigera LINTNER, 11th N. Y. Rept., 168-170, pl. III.—Mass.; affects young leaves of musk-melons the same as *Contarinia cucumeris*; "The Hairy Melon-vine Midge."

tritici KIRBY, Trans. Linn. Soc., IV, 246 (*Tipula*).—England; larvæ in wheat heads.

HARRIS, Ins. Inj. to Veg., 592 (*Cecidomyia*).—Mass.

FITCH, Essay on the Wheat Fly, 1845 (*Cecidomyia*); 3d N. Y. Rept., 1-88, pl. II, f. I, 4 (id.).—N. Y. Called "The Wheat Midge."

AMYOT, Bull. Soc. Ent. France, CIV, 1855 (id.).

LINTNER, 1st N. Y. Rept., 6, republishes Fitch's cut, etc. (id.).

WEBSTER, Dept. Agric. Rept., 1884, 389; 1885, 318 (*Diplosis*).

KIEFFER, Wien. Ent. Zeit., xv, 99, gen. ref.; Synops. Cécid. Europe et Alg., 34.

FLETCHER, Rept. Ent. and Bot., 1898, 172 (*Diplosis*).

MARLATT, Farmers' Bull. 132, Dept. of Agric. (id.).

LOCHHEAD, Bull. 116, Ont. Ag. Coll. and Ex. Sta., 7, 8, fig. (id.).

violicola COQUILLET, Bull. 22, n. ser., Div. of Ent., 47-50, fig. (*Diplosis*).—Va., N. Y., D. C.; infesting and folding leaves of violets.

HOWARD, Amer. Florist, Jan. 21, 1899 (id.).

GALLOWAY, "Commercial Violet Culture," 211-215, fig. (id.).

CHITTENDEN, Bull. 27, n. ser., Div. of Ent., 47-50, pl. and figs. (id.).

CECIDOMYIA.

MEIGEN, Illig. Mag., II, 261, 1803; Klassifikation, 1804.

- LOEW, Dipt. Beitr., iv, 20, 1850 (*Diplosis*).
- OSTEN SACKEN, Mon. N. A. Dipt., I, 175, 1862; Ent. Mo. Mag., sec. ser., XII, 40, 1901 (id.).
- KARSCH, Revis. d. Gallmücken, 19, 1878.
- RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 324, 1892.
- aceris** SHIMER, Trans. Amer. Ent. Soc., I, 281.—Ill.; larva on surface of leaves of *Acer dasycarpum*.
- albovittata** WALSH, Proc. Ent. Soc. Phil., III, 620; VI, 227.—Rock Id., Ill.; inquilinous in galls of *strobiloides*, *strobiliscus*, *brassicoides* and *rhodoides*.
- alticola** COCKERELL, The Entomologist, 1890, 281.—Col.
- BAKER, Ent. News, VI, 173, oc. at Ft. Collins, Col., affecting *Artemisia dracunculoides*.
- amyotii** FITCH, 3d N. Y. Rept., 31.—N. Y.
- ananassi** RILEY, Amer. Ent., II, 244, 273, f. 153 (gall) (*cupressi-ananassi*).—Tenn., on *Taxodium distichum*.
- annulipes** WALSH, Proc. Ent. Soc. Phil., III, 629 (*Diplosis*).—Rock Id., Ill.; inquilinous in galls of *strobiloides*.
- antennariæ** WHEELER, Proc. Wis. Nat. Hist. Soc., Apr., 1899, 209-212, all stages.—Wis.; galls in terminal buds of *Antennaria plantaginifolia*.
- anthophila** OSTEN SACKEN, Trans. Amer. Ent. Soc., II, 302.—N. Y.; larvæ on *Solidago*.
- atricornis** WALSH, Proc. Ent. Soc. Phil., III, 628 (*Diplosis*).—Rock Id., Ill.; inquilinous in galls of *strobiloides*.
- atriplicicola** COCKERELL, Ann. Mag. Nat. Hist., ser. 7, II, 236 (*Diplosis*).—N. M., on *Atriplex*.
- atrocularis** WALSH, Proc. Ent. Soc. Phil., III, 626; VI, 227 (*Diplosis*).—Rock Id., Ill.; bred from galls of *strobiliscus* and from a Cynipid gall.
- bigeloviæ** COCKERELL, West Amer. Scier VI, 106; Ent. Mo. Mag., 1890, 324.—Col.; bred from gall of *Eurosta bigeloviæ*—from some knowledge of the various gall-insects of Bigelovia, I think this may be an error, and that it is much more likely to be one of the species with an independent gall.
- bullæ** WALSH, Proc. Ent. Soc. Phil., VI, 228 (*Diplosis helianthi-bullæ*).—Rock Id., Ill.; makes a globular gall on leaves of *Helianthus*.
BRODIE, Biol. Rev. of Ont., I, 1894, 74, oc. in Ont.
- caryæ** OSTEN SACKEN, Mon. N. A. Dipt., I, 191 (*Diplosis*).—D. C.; forms galls on leaves of hickory.
- catalpæ** COMSTOCK, Rept. Dept. Agric., 1880, 266 (*Diplosis*).—D. C.; larvæ in pods of Catalpa. They have the power of jumping.
- caulicola** COUILLETT, Ins. Life, VII, 401 (*Diplosis*).—N. H.; larvæ in stems of garden poppy, *P. nudicaule*.
- chrysopsidis** LOEW, Mon. N. A. Dipt., I, 203, pl. i, f. 1.—D. C.; on *Chrysopsis mariana*.
? TOWNSEND, Proc. Ent. Soc. Wash., II, 389, notes on gall, perhaps not the same.
- coccidarum** COCKERELL, The Entomologist, 1892, 181; Proc. Acad. Nat. Sci. Phil., 1894, 419 (both *Diplosis*).—Jamaica.
COUILLETT, Proc. U. S. N. M., XXII, 249, oc. in Porto Rico; "Bred from larvæ associated with *Dactylopius citri* . . . and bred from *Lecanium hemisphaericum*."
- cornuta** WALSH, Proc. Ent. Soc. Phil., III, 625,—gall, pupa, imago.—Rock Id., Ill., on *Salix longifolia*.
- coossæ** SHIMER, Trans. Amer. Ent. Soc., II, 395.—Ill.; on hickory.
- frater** COCKERELL, The Entomologist, 1890, 280.—Colo.

- gleditchiæ* OSTEN SACKEN, Proc. Ent. Soc. Phil., VI, 219.—R. I., on *Gleditchia triacanthos*. N. J.—Smith Cat.
- graminis* FITCH, 6th N. Y. Rept., 832, pl. II, f. 2, name changed and redesc.; Essay on the Wheat-fly (*cerealis*, preoc).—N. Y.
- ? *grassator* FYLES, Canad. Ent., XIV, 237, fig.; Rept. Ent. Soc. Ont., 1883, 30 (both ? *Diplosis*).—Ontario.
- inimica* FITCH, 6th N. Y. Rept., 830-832.—N. Y.; in wheat heads with tritici.
- maccus* LOEW, Mon. N. A. Dipt., I, 187, pl. I, f. 11, 12 (*Diplosis*).—D. C.
- negundinis* GILLETTE, Psyche, 1890, 392, figs.—Iowa; larvæ produce galls in terminal buds of *Acer negundo*.
- orbitalis* WALSH, Proc. Ent. Soc. Phil., III, 623; VI, 227.—Rock Id., Ill.; inquilinous in galls of *batatas*, *strobiloides* and *brassicoides*; also in those of *Euura salicis-ovum*, a sawfly.
- oxycoccana* JOHNSON, Ent. News, X, 80, 1899, change of name; Ent. News, XI, 324, quotes orig. desc.; "infests the terminal buds of cranberry and loosestrife (*Lysimachia terrestris*)."—N. J.
- SMITH, Special Bull. K, N. J. Ex. Sta., 31-37, figs., 1890 (*vaccinii*, preoc).—N. J.
- partheniicola* COCKERELL, The Entomologist, July, 1900, 201 (*Diplosis*).—N. M.
- pictipes* WILLISTON, Trans. Ent. Soc. Lond., 1896, 253 (*Diplosis*).—St. Vincent, W. I.
- pilulæ* WALSH, Amer. Ent., II, 29, gall only (*quercus-pilulæ*).—Ill., on laurel-leaved oak.
- PACKARD, 5th Rept. U. S. Ent. Comm., 206, 207, fig. of gall, and notes on adult.
- radiatæ* SNOW, Ent. News, XI, 489, figs. (*Diplosis*).—Palo Alto, Cal.; larva in young shoots of *Pinus radiata* and other *Pinus*.
- CANNON, Amer. Nat. Oct., 1900, 801-810, figs.,—a botanical study of the gall.
- resinicola* OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 345 (*Diplosis*).—N. Y.; in the resin of *Pinus inops*. The description is reprinted in Ent. Nachrichten, 1896, 343-345.
- SANBORN, Proc. Bost. Soc. Nat. Hist., XII, 93, larva only.
- COMSTOCK, Rept. Dept. Agric., 1879, 256, pl. VI, f. 5, life history; larva in resin of *Pinus inops*, *rigida* and *tæda*.
- PACKARD, 5th Rept. U. S. Ent. Comm., 797, figs., quotes Comstock.
- TOWNSEND, Proc. Ent. Soc. Wash., II, 389, notes on relation to *Retinia comstockiana*, a twig-borer of *P. inops*.
- PACKARD, Rept. U. S. Geol. Surv. of the Terr., X, 1876, 527 (*Diplosis pini-rigida*); 5th Rept. U. S. Ent. Comm., 798-800, fig.; larvæ make galls in needles of *P. rigida*. [Syn. taken from Kertész, Catalogue.]
- MIK, Wien. Ent. Zeit., XVI, 290-292 (id.).
- ECKEL, Ent. News, XIV, 279-284, pl., habits, etc. (*Diplosis*).
- robiniaë* HALDEMAN, Amer. Jour. Agr. and Sci., VI, 193, figs.; reprinted in Proc. Boston Soc. Nat. Hist., VI, 401.
- HARRIS, Ins. Inj. to Veget., 3d edit., 567.
- FITCH, 2d N. Y. Rept., 332.
- On leaves of locust, *Robinia pseudacacia*, in Atlantic States.
- sorghicola* COQUILLET, Bull. 18, n. ser., 82 (*Diplosis*).—Ala., Tex.; larvæ in seeds of sorghum.
- togata* FITCH, Amer. Quart. Jour. Agr. and Sci., II, 233-264, 1845.
- thoracica* FITCH, Essay on the Wheat-fly, f. 5, 6.—N. Y.
- OSTEN SACKEN, Cat., 5, note on genus.

thurstoni BRODIE, Biol. Rev. of Ontario, I, 1894, 73-75.—Toronto; gall in stem of *Helianthus divaricata*.

CLINODIPLOSI.

KIEFFER, Feuille jeune Natural., XXIV, 121, 1894.
rosivora COQUILLET, Bull. 22, n. ser., Div. of Ent., 46 (*Diplosis*).—East. U. S.; infests buds of roses grown under glass.

LESTODIPLOSI.

KIEFFER, Bull. Soc. Ent. France, LXIII, 28, 1894; Feuille jeun. Natural., XXIV, 84, 1894 (the latter as *Coprodiplosis*).
caliptera FITCH, Essay on the Wheat-fly (first edition in Amer. Quart. Jour. Agric. and Sci., II, No. 2, 1845, pl. v, f. 2; second edit. in Trans. N. Y. State Agl. Soc., 1846, vol. v. Mentioned as *Cecidomyia* in both. *Cercalis* is separated in the second only.) Also in 3d N. Y. Rept., 90, pl. II, f. 18 (id.).—N. Y.; affects wheat like *tritici*.
decemmaculata WALSH, Proc. Ent. Soc. Phil., III, 631 (*Diplosis*).—Rock Id., Ill.; inquilinous in galls of *strobiloides*.
septemmaculata WALSH, Proc. Ent. Soc. Phil., III, 630; VI, 228 (both *Diplosis*).—Rock Id., Ill.; inquilinous in galls of *brassicoides*, bred from black knot on plum, and "from the coccidian gall *vitifoliae* Fitch."
 ? SAY, Long's Exped., App., 357 (*ornata*); Compl. Works, I, 242 (id.).—Pa. [Walsh, with a doubt.]
 ? WIEDEMANN, Auss. Zw., I, 22 (id.).

ASYNAPTA.

LOEW, Dipt. Beitr., IV, 39, 1850.
 OSTEN SACKEN, Mon. N. A. Dipt., I, 177, 1862.
 RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 400, 1892.
 KIEFFER, Annales Soc. Ent. France, 1900, 446.
antennariæ WHEELER, Proc. Wis. Nat. Hist. Soc., Apr., 1889, 212-216, all stages and habits; galls in terminal buds of *Antennaria plantaginifolia*; courtship mentioned.—Wis.

CECIDOMYIDÆ OF WHICH THE ADULT IS UNDESCRIBED.

These have all been referred to as belonging to the genus *Cecidomyia*, except as noted.

agrostis OSTEN SACKEN, Mon. N. A. Dipt., I, 204.—N. Y.

FITCH, The Hessian Fly, 2d edit., 38, original mention as "imbricated gall on *Agrostis laterifolia*."

balsamicola LINTNER, 4th N. Y. Rept., 60-63, figs.—N. Y.; larvæ make swellings in base of leaves of balsam fir, *Abies balsamea*.

LINTNER, 7th N. Y. Rept., 307, oc. in *Abies fraseri* in N. C.

coryloides WALSH, Proc. Ent. Soc. Phil., III, 588; VI, 224 (*salicis-coryloides*).—Rock Id., Ill., on *Salix discolor*.

BERGENSTAMM und LOEW, Synopsis Cecid., 71, quoted by O. S., Cat., 215.

coryloides WALSH, Proc. Ent. Soc. Phil., III, 588; VI, 224 (*vitis-coryloides*).—Ill.; galls on wild grapes—*Vitis cordifolia* and *riparia*.

WALSH and RILEY, Amer. Ent., I, 107, fig. of gall.

RILEY, 5th Mo. Rept., 116, same fig. and note.

PACKARD, Guide to Study of Ins., 376, fig.

- bedeguar** WALSH, Canad. Ent., I, 79; Proc. Ent. Soc. Phil., VI, 266 (*cratægi-bedeguar*).—Ill.; on *Cratægus tomentosa*, the thorn-apple.
- brachyteroides** OSTEN SACKEN, Mon. N. A. Dipt., I, 198.—D. C.; on *Pinus inops*.
- brassicoides** TOWNSEND, Psyche, 1893, 490 (*bigelovia-brassicoides*).—N. M., on *Bigelovia graveolens*.
- carbonifera** OSTEN SACKEN, Mon. N. A. Dipt., I, 195.—D. C., on leaves of *Solidago*. N. J.—Smith Cat.
- caryæcola** OSTEN SACKEN, Mon. N. A. Dipt., I, 192.—D. C., on *Carya*. N. J.—Smith Cat.
- citrina** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 53.—N. Y., on *Tilia americana*.
- clavula** BEUTENMÜLLER, Bull. Amer. Mus. Nat. Hist., IV, 1892, 269, pl. xv, f. 5.—N. Y., on *Cornus* sp. N. J.—Smith Cat.
- TOWNSEND, Proc. Ent. Soc. Wash., II, 390, gall.—Va.
- culmicola** MORRIS (Miss), Proc. Acad. Nat. Sci. Phil., IV, 194.—Pa.; in wheat stalks.
- HARRIS, Ins. Inj. to Veget., 582.
- cynipsea** OSTEN SACKEN, Mon. N. A. Dipt., I, 193.—D. C., on *Carya*.
- deserta** PATTON, Canad. Ent., XXIX, 247 (*Cecidomyia-celtis deserta*).—Conn.
- erigerontis** BRODIE, Biol. Rev. of Ont., I, 1894, 13-15 (*Diplosis*—gen. ref. taken from adult).—Toronto, Can.; on *Erigeron canadense*.
- erubescens** OSTEN SACKEN, Mon. N. A. Dipt., I, 193.—D. C.; on *Quercus*.
- farinosa** OSTEN SACKEN, Mon. N. A. Dipt., I, 204.—D. C.; on leaves of blackberry, *Rubus*.
- BRODIE, Biol. Rev. of Ont., I, 1894, 110, oc. at Toronto (*Diplosis*).
N. J.—Smith Cat. (*Lasioptera*).
- glutinosa** OSTEN SACKEN, Mon. N. A. Dipt., I, 193.—D. C.; on *Carya*.
- hageni**, n. sp.: I apply this term to the gall described, but not named, by Hagen, Canad. Ent., 1881, 37, on *Aristolochia siphon*.
- helianthi** BRODIE, Biol. Rev. of Ont., I, 1894, 44-46.—Toronto, Can.; in axils of leaves of *Helianthus decapetalus* and *divaricatus*.
- holotricha** OSTEN SACKEN, Mon. N. A. Dipt., I, 193; Cat., 216, note.—D. C., on *Carya*. N. J.—Smith Cat.
- hordoides** WALSH, Proc. Ent. Soc. Phil., III, 599 (*salicis-hordoides*).—Rock Id., Ill.; on *Salix humilis*.
- impatiens** OSTEN SACKEN, Mon. N. A. Dipt., I, 204; Amer. Ent., II, 63, fig. of gall.—D. C.; deforms flowers of *Impatiens*. N. J.—Smith Cat.
- inopis** OSTEN SACKEN, Mon. N. A. Dipt., I, 196 (*pini-inopis*).—D. C.; forms a resinous cocoon on *Pinus virginiana* (*inopis*).
N. J.—Smith Cat. (*Diplosis*).
- liriodendri** OSTEN SACKEN, Mon. N. A. Dipt., I, 204.—D. C.; on leaves of *Liriodendron*.
- HAGEN, Canad. Ent., XVIII, 159, note on pædogensis.
N. J.—Smith Cat.
- monardæ** BRODIE, Biol. Rev. of Ont., I, 1894, 109-111 (*Diplosis monardi*, or perhaps a *Lasioptera*).—Toronto, Canada; gall on *Monarda fistulosa*.
- majalis** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 53 (*quercus-majalis*); Mon. N. A. Dipt., I, 204 (id.).—D. C.
- PACKARD, 5th Rept. U. S. Ent. Comm., 207 (id.), gall and larva; on pin-oak, *Quercus palustris*.
- niveipila** OSTEN SACKEN, Mon. N. A. Dipt., I, 199, gall.—D. C.; on oak of several species. N. J.—Smith Cat.

- nodulus** WALSH, Proc. Ent. Soc. Phil., III, 599 (*salicis-nodulus*).—Rock Id., III.; gall on *Salix longifolia*.
- nucicola** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 53.—N. Y.; in the husks of nuts of *Hicoria*.
- ocellaris** OSTEN SACKEN, Mon. N. A. Dipt., I, 199.—D. C.; larva in depression on under side of leaf of *Acer rubrum*.
Note.—Comstock, Rept. Dept. Agric., 1881-2, 202, pl. xvii, describes the adult as a *Sciara*. But Mik, in Verh. Zool.-bot. Ges., 1883, 190-192, considers this an error of rearing, the *Sciara* coming from the earth in the breeding cage. The same view is held by Brauer, Zweifl. d. Kaiserl. Mus., III, 46, and by Osten Sacken, 2d edit. of his Characters of Larvæ of Mycetophilidæ, Heidelberg, 1886, postscript, p. 27.
 N. J.—Smith Cat.; Mich.—J. M. A.
- pellex** OSTEN SACKEN, Mon. N. A. Dipt., I, 199.—D. C.; galls on leaves of *Fraxinus americana*. N. J.—Smith Cat.
- persicoides** OSTEN SACKEN, Mon. N. A. Dipt., I, 193; Cat., 216, note.—D. C.; on *Hicoria*. N. J.—Smith Cat.
- poculum** OSTEN SACKEN, Mon. N. A. Dipt., I, 201; Cat., 216, note (probably inquilinous in the gall of a Cynipid of *Quercus*).—D. C.
 FITCH, 2d N. Y. Rept., No. 40, "Oak Spangles."
 N. J.—Smith Cat.
- pomum** WALSH and RILEY, Amer. Ent., I, 106, f. 85, gall (*vitis-pomum*).—Ill.; on *Vitis cordifolia*.
 RILEY, 5th Mo. Rept., 114-116, figs. and notes.
 N. J.—Smith Cat.
- pudibunda** OSTEN SACKEN, Mon. N. A. Dipt., I, 202.—D. C.; on leaves of *Carpinus caroliniana*.
- racemicola** OSTEN SACKEN, Mon. N. A. Dipt., I, 196.—D. C.; larvæ among racemes of *Solidago*.
- rigidæ** OSTEN SACKEN, Mon. N. A. Dipt., I, 189, gall desc. and name changed.
 FITCH, Amer. Quart. Jour. Agric. and Sci., I, 263 (*salicis*, preoc.).—N. Y.; makes a swelling at the tip of twig of *Salix rigida* and *lucida*.
 WALSH, Proc. Ent. Soc. Phil., III, 595, abstr. of Fitch.
 N. J.—Smith Cat.
- salicifoliæ** OSTEN SACKEN, Proc. Ent. Soc. Phil., VI, 220.—Canada; on *Spiræa salicifolia*.
- salicum** COCKERELL—the gall so mentioned is that of a sawfly of the genus *Pontania*, with "little or no doubt";—Ckll. *in litt*.
- sanguinolenta** OSTEN SACKEN, Mon. N. A. Dipt., I, 192.—D. C.; on *Hicoria*.
 N. J.—Smith Cat.
- serotinæ** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 346.—N. Y.; on *Prunus serotina*. N. J.—Smith Cat.
- symmetrica** OSTEN SACKEN, Mon. N. A. Dipt., I, 200.—D. C.; on *Quercus*.
- triticoides** WALSH, Proc. Ent. Soc. Phil., III, 598; VI, 225 (*salicis-triticoides*).—Rock Id., III.; on *Salix cordata*.
- tubicola** OSTEN SACKEN, Mon. N. A. Dipt., I, 192; Cat., 216, note.—D. C.; on *Hicoria*.
 N. J.—Smith Cat.
- tulipiferæ** OSTEN SACKEN, Mon. N. A. Dipt., I, 202.—D. C.; on *Liriodendron*.
 N. J.—Smith Cat.
- umbellicola** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 52 and 347.—N. Y.; N. J.; on *Sambucus racemosa*, among the umbels.

- urnicola** OSTEN SACKEN, *Canad. Ent.*, Nov., 1875.—Trenton Falls, N. J.; on *Urtica gracilis*.
- verruca** WALSH, *Proc. Ent. Soc. Phil.*, III, 606 (*salicis-verruca*); VI, 226.—Rock Id., Ill.; on leaf of *Salix humilis* and *discolor*.
- verrucicola** OSTEN SACKEN, *Canad. Ent.*, Nov., 1875.—New England; on *Tilia americana*. N. J.—Smith Cat.
- viticola** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 202.—D. C.; on *Vitis*.
RILEY, *Amer. Ent.*, II, 28 and 113, fig. (both as *vitis-lituis*).
N. J.—Smith Cat.

BIBIONIDÆ.

HESPERINUS.

- WALKER, *List*, I, 81, 1848.
- LOEW, *Berl. Ent. Zeit.*, II, 101, pl. I, f. 1-15, 1858 (*Spodius*).
- brevifrons** WALKER, *List*, I, 81.—Martin Falls, Canada.
White Mts., N. H., and Rocky Mts., Col.—O. S. Cat.
COQUILLET, *Proc. Wash. Acad. Sci.*, II, 290, oc. on Popoff Id., Alaska.

PLECIA.

- WIEDEMANN, *Auss. Zw.*, I, 72, 1828.
- LOEW, *Berl. Ent. Zeit.*, II, 101.
- bicolor** BELLARDI, see *collaris*.
- collaris** FABRICIUS, *Syst. Antl.*, 54 (*Hirtea*).—S. A.
WIEDEMANN, *Dipt. Exot.*, 32; *Auss. Zw.*, I, 74.—S. A.
SCHINER, *Novara*, 21.—S. A.
BELLARDI, *Saggio*, I, 16 (*bicolor*).—Mex.
OSTEN SACKEN, *Biologia*, *Dipt.*, I, 3 (*bicolor*).—Presidio, Mex.
WILLISTON, *Biologia*, *Dipt.*, *Suppl.*, 222, syn. and oc. at Teapa, Mex.
- heros** SAY, *Jour. Acad. Sci. Phil.*, VI, 154; *Compl. Works*, II, 352 (*Penthetria*).—Mex.
- heteroptera** SAY, *Jour. Acad. Nat. Sci. Phil.*, III, 77; *Compl. Works*, II, 69 (*Bibio*).—Md.
WIEDEMANN, *Auss. Zw.*, I, 80 (id.).
? MACQUART, *Hist. Nat. Dipt.*, I, 175 (*Penthetria atra*); *Dipt. Exot.*, I, 1, 85, pl. XII, f. 3 (*Eupeitenus ater*, n. gen.).—Philadelphia. [Osten Sacken; I use a question mark on account of the very different figure accompanying the second desc.]
LOEW, *Berl. Ent. Zeitsch.*, II, 109.
VAN DER WULP, *Tijdschr. v. Ent.*, XII, 81, ref. to Macq.
Montreal, Quebec, N. H., Mich., New Orleans. S. D.—J. M. A.
- heteroptera** MACQUART, see *plagiata*.
- nigerrima** BELLARDI, *Saggio*, I, 14.—Mex.
WILLISTON, *Biologia*, *Dipt.*, *Suppl.*, 221, oc. in Mex., several places.
- plagiata** WIEDEMANN, *Analecta Ent.*, II; *Auss. Zw.*, I, 175.—Brazil.
MACQUART, *Dipt. Exot.*, *Suppl.*, I, 21, pl. II, f. 10, female (*heteroptera*).—Colombia.
BELLARDI, *Saggio*, *App.*, 7, f. 4 (*vittata*).—Mex.
SCHINER, *Novara*, 22.—Colombia; notes and syn. preceding.
OSTEN SACKEN, *Biologia*, *Dipt.*, I, 2; oc. in Vera Cruz and Tabasco, Mex.
- rostellata** LOEW, *Berl. Ent. Zeitsch.*, 1858, 109, fig.
BELLARDI, *Saggio*, I, 15 (*rostrata*) [Schiner].—Mex.
SCHINER, *Novara*, 21, notes.

- OSTEN SACKEN, *Biologia*, Dipt., 1, 2, notes and syn.; Mex. and Nicaragua.
ruficollis FABRICIUS, *Spec. Ins.*, II, 410 (*Tipula*; from Cape of Good Hope!); *Ent. Syst.*, IV, 249 (id.); *Suppl.*, 552 (*Hirtea*); *Syst. Antl.*, 53 (*Hirtea*, from South America).
 WIEDEMANN, *Dipt. Exot.*, I, 31; *Auss. Zw.*, I, 72.—S. A.
 MACQUART, *Hist. Nat. Dipt.*, I, pl. IV, f. 17 [O. S.].
 BELLARDI, *Saggio*, I, 15.—Mex.
 OSTEN SACKEN, *Biologia*, Dipt., I, 3, oc. in Mex. and Fla., and notes. Florida—Johnson.
 VAN DER WULP, *Tijdschr. v. Ent.*, XXIV, 143, oc. in Guadeloupe.
 WILLISTON, *Biologia*, Dipt., I, 221, additional Mexican localities.
rufithorax WALKER, *List*, I, 116.—Jamaica.
vittata BELLARDI, see *plagiata*.

BIBIO.

- GEOFFROY, *Hist. Nat. des Insectes*, II, 571, 1762.
 FABRICIUS, *Syst. Antl.*, 50, 1805 (*Hirtea*, preoc. by Scopoli).
 MEIGEN, *Syst. Besch.*, I, 309, 1818.
 MACQUART, *Hist. Nat. Dipt.*, I, 177, 1834.
 ZETTERSTEDT, *Dipt. Scand.*, IX, 3367, 1850 (*Hirtea*).
 SCHINER, *Fauna Austriaca*, II, 357, 1864.
 OSTEN SACKEN, *Cat.*, note 12, explains status of *Hirtea*.
abbreviatus LOEW, *Cent.*, v, 9.—D. C.
albipennis SAY, *Jour. Acad. Sci. Phil.*, III, 77; *Compl. Works*, II, 69.—Pa.
 WIEDEMANN, *Auss. Zw.*, I, 80.
 MACQUART, *Dipt. Exot.*, I, I, 88, pl. XIII, f. 2.—N. A.
 LINTNER, 2d N. Y. Report, 110-115, figs., biology, etc. Larvæ in colonies under fallen logs, boards, etc., where there is much decaying vegetable matter.—New York.
 OSTEN SACKEN, *Biologia*, Dipt. I, 4, doubtfully recognized from N. Sonora, Mex.
 N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. and H.; Michigan, S. D., Idaho.—J. M. A.
 HINE, *Ohio Naturalist*, II, 170, note on larval habits; oc. in Ohio.
articulatus SAY, *Jour. Acad. Sci. Phil.*, III, 77; *Compl. Works*, II, 69.—Pa.
 WIEDEMANN, *Auss. Zw.*, I, 81.
 OSTEN SACKEN, *Cat.*, note 13, says unrecognizable.
baltimoricus MACQUART, *Dipt. Exot.*, *Suppl.*, v, 17.—Baltimore. Quebec—V. d. Wulp.
basalis LOEW, *Cent.*, v, II.—N. H.
brunneipes FABRICIUS, *Ent. Syst.*, IV, 250 (*Tipula*); *Mantissa Ins.*, II, 327 (*Tipula rufipes*); *Syst. Antl.*, 54 (*Hirtea*).—Newfoundland. [Syn. by Fabr., *Syst. Antl.*]
 WIEDEMANN, *Auss. Zw.*, I, 81, quotes Fabr.
canadensis MACQUART, *Dipt. Exot.*, I, 2, 79.—Canada.
 ? BELLARDI, *Saggio*, I, 18, oc. in Mex., with a ?.
castaneipes JÆNNICKE, *Neue Exot. Dipt.*, 10.—III.
criorhinus BELLARDI, *Saggio*, I, 17.—Mex.
 WALKER, *Trans. Ent. Soc.*, n. ser., v, 331.—Mex.
dubius BELLARDI, *Saggio*, 18.—Mex.
 OSTEN SACKEN, *Biologia*, Dipt., I, 3, notes.
 WILLISTON, *op. cit.*, *Suppl.*, 222, oc. in Jalisco, Mex.