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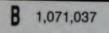
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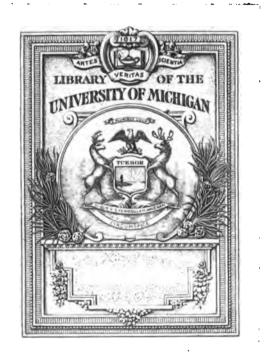
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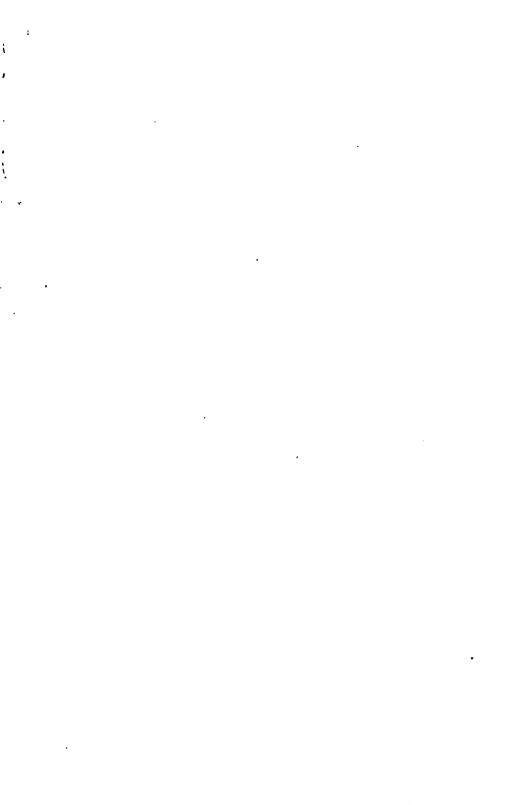
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570.5 BEP 9 1914 Occasional Papers OF THE Boston Society of Natural History. VII.

FAUNA OF NEW ENGLAND.

12.

LIST OF THE MEDUSAE CRASPEDOTAE, SIPHONOPHORAE, SCYPHOMEDUSAE, CTENOPHORAE.

BY HENRY B. BIGELOW.

BOSTON:

 PRINTED FOR THE SOCIETY FROM THE GURDON SALTONSTALL FUND.
 JULY, 1914.

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MEDUSAE CRASPEDOTAE.

ANTHOMEDUSAE.

SARSIIDAE.

1. SARSIA MIRABILIS L. Agassiz.

L. Agassiz, Mem. Amer. acad. arts and sci., 1850, new ser., vol. 4, p. 228, pls. 4, 5. "Boston HARBOUR."

Coryne mirabilis L. Agassiz, Contr. nat. hist. U. S., 1860, vol. 3, pl. 11c, figs. 14, 15; *ibid.*, 1862, vol. 4, p. 185, pl. 20, fig. 1–9; pl. 23a, fig. 12.

New England coast.

ME.— Eastport region, Penobscot bay.

N. H.— Portsmouth.

, MASS.— Gloucester, Nahant, Boston, Cohasset, Woods Hole region.

R. I.— Newport.

Probably the same as the European S. tubulosa Allman.

2. SARSIA RETICULATA (A. Agassiz) Hartlaub.

Syndictyon reticulatum A. Agassiz, in L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 340, footnote. "NAHANT, NEAR BOSTON." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 177, fig. 290–300.

Sarsia mirabilis var. reticulata Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 57, pl. 4, figs. 3, 4; pl. 5, fig. 6.

New England coast, April to June.

MASS.— Massachusetts Bay, Nahant, Boston Harbor. May be a variety of S. *mirabilis*.

3. SARSIA HARGITTI Mayer.

Coryne producta Hargitt, Amer. nat., 1902, vol. 36, p. 551, fig. 3. [Woods Hole, MASS.] Syncoryne producta Hargitt, Bull. U. S. bureau of fisheries, 1905, vol. 24, p. 30, pl. 1, fig. 1. [Non Sarsia producta (Wright) Mayer.]

Sarsia hargitti Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 63.

MASS.— Woods Hole.

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4. SARSIA HAECKELI (Hargitt).

Protiara haeckeli Hargitt, Biol. bull., 1902, vol. 4, p. 17, fig. 4. "NEAR NO MANS LAND, [MASS.]."

MASS.— "Off Gay Head and No Mans Land, Vineyard Sound" (Hargitt).

Known from only one record. This species may prove to be identical with *Protiara borealis* (Wagner) Mayer.

5. SLABBERIA STRANGULATA (McCrady) Hartlaub.

Dipurena strangulata McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 135, pl. 9, figs. 1, 2. [CHARLESTON HARBOR, SOUTH CAROLINA.]

Dipurena conica A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 181, fig. 301–305.

Slabberia strangulata Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 76, pl. 7, fig. 1-3.

A southern species not known north of Cape Cod.

MASS.— Naushon, Buzzards Bay, Woods Hole. R. I.— Newport (Fewkes).

6. Hydrichthys mirus Fewkes.

Fewkes, Bull. Mus. comp. zoöl., 1888, vol. 13, p. 224, pls. 4, 5. "Surface fishing carried on at the Newport Marine Laboratory."

R. I.- Newport.



7. CORYNITIS AGASSIZII McCrady.

McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 132, pl. 9, fig. 3-8. [CHARLESTON HARBOR, SOUTH CAROLINA.] Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 72, pl. 5, fig. 2.

A southern species not known north of Cape Cod.

MASS.— Woods Hole.

8. PENNARIA TIARELLA (Ayres) McCrady.

Globiceps tiarella Ayres, Proc. Boston soc. nat. hist., 1852, vol. 4, p. 193. "SAG HARBOR, L[ONG] I[SLAND, NEW YORK]."

Pennaria tiarella Hargitt, Bull. U. S. bureau of fisheries, 1905, vol. 24, p. 32, pl. 3. Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 25, pl. 1, fig. 2-5.

West Indies to Maine.

ME. MASS.— Massachusetts Bay, Woods Hole, Buzzards Bay. R. I.— Newport.

9. STEENSTRUPIA VIRGULATA (A. Agassiz) Mayer.

Euphysa virgulata A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 189, fig. 316-319. "MASSACHUSETTS BAY, NA-HANT."

MASS.— Massachusetts Bay, Woods Hole. Probably the same as the European S. aurata Forbes.

10. HYBOCODON PENDULA (L. Agassiz) Haeckel.

Corymorpha pendula L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, pp. 276, 343, pl. 26, fig. 7-17. "MASSACHUSETTS BAY."

Hybocodon pendula Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 41, pl. 2, fig. 2.

ME.— Eastport, 5 to 20 fathoms (hydroid); Kittery. N. H.— Portsmouth.

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MASS.— Nahant, Race Point, Chatham, Vineyard Sound, 10 to 100 fathoms (hydroid). Medusa, April and May.

11. HYBOCODON PROLIFER L. Agassiz.

L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, pp. 243, 343, pl. 23a, figs. 10, 11; pl. 25. "NAHANT."

Boreal, widely distributed in the North Atlantic.

MASS.— Massachusetts Bay, Nahant, Woods Hole, Vineyard Sound.

Georges Bank.

12. ECTOPLEURA OCHRACEA A. Agassiz.

A. Agassiz, in L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 343, footnote. "NAUSHON, BUZZARD'S BAY."

Ectopleura dumortieri Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 69, pl. 5, figs. 4, 5; pl. 6, figs. 1, 1', 2.

Cape Cod southward, summer and autumn. Not known from north of Cape Cod.

MASS.— Naushon, Woods Hole, Buzzards Bay.

R. I.- Newport.

Probably the same as the European E. dumortieri.

CLADONEMIDAE.

13. ZANCLEA GEMMOSA McCrady.

McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 151, pl. 8, figs. 4, 5. [CHARLESTON HARBOR, SOUTH CAROLINA.] Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 88, pl. 6, fig. 7; pl. 7, fig. 5; pl. 8, figs. 4, 5.

A southern species unknown north of Cape Cod. West Indies to southern New England.

MASS.— Buzzards Bay, Naushon, Woods Hole.

R. I.— Newport, common in late summer.

14. ZANCLEA CLADOPHORA (A. Agassiz) Hartlaub.

Gemmaria cladophora A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 184, fig. 307–310. "Massachusetts Bay, Nahant."

MASS.— Massachusetts Bay, Woods Hole. R. I.— Newport.

CYTAEIDAE.

15. PODOCOBYNA CARNEA M. Sars.

M. Sars, Fauna littoralis Norvegiae, 1846, pt. 1, p. 4, pl. 1, fig. 7-18. "BEI FLORÖE UND MANGER."

Podocoryne carnea Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 136, pl. 14, fig. 2-6; pl. 15, fig. 14; p. 138, fig. 74.

Atlantic coasts of Europe, the Mediterranean and South Africa. The American records are limited to southern New England, in late summer.

MASS.— Woods Hole region. R. I.— Newport.

16. PODOCORYNA FULGURANS (A. Agassiz) Mayer.

Dysmorphosa fulgurans A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 163, figs. 259, 260. "Massachusetts Bay, Nahant....Buzzard's Bay, Naushon."

Podocoryne fulgurans Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 139, pl. 12, fig. 5-9; pl. 13, fig. 3-5.

North Carolina to southern New England.

MASS.— Massachusetts Bay, Vineyard Sound, Woods Hole region.

R. I.— Newport, abundant in late summer in Narragansett Bay.

17. LYMNOREA BOREALIS Mayer.

Mayer, Bull. Mus. comp. zoöl., 1900, vol. 37, p. 6, pl. 5, fig. 16-18.

"EASTFORT HARBOR, MAINE." Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 154, pl. 15, fig. 1–3.

ME.- Eastport.

18. TURRITOPSIS NUTRICULA (McCrady).

Oceania (Turritopsis) nutricula McCrady, Proc. Elliott soc. nat. hist., 1856, vol. 1, pp. 55, 58, pls. 4, 5. [CHARLESTON HARBOR, SOUTH CAROLINA.]

Turritopsis nutricula Brooks, Mem. Boston soc. nat. hist., 1886, vol. 3, p. 388, pl. 37. Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 143, pl. 14, fig. 10–13; pl. 15, fig. 10–13.

Various localities from Cuba and the Bahamas to southern New England; not known north of Cape Cod.

MASS.-- Woods Hole, Vineyard Sound, Naushon, Buzzards Bay. R. I.-- Newport.

19. STYLACTIS HOOPERI Sigerfoos.

Sigerfoos, Amer. nat., 1899, vol. 33, p. 806, fig. 1-5. "Cold-Spring Harbor, Long Island, [New York]."

MASS.- Woods Hole.

BOUGAINVILLIIDAE.

20. BOUGAINVILLIA SUPERCILIARIS (L. Agassiz).

Hippocrene superciliaris L. Agassiz, Mem. Amer. acad. arts and sci., 1850, new ser., vol. 4, p. 273, pl. 1-3. "MASSACHUSETTS."

Boreal, widely distributed in North Atlantic and Arctic waters. The medusa appears in April south of Cape Cod; north of that point in summer.

ME.— Eastport.

MASS.— Massachusetts Bay, Woods Hole region, Vineyard Sound.

R. I.— Newport.



21. BOUGAINVILLIA GIBBSI Mayer.

Mayer, Bull. Mus. comp. zoöl., 1900, vol. 37, p. 5, pl. 4, figs. 14 15. "Newport HARBOR, RHODE ISLAND."

R. I.- Newport.

Probably the same as the European B. autumnalis Hartlaub.

22. BOUGAINVILLIA CAROLINENSIS (McCrady) Allman.

Hippocrene carolinensis McCrady, Proc. Elliott soc. nat. hist., v 1857, vol. 1, p. 164, pl. 10, fig. 8–10. [CHARLESTON HARBOR, SOUTH CAROLINA.]

Bougainvillia carolinensis Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 165, pl. 16, fig. 7–9; pl. 17, fig. 7.

A southern species known from the Tortugas, South Carolina, and southern New England; rare north of Cape Cod.

ME.— Casco Bay. MASS.— Woods Hole region, Vineyard Sound, Naushon. R. I.— Newport.

23. NEMOPSIS BACHEI L. Agassiz.

L. Agassiz, Mem. Amer. acad. arts and sci., 1850, new ser., vol. 4, p. 289, text-fig. "IN THE HARBOUR OF NANTUCKET."

Numerous localities, Florida to southern New England. Not known north of Cape Cod.

MASS.- Nantucket, Vineyard Sound, Naushon, Woods Hole.

24. RATHKEA BLUMENBACHII (Rathke) Brandt.

Oceania blumenbachii Rathke, Mém. Acad. sci. St. Pétersbourg, mém. des sav. étrang., 1835, vol. 2, p. 321, pl. 1, fig. 1–4. "SEVAS-TOPOL."

Rathkea octopunctata and var. grata Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, pp. 177, 179, pl. 18, fig. 5; pl. 20, fig. 11.

Widely distributed in the North Atlantic, and in the Labrador current.

MASS. — Massachusetts Bay (February to June), Woods Hole region (April to August).

R. I.— Newport (February to June).

AMPHINEMIDAE.

25. AMPHINEMA APICATA (McCrady) Haeckel.

Saphenia apicata McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 129, pl. 8, figs. 2, 3. [CHARLESTON HARBOR, SOUTH CAROLINA.]

Stomotoca dinema [American Medusa], Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 110, pl. 9, fig. 8–10; pl. 10, fig. 2–4.

A southern species not known north of Cape Cod.

R. I.— Newport, July 15 to September.

Probably the same as the European A. dinema (Péron and Lesueur) Browne.

26. AMPHINEMA RUGOSA (Mayer) Bigelow.

Stomotoca rugosa Mayer, Bull. Mus. comp. zoöl., 1900, vol. 37, p. 4, pl. 2, fig. 5. "NewPORT, RHODE ISLAND, AND CHARLESTON, SOUTH CAROLINA." Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 112, pl. 10, figs. 5, 6; pl. 11, figs. 1, 2.

Florida to southern New England.

R. I.— Newport, summer.

PANDEIDAE.

27. LEUCKARTIARA OCTONA (Flemming) Hartlaub.

Geryonia octona Flemming, Edinburgh philos. journ., 1823, vol. 8, p. 299.

Leuckartiara octona Hartlaub, Nordisches plankton, 1914, pt. 17, no. 12, p. 285, fig. 238-253.

Widely distributed on both sides of the North Atlantic.

ME.— Eastport region; Grand Manan.

R. I.— Newport.



28. CATABLEMA VESICARIA (A. Agassiz) Haeckel.

Turris vesicaria A. Agassiz, Proc. Boston soc. nat. hist., 1862, vol 9, p. 97. "NAHANT, [MASSACHUSETTS]." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 164, fig. 261–268.

Catablema vesicaria Bigelow, Proc. U. S. nat. mus., 1909, vol. 37, p. 304, pl. 30, figs. 3, 4; pl. 31, fig. 6.

Catablema vesicarium Hartlaub, Nordisches plankton, 1914, pt. 17, no. 12, p. 315, fig. 263-267.

An Arctic species seldom taken south of Cape Cod.

ME.— Eastport. MASS.— Nahant.

R. I.— Newport (young).

WILLIIDAE.

29. PROBOSCIDACTYLA ORNATA (McCrady) Browne.

Willsia ornata McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1,

p. 149, pl. 9, fig. 9–11. [CHARLESTON HARBOR, SOUTH CAROLINA.] Willia ornata A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 171, fig. 274a–279.

Proboscidactyla ornata Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 1, p. 189, pl. 20, fig. 1-10.

A southern species not recorded north of Cape Cod.

MASS.— Naushon, Woods Hole, Buzzards Bay. R. I.— Newport.

LEPTOMEDUSAE.

THAUMANTIIDAE.

30. MELICERTUM CAMPANULA (Fabricius) A. Agassiz.

Medusa campanula Fabricius, Fauna Groenlandica, 1780, p. 366. [WEST GREENLAND.]

Melicertum campanula A. Agassiz, Mem. Mus. comp. zoöl., 1865,

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vol. 1, no. 2, p. 130, fig. 202-214. Mayer, Publ. Carnegie inst.,
1910, no. 109, vol. 2, p. 207, pl. 23, figs. 4, 5; pl. 24, fig. 5.
Boreal; New England coast north of Cape Cod.

ME.- Eastport, Grand Manan, Penobscot Bay, summer.

N. H.— Portsmouth, July.

MASS.— Massachusetts Bay, Salem, Nahant, Cohasset (May and June), Cape Cod.

31. STOMOBRACHIUM TENTACULATUM L. Agassiz.

L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 361. "MASSA-CHUSETTS BAY, NAHANT." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 98, fig. 140–142.

MASS.— Nahant. Not recorded since 1865.

32. ORCHISTOMA TENTACULATA Mayer.

Mayer, Bull. Mus. comp. zoöl., 1900, vol. 37, p. 8, pl. 5, fig. 19. "Newport, Rhode Island."

R. I.- Newport.

33. LAODICEA CALCARATA A. Agassiz.

A. Agassiz, in L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 350, footnote. "NAUSHON, BUZZARD'S BAY."

Lafoea calcarata A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 122, fig. 184–194.

Atlantic coast of the United States, south of Cape Cod.

MASS.— Naushon, Vineyard Sound, Woods Hole, summer. Probably the same as the European L. cruciata.

34. STAUROPHORA MERTENSII Brandt.

Brandt, Mém. Acad. sci. St. Pétersbourg, 1838, ser. 6, sci. math. phys. et nat., vol. 4, pt. 2, sci. nat., p. 400, pls. 24, 25. "Nord-FOLKSUNDE."

Staurophora laciniata L. Agassiz, Mem. Amer. acad. arts and sci.,

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1850, new ser., vol. 4, p. 308, pl. 7. A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 136, figs. 215a, 216a-219.

Abundant north of Cape Cod, occasional in spring off southern New England.

ME.— Grand Manan, Eastport, summer; off Casco Bay, July. Mass.— Boston Harbor, Nahant, April to July, Cape Cod, Vineyard Sound, Woods Hole.

Gulf of Maine; German Bank; Platt's Bank.

35. PTYCHOGENA LACTEA A. Agassiz.

A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 137, fig. 220–224. "Massachusetts Bay, Nahant."

A boreal species not known south of Cape Cod.

MASS.— Nahant.

MITROCOMIDAE.

36. HALOPSIS OCELLATA A. Agassiz.

A. Agassiz, Proc. Boston soc. nat. hist., 1863, vol. 9, p. 220. "NAHANT." Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 99, fig. 143-150.

Not recorded south of Cape Cod.

ME.— Grand Manan.

MASS.— Massachusetts Bay, Nahant. Gulf of Maine, off Casco Bay.

37. TIABOPSIS DIADEMATA L. Agassiz.

L. Agassiz, Mem. Amer. acad. arts and sci., 1850, new ser., vol. 4, p. 298, pl. 6, fig. 1–18; pl. 8, fig. 11. "ALONG THE WHARVES OF BOSTON HARBOUR." L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 308, pl. 31, fig. 9–15.

Boreal, common on the northern New England coast March to May; occasional south of Cape Cod.

ME.— Eastport region, Casco Bay.

MASS.— Massachusetts Bay, Nahant, Boston, Cohasset, Cape Cod, Woods Hole.

38. MITROCOMA CRUCIATA (A. Agassiz) Mayer.

Halopsis cruciata A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 102, figs. 151, 152. "MASSACHUSETTS BAY, NAHANT."

MASS.— Massachusetts Bay.

Gulf of Maine, portheast part.

Probably the same as the European M. annae Haeckel.

EUCOPIDAE.

39. OBELIA GENICULATA (Linné) Allman.

Sertularia geniculata Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 812. "IN OCEANO."

Eucope diaphana A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 83, fig. 115–125.

Obelia sp. (geniculata?) Böhm, Jena. zeitschr., 1878, vol. 12, p. 174, pl. 3, fig. 1-34.

A world-wide species, abundant on the New England coast.

ME.— Penobscot Bay, Casco Bay.

MASS.— Massachusetts Bay, Woods Hole region.

R. I.— Newport.

40. OBELIA PLANA (M. Sars) Haeckel.

Thaumantias? plana M. Sars, Beskrivelser og jagttagelser, 1835, p. 28, pl. 5, fig. 13a-13g. "FLORÖEN OM FORAARET," NORWAY.

Obelia flabellata Hincks, British hydroid zoophytes, 1868, p. 157, pl. 29.

Rocky tide-pools on both sides of the North Atlantic.

MASS.— Nahant, off Thimble Island, 4 to 5 fathoms, Woods Hole.

41. OBELIA LONGISSIMA (Pallas) Hincks.

Sertularia longissima Pallas, Elenchus zoophytorum, 1766, p. 119. "OCEANUS EUROPAEUS....IN MARI BELGIUM."

Obelia longissima Hincks, British hydroid zoophytes, 1868, p. 154, pl. 27.

Common on both sides of the North Atlantic.

ME.- Casco Bay.

MASS.— Woods Hole, and 40 miles southeast of No Man's Land. \cdot

42. OBELIA GELATINOSA (Pallas) Hincks.

Sertularia gelatinosa Pallas, Elenchus zoophytorum, 1766, p. 116. "MARE BELGIUM ALLUENS."

Obelia gelatinosa Hincks, British hydroid zoophytes, 1868, p. 151, pl. 26, figs. 1, 1', 1a.

Abundant in the Mediterranean, and both sides of the North Atlantic. Not known north of Cape Cod.

MASS.— Vineyard Sound. R. I.— Coast. Conn.— New Haven.

43. OBELIA COMMISSURALIS McCrady.

McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 197, pl. 11, fig. 5–7. "SULLIVAN'S ISLAND, [SOUTH CAROLINA]." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 91, figs. 134, 135. Abundant along the New England coast.

ME.— Eastport region. MASS.— Massachusetts Bay, Woods Hole region.

R. I.— Newport.

44. OBELIA DICHOTOMA (Linné) Hincks.

Sertularia dichotoma Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 812. "IN OCEANO." Obelia dichotoma Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 246, pl. 30, fig. 1-4.

Common on both sides of the North Atlantic.

ME.— Eastport region, Casco Bay.

MASS.— Massachusetts Bay, Nahant, Marthas Vineyard, Woods Hole region.

R. I.- Newport.

45. CLYTIA VOLUBILIS (Ellis and Solander) Lamouroux.

Sertularia volubilis Ellis and Solander, Nat. hist. zoophytes, 1786, p. 51, pl. 4, figs. e, f, E, F. "COAST OF SUSSEX."

Clytia bicophora A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 78, fig. 108-111.

Clytia volubilis Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 262, pl. 32, fig. 1-7.

Widely distributed on the northern coasts of Europe and the United States.

ME.- Eastport region.

MASS.— Massachusetts Bay, Vineyard Sound, Woods Hole, Buzzards Bay.

R. I.- Newport.

46. CLYTIA FOLLEATA (McCrady) Mayer.

Epenthesis folleata McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 191. "CHARLESTON HARBOR, [SOUTH CAROLINA]."

Clytia folleata Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 264, pl. 31, figs. 9, 10; pl. 33, fig. 1-3.

Coast of the United States from southern New England to the West Indies. Not known north of Cape Cod.

MASS.— Vineyard Sound, Woods Hole, summer. R. I.— Newport, summer.

47. EUCHEILOTA VENTRICULARIS McCrady.

McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 187, pl. 11,

16

fig. 1-3; pl. 12, figs. 1, 2. [CHARLESTON HARBOR, SOUTH CARO-LINA.] Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 282, pl. 37, fig. 5; pl. 38, fig. 1-1".

Atlantic coast of the United States between southern New England and the Tortugas. Not recorded north of Cape Cod.

MASS.— Naushon, Woods Hole, Buzzards Bay, Vineyard Sound. R. I.— Newport.

48. PHIALIUM DUODECIMALIS (A. Agassiz) Haeckel..

Eucheilota duodecimalis A. Agassiz, in L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 353, footnote. "NAUSHON." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 75, figs. 106, 107, 107a. Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 283, pl. 36, fig. 6; pl. 37, figs. 1, 2.

A southern species not known north of Cape Cod.

MASS.— Naushon, Woods Hole. R. I.— Newport.

49. PHIALIDIUM LANGUIDUM (A. Agassiz) Haeckel.

Oceania languida A. Agassiz, in L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 353, footnote. "NAHANT AND NAUSHON." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 70, fig. 94– 102.

Phialidium languidum Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 269, pl. 33, fig. 4–8; pl. 34, fig. 5.

Abundant in summer on the New England coast, and in the Gulf of Maine near land; occasional as far south as South Carolina.

ME.— Eastport, Mt. Desert, Penobscot Bay, Casco Bay.

N. H.- Portsmouth.

MASS.— Massachusetts Bay, Nahant, Gloucester, Cohasset, Vineyard Sound, Buzzards Bay, Woods Hole.

R. I.- Newport.

50. PHIALIDIUM SINGULARIS (Mayer).

Oceania singularis Mayer, Bull. Mus. comp. zoöl., 1900, vol. 37, p. 7, pl. 4, figs. 12, 13. "NewPort HARBOR, RHODE ISLAND."

R. I.- Newport.

51. TIMA FORMOSA L. Agassiz.

L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 362, footnote. "MASSACHUSETTS BAY." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 113, fig. 164–172. Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 315, pl. 41, fig. 1–3.

General on the southern New England coast in early spring; recorded in Massachusetts Bay, March to May, and September.

MASS.— Nahant, Gloucester (winter), Cape Cod, Vineyard Sound, Woods Hole, Buzzards Bay.

R. I.— Newport.

52. EUTIMA MIRA McCrady.

McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 190, pl. 11, figs. 8, 9. [CHARLESTON HARBOR, SOUTH CAROLINA.] Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 295, pl. 39, fig. 1; pl-40, figs. 3, 3'; p. 297, fig. 160.

Coast of the United States between the West Indies and southern New England; not known north of Cape Cod.

MASS.— Woods Hole region, Vineyard Sound, late summer. R. I.— Newport.

AEQUOREIDAE.

53. AEQUOREA AEQUOREA VAR. ALBIDA A. Agassiz.

Aequorea albida A. Agassiz, in L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 359, footnote. "NAUSHON." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 110, fig. 160–162. Mayer,

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Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 331, pl. 43, fig. 1–5; pl. 44, fig. 5; p. 329, fig. 189.

New England coast, June to October.

ME.— Eastport region.

MASS.— Buzzards Bay, Woods Hole, Naushon.

R. I.- Newport.

54. AEQUOREA TENUIS (A. Agassiz) Bigelow.

Rhegmatodes tenuis A. Agassiz, in L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, p. 361, footnote. "NAUSHON, BUZZARD'S BAY." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 95, fig. 136–138.

Southern New England in summer and early autumn; not known north of Cape Cod.

MASS.— Woods Hole, Naushon, Buzzards Bay. R. I.— Newport.

55. AEQUOREA GROENLANDICA Péron and Lesueur.

Medusa acquorea Fabricius, Fauna Groenlandica, 1780, p. 364. [WEST GREENLAND.]

Aequorea groenlandica Péron and Lesueur, Ann. Mus. d'hist. nat. Paris, 1809, vol. 14, p. 339. "LA MER DU GROËNLAND."

Zygodactyla groenlandica A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 103, fig. 153–155 (non fig. 156). Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 335, pl. 44, fig. 1–4.

A northern species, known as far south as Newport, R. I., and represented by a distinct variety to North Carolina.

ME.— Eastport region.

MASS.— Massachusetts Bay, Vineyard Sound, Buzzards Bay, summer and autumn.

R. I.— Newport.

TRACHOMEDUSAE.

PETASIDAE.

56. GONIONEMUS MURBACHII Mayer.

Mayer, Sci. bull. Brooklyn inst. arts and sci., 1901, vol. 1, p. 5. "Woods Holl, MASSACHUSETTS." Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 343, pl. 45, fig. 1–4; pl. 46, fig. 1–3.

MASS.— Woods Hole, Vineyard Haven, Muskeget. CONN.— Noank.

TRACHYNEMIDAE.

57. AGLAURA HEMISTOMA Péron and Lesueur.

Péron and Lesueur, Ann. Mus. d'hist. nat. Paris, 1809, vol. 14, p. 351. "côtes de Nice." Haeckel, System der medusen, in Denkschr. med.-nat. ges. Jena, 1879, vol. 1, p. 275, pl. 16, figs. 1 ("A. nausicaa"), 2 ("A. laterna"), 3, 4. Bigelow, Mem. Mus. comp. zoöl., 1909, vol. 37, p. 119, pl. 2, fig. 6.

Tropical; all oceans.

Gulf Stream, 60 miles south of Marthas Vineyard.

58. AGLANTHA DIGITALE (Fabricius) Haeckel.

Medusa digitale Fabricius, Fauna Groenlandica, 1780, p. 366, [WEST GREENLAND.]

Trachynema digitale A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 57, fig. 81–86.

Aglantha digitale Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 402, pl. 49, figs. 2, 2'.

North Atlantic north of lat. 40°.

ME.— Eastport region, summer.

MASS.— Massachusetts Bay, Chatham, Nantucket, Woods Hole region, chiefly in early spring.

Gulf of Maine.

59. RHOPALONEMA VELATUM Gegenbaur.

Gegenbaur, Zeitschr. wiss. zool., 1856, vol. 8, p. 251, pl. 9, fig.

1-5. [MESSINA.] Vanhöffen, Wiss. ergebn. deutschen tiefsee-exp.,
"Valdivia," 1902, vol. 3, p. 59, pl. 10, figs. 16, 28; pl. 11, fig. 32. Tropical waters of all oceans.

MASS.— Vineyard Sound, Gulf Stream south of Nantucket.

GERYONIIDAE.

60. LIRIOPE SCUTIGERA McCrady.

McCrady, Proc. Elliott soc. nat. hist., 1857, vol. 1, p. 208. [CHARLESTON HARBOR, SOUTH CAROLINA.] Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 2, p. 421, pl. 50, fig. 7–10; pl. 51, fig. 1; p. 422, fig. 278.

A southern species not recorded north of Cape Cod.

R. I.— Newport.

61. LIRIOPE TETRAPHYLLA (Chamisso and Eysenhardt) Gegenbaur.

Geryonia tetraphylla Chamisso and Eysenhardt, Nova acta Acad. Leop.-Carol., 1821, vol. 10, p. 357, pl. 27, fig. 2. "IN OCEANO INDICO."

Liriope tetraphylla Bigelow, Mem. Mus. comp. zoöl., 1909, vol. 37, p. 112, pl. 3, figs. 6, 7; pl. 4, figs. 2, 3.

Tropical and subtropical regions of all oceans.

MASS.-Gulf Stream, south of Marthas Vineyard.

NARCOMEDUSAE.

SOLMARIDAE.

62. PEGANTHA CLARA R. P. Bigelow.

R. P. Bigelow, Biol. bull., 1909, vol. 16, p. 80, figs. 1, 2. "NEAR THE BORDER OF THE GULF STREAM, OFF THE SOUTHERN COAST OF NEW ENGLAND."

MASS.— Borders of Gulf Stream, south of Woods Hole.

SIPHONOPHORAE.

CALTO PHICELA

NELEEONECTIDAE.

1 SPEARS VECTES TETNIATA WIL Schneider.

Louis runnan Will English tergestinge, 1844 p. 82, pl. 2, fig. 28. TRUEST.

Al muganjes pravil a Casas Schriften 2010, inhalts, Wien, 1874, p. 25 p. - far S-14.

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ung ennamins have been recented from New England.

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1 ITTELES APPENDOTTATA Exhemita

Escheduarz System der Anderdern 1829, p. 188 pl. 12. fg. 7. * NURBLACHER STREAM MERRET Bigelow, Merri Muss comp. moli, 1411 von 18. p. 148 pl. 7. figs 5. ft. pl. 8. figs 7. 8: pl. 9. fg. ft. n. at. fg. ft. p. 11. fg. 1

Varmer parts if all preads.

Mass-Soun & Marines Vinepara E I-Newport are summer

1. Internets market. Themset and Eyenhardt. Haechel.

Denrice dopor Thamase and Epsenhards, Nova acta Acad. Long -Jamai 1911, mái 10 p. 8-3, pl. 33, fg. 4. "In MARK PACE-" FUL ALATTICOMALIS."

Depressioner of the Hamiski Repuised results – H. M. S. Thalmager 1999. Defaulture 28: Spherophysical p. 153, pis. 53, 54, a southern spheres and on the New Papland coast south of Table 1994.

III.4.—Harman an such & Marinas Vieyard: surface warm frite Bat presan.

PHYSOPHORAE.

AGALMIDAE.

4. AGALMA ELEGANS (M. Sars) Fewkes.

Agalmopsis elegan: M. Sars, Fauna littoralis Norvegiae, 1846, pt. 1, p. 32, pls. 5, 6 partim. "FLORÖE."

Agalma elegans Fewkes, Bull. Mus. comp. zoöl., 1881, vol. 8, p. 163, pls. 9, 10.

Atlantic and Indo-Pacific.

ME.— Eastport region (?). R. I.— Newport ; Gulf Stream south of Newport. Gulf of Maine, eastern part.

5. STEPHANOMIA CARA (A. Agassiz) Metschnikoff.

Nanomia cara A. Agassiz, Proc. Boston soc. nat. hist., 1863, vol. 9, p. 181. "NAHANT." A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 200, fig. 331–350. Fewkes, Bull. Mus. comp. zoöl., 1888, vol. 13, p. 213, pl. 1–3.

ME.— Eastport region. MASS.— Massachusetts Bay; off Cape Ann; off Cape Cod. R. I.— Newport. Gulf of Maine, central part; Georges Bank.

PHYSOPHORIDAE.

6. Physophora hydrostatica Forskål.

Physsophora hydrostatica Forskål, Descriptiones animalium.... quae in itinere orientali observavit, post mortem edidit Carsten Niebuhr, Hauniae, 1775, p. 119; Icones....1776, pl. 33, fig. e. No locality. Claus, Zeitschr. wiss. zool., 1860, vol. 10, p. 295– 332, pl. 25–27.

Physophora borealis M. Sars, Fauna littoralis Norvegiae, 1877, pt. 3, p. 32, pl. 5; pl. 6, fig. 1-8.

Oceanic.

Gulf of Maine, eastern part.



FAUNA OF NEW ENGLAND.

ANTHOPHYSIDAE.

7. ANTHOPHYSA FORMOSA (Fewkes) Haeckel.

Athorybia formosa Fewkes, Bull. Mus. comp. zoöl., 1882, vol. 9, p. 271, pl. 5, figs. 3, 4; pl. 6, fig. 7–14. "TORTUGAS."

Anthophysa formosa Bedot, Résultats des campagnes sci. Monaco, 1904, fasc. 27, p. 5, pl. 1, fig. 4-15.

MASS.- South of Marthas Vineyard.

PHYSALIIDAE.

8. PHYSALIA PHYSALIS (Linné) Schneider.

Portuguese Man-o'-War.

Holothuria physalis Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 657. "IN PELAGO."

Physalia arethusa L. Agassiz, Contr. nat. hist. U. S., 1862, vol. 4, pp. 335, 367, pl. 35.

A southern species often recorded from southern New England.

ME.— Eastport region (one record).

MASS.— Vineyard Sound and adjacent waters; Nantucket, Tuckernuck.

R. I.- Newport.

PORPITIDAE.

9. PORPITA UMBELLA (O. F. Müller) Eschscholtz.

O. F. Müller, Beschaft. Berlin ges. naturforsch. freunde, 1776, vol. 2, p. 295, pl. 9, figs. 2, 3. [EQUATORIAL ATLANTIC.]

Porpita linnaeana A. Agassiz, Mem. Mus. comp. zoöl., 1883, vol. 8, no. 2, p. 12, pl. 7–12.

A southern species, not recorded north of Cape Cod.

MASS.— Vineyard Sound, Woods Hole, Nantucket. R. I.— Newport.



VELELLIDAE.

10. VELELLA VELELLA (Linné) Schneider.

Medusa velella Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 660. "IN PELAGO....IN MARI MEDITERRANEO."

Velella mutica A. Agassiz, Mem. Mus. comp. zoöl., 1883, vol. 8, no. 2, p. 2, pl. 1–6.

A southern species not recorded north of Cape Cod.

MASS.— Vineyard Sound, Buzzards Bay, Nantucket. R. I.— Newport.

SCYPHOMEDUSAE.

CHARYBDEIDA.

CHARYBDEIDAE.

1. TAMOYA HAPLONEMA F. Müller.

F. Müller, Abh. naturf. ges. Halle, 1859, vol. 5, p. 1, pl. 1; pl. 2, fig. 15–17; pl. 3, fig. 30–31. "Das Meer von Santa Catharina [BRASILIENS]....BEI DESTERRO." Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 3, p. 513, pl. 57, fig. 2–2".

Coasts of America between Brazil and southern New England.

CONN.— Branford Harbor.

STAUROMEDUSAE.

LUCERNARIIDAE.

2. HALICLYSTUS AURICULA H. James-Clark.

H. James-Clark, Journ. Boston soc. nat. hist., 1863, vol. 7, p. 559. "ANTICOSTI IS." Smithson. contr. knowledge, 1878, vol. 23, p. 13-92, pl. 1-11.

Common from Massachusetts Bay northward to Labrador, not known south of Cape Cod.

ME.— Eastport region, Mt. Desert Id., Casco Bay. MASS.— Massachusetts Bay, Nahant, Cohasset. 3. HALICLYSTUS SALPINX H. James-Clark.

H. James-Clark, Journ. Boston soc. nat. hist., 1863, vol. 7, p. 563. "MT. DESERT IS., MAINE." Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 3, p. 535, pl. 56, fig. 1–4.

ME.— Mt. Desert Id. MASS.— Ram. Id., Manchester.

4. LUCERNARIA QUADRICORNIS O. F. Müller.

O. F. Müller, Prodrom. zool. Danicae, 1776, p. 227. [CHRIS-TIANIA, NORWAY.] M. Sars, Fauna littoralis Norvegiae, 1846, pt. 1, p. 20, pl. 3, fig. 1–7. H. James-Clark, Journ. Boston soc. nat. hist., 1863, vol. 7, p. 552.

Northern Europe, Greenland to northern New England; not recorded south of Cape Cod.

ME.— Eastport region, Owl's Head, Casco Bay. MASS.— Massachusetts Bay.

5. HALIMOCYATHUS PLATYPUS H. James-Clark.

H. James-Clark, Journ. Boston soc. nat. hist., 1863, vol. 7, p. 537. "CHELSEA BEACH, MASS."

One record only.

MASS.— Massachusetts Bay.

6. HALIMOCYATHUS LAGENA (O. F. Müller) Haeckel.

Holothuria lagenam referens O. F. Müller, Prodrom. zool. Danicae, 1776, p. 232. "GR[OENLAND,] UNNERAISUK."

Lucernaria auricula Milne-Edwards, Régne animal, zoophytes, 1849, pl. 63, 9 figs.

Manania auricula H. James-Clark, Journ. Boston soc. nat. hist., 1863, vol. 7, p. 542.

Atlantic coasts of Europe, Greenland, and northern New England.

ME.- Eastport.

MASS.— Massachusetts Bay.



SCYPHOMEDUSAE.

CORONATA.

PERIPHYLLIDAE.

7. PERIPHYLLA HYACINTHINA Steenstrup.

Steenstrup, Acta et cat. Mus. Hafniensis, 1837. "GREENLAND." Vanhöffen, Wiss. ergebn. deutschen tiefsee-exp., "Valdivia," 1902, vol. 3, p. 23, pl. 2, fig. 9. Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 3, pp. 545, 546, figs. 342, 343.

Intermediate depths of all oceans.

MASS.— Georges Bank.

DISCOPHORA.

PELAGIIDAE.

8. PELAGIA CYANELLA Péron and Lesueur.

Péron and Lesueur, Ann. Mus. d'hist. nat. Paris, 1809, vol. 14, p. 349. "OCÉAN ATLANTIQUE SEPTENTRIONAL." L. Agassiz, Contr. nat. hist. U. S., 1860, vol. 3, pls. 12, 13, 13a; *ibid.*, 1862, vol. 4, pp. 128, 164.

A southern species, occasionally taken in the Gulf Stream south of Marthas Vineyard; not recorded north of Cape Cod.

MASS.— Off Marthas Vineyard.

9. DACTYLOMETRA QUINQUECIRRHA (Desor) L. Agassiz.

Pelagia quinquecirrha Desor, Proc. Boston soc. nat. hist., 1848, vol. 3, p. 76. "NANTUCKET BAY."

Dactylometra quinquecirrha Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 3, p. 585, pl. 62-64A.

Tropics to southern New England; not recorded north of Cape Cod.

MASS.— Buzzards Bay, Woods Hole, Nantucket. R. I.— Newport.

FAUNA OF NEW ENGLAND.

CYANEIDAE.

10. CYANEA CAPILLATA (Linné) Eschecholtz.

Medusa capillata Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 660. "OCEANO SEPTENTRIONALL."

Cyanea capillata Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 3, p. 596, pl. 65, figs. 3, 4.

Cyanea arctica L. Agassiz, Contr. nat. hist. U. S., 1860, vol. 3, pl. 3–5a; pl. 10, fig. 1–17, 19–21, 23–30, 33–35, 37, 38; pl. 10a, fig. 1–4a, 5–12a, 14, 15; *ibid.*, 1862, vol. 4, pp. 87, 162.

ME.— Eastport region, Penobscot Bay, Casco Bay, August and September.

N. H.- Isles of Shoals.

MASS.--- Nahant, Boston, Cohasset, Cape Cod, Woods Hole region.

R. I.— Newport, spring and early summer.

AURELIIDAE.

11. PHACELLOPHORA ORNATA (Vertill) Haeckel.

Callinema ornata Verrill, Amer. journ. sci., 1869, ser. 2, vol. 48, p. 117. "EASTPORT HARBOR." Fewkes, Bull. Mus. comp. zoöl., 1888, vol. 13, p. 235, pl. 6.

Mr.-- Eastport.

Probably the same as the European *P. sicula* Haeckel, and the North Pacific *P. ambiguum* Brandt.

12. AURELIA AURITA (Linné) Lamarck.

Medusa aurita Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 660. "IN MARI BALTHICO, OCEANO."

Aurelia flavidula L. Agassis, Contr. nat. hist. U. S., 1860, vol. 3,



pl. 6-9; pl. 10, figs. 18, 22, 31, 32, 36; pl. 10a, figs. 4b, 13, 15a, 16-41; pl. 11-11b; pl. 11c, fig. 1-13; *ibid.*, 1862, vol. 4, pp. 10, 160. Cosmopolitan.

New England coast, Maine to Rhode Island, spring and summer.

ME.— Eastport region, Mt. Desert, Blue Hill Bay, Penobscot Bay, Casco Bay, Kittery.

N. H.-- Portsmouth Harbor, Isles of Shoals.

MASS.— Gloucester, Nahant, Boston Harbor, Cohasset, Marthas Vineyard, Woods Hole region.

R. I.- Newport.

RHIZOSTOMIDAE.

13. RHOPILEMA VERRILLI (Fewkes) Mayer.

Nectopilema verrilli Fewkes, Amer. journ. sci., 1887, ser. 3, vol. 33, p. 120, pl. 4. "New HAVEN HARBOR."

Rhopilema verrillii Mayer, Publ. Carnegie inst., 1910, no. 109, vol. 3, p. 707, pl. 74, figs. 1, 1'; p. 708, fig. 424.

Coast of the United States between North Carolina and southern New England.

CONN.- New Haven, Thimble Id.; Branford Harbor.

CTENOPHORAE.

CYDIPPIDA.

MERTENSIIDAE.

1. MERTENSIA OVUM (Fabricius) Moerch.

Beroe orum Fabricius, Fauna Groenlandica, 1780, p. 362. (WEST GREENLAND.)

Mertensia orum A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 26, fig. 29-37.

A common Arctic species.

In winter the young is recorded from New Jersey; but the adult is not known south of Marthas Vineyard.

ME.— Eastport.

MASS.— Massachusetts Bay, Woods Hole (?).

PLEUROBRACHIIDAE.

2. PLEUROBRACHIA PILEUS (Fabricius) Vanhöffen.

Beroe pileus Fabricius, Fauna Groenlandica, 1780, p. 361. [WEST GREENLAND.]

Pleurobrachia rhododactyla L. Agassiz, Mem. Amer. acad. arts and sci., 1850, new ser., vol. 4, p. 317, pl. 1–5. A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 30, fig. 38–51.

Probably cosmopolitan.

ME.— Bay of Fundy, Casco Bay, Penobscot Bay (?).

N. H.— Isles of Shoals.

MASS.- Massachusetts Bay, Woods Hole.

R. I.- Newport.

Gulf of Maine in general.

CESTIDA.

3. CESTUM VENERIS Lesueur.

Venus girdle.

Lesueur, Nouv. bull. soc. philom. Paris, 1813, vol. 3, p. 282, pl. 5, fig. 1, A, B. "NICE."

CESTIDAE.

CTENOPHORAE.

Cestus veneris Chun, Fauna und flora d. Golfes von Neapel, 1880, Monogr. 1, p. 301, pl. 11, fig. 1-3; pl. 12.

A southern species not recorded north of Cape Cod.

MASS.— Georges Bank.

R. I.- Newport.

BOLINOPSIDAE.

LOBATA.

4. BOLINOPSIS INFUNDIBULUM (O. F. Müller) Mayer.

Beroe infundibulum O. F. Müller, Prodrom. zool. Danicae, 1776, p. 232. "GR[OENLAND,] IKPIARSURSAK."

Bolinopsis infundibulum Mayer, Publ. Carnegie inst., 1912, no. 162, p. 21, pl. 4, fig. 12-15.

Arctic Ocean and North Atlantic, south to Germany, and New England; possibly to the Mediterranean.

ME.— Eastport region, Penobscot Bay, Casco Bay. MASS.— Nahant, Cohasset, Woods Hole. Gulf of Maine in general.

5. MNEMIOPSIS LEIDYI A. Agassiz.

A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 20, fig. 22–24. "NAUSHON, BUZZARD'S BAY." Mayer, Publ. Carnegie inst., 1912, no. 162, p. 26, pls. 6, 7; pl. 8, fig. 46.

Coast of the United States between North Carolina and New England; not recorded north of Cape Cod.

MASS.— Naushon, Vineyard Sound, Buzzards Bay, Woods Hole. R. I.— Newport.

BEROIDA.

BEROIDAE.

6. BEROË OVATA Bosc.

Bosc, Hist. nat. des vers, 1809, p. 149, pl. 18, fig. 1. [JAMAICA.] Chun, Fauna und flora d. Golfes von Neapel, 1880, Monogr. 1, p. 308, pl. 14, figs. 1, 2.

Doubtful List.

'MEDUSAE CRASPEDOTAE.

CAMPANELLA PACHYDERMA A. Agassiz.

A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 52, fig. 70–75. "Found at Nahant."

This species is probably founded on a young stage of one of the Aeginidae.

SOLMARIS TETRANEMA Hargitt.

Hargitt, Biol. bull., 1902, vol. 4, p. 18, fig. 5. "NEAR THE GULF STREAM."

Probably the young of Solmissus.

CUNINA DISCOIDES Fewkes.

Fewkes, Bull. Mus. comp. zoöl., 1881, vol. 8, p. 161, pl. 2, fig. 8; pl. 4, figs. 1, 2. "NARRAGANSETT BAY."

Probably the young of Solmissus.

SCYPHOMEDUSAE.

CHARYBDEA VERRUCOSA Hargitt.

Charibdea verrucosa Hargitt, Amer. nat., 1902, vol. 36, p. 559, fig. 4. "WOODS HOLE."

Charybdea verrucosa Hargitt, Bull. U. S. bureau of fisheries, 1905, vol. 24, p. 65, pl. 5, fig. 5.

Too young for determination.

CTENOPHORAE.

LESUEURIA HYBOPTERA A. Agassiz.

A. Agassiz, Mem. Mus. comp. zoöl., 1865, vol. 1, no. 2, p. 23, fig. 25–28. "MASSACHUSETTS BAY, AND NEWPORT, R. I."

MASS.— Massachusetts Bay, Woods Hole (?).

R. I.— Newport.

Probably regenerated Bolinopsis infundibulum.





CHECK LIST AND INDEX.

In this check list the + indicates a specimen in the Society's Museum; the — that a trustworthy record exists.

Gulf of Me. N. H. Mass. R. I. Conn. Page. Main Aequorea aequorea var. albida 18 groenlandica 19 tenuis . 19 20 Aglantha digitale Aglaura hemistoma 20 Amphinema apicata 10 rugosa . 10 . Bougainvillia carolinensis 9 gibbsi 9 superciliaris 8 Campanella pachyderma 33 . Catablema vesicaria 11 Clytia folleata 16 volubilis 16 . Corynitis agassizii 5 Cunina discoides . 33 Ectopleura ochracea 6 Eucheilota ventricularis 16 18 Eutima mira . . Gonionemus murbachii 20 Halopsis ocellata . 13 • Hybocodon pendula. 5 prolifer . 6 Hydrichthys mirus 4 Laodicea calcarata 12 Leuckartiara octona 10 Liriope scutigera . 21 tetraphylla 21 7 Lymnorea borealis Melicertum campanula 11 Mitrocoma cruciata 14 Nemopsis bachei 9 Obelia commissuralia 15 dichotoma 15 . gelatinosa 15

Medusae Craspedotae.

(35)

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FAUNA OF NEW ENGLAND.

	Page.	Me.	N. H.	Mass.	R. I.	Conn.	Gulf of Maine, etc.			
Obelia geniculata	14	_		+	-					
longissima	15	—		-						
plana	14			-						
Orchistoma tentaculata	12				-					
Pegantha clara	21			-						
Pennaria tiarella	5	-		+	.					
Phialidium languidum	17			-			—			
singularis	- 18	ĺ			-					
Phialium duodecimalis	17				-					
Podocoryna carnea	7									
fulgurans	7			-						
Proboscidactyla ornata	11			- 1						
Ptychogena lactea	13			-						
Rathkea blumenbachii	9			-		1				
Rhopalonema velatum	20			-						
Sarsia haeckeli	4			-						
hargitti	3			-	1	1				
mirabilis	3		-		-					
reticulata	3	ł		-		1				
Slabberia strangulata	4				-					
Solmaris tetranema	33						1			
Staurophora mertensii	12	-				1	-			
Steenstrupia virgulata	5			-	1					
Stomobrachium tentaculatum .	12			-			1			
Stylactis hooperi	8									
Tiaropsis diademata	13	-								
Tima formosa	18			+						
Turritopsis nutricula	8			-	1-					
Zanclea cladophora	7			-	-					
gemmosa	6		1	1		1	1			
Siphonophorae.										
Agalma elegans	23	-	1	1		1				
Anthophysa formosa	24									
Diphyes appendiculata	22				-					
Diphyopsis dispar	22						l			
Physalia physalis	24	-		+	-					
Physophora hydrostatica	23				1		-			
Porpita umbella	24			-	-					
Sphaeronectes truncata	22				_					
Stephanomia cara	23			-	-		-			
Velella velella	25	ł			_		ł			

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CHECK LIST

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Scyphomedusae.

soy produced and.											
		Page.	Me.	N. H.	Mass.	R. I.	Conn.	Gulf of Maine, etc.			
Aurelia aurita	•	28	—		+	-					
Charybdea verrucosa	•	33		i '	-						
Cyanea capillata		28	-	-	—	—					
Dactylometra quinquecirrha.	•	27		1	-	—					
Haliclystus auricula	•	25			-						
salpinx	•	26			—						
Halimocyathus lagena	•	26	-	1	-						
platypus	•	26									
Lucernaria quadricornis	•	26	-		-						
Pelagia cyanella	•	27			-						
Periphylla hyacinthina	•	27			-						
Phacellophora ornata	•	28	-								
Rhopilema verrilli	•	29					+				
Tamoya haplonema	•	25					+				
Ctenophorae.											
Beroë ovata		31									
cucumis		31		1	-	[
Bolinopsis infundibulum	•	31	-	Ι.		1	1	_			
Cestum veneris	•	30									
Lesueuria hyboptera	•	33			-						
Mertensia ovum	•	30	-			l					
Mnemiopsis leidyi		31			-						
Pleurobrachia pileus	•	30	—	—			ł				

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Announcement.

FAUNA OF NEW ENGLAND.

The Society will issue, as volume seven of the Occasional Papers, a Catalogue of the animals of New England.

Parts will be published at irregular intervals, and though the details of the several lists will vary somewhat in the different groups, each list will include: 1st, the accepted name (scientific and vernacular); 2d, reference to the original description, with record of locality; 3d, reference to an authentic description and illustration; and 4th, habitat and occurrence.

The Society considers these lists a necessary preliminary to a series of comprehensive, illustrated monographs, the publication of which the Society has already begun. The Society also believes that these lists will aid in the accumulation of valuable material for the New England collection. A price list of the parts already published will be found on the back cover page.

Toward the accomplishment of its aims the Society invites the coöperation of all interested in the Fauna of New England.

Communications concerning specimens should be addressed to the CURATOR of the Society (Chas. W. Johnson), notes and records of occurrence to the EDITOR of the "Fauna of New England."

Boston Society of Natural History, 234 Berkeley St., Boston, Mass.



Occasional Papers or the Boston Society of Natural History. VII.

FAUNA OF NEW ENGLAND.

13.

LIST OF THE MOLLUSCA.

By CHARLES W. JOHNSON.

BOSTON:

PRINTED FOR THE SOCIETY FROM THE GURDON SALTONSTALL FUND. December, 1915.



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INTRODUCTION.

THE preparation of a faunal list of New England Mollusca at this time, when nomenclature is so unsettled by the adoption of the genera of Bolten and of other early writers, whose works were either overlooked or ignored by the "old school," is fraught with sad misgivings as one sees many of the names familiar from boyhood swept into the synonymic sea. Though fully believing in the law of priority, I should feel some hesitancy in presenting these names in a faunal list, were it not for the fact that practically all of these changes have been recently published, but so scattered through various journals and papers that their adoption has not yet become general.

The Gould-Binney edition of the Invertebrates of Massachusetts. published in 1870, is still the book on New England Mollusca and will continue to be for some time: therefore in preparing this list all of the names used in that work that have been changed, are given in the synonymy. The second work bearing directly on the fauna is Verrill's Report upon the Invertebrate Animals of Vinevard Sound and Adjacent Waters, published by the United States Commission of Fish and Fisheries in 1873. This was followed by his "Catalogue of Marine Mollusca added to the fauna of the New England coast and the adjacent parts of the Atlantic consisting mostly of deep sea species " published in three parts in the Transactions of the Connecticut Academy, 1882, 1884, and 1885. As the latter papers contained many species found far beyond what can be reasonably considered New England, the necessity of establishing a New England marine faunal area became apparent. A paper on this subject with the accompanying map was published in the Society's Museum and Library Bulletin, No. 7, May, 1908.

In forming this area we should take into consideration the diversity of conditions off our coast, such as the great irregularity in depth, the effect of currents and tides on the temperature of the water, and the character of the sea bottom. These are impor-

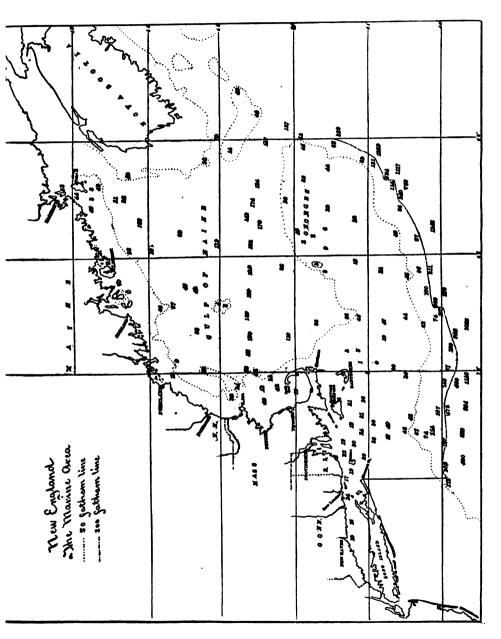
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tant factors governing distribution and the area should be large enough to enable one to study the effects of these varied conditions to advantage. To appreciate fully the true gulf or land-locked character of the Gulf of Maine, one should study a chart covering the Gulf, adjacent coast lines, and banks. This shows at once the desirability of adopting the 200-fathom line, as any less depth would give a very irregular and impracticable boundary, there being several places in the Gulf of Maine deeper than 150 fathoms but not exceeding 200 fathoms, while all of the Georges Bank is less than 50 fathoms. The most convenient eastern boundary therefore would be the 66th meridian which just grazes the eastern edge of the Georges and includes the approach to the Bay of Fundy. the tides of which have such a great influence on the fauna of the Maine coast. On the eastern edge of the Georges at about 40° 30' north latitude the 66th meridian intersects the 200-fathom line. which practically skirts the edge of the continental shelf to a point directly south of Montauk Point, Long Island,- about 40° north latitude and 72° west longitude. This gives an area south of the Georges and Cape Cod, sufficient for the study of the influences of the Gulf Stream and counter currents. All of Long Island Sound except the bays and harbors of Long Island is also included in this area.

The land mollusks also present many interesting features in distribution, since New England is the northeastern limit of distribution of many species, such as *Polygyra palliata*, *Polygyra tridentata*, *Omphalina fuliginosa*, *Omphalina inornata*, etc., species common to the mountains of North Carolina and Tennessee. We can trace these species back and find that their line of dispersal from that region was probably first northward along the western ridges of the Alleghanies into central New York and thence eastward along the valleys of the Mohawk and Hudson Rivers into western New England. The distribution of *Helix hortensis*, confined to the islands and headlands of the coast, strengthens the theory of botanists and others of a large continuous land area to the eastward in comparatively recent geological times.

Of the species from deep water, only those actually taken within

INTRODUCTION.



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MOLLUSCA.

AMPHINEURA.

POLYPLACOPHORA.

LEPIDOPLEURIDAE.

Lepidopleurus alveolus (Lovén).

Pilsbry, Manual Conch., 1892, ser. 1, vol. 14, p. 6, pl. 2, figs. 23-31.

Chiton alveolus (Sars MS.) Lovén, Öfvers. Kongl. Vet.-Akad. Förh., 1846, vol. 3, p. 159. "BoH[US]-BERGEN."

Gulf of Maine, 150 fathoms; Georges Bank.

Lepidopleurus cancellatus (Sowerby).

Pilsbry, Manual Conch., 1892, ser. 1, vol. 14, p. 3, pl. 3, figs. 54–58.

Chiton cancellatus Sowerby, Conch. Illustr., 1839, pt. 167, figs. 104, 105. [GREAT BRITAIN.]

Leptochiton cancellatus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 534.

Gulf of Maine, Cashes Ledge, 30 to 40 fathoms (Verrill).

Hanleya hanleyi (Bean).

Pilsbry, Manual Conch., 1892, ser. 1, vol. 14, p. 17, pl. 3, figs. 71-79.

Chiton hanleyi Bean, Thorpe Brit. Mar. Conch., Suppl., 1844, p. 263, fig. 57. "SCARBOROUGH [, ENGLAND]."

MASS.— Stellwagen Bank, Massachusetts Bay, 38 fathoms.

Hanleya mendicaria (Mighels and Adams).

Pilsbry, Manual Conch., 1892, ser. 1, vol. 14, p. 18, pl. 4, figs. 82-85.

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Monte - Inspiret Sound and Buzzares Bar 1 in 12 facilities: Sounders - Eastern

Lorg. - Of New London.

* Tennella macmares. I somme

Fistery Manual Jonetic 1992, ser. L. vol. 14, p. 41, pl. 13, 5gs.
 Fist
 Fister marmarine Fasterns, Fauna Groenlandien, 1783, p. 430.

(ARREAST)

Conton Futurination Continenty, Boston Journ. Nat. Hist., ISB, 200, 2 a. S. J. L. Leg. 13.

- Main Cases Bay: Frankinan's Bay, hw wher is 10 fathons; Income

alass - Revers: Massannisetts Bay: of Baker's Island. Cont. - From votish taken of Somington Linsley .

Inicella marmores coercies Whiter .

Children marmarene var. szerulene Winkley, Nazilias, 1844. vol. 8, p. 73. – * Eastrenet, Marvell

Ma – Eastport



Tonicella blaneyi Dall.

Dall, Proc. Biol. Soc. Wash., 1905, vol. 18, p. 203. "OFF IRONBOUND ISLAND, FRENCHMANS BAY, *** MAINE." Dall, Nautilus, 1905, vol. 19, p. 88, pl. 4.

ME.— Frenchman's Bay, off Ironbound Island, in 20 fathoms.

* Trachydermon albus (Linné).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 64.

Chiton albus Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1107. "O. ISLANDICO."

Ischnochiton (Trachydermon) albus Pilsbry, Manual Conch., 1892, ser. 1, vol. 14, p. 70, pl. 7, figs. 35–38.

ME.— Casco Bay; Frenchman's Bay, 6 to 10 fathoms; Eastport.

N. H.— Isles of Shoals. Mass.

Trachydermon exaratus (G. O. Sars).

Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 208, pl. 30, figs. 2-2b. Lophyrus exaratus G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 113, pl. 8, fig. 1. "BODØ."

MASS.— Off Marthas Vineyard, 101 to 192 fathoms.

* Trachydermon ruber (Linné).

Chiton ruber Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1107. "OCEANO SEPTENTRIONALL."

Ischnochiton (Trachydermon) ruber Pilsbry, Manual Conch., 1892, ser. 1, vol. 14, p. 80, pl. 7, figs. 50–56.

ME.— Casco Bay; Frenchman's Bay; Eastport. MASS.— Revere; Swampscott. R. I.— Off Watch Hill, 5 fathoms. CONN.— Off New London, 8 fathoms.

PELECYPODA.

PELECYPODA.

PRIONODESACEA.

SOLEMYIDAE.

*Solemya velum Say.

Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 317, "southern coast [of the United States]." Gould, Inv. Mass., 1870, p. 48, fig. 371.

Solenomya velum Morse, Biol. Bull., 1913, vol. 25, p. 261.

ME.— Casco Bay.

MASS.— Common in Buzzards Bay, Vineyard Sound, and Massachusetts Bay.

R. I.- Narragansett Bay.

CONN.- Near New Haven; Stratford and Long Beach.

*Solemya borealis Totten.

Totten, Amer. Journ. Sci., 1834, ser. 1, vol. 26, p. 366, pl., fig. 1. "VICINITY OF NEWPORT, [R. I.]." Gould, Inv. Mass., 1870, p. 50, fig. 372.

Solenomya borealis Morse, Biol. Bull., 1913, vol. 25, p. 261.

ME.— Casco Bay; Old Orchard.

MASS.— Chelsea Beach; Nahant; Annisquam; Coffin's Beach; Cuttyhunk.

R. I.— Newport.

CONN.— Stonington.

NUCULIDAE.

*Nucula proxima truncula Dall.

Dall, Trans. Wagner Free Inst. Sci., 1898, vol. 3, pt. 4, p. 574. "LONG ISLAND SOUND NORTHWARD TO NOVA SCOTIA."

Nucula proxima Gould, Inv. Mass., 1870, p. 150, fig. 458.

ME. to CONN.— Common, in 2 to 30 fathoms.

Nucula proxima ovata (Verrill and Bush .

Nucula proxima var. orata Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 852, pl. 81, fig. 6; pl. 88, fig. 5. "VINETARD SOUND, OFF CUTTHUNK."

MASS. - Vineyard Sound, off Cuttyhunk, in 18 fathoms.

*Nucula delphinodonta Mighels and Adams.

Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 40, pl. 4, fig. 5. "Casco Bay." Gould, Inv. Mass., 1870, p. 153, fig. 461.

ME.— Casco Bay, 5 to 95 fathoms; Frenchman's Bay, 4 to 50 fathoms; Eastport, 10 to 100 fathoms.

MASS.— Off Cape Ann, 30 fathoms; off Gay Head, 19 fathoms; Revere; Duxbury.

R. I.- East of Block Island, 29 fathoms.

*Nucula tenuis (Montagu).

Gould, Inv. Mass., 1870, p. 149, fig. 457.

Arca tenuis Montagu, Test. Brit., Suppl., 1808, p. 56, pl. 29, fig. 1. "NEAR DUNBAR, [SCOTLAND]."

ME.— Casco Bay; Frenchman's Bay, 10 to 20 fathoms; Eastport, 15 to 20 fathoms.

MASS.— "Georges Banks."

CONN.- ?Stonington (Linsley).

Nucula subovata Verrill and Bush.

Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 852, pl. 81, fig. 8; pl. 83, fig. 5. "BETWEEN N. LAT. 40°, W. LONG. 71° 14' 30', AND N. LAT. 37° 8', W. LONG. 74° 33', IN 157 TO 444 FATH-OMS."

South of Marthas Vineyard, 157 fathoms.



LEDIDAE.

*Leda tenuisulcata (Couthouy).

Gould, Inv. Mass., 1870, p. 161, fig. 468.

Nucula tenuisulcata Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 64, pl. 3, fig. 8. "MASS. BAY."

ME.— Casco Bay; Frenchman's Bay, 10 to 35 fathoms; Eastport, 10 to 35 fathoms.

N. H.- Off Isles of Shoals, 20 fathoms.

MASS.— From fish caught off Nahant; Provincetown; Duxbury; Georges Bank, 40 to 150 fathoms.

R. I.- Newport.

Leda acuta (Conrad).

Nucula acuta Conrad, Amer. Marine Conch., 1832, p. 32, pl. 6, fig. 3. "VIRGINIA" (fossil).

Leda unca Verrill, Proc. U. S. Nat. Mus., 1881, vol. 3, p. 401.

Seventy-three miles south of Marthas Vineyard, 65 to 219 fathoms.

R. I.— South of Newport, 85 to 155 fathoms.

Leda caudata (Donovan).

Gould, Inv. Mass., 1870, p. 165, fig. 471. Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 855, pl. 82, fig. 1.

Arca caudata Donovan, Brit. Shells, 1801, vol. 3, pl. 78. "KENT-ISH COAST, [ENGLAND]."

Gulf of Maine, N. lat. 42° 57', W. long. 69° 50', 102 fathoms.

Leda pernula (Müller).

Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 855, pl. 82, fig. 2.

Arca pernula Müller, Beschäft. Berlin. Naturf. Ges., 1779, vol. 4, p. 57. [Locality?]

Leda jacksonii Gould, Inv. Mass., 1870, p. 163, fig. 469 (in part).

Yoldia cascoensis (Mighels and Adams).

Nucula cascöensis Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 40, pl. 4, fig. 6. "CASCO BAY."

ME.— Casco Bay, from stomach of haddock.

*Yoldia (Portlandia) thraciaeformis (Storer).

Nucula thraciaeformis Storer, Boston Journ. Nat. Hist., 1838, vol. 2, p. 122, fig. "FROM THE STOMACH OF A PLATESSA^{***} CAUGHT OFF PROVINCETOWN, CAPE COD."

Yoldia thraciaeformis Gould, Inv. Mass., 1870, p. 157, fig. 465.

Megayoldiá thraciaeformis Verrill and Bush, Amer. Journ. Sci., 1897, ser. 4, vol. 3, p. 55, fig. 17.

ME.— Casco Bay, 15 fathoms; Frenchman's Bay, 10 to 28 fathoms; Eastport, 10 fathoms.

MASS.— Off Cape Cod, in about 30 fathoms.

Yoldia (Microyoldia) regularis (Verrill).

Yoldia regularis Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 228. " OFF MARTHA'S VINEYARD, IN 349 FATHOMS."

Microyoldia regularis Verrill and Bush, Amer. Journ. Sci., 1897, ser. 4, vol. 3, p. 56, figs. 5, 6.

MASS.— Off Thatcher's Island, 98 fathoms.

*Yoldia (Yoldiella) lucida (Lovén).

Yoldia lucida Lovén, Öfvers. Kongl. Vet.-Akad. Förh., 1846, vol. 3, p. 188. "Boh[us] — FINM[ARK]."

Yoldia obesa Gould, Inv. Mass., 1870, p. 155, fig. 463.

Yoldiella lucida Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 861, pl. 77, fig. 2; pl. 80, fig. 3.

ME.- Casco Bay and off Cape Elizabeth, 30 to 95 fathoms.

MASS.— Massachusetts Bay; near the Georges Bank, 110 to 150 fathoms.

R. I.— East of Block Island, 29 fathoms.

Yoldia (Yoldiella) iris stricta (Verrill and Bush).

Yoldiella iris var. stricta Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 864, pl. 80, fig. 1. "OFF CAPE SABLE, 90 FATHOMS."

Gulf of Maine, off Cape Sable, 90 fathoms.

Yoldia (Yoldiella) inflata (Verrill and Bush).

Yoldiella inflata Verrill and Bush, Amer. Journ. Sci., 1897, ser. 4, vol. 3, p. 56, figs. 3, 4, 11. "SOUTH OF GEORGES' BANK TO CAPE HATTERAS."

Georges Bank, N. lat. 41° 53', W. long. 66° 35', 75 fathoms.

Yoldia (Yoldiella) subangulata (Verrill and Bush).

Yoldiella subangulata Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 865, pl. 77, fig. 3; pl. 79, fig. 6. [OFF ISLES OF SHOALS.]

N. H.— Off Isles of Shoals, 51 fathoms.

Yoldia (Yoldiella) lenticula amblla (Verrill and Bush).

Yoldiella lenticula (Möller) var. amblia Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 866, pl. 80, fig. 9; pl. 81, fig. 4. "NORTH OF CAPE COD."

MASS.— North of Cape Cod, 110 to 122 fathoms.

Yoldia (Yoldiella) fraterna (Verrill and Bush).

Yoldiella fraterna Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 867, pl. 80, fig. 5; pl. 82, fig. 8. "BETWEEN N. LAT. 47° 40', W. LONG. 47° 35' 30'', AND N. LAT. 37° 8', W. LONG. 74° 33'."

Yoldia frigida Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 279 (in part: non Torell).

Off the New England coast in 90 to 1608 fathoms.

Yoldia (Yoldiella) frigida Torell.

Yoldia frigida Torell, Bidrag Spitz. Moll., 1859, p. 148, pl. 1, fig. 3.

[SPITZBERGEN.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 573, pl. 44, fig. 2.

Yoldiella frigida Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 872, pl. 79, fig. 4.

Gulf of Maine and Jeffrey's Ledge, 88 to 92 fathoms.

MASS.— Off Cape Cod, 106 fathoms; off Marthas Vineyard, 153 to 312 fathoms.

Yoldia (Yoldiella) inconspicua (Verrill and Bush).

Yoldiella inconspicua Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 869, pl. 79, figs. 3, 5. "N. LAT. 42° 33', W. LONG. 69° 58.5', AND N. LAT. 35° 12' 10", W. LONG. 74° 57' 15", IN 100 TO 705 FATHOMS."

MASS.— Off Marthas Vineyard, 100 to 705 fathoms.

LIMOPSIDAE.

Limopsis minuta (Philippi).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 576. Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 846, pl. 75, fig. 1; pl. 78, fig. 7.

Pectunculus minutus Philippi, Enum. Moll. Siciliae, 1836, vol. 1, p. 63, pl. 5, fig. 3. [SICILY.]

MASS.— South of Marthas Vineyard, 93 to 715 fathoms.

Limopsis affinis Verrill.

Verrill, Trans. Conn. Acad., 1885, vol. 6, p. 442. [OFF MARTHAS VINEYARD.] Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 846, pl. 75, fig. 2.

MASS.— South of Marthas Vineyard, 197 fathoms.

PELECYPODA.

*Arca (Scapharca) transversa Say.

Arca transversa Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 269. "COAST OF THE UNITED STATES." Gould, Inv. Mass., 1870, p. 148, fig. 456a.

MASS.— Chatham; Buzzards Bay; Marthas Vineyard; Nantucket; Wellfleet.

R. I.— Narragansett Bay; Greenwich Bay; near Watch Hill. CONN.— Off New London; New Haven; Stratford.

Arca (Bathyarca) pectunculoides Scaechi.

Arca pectunculoides Scacchi, Test. Napolitani, 1832; Ann. Civ. d. Sicil., 1836, vol. 6, p. 82. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 573, pl. 44, figs. 5, 6.

ME.— Off Casco Bay, 94 fathoms; Cashe's Ledge, 27 to 90 fathoms; Gulf of Maine, 110 to 150 fathoms.

MASS.— Off Cape Cod, 92 to 122 fathoms; Georges Bank; south of Marthas Vineyard, 76 to 506 fathoms.

Arca (Bathyarca) pectunculoides septentrionalis G. O. Sars.

Arca pectuaculoides var. septentrionalis G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 43, pl. 4, fig. 2. "HASVIG [NORWAY.]"

MASS.— South of Marthas Vineyard, 79 to 500 fathoms (Verrill).

Arca (Bathyarca) pectunculoides frielei Friele.

Arca frielei Friele (ex Jeffreys MS.), Nyt Mag. f. Naturv., 1877, vol. 23, pt. 3, p. 2. [NORTH ATLANTIC.] Jeffreys, Proc. Zool. Soc. London, 1879, p. 573, pl. 45, figs. 4, 4a.

Arca pectunculoides var. frielei Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 574.

MASS.— South of Marthas Vineyard, 100 to 487 fathoms.

Arca (Bathyarca) pectunculoides crenulata Verrill.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 575. "off Martha's Vineyard."

MASS.— Off Marthas Vineyard, 85 to 120 fathoms.

Arca (Bathyarca) anomala (Verrill and Bush).

Bathyarca anomala Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 844, pl. 77, fig. 8. "OFF CASHES LEDGE, [GULF OF MAINE]."

ME.- Off Cashes Ledge, Gulf of Maine, 27 fathoms.

PTERIIDAE.

Pteria hirundo vitrea (Reeve).

Dall, Trans. Wagner Free Inst. Sci., 1898, vol. 3, pt. 4, p. 670.

Avicula vitrea Reeve, Conch. Icon., Avicula, 1857, vol. 10, pl. 18, fig. 68. "West Indies."

Avicula hirundo var. nitida Verrill, Proc. U. S. Nat. Mus., 1881, vol. 3, p. 402; Trans. Conn. Acad., 1882, vol. 5, p. 582, pl. 58, fig. 43.

MASS.— South of Marthas Vineyard; found in considerable numbers adhering to hydroids, in 65 to 192 fathoms (Verrill).

OSTREIDAE.

*Ostrea virginica Gmelin.

THE OYSTER.

Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3336. "OCEANO AMERICANO ET INDICO."

Ostrea virginiana Gould, Inv. Mass., 1870, p. 202. Brooks, The Oyster, Baltimore, ed. 2, 1905.

Ostrea borealis Lamarck, Hist. Nat. Anim. sans Vert., 1819, vol. 6, pt. 1, p. 204.



PELECYPODA.

O. virginica var. meadii Davis, Apteryx, 1905, vol. 1, p. 117, pl. 9, fig. E (young).

Formerly living in Casco Bay and Damariscotta, Me.; once abundant in various parts of Massachusetts and Cape Cod Bays. Still living in Oyster River, Great Bay, N. H. Common in Vineyard Sound, Buzzards Bay, Narragansett Bay, and Long Island Sound. Southern oysters have been planted for a number of years in the waters of R. I. and Conn.

UNIONIDAE.

*Lampsilis ventricosa (Barnes).

Simpson, Descriptive Cat. Naiades, 1914, p. 38.

Unio ventricosus Barnes, Amer. Journ. Sci., 1823, ser. 1, vol. 6, • p. 267, pl. 13, fig. 14. "THE WISCONSAN *** MISSISSIPPI, NEAR PRAIRIE DU CHIEN."

Unio occidens Lea, Trans. Amer. Phil. Soc., 1830, new ser., vol. 3, p. 435, pl. 10, fig. 16.

Vr.— Larrabee's Point; Shoreham; Chimney Point, Lake Champlain.

*Lampsilis cariosa (Say).

Simpson, Descriptive Cat. Naiades, 1914, p. 43.

Unio cariosus Say, Nich. Encycl., 1816, vol. 2, pl. 3, fig. 2. "DELAWARE AND SCHUYLKILL RIVERS." Gould, Inv. Mass., 1870, p. 172, fig. 475.

ME.-- Warren; Chickawaukee Pond; Perham Lake.

MASS.— Connecticut River; Haverhill; ponds in Plymouth Co. CONN.— Connecticut and Housatonic Rivers.

*Lampsilis ochracea (Say).

Simpson, Descriptive Cat. Naiades, 1914, p. 49.

Unio ochraceus Say, Nich. Encycl., 1816, vol. 2, pl. 3, fig. 8. "DELAWARE AND SCHUYLKILL RIVERS." MASS.— Wayland; Woburn; Newton; Fresh Pond, Cambridge; Plymouth; Concord.

R. I.— Providence; Rhodes; Warwick. CONN.— Stonington; Hartford.

*Lampsilis (Proptera) alata (Say).

Simpson, Descriptive Cat. Naiades, 1914, p. 162.

Unio alatus Say, Nich. Encycl., 1816, vol. 2, pl. 4, fig. 2. "LAKE ERIE."

Metaptera alata Stimpson, Shells of New England, 1851, p. 14.

VT.- Larrabee's Point; Chimney Point, Lake Champlain.

*Lampsilis (Proptera) gracilis (Barnes).

Simpson, Descriptive Cat. Naiades, 1914, p. 181.

Unio gracilis Barnes, Amer. Journ. Sci., 1823, ser. 1, vol. 6, p. 274. "The WISCONSAN *** AND THE LAKES".

Metaptera gracilis Stimpson, Shells of New England, 1851, p. 14.

VT.— Larrabee's Point; Shoreham; Chimney Point, Lake Champlain.

Strophitus edentulus (Say).

Simpson, Descriptive Cat. Naiades, 1914, p. 345.

Alasmodonta edentula Say, New Harmony (Ind.) Disseminator, 1829, vol. 2, no. 22, p. 340. "WABASH RIVER."

Anodon undulata Gould, Inv. Mass., 1870, p. 182, fig. 482 (non Say).

VT.— Lake Champlain and its tributary streams.

MASS.-Blackstone River and its tributaries; Westfield.

CONN.— Connecticut River at Hartford.

Strophitus undulatus (Say).

Simpson, Descriptive Cat. Naiades, 1914, p. 349.

Anodonta undulata Say, Nich. Encycl., 1816, vol. 2, pl. 3, fig. 5. [UNITED STATES.]

ME.— Androscoggin River at Bethel; Warren; Aroostook Co.
N. H.— Connecticut River at Hanover.
VT.— Connecticut River at Hartland.
MASS.— Ware; Uxbridge; Bullow's Pond, Newton.
R. I.— Warwick; Providence; North Smithfield.
CONN.— Housatonic River.

*Anodonta cataracta Say.

Say, Nich. Encycl., 1816, vol. 2, pl. 3, fig. 4. [UNITED STATES.] Simpson, Descriptive Cat. Naiades, 1914, p. 386.

Anodon fluviatilis Gould, Inv. Mass., 1870, p. 178, fig. 480.

ME. to CONN.- Common in most of the lakes and ponds.

*Anodonta marginata Say.

Say, Nich. Encycl., 1816, vol. 2, pl. 3, fig. 5. [UNITED STATES.] Simpson, Descriptive Cat. Naiades, 1914, p. 388.

Anodonta fragilis Lamarck, Hist. Nat. Anim. sans Vert., 1819, vol. 6, pt. 1, p. 85.

Anodonta lacustris Lea, Journ. Acad. Nat. Sci. Phila., 1860, ser. 2, vol. 4, p. 363, pl. 62, fig. 188.

ME.— Salmon Brook Lake, Perham (Nylander); Warren (Lermond).

VT.- Wallingford; Otter Creek.

*Anodonta implicata Say.

Say, New Harmony (Ind.) Disseminator, 1829, vol. 2, no. 22, p. 340. "DANVERS, MASS." Simpson, Descriptive Cat. Naiades, 1914, p. 391.

Anodonta newtoniensis Lea, Trans. Amer. Phil. Soc., 1839, new ser., vol. 6, p. 79, pl. 21, fig. 66.



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Anodonta housatonica Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 277.

Anodon implicata Gould, Inv. Mass., 1870, p. 180, fig. 481.

ME.- Warren (Lermond); pond near Eastport (Mighels).

MASS.— Agawam River, East Wareham; Mystic Lake, Arlington.

R. I.— Cunliff Pond, Providence; Warwick; North Smithfield. CONN.— Hartford.

*Anodonta grandis benedictensis (Lea).

Simpson, Descriptive Cat. Naiades, 1914, p. 423.

Symphynota benedictensis Lea, Trans. Amer. Phil. Soc., 1837, vol. 5, p. 104, pl. 16, fig. 48. "LAKE CHAMPLAIN."

VT.- Larrabee's Point; Chimney Point, Lake Champlain.

Anodontoides ferussacianus (Lea).

Simpson, Descriptive Cat. Naiades, 1914, p. 467.

Anodonta ferussaciana Lea, Trans. Amer. Phil. Soc., 1837, new ser., vol. 5, p. 45, pl. 6, fig. 15. "Ohio River, NEAR CINCINNATI."

CONN.— Whitneyville (Linsley).

Symphynota compressa Lea.

Lea, Trans. Amer. Phil. Soc., 1830, new ser., vol. 3, p. 450, pl. 12, fig. 22. "Ohio *** Norman's Kill, NEAR Albany." Simpson, Descriptive Cat. Naiades, 1914, p. 481.

VT.- Streams west of the Green Mountains (Adams).

Symphynota compressa plebeia (C. B. Adams).

Simpson, Descriptive Cat. Naiades, 1914, p. 483.

Unio compressus var. plebeius C. B. Adams, Thompson's Hist. Vt., 1842, pt. 1, p. 166. "MIDDLEBURY, [VT.]"

VT.— Middlebury (Adams); creek near Mallett's Bay (Perkins). Conn.— New Haven, canal.

*Symphynota costata (Rafinesque).

Simpson, Descriptive Cat. Naiades, 1914, p. 488.

Alasmidonta costata Rafinesque, Ann. Gén. Sci. Phys. Bruxelles, 1820, vol. 5, p. 318, pl. 82, figs. 15, 16. [KENTUCKY RIVER.]

Alasmodonta rugosa Barnes, Amer. Journ. Sci., 1823, ser. 1, vol. 6, p. 278, pl. 13, fig. 21. C. B. Adams, Thompson's Hist. Vt., 1842, pt. 1, p. 165.

VT.— Chimney Point, Lake Champlain and streams west of the Green Mountains (Adams).

*Alasmidonta undulata (Say).

Simpson, Descriptive Cat. Naiades, 1914, p. 494.

Monodonta undulata Say, Nich. Encycl., 1816, vol. 2, pl. 3, fig. 3. "Delaware and Schuylkill Rivers."

Margaritana undulata Gould, Inv. Mass., 1870, p. 176, fig. 478.

ME.— Eagle Lake; Fish River; Androscoggin River; Rangeley; Warren.

N. H.- Concord; Connecticut, Hanover.

VT.— Hartland.

MASS.— Milton; Sudbury; Wellesley; Andover; Blackstone River, Uxbridge.

R. I.- Blackstone River, Pawtucket; Warwick.

CONN.— Connecticut and Housatonic River; Meriden.

*Alasmidonta heterodon (Lea).

Simpson, Descriptive Cat. Naiades, 1914, p. 499.

Unio heterodon Lea, Trans. Amer. Phil. Soc., 1830, new ser., vol. 3, p. 428, pl. 8, fig. 11. "SCHUYLKILL AND DERBY CREEK, PA."

N. H.- Connecticut River, at Hanover and Cornish.

VT.— Connecticut River, at Hartland.

MASS.- Westfield.

CONN.— Connecticut River; Little River; Housatonic River; Meriden.

*Alasmidonta marginata (Say).

Simpson, Descriptive Cat. Naiades, 1914, p. 504.

Alasmodonta marginata Say, Nich. Encycl., 1816, vol. 2, pl. 3, fig. 5. [UNITED STATES.]

Margaritana marginata Gould, Inv. Mass., 1870, p. 177, fig. 479.

ME.- Westbrook, Dennys River.

N. H.- Connecticut River, Hanover.

VT.— Otter Creek, Wallingford.

MASS.— Blackstone River, Andover; West Brookfield; Sherborn.

R. I.- Cunliff Pond, Providence.

CONN.— Housatonic River, Derby.

*Unio complanatus (Dillwyn).

Gould, Inv. Mass., 1870, p. 167, fig. 472. Simpson, Descriptive Cat. Naiades, 1914, p. 651.

Mya complanata Dillwyn, Catalogue, 1817, vol. 1, p. 51. "RIV-ERS IN VIRGINIA. *** MARYLAND AND NEW JERSEY. *** MISSIS-SIPPI."

ME. to CONN.— Common in almost every stream and pond.

Unio complanatus mainensis Rich.

Rich, Science, 1915, new ser., vol. 42, p. 580. "Songo Pond, about three miles south of Bethel, Me."

ME.- Ponds and lakes of Oxford Co.

*Unio roanokensis northamptonensis Lea.

Simpson, Descriptive Cat. Naiades, 1914, p. 668.

Unio northamptonensis Lea, Proc. Acad. Nat. Sci. Phila., 1861, p. 392. "CONNECTICUT RIVER, AT NORTHAMPTON. AT SPRING-FIELD *** BELOW HARTFORD *** NEUSE RIVER, N. C." Lea, Journ. Acad. Nat. Sci. Phila., 1862, ser. 2, vol. 5, p. 190, pl. 25, fig. 260.

MASS.— Northampton; Springfield.

CONN.— Connecticut River below Hartford.

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MARGARITANIDAE.

*Margaritana margaritifera (Linné).

Simpson, Descriptive Cat. Naiades, 1914, p. 513.

Mya margaritifera Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 671. "IN TOTIUS ORBIS ARCTICI CATARACTIS."

Margaritana arcuata Gould, Inv. Mass., 1870, p. 174, fig. 477.

ME.— Aroostook Co.; Scarboro; Warren; Hebron.

VT.--- Winooski River.

MASS.— Haydenville; Southampton; Lunenburg; Ware.

R. I.— Exeter.

CONN.— Turnbull River (Linsley); Waterford; Bristol; Granby.

PECTINIDAE.

*Pecten (Chlamys) islandicus Müller.

Pecten islandicus Müller, Zool. Danicae Prodr., 1776, p. 248. [DENMARK.]

Chlamys islandica Verrill, Trans. Conn. Acad., 1897, vol. 10, p. 72, pl. 16, figs. 2–5b; pl. 20, fig. 9; pl. 21, fig. 2; var. insculpta Verrill, ibid., p. 73.

ME.— Casco Bay, 20 fathoms; Frenchman's Bay, 25 to 45 fathoms; Eastport.

MASS.— Massachusetts Bay; off Marthas Vineyard, 69 to 194 fathoms; Georges Bank, 40 to 65 fathoms.

CONN.— Stonington in an eel-pot (Linsley).

Pecten (Chlamys) costellatus (Verrill and Bush).

Chlamys costellata Verrill and Bush in Verrill, Trans. Conn. Acad., 1897, vol. 10, p. 75. "OFF THE COAST OF NEWFOUNDLAND IN 67 TO 72 FATHOMS."

MASS.— Off Half-way Rock, Marblehead, in 30 fathoms (Balch).

Pecten (Aequipecten) glyptus Verrill.

Pecten glyptus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 580. "OFF MARTHA'S VINEYARD." Pecten tryoni Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 438, Chlamys (Aequipecten) glypta Verrill, Trans. Conn. Acad., 1897. vol. 10, p. 76, pl. 16, figs. 7-11.

MASS.— Off Marthas Vineyard, 85 to 120 fathoms.

*Pecten (Plagioctenium) gibbus borealis Say.

Ostrea gibba Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 698.

Pecten borealis Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 260. "New England."

Pecten irradians Gould, Inv. Mass., 1870, p. 199, fig. 496 (non Lamarck).

Pecten gibbus var. borealis Dall, Trans. Wagner Free Inst. Sci., 1898, vol. 3, pt. 4, p. 747.

MASS. to CONN.— The common scallop of southern New England.

*Pecten (Placopecten) magellanicus (Gmelin).

Dall, Trans. Wagner Free Inst. Sci., 1898, vol. 3, pt. 4, p. 726. Ostrea magellanica Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3317. "FRETO MAGELLANICO."

Pecten tenuicostatus Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 41, pl. 4, fig. 7. Gould, Inv. Mass., 1870, p. 196, fig. 494.

Pecten fuscus Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 278.

Pecten clintonius Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 261 (non Say).

ME.— Casco Bay, 4 to 10 fathoms; Frenchman's Bay, 3 to 10 fathoms; Eastport.

MASS.— Massachusetts Bay; Duxbury; Vineyard Sound Georges Bank, 45 fathoms.

R. I.— Off Watch Hill; off Block Island; Point Judith. CONN.— Stonington from codfish.

Pecten (Camptonectes) vitreus (Gmelin).

Ostrea vitrea Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3328. "OCEANO SEPTENTRIONALI."

Pecten vitreus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 580, pl. 42, fig. 21.

Camptonectes (Palliolum) vitrea Verrill, Trans. Conn. Acad., 1897, vol. 10, p. 65, pl. 18, figs. 6-14.

MASS.— Off Marthas Vineyard in from 100 to 506 fathoms; northward in 57 to 400 fathoms, attached to various objects, chiefly to the gorgonian corals (Verrill).

Pecten (Camptonectes) striatus Müller.

Pecten striatus Müller, Zool. Danicae Prodr., 1776, p. 248; Zool. Danica, 1788, vol. 2, p. 26, pl. 60, figs. 3-5. [DENMARK.] Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 233.

Camptonectes (Palliolum) striata Verrill, Trans. Conn. Acad., 1897, vol. 10, pp. 62, 66, pl. 18, figs. 14, 14a.

MASS.— Off Marthas Vineyard, 100 fathoms.

Pecten (Pseudamusium) pustulosus Verrill.

Pecten pustulosus Verrill, Amer. Journ. Sci., 1873, ser. 3, vol. 5, p. 14. "NEAR ST. GEORGE'S BANK" [AND GULF OF MAINE.]

Pecten hoskynsi var. pustulosus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 581, pl. 42, figs. 22, 22a.

Pecten (Pseudamusium) imbrifer Dall, Bull. Mus. Comp. Zoöl., 1886, vol. 12, p. 220 (in part; non Lovén).

Cyclopecten pustulosus Verrill, Trans. Conn. Acad., 1897, vol. 10,. p. 83, pl. 19, figs. 3, 4.

Gulf of Maine, 150 fathoms.

MASS.— South of Marthas Vineyard, 120 to 365 fathoms.

Pecten (**Pseudamusium**) subimbrifer (Verrill and Bush).

Cyclopecten subimbrifer Verrill and Bush in Verrill, Trans. Conn. Acad., 1897, vol. 10, p. 84. "OFF THE EASTERN COAST OF THE UNITED STATES." Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 840, pl. 85, figs. 8, 9.

Pecten hoskynsi Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 581, pl. 44, fig. 11 (non Forbes, 1844).

Gulf of Maine, 115 to 150 fathoms.

MASS.— South of Marthas Vineyard, 120 to 365 fathoms.

Pecten (Propeamusium) thalassinus Dall.

Pecten (Pseudamusium) thalassinus Dall, Bull. Mus. Comp. Zoöl., 1886, vol. 12, p. 221. "OFF MARTHA'S VINEYARD" AND "OFF HAVANNA."

Pecten fenestratus Verrill, Proc. U. S. Nat. Mus., 1881, vol. 3, p. 403 (non Forbes, 1844).

Propeamusium thalassinum Verrill, Trans. Conn. Acad., 1897, vol. 10, p. 87, pl. 19, figs. 5–7.

MASS.— Off Marthas Vineyard, 86 to 310 fathoms; most numerous in 93 to 100 fathoms (Verrill).

LIMIDAE.

Limaea subovata (Jeffreys).

Lima subovata Jeffreys, Ann. Mag. Nat. Hist., 1876, ser. 4, vol. 18, p. 427. "OFF THE NORTH-WESTERN COAST OF IRELAND *** BETWEEN THE HEBRIDES AND FÄRÖE ISLES *** AND BETWEEN THE FÄRÖES AND SHETLAND *** OFF THE AZORES *** PALERMO." Jeffreys, Proc. Zool. Soc. London, 1879, p. 563, pl. 45, fig. 2.

Limaea subvota (sic) Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 580.

MASS.— Off Marthas Vineyard, 100 to 500 fathoms (Verrill).

ANOMIIDAE.

*Anomia aculeata Müller.

Müller, Zool. Danicae Prodr., 1776, p. 249. [DENMARK.] Gould, Inv. Mass., 1870, p. 204, fig. 498. ME.— Common in Casco Bay and northward, low water to 80 fathoms.

MASS.— Off Gay Head, 10 fathoms; Duxbury. CONN.— Off Stonington, 4 to 5 fathoms.

*Anomia simplex d'Orbigny.

d'Orbigny, Moll. Cubana, 1845, (Spanish ed.), vol. 2, p. 367, pl. 38, figs. 31-35. [CUBA.]

Anomia ephippium Gould, Inv. Mass., 1870, p. 204, fig. 497 (non Linné).

Anomia electrica Gould, Inv. Mass., 1870, p. 205, fig. 499 (non $\text{Linn}\epsilon$).

Anomia squamula Gould, Inv. Mass., 1870, p. 206 (non Linné). Anomia glabra Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 213.

ME. to CONN.— Common south of Cape Cod, adhering to oysters and scallops.

MYTILIDAE.

*Mytilus edulis Linné.

Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 705. "O. EUROPAEO, INDICO & BALTHICO." Gould, Inv. Mass., 1870, p. 183, fig. 483.

ME. to CONN.— The common edible mussel.

*Mytilus edulis pellucidus Pennant.

Gould, Inv. Mass., 1870, p. 184, fig. 484.

Mytilus pellucidus Pennant, Brit. Zool., 1777, vol. 4, p. 95, pl. 63, fig. 75. "ANGLESEA, [ENGLAND.]"

ME. to CONN.— Common, associated with the typical form.

*Mytilus (Hormomya) recurvus Rafinesque.

Mytilus recurrus Rafinesque, Ann. Gén. Sci. Phys. Bruxelles, 1820, vol. 5, p. 54. "LE MISSISSIPPI PRÈS DE LA NOUVELLE-ORLÉANS."



Mytillus hamatus Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 265.

R. I.— Narragansett Bay.

CONN.— New Haven Harbor (Perkins, 1870). Introduced in the planting of southern oysters in these waters.

*Modiolus modiolus (Linné).

Lamarck, Prod. Nouv. Class. Coq., 1799, p. 87. Mytilus modiolus Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1158.

"M. MEDITERRANEO, NORVEGICO." Modiola modiolus Gould, Inv. Mass., 1870, p. 186, fig. 485.

ME. to CONN.- Common, from low water to 80 fathoms.

*Modiolus (Brachydontes) demissus plicatulus (Lamarck).

Dall, Trans. Wagner Free Inst. Sci., 1898, vol. 3, pt. 4, p. 795. Mytilus demissus Dillwyn, Catalogue, 1817, vol. 1, p. 314. "VIRGINIA."

Modiola plicatula Lamarck, Hist. Nat. Anim. sans Vert., 1819, vol. 6, pt. 1, p. 113. No locality. Gould, Inv. Mass., 1870, p. 188, fig. 486.

Modiola plicatula truncata Davis, Apteryx, 1905, vol. 1, p. 117, pl. 9, fig. D.

ME.— Casco Bay; mouth of the Kennebec River. MASS.— Salem; Revere; Chatham; Woods Hole; Edgartown. R. I.— Oakland Beach; Buttonwoods; Wickford. CONN.

*Musculus substriatus (Gray).

Modiola laevigata var. β . substriata Gray, Suppl. to Appendix to Parry's Voyage 1819–20, 1824, p. ccxlv. [Northwest Passage.]

Modiolaria discors Gould, Inv. Mass., 1870, p. 192, fig. 489 (non Linné).

ME.— Casco Bay; Frenchman's Bay, 15 to 20 fathoms; Eastport.

MASS.--- Vineyard Sound, 14 to 25 fathoms.

R. I.

CONN.— Oyster River, near New Haven (Linsley).

*Musculus niger (Gray).

Modiola nigra Gray, Suppl. to Appendix to Parry's Voyage 1819–20, 1824, p. ccxliv. [Northwest Passage.]

Modiola nexa Gould, Inv. Mass., 1841, p. 128, fig. 86. Modiolaria nigra Gould, Inv. Mass., 1870, p. 190, figs. 487, 488.

MASS.— Provincetown; Vineyard Sound, 10 to 15 fathoms. CONN.— Stonington, in stomach of cod (Linsley).

*Musculus corrugatus (Stimpson).

Mytilus corrugatus Stimpson, Shells of New England, 1851, p. 12. "EASTPORT TO CAPE COD."

Modiolaria corrugata Gould, Inv. Mass., 1870, p. 193, fig. 491.

ME.— Casco Bay, 15 fathoms; Frenchman's Bay, 6 to 10 fathoms.

MASS.— Off Marthas Vineyard, 20 to 25 fathoms; off Nauset Light; Georges Bank.

CONN.— Off New London.

• *Crenella glandula (Totten).

Gould, Inv. Mass., 1870, p. 194, fig. 492.

Modiola glandula Totten, Amer. Journ. Sci., 1834, ser. 1, vol. 26, p. 367, fig. 3. "PROVINCETOWN HARBOR, (MASS.)."



PELECYPODA.

ME.— Common from Casco Bay to Eastport in 3 to 60 fathoms. MASS.— Marblehead, 7 fathoms; Buzzards Bay and Vineyard Sound, 5 to 15 fathoms.

R. I.— Off Block Island, 29 fathoms. CONN.— Stonington (Linsley); off New London.

Crenella pectinula (Gould).

Gould, Inv. Mass., 1870, p. 195, fig. 493.

Modiola pectinula Gould, Inv. Mass., 1841, p. 127, fig. 85. "St. GEORGE'S BANK."

Georges Bank.

*Crenella decussata (Montagu).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 578, pl. 44, fig. 7.

Mytilus decussatus Montagu, Test. Brit., Suppl., 1803, p. 69. "Scotish coast."

ME.— Casco Bay, 10 to 20 fathoms; Frenchman's Bay, 10 to 28 fathoms; Eastport, 4 to 40 fathoms.

N. H.— Off Isles of Shoals, 20 fathoms.

MASS.— Provincetown; off Marthas Vineyard, 64 to 115 fathoms; Duxbury.

CONN.— Stonington (Linsley).

ANOMALODESMACEA.

PHOLADOMYACIDAE.

Aporema arata (Verrill and Smith).

Dall, Trans. Wagner Free Inst. Sci., 1903, vol. 3, pt. 6, p. 1532. *Pholadomya arata* Verrill and Smith in Verrill, Amer. Journ. Sci., 1881, ser. 3, vol. 22, p. 301. [OFF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 567, pl. 58, fig. 37.

MASS.— South of Marthas Vineyard, 69 to 130 fathoms.

PERIPLOMIDAE.

*Periploma fragilis (Totten).

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 64, pl. 59, fig. 7.

Anatina fragilis Totten, Amer. Journ. Sci., 1835, ser. 1, vol. 28, p. 348, fig. 1. "NEWPORT HARBOR, R. I."

Anatina papyracea Gould, Inv. Mass., 1870, p. 66, fig. 382 (non Say, 1822).

ME.— Casco Bay, 10 fathoms; Frenchman's Bay, 4 to 10 fathoms; Old Orchard.

/ MASS.— Massachusetts Bay.

R. I.— Off Block Island, 29 fathoms.

*Periploma (Cochlodesma) leanum (Conrad).

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 64, pl. 59, fig. 6. Anatina leana Conrad, Journ. Acad. Nat. Sci. Phila., 1831, ser. 1,

vol. 6, p. 263, pl. 11, fig. 11. "NORTHERN COAST OF THE U. S."

Cochlodesma leanum Gould, Inv. Mass., 1870, p. 68, fig. 383.

ME.— Casco Bay; Frenchman's Bay; Eastport.

MASS.— Nahant; Cape Cod; Vineyard Sound; Nantucket; Georges Bank.

CONN.— Long Island Sound, 3 to 10 fathoms.

THRACIIDAE.

*Thracia conradi Couthouy.

Couthouy, Boston Journ. Nat. Hist., 1839, vol. 2, p. 153, pl. 4, fig. 2. "COAST OF NEW ENGLAND." Gould, Inv. Mass., 1870, p. 69, fig. 384. Morse, Nautilus, 1913, vol. 27, p. 73.

Thracia declivis Conrad, Amer. Marine Conch., 1832(?), p. 44, pl. 9, fig. 2 (non Pennant, 1778).

ME.— Casco Bay, 6 to 15 fathoms; Frenchman's Bay, 3 to 16 fathoms; Eastport, 6 fathoms.

MASS.— Nahant; Revere; Vineyard Sound, 6 to 8 fathoms; Duxbury. R. I.

Thracia truncata Mighels and Adams.

Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 38, pl. 4, fig. 1. "CASCO BAY, ME." Gould, Inv. Mass., 1870, p. 72, fig. 386.

ME.— Casco Bay, 10 to 20 fathoms; Frenchman's Bay, 20 to 25 fathoms; Eastport.

MASS.— Off Lynn; Massachusetts Bay; off Marthas Vineyard; Georges Bank.

R. I.— Off Block Island, 29 fathoms.

*Thracia myopsis Möller.

Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 94. [GREEN-LAND.] Gould, Inv. Mass., 1870, p. 71, fig. 385.

Thracia couthouyi Stimpson, Shells of New England, 1851, p. 23.

ME.— Casco Bay; Frenchman's Bay, 10 to 12 fathoms; Eastport.

MASS — Massachusetts Bay; Georges Bank.

PANDORIDAE.

Pandora (Kennerleyia) brevis (Verrill and Bush).

Kennerlia brenis Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 821, pl. 88, figs. 7a, 7b.

Kennerlia glacialis Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 397 (non Leach, 1819). [OFF MARTHAS VINEYARD.]

MASS.— Off Marthas Vineyard, 45 to 100 fathoms.

*Pandora (Clidiophora) gouldiana Dall.

Dall, Bull. Mus. Comp. Zoöl., 1886, vol. 12, p. 312. "NEW ENGLAND."

Penders tröneste Courset, Amer. Marine Canch., 1882 (1. p. 49, 34, 11, figs. 1, 2, 169, fags. 1822 – Gendel, Inv. Mass., 1878, p. 62, fig. 274.

Mr. 16 (1885 - Common from low-water mark to 30 factores.

Panders Clidiophers inernsts Verrill and Bush .

Culturphone increases Verrill and Bosh, Proc. U. S. Nat. Mus., 1965, vol. 20, p. 516, pl. 55, 555, 5, 6, [1097 Massachussens.]

Mass.-Off Stellwagen Bank, meth of Cape Cod, and off Chattam, 10 to 43 fations.

LYONSHDAE.

*Lyonsia hyalina 'Conrad .

Conrad, Amer. Marine Conch., 1832 ? . p. 51, pl. 11, fig. 2. Gould, Inv. Mass., 1870, p. 64, fig. 380.

Mya hyalina Conrad, Journ. Acad. Nat. Sci. Phila., 1831, ser. 1, vol. 6, p. 261, pl. 11, fig. 12. " NORTHERN COAST OF THE U. S."

Ostenderma kyalina Couthouy, Boston Journ. Nat. Hist., 1839, vol. 2, p. 166.

Mr. to CONN .- Common from low-water mark to 30 fathoms.

*Lyonsia arenosa (Mõller).

Gould, Inv. Mass., 1870, p. 65, fig. 381.

Pandorina arenosa Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 93. [GBZENLAND.]

ME.- Casco Bay; Frenchman's Bay; Eastport.

POROMYACIDAE.

Poromya granulata (Nyst and Westendorp).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 564, pl. 44, figs. 3, 4.

PELECYPODA.

Corbula? granulata Nyst and Westendorp, Nouv. Rech. Coq. Foss. d'Anvers, 1839, p. 6, pl. 3, figs. 3, 4. [BELGIUM (fossil).]

Gulf of Maine, 150 fathoms.

MASS.— Off Marthas Vineyard, 63 to 146 fathoms.

Poromya granulata rotundata Jeffreys.

Poromya rotundata Jeffreys, Ann. Mag. Nat. Hist., 1876, ser. 4, vol. 18, p. 494. [North Atlantic, 1450 fathoms.] Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 396.

MASS.— South of Marthas Vineyard, 65 to 115 fathoms.

VERTICORDIIDAE.

Verticordia (Trigonulina) ornata caelata Verrill.

Verticordia caelata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 566. "OFF MARTHA'S VINEYARD." Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 278, pl. 30, figs. 9, 9a.

Verticordia (Trigonulina) ornata Dall, Bull. Mus. Comp. Zoöl., 1886, vol. 12, p. 290.

MASS.— Off Marthas Vineyard, 100 fathoms.

Halicardia flexuosa (Verrill and Smith).

Dall, Proc. U. S. Nat. Mus., 1895, vol. 17, p. 697, pl. 23, figs. 1, 3, 5, 6; pl. 24, fig. 3.

Mytilimeria flexuosa Verrill and Smith in Verrill, Amer. Journ. Sci., 1881, ser. 3, vol. 22, p. 302. [OFF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 567, pl. 58, fig. 38.

Mass.—Off Marthas Vineyard, 75 to 349 fathoms.

Lyonsiella abyssicola (M. Sars) G. O. Sars.

Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 396. Pecchiolia abyssicola G. O. Sars, Remark. Forms Anim. Life,

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CHPIDARIDAE

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[199] W.C. Barry, Proc. U. S. Nat. Mas., 1898, vol. 20, p. 804, 9 N. M. T.

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God of Marce, 52 to 92 faitions.

Marcha (M. Cape Cod, 106 fathoms; off Marthas Vineyard, 192 16 II. Savana

Cysp/Aarla pellucida (Stimpson).

Verr and Buch, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 805, pl 75, for 8; pl 76, fig. 8.



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Neaera pellucida Stimpson, Smithson. Contr. Knowl., 1853, vol. 6, art. 5, p. 21, pl. 1, fig. 13. "OFF LONG ISLAND, [NEW YORK]."

ME.- Eastport Harbor; off Casco Bay, 50 to 95 fathoms.

Cuspidaria glacialis (G. O. Sars).

Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 800, pl. 71, fig. 9; pl. 73, fig. 5; pl. 75, fig. 9.

Neaera glacialis G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 88, pl. 6, fig. 8. [OFF VADSØ, NORWAY.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 562, pl. 44, figs. 10a, 10b.

ME.— Off Casco Bay and in the Gulf of Maine, 50 to 180 fathoms. MASS.— Off Cape Ann and Cape Cod; south of Marthas Vineyard, 65 to 500 fathoms.

Cuspidaria rostrata (Spengler).

Mya rostrata Spengler, Skriv. Nat.-Selsk. Kjobenhavn, 1793, vol. 3, pt. 1, p. 42. [BERGEN, NORWAY.]

Neaera rostrata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 562, pl. 58, fig. 39.

MASS.— South of Marthas Vineyard, 85 to 155 fathoms.

Cuspidaria media Verrill and Bush.

Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 800, pl. 71, figs. 5, 6; pl. 73, fig. 6. "OFF MARTHA'S VINEYARD."

MASS.— Common off Marthas Vineyard, 63 to 155 fathoms.

Cuspidaria (Cardiomya) multicostata Verrill and Smith.

Neaera multicostata Verrill and Smith, in Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 398. "SOUTH OF MARTHA'S VINEYARD."

MASS.- Off Marthas Vineyard, 85 to 158 fathoms.

*Astarte castanea picea Gould.

Gould, Inv. Mass., 1841, p. 77. "CHELSEA BEACH, [MASS.]" Gould, Inv. Mass., 1870, p. 118.

MASS.— Revere; Vineyard Sound.

*Astarte castanea procera Totten.

Totten, Amer. Journ. Sci., 1835, ser. 1, vol. 28, p. 349, fig. 2. "PROVINCETOWN HARBOR, (MASS.)." Gould, Inv. Mass., 1870, p. 118.

MASS.— Provincetown; Marblehead; Nauset.

*Astarte quadrans Gould.

Gould, Inv. Mass., 1841, p. 81, fig. 48. "FROM THE STOMACHS OF FISH CAUGHT IN MASSACHUSETTS BAY."

ME.— Casco Bay; Frenchman's Bay.

MASS.— Massachusetts Bay; off Marthas Vineyard, 19 to 25 fathoms; off Provincetown, 20 fathoms; Georges Bank.

CONN.— Stonington (Linsley).

Astarte portlandica Mighels.

Mighels, Boston Journ. Nat. Hist., 1843, vol. 4, p. 320, pl. 16, fig. 2. "stomach of a haddock *** taken in Casco Bay." Blaney, Nautilus, 1906, vol. 19, p. 110.

ME.— Casco Bay; Frenchman's Bay, 10 fathoms (Blaney).

*Astarte undata Gould.

Gould, Inv. Mass., 1841, p. 80. [New England.] Astarte sulcata Gould, Inv. Mass., 1870, p. 119, fig. 432 (non Da Costa).

ME.— Common, Casco Bay; Frenchman's Bay; Eastport. N. H.

Astarte elliptica (Brown).

Gould, Inv. Mass., 1870, p. 124, figs. 435-437.

Crassina elliptica Brown, Illustr. Conch., 1827, pl. 18, fig. 3. "FIRTH OF FORTH AND GREENOCK."

ME. to MASS.— Massachusetts Bay, northward in 8 to 90 fathoms (Dall).

Astarte striata (Leach).

Nicania striata Leach, Ross's Voyage, 1819, Appendix no. 2, p. lxii. "LAT. 76° 42' N., LONG. 76° W."

Astarte banksii Gould, Inv. Mass., 1870, p. 125, fig. 438 (non Leach).

ME.— Frenchman's Bay, 20 fathoms (Blaney).

MASS.— Massachusetts Bay northward, 10 to 85 fathoms (Dall).

CRASSATELLITIDAE.

*Crassinella mactracea (Linsley).

Astarte mactracea Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 275, fig. "STONINGTON, [CONN.]". Gould, Amer. Journ. Sci., 1848, ser. 2, vol. 6, p. 233, figs. 1, 2.

Gouldia mactracea Gould, Inv. Mass., 1870, p. 128, fig. 442.

MASS.— Vineyard Sound and Buzzards Bay, 3 to 10 fathoms. CONN.— Stonington, codfish stomach (Linsley); off New London.

SPHAERIIDAE.

*Sphaerium sulcatum (Lamarck).

Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 33, fig. 25.

Cyclas sulcata Lamarck, Hist. Nat. Anim. sans Vert., 1818, vol. 5. p. 560. "LAC GEORGES, AMÉRIQUE SEPTENTRIONALE."

Sphaerium simile Gould, Inv. Mass., 1870, p. 101, fig. 407 (non Say).

ME.— Barren Brook; Caribou; North Warren; Saco. N. H.

VT.- Chimney Point, Lake Champlain.

MASS.— Cambridge; Malden; Pontoosue Lake; Blackstone River, Uxbridge.

R. I.- Ten Mile and Blackstone Rivers.

CONN.- Deep River; Housatonic River; Weston.

*Sphaerium striatinum (Lamarck).

Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 37, fig. 29.

Cyclas striatina Lamarck, Hist. Nat. Anim. sans Vert., 1818, vol. 5, p. 560. "L'AMÉRIQUE SEPTENTRIONALE."

ME.- Fish River; St. Johns River at Fort Kent (Nylander).

N. H.- Connecticut River, at Cornish.

VT.- Hartland; Larrabee's Point.

MASS.— Connecticut River, at Sunderland; Blackstone River, Uxbridge.

CONN.— Housatonic River.

Sphaerium stamineum (Conrad).

Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 38, fig. 30. Cyclas staminea Conrad, Amer. Journ. Sci., 1834, ser. 1, vol. 25, p. 342, pl. 1, fig. 5. "South Alabama."

CONN.

Sphaerium solidulum (Prime).

Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 36, fig. 27. Cyclas solidula Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 158. "Оню."

CONN.

*Sphaerium vermontanum Prime.

Sphaerium vermontana Prime, Proc. Acad. Nat. Sci. Phila., 1861, p. 128. "VERMONT." Gould, Inv. Mass., 1870, p. 105, fig. 410.



PELECYPODA.

VT.— Chimney Point, Lake Champlain; Lake Memphremagog. MASS.— Pontoosuc Lake, Berkshire Co.

*Sphaerium emarginatum (Prime).

Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 43, fig. 38. Cyclas emarginata Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 156. "LAKE SUPERIOR."

ME.- Eagle Lake.

*Sphaerium rhomboidum (Say).

Cyclas rhomboida Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 380. "LAKE CHAMPLAIN."

Cyclas elegans C. B. Adams, Boston Journ. Nat. Hist., 1840, vol. 3, p. 330, pl. 3, fig. 11.

Sphaerium rhomboideum Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 39, fig. 31. Gould, Inv. Mass., 1870, p. 104, fig. 409.

ME.- Gelot Lake, New Sweden; Little Madawaska River.

VT.— Chimney Point, Lake Champlain.

MASS.— Cambridge; Readville; Newton Upper Falls; Housatonic River, Lenox.

R. I.- Pawtucket.

CONN.— Housatonic River.

Sphaerium fabale (Prime).

Cyclas fabalis Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 159. "LAKE SUPERIOR."

Sphaerium fabalis Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 40, fig. 33.

Vt. Conn.

*Sphaerium occidentale (Prime).

Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 41, fig. 34. Gould, Inv. Mass., 1870, p. 108, fig. 414. Cyclas ovalis Prime, Proc. Boston Soc. Nat. Hist., 1853, vol. 4, p. 276 (non Férussac, 1807). "Oswego and Greenwich, N. Y. *** Columbus, O."

N. H.— Keene. VT.— Hartland.

*Musculium partumeium (Say).

Cyclas partumeia Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 380. "NEAR GERMANTOWN, [PA.]."

Cyclas orbicularia Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 276.

Cyclas coerulea Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 161.

Sphaerium partumeium Gould, Inv. Mass., 1870, p. 103, fig. 408.

ME.—Great Pond, Cape Elizabeth; South Newcastle; North Haven.

N. H.- Keene.

MASS.- Cambridge; Readville; Revere.

R. I.- Bailey's Pond, Newport; Nyatt.

CONN.- Old Mill Hill Brook, Stratford; East Haddam.

* Musculium securis (Prime).

Cyclas securis Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 160. "MASSACHUSETTS."

Sphaerium securis Gould, Inv. Mass., 1870, p. 107, fig. 413.

ME.— Aroostook River, Caribou; Scarboro; Saco; Old Orchard. VT.— Larrabee's Point.

MASS.— Cambridge; Neponset River, Green Lodge; Concord; East Wareham.

R. I.- Pawtucket River, below Pontiac; Bailey's Pond, Newport.

*Musculium securis cardissum (Prime).

Cyclas cardissa Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4,



p. 160. "Massachusetts *** in Fresh Pond, near Cambridge, and at Salem."

ME.— Square Lake Inlet; Pout Pond, Westbrook. MASS.— Readville; Charles River, Auburndale.

*Musculium deforme (H. F. Carpenter).

Sphaerium deformis Carpenter, Nautilus, 1902, vol. 16, p. 18. "COVENTRY, R. I."

MASS.— Agawam River, East Wareham. R. I.— Tiogue Reservoir, Coventry.

Musculium truncatum (Linsley).

Cyclas truncata Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 276. "STONINGTON, STRATFORD, AND STRATFIELD [, CONN.]." Gould, Amer. Journ. Sci., 1848, ser. 2, vol. 6, p. 234, fig. 3. Cyclas calyculata C. B. Adams, Amer. Journ. Sci., 1841, ser. 1, vol. 40, p. 277 (non Draparnaud).

Cyclas pellucida Prime, Proc. Boston Soc. Nat. Hist., 1853, vol. 4, p. 277.

Sphaerium truncatum Gould, Inv. Mass., 1870, p. 106, fig. 411.

ME.— Aroostook River.

VT.- Chimney Point, Lake Champlain.

Mass.

R. I.- Nayatt.

CONN.- Stratford; Stratfield; Stonington.

Musculium tenue (Prime).

Cyclas tenuis Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 161. "MASSACHUSETTS *** NEW BEDFORD."

Sphaerium tenue Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 47, fig. 44. Gould, Inv. Mass., 1870, p. 107, fig. 412.

ME.— Androscoggin River.

VT.— Chimney Point, Lake Champlain.

Musculium transversum (Say).

Cyclas transversa Say, New Harmony (Ind.) Disseminator, 1829, vol. 2, p. 356. [NORTH KENTUCKY.]

Sphaerium transversum Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 48, fig. 45.

ME.— Stroudwater (Norton).

VT.-- Chimney Point, Lake Champlain.

Musculium winkleyi Sterki.

Sterki, Nautilus, 1909, vol. 23, p. 66. "OLD ORCHARD, ME.; VICINITY OF DANVERS, MASS."

ME.— Old Orchard; Avon. MASS.— Danvers; Cambridge; Woburn; Duxbury.

Musculium rosaceum (Prime).

Cyclas rosacea Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 155. "PENNSYLVANIA *** IN THE SCHUYLKILL."

Sphaerium rosaceum Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 50, fig. 48.

ME.— Sandy River, Franklin Co.; Georges River, North Warren. MASS.— Charles River, Auburndale; Milton.

*Musculium rykoltii (Normand).

Cyclas rykoltii Normand, Notes sur Quelques Nouvelles Cyclades, 1844, p. 7, figs. 5, 6. [FRANCE.]

Calyculina rykoltii Clessin, Martini and Chemnitz's Conch. Cab., 1879, vol. 9, Monogr. Cycladeen, p. 257, pl. 40, figs. 20-27.

ME.- Warren; Thomaston.

Musculium parvum Sterki.

Sterki, Nautilus, 1909, vol. 23, p. 67. "Ohio; a swamp near Uhrichsville; also in Stark and Summit Counties."

ME.— Georges River, North Warren.

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*Pisidium abditum Haldeman.

Haldeman, Proc. Acad. Nat. Sci. Phila., 1841, vol. 1, p. 53. "LANCASTER CO. PENNSYLVANIA." Gould, Inv. Mass., 1870, p. 113, figs. 425, 426.

Cyclas minor C. B. Adams, Proc. Boston Soc. Nat. Hist., 1844, vol. 1, p. 48.

ME.— Woodland; Bethel; Dennysville; Saco; Old Orchard; Ft. Fairfield.

N. H.- Keene.

VT.— Weybridge.

MASS.— Cambridge; Stow; Revere; Danvers; Dalton; Duxbury.

R. I.

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Conn.

Pisidium inornatum Sterki.

Sterki, Nautilus, 1911, vol. 25, p. 3. "swampy land, Roanoke, Randolph Co., Ala."

MASS.— Duxbury.

*Pisidium aequilaterale (Prime).

Prime, Boston Journ. Nat. Hist., 1852, vol. 6, p. 366, pl. 12, figs. 23-25. "AUGUSTA, ME." Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 63, figs. 65, 66.

ME.— Portage Lake; Little Madawaska River; Sebec Lake; Orono; Saco.

N. H.- Keene.

MASS.— Winchester; Waltham; Newton Upper Falls; Danvers. CONN.

*Pisidium ferrugineum Prime.

Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 162. "SA-LEM *** CAMBRIDGE, [MASSACHUSETTS]." Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 71, figs. 77, 78. ME.— Fogelin's Lake, New Sweden; Jefferson; Saco; Portage Lake.

MASS.— Waltham; Newton Upper Falls; Danvers; Wareham; Duxbury.

*Pisidium virginicum (Gmelin).

Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 61, figs. 61, 62. *Tellina virginica* Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3236.

" IN VIRGINIAE FLUVIIS."

Cyclas dubia Say, Nich. Encycl., 1817, pl. 1, fig. 10.

Pisidium dubium Gould, Inv. Mass., 1870, p. 109, figs. 415, 416.

ME.- Saco.

N. H.- Connecticut River at Cornish.

VT.- Hartland.

MASS.— Connecticut River.

CONN.- Housatonic River.

*Pisidium adamsii Prime.

Prime, in Stimpson, Shells of New England, 1851, p. 16; Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 63, fig. 63.

Cyclas nitida Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 39, pl. 4, fig. 3 (non Jenyns). "NORWAY, OXFORD Co., ME."

ME.- Caribou; Cross Lake Inlet; Saco; Westmanland.

Pisidium minus Stimpson.

Cyclas minor Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 39, pl. 4, fig. 2. "WEYBRIDGE, VT."

Pisidium minus Stimpson, Shells of New England, 1851, p. 16.

ME.— Black River, Warren; Mill River; Thomaston; Dennisville.

VT.- Weybridge.

MASS.— Duxbury; Woburn.

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Pisidium monas Sterki.

Sterki, Nautilus, 1901, vol. 14, p. 100. "MOUNTAIN LAKE, MARQUETTE COUNTY, MICHIGAN."

ME.— Georges River, North Warren.

Pisidium alleni Sterki.

Sterki, Nautilus, 1912, vol. 26, p. 9. "New England, New York."

ME.— Hebron and Buckfield; Franklin Co. N. H.

Pisidium sphaericum Sterki.

Sterki, Nautilus, 1912, vol. 26, p. 8. [WESTBROOK, ME., SACO, ME., AND LYNNFIELD, MASS.]

ME.— Westbrook; Georges River, North Warren; Saco. MASS.— Danvers; Lynnfield; Cambridge; Woburn.

*Pisidium variabile Prime.

Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 163. "MAS-SACHUSETTS," Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 66, figs. 69, 70. Gould, Inv. Mass., 1870, p. 115, figs. 427, 428.

ME.— Caribou; Mud Lake, Westmanland, Aroostook Co.; Saco; Dover; Ft. Fairfield.

N. H.

MASS.— Cambridge; Concord; Rowley; Waltham; Danvers; Duxbury; Wareham.

Pisidium variabile cicer Prime.

Pisidium cicer Prime, Ann. Lyc. Nat. Hist. N. Y., 1854, vol. 6, p. 64, pl. 1, fig. 1. "WASHINGTON COUNTY, N. Y."

ME.— Georges River, North Warren.

*Pisidium ventricosum Prime.

Prime, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 68. "MAS-SACHUSETTS *** FRESH POND, CAMBRIDGE." Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 72, figs. 79, 80.

ME.— Barren Brook, Caribou; Ft. Fairfield; Westmanland. MASS.— Fresh Pond, Cambridge; Waltham; Danvers.

*Pisidium rotundatum Prime.

Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 164. "LAKE SUPERIOR." Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 72, figs. 81, 82.

ME.— Barren Brook, Woodland, Aroostook Co.; Rockland. VT.— Chimney Point, Lake Champlain.

*Pisidium compressum Prime.

Prime, Proc. Boston Soc. Nat. Hist., 1852, vol. 4, p. 164. "MAS-SACHUSETTS, ** CAMBRIDGE." Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 64, figs. 67, 68.

ME.- Barren Brook, Caribou; Cross Lake, Woodland.

N. H.-Keene.

VT.- Hartland; Chimney Point, Lake Champlain.

MASS.— Winchester; Woburn; Concord; Dalton; Danvers. CONN.— Stonington.

*Pisidium contortum Prime.

Prime, Ann. Lyc. Nat. Hist. N. Y., 1854, vol. 6, p. 65, pl. 1, fig. 2. "PITTSFIELD, MASS.," (Post-Pliocene).

ME.— Caribou; Mud Lake; Perham and Westmoreland, Aroostook Co. (Nylander).

*Pisidium mainense Sterki.

Sterki, Nautilus, 1903, vol. 17, p. 21.



Pisidium walkeri var. mainense Sterki, Nautilus, 1898, vol. 12, p. 79. "CARIBOU, AROOSTOOK CO., MAINE."

ME.— Hacket's Mill Brook; Woodland; Barren Brook, Caribou; Westmanland.

Pisidum fallax Sterki.

Sterki, Nautilus, 1896, vol. 10, p. 20. " Оню."

ME.— Aroostook River. Mass.— Groton.

*Pisidium fallax boreale Sterki.

Pisidium fallax var. sep[t]entrionale Sterki, Nautilus, 1898, vol. 12, p. 78 (non Prime, 1895). [MINNESOTA AND AROOSTOOK Co., MAINE.]

Pisidium fallax var. boreale Sterki, Nautilus, 1899, vol. 13, p. 12. Pisidium fallax var. errans Sterki, Nautilus, 1905, vol. 19, p. 84.

ME.— Little Madawaska River at New Sweden, and Aroostook River at Caribou (Nylander).

*Pisidium pauperculum Sterki.

Sterki, Nautilus, 1896, vol. 10, p. 64. [MASSACHUSETTS TO MINNESOTA.]

ME.— Caribou; Little Madawaska River, New Sweden; Westmanland.

MASS.— Winchester; Newton Upper Falls; Groton.

*Pisidium pauperculum nylanderi Sterki.

Pisidium pauperculum var. nylanderi Sterki, Nautilus, 1898, vol. 11, p. 125. "MAINE AND NEW JERSEY."

ME.— Caribou Stream; Portage, Long, and Square Lakes, Aroostook Co.

*Pisidium milium Held.

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Held, Oken's Isis, 1836, vol. 4, p. . [EUROPF.] Sterki, Nautilus, 1899, vol. 13, p. 10. Nylander, Nautilus, 1899, vol. 13, p. 59.

ME.— South branch of Caribou Stream in Woodland; Gelot's Lake, New Sweden (Nylander).

*Pisidium medianum minutum Sterki.

Sterki, Nautilus, 1899, vol. 13, p. 113. [MAINE, NEW YORK, MICHIGAN.]

ME.— Lovely Brook Bog, Ft. Fairfield; Hacket's Mill Brook, Woodland.

MASS.- Danvers.

*Pisidium splendidulum Sterki.

Sterki, Nautilus, 1898, vol. 11, p. 113. [MAINE, MICHIGAN, AND WASHINGTON, D. C.]

ME.— Barren Brook, Caribou; Ft. Fairfield; Warren; Saco; Old Orchard.

MASS. -- Danvers: Woburn.

R. I.— Bailey's Pond, Newport; Nyatt.

*Pisidium roperi Sterki.

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Sterki, Nautilus, 1898, vol. 12, p. 77. "MAINE, RHODE ISLAND, INDIANA, ILLINOIS, AND MINNESOTA."

ME.— Johnson's Brook, Ft. Kent Road (Nylander); Dennysville; Perham.

VT.— Chimney Point, Lake Champlain. MASS.— Woburn. R. I.

*Pisidium politum Sterki.

Sterki, Nautilus, 1895, vol. 9, p. 75. [Ohio, Penna., Mich., Ill., and Minn.]

ME.— Portage and Cross Lakes, Aroostook Co. (Nylander).

*Pisidium punctatum Sterki.

Sterki, Nautilus, 1895, vol. 8, p. 99, pl. 11, figs. 7–12. [STREAMS OF PORTAGE CO., OHIO.]

ME.— Portage Lake, Little Madawaska (Nylander). MASS.— Wareham.

Pisidium punctatum simplex Sterki.

Sterki, Nautilus, 1905, vol. 19, p. 84. [ILLINOIS; MICHIGAN; WISCONSIN.]

ME.— Caribou Stream, Woodland; Georges River, North Warren.

Pisidium regulare Prime.

Prime, Boston Journ. Nat. Hist., 1852, vol. 6, p. 363, pl. 12, figs. 11–13. "MIAMI CANAL, NEAR CINCINNATI, OHIO."

MASS.— Concord.

Sterki).]

*Pisidium trapezoideum Sterki.

Sterki, Nautilus, 1896, vol. 9, p. 124. [CANADA, PENNSYL-VANIA, NEW JERSEY (non Michigan, Minnesota and Texas,

MASS.— Cambridge (Roper Collection).

*Pisidium affine Sterki.

Sterki, Nautilus, 1901, vol. 15, p. 66. [GREAT LAKES REGION, NEW YORK TO MINNESOTA.]

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ME.- Mud Lake, Westmanland.

MASS.- Newton Upper Falls; Woburn (Winkley).

Pisidium neglectum Sterki.

Sterki, Nautilus, 1906, vol. 20, р. 87. "Килиноч, Sunnar Co., Оню."

MASS. -- Danvers (Winkley).

Pisidium succineum Sterki.

Sterki, Nautilus, 1907, vol. 20, p. 99. [New York, Ohio, Michigan, Indiana, Virginia.]

ME.— Thomaston. VT.— Chimney Point, Lake Champlain. MASS.— Danvers (Winkley); Duxbury.

Pisidium henslowanum (Sheppard).

Tellina henslowana Sheppard, Trans. Linn. Soc. London, Zool., 1823, vol. 14, p. 150. [SUFFOLK, ENGLAND.]

Pisidium henslowianum Forbes and Hanley, Brit. Moll., 1853, vol. 2, p. 131, pl. 37, fig. 11.

Corneocyclas (Tropidocyclas) henslowiana Dall, Harriman Alaska Exped., 1905, vol. 13, p. 145.

ME.— Aroostook Co. VT.— Chimney Point, Lake Champlain.

*Pisidium walkeri Sterki.

Sterki, Nautilus, 1895, vol. 9, p. 75. [Michigan, New York, Pennsylvania, Minnesota.]

ME.- Barren Brook, Caribou; Hacket's Mill Brook (Nylander).

*Pisidium subrotundum Sterki.

Sterki, Nautilus, 1906, vol. 20, p. 19. [New England, Anticosti Island, to Michigan.]



PELECYPODA.

ME.— Little Mud Lake, Aroostook Co.; Westmanland (Nylander).

MASS.- Cambridge; Woburn; Duxbury; Wareham; Westfield.

*Pisidium tenuissimum Sterki.

Sterki, Nautilus, 1901, vol. 14, p. 99. "MICHIGAN."

ME.— Little Mud Lake, Aroostook Co. (subfossil).

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Pisidium noveboracense Prime.

Prime, Ann. Lyc. Nat. Hist. N. Y., 1853, vol. 6, p. 66, pl. 1, fig. 3. "WASHINGTON *** AND HERKIMER COUNTIES, N. Y." Prime, Smithson. Misc. Coll., 1865, vol. 7, art. 5, p. 67, fig. 71.

ME.— Buckfield (J. A. Allen); Fogelin's Lake, Aroostook Co. (Nylander).

*Pisidium streatori Sterki.

Sterki, Nautilus, 1901, vol. 14, p. 100. "CANASERAGA RIVER, N. Y.; GARRETTSVILLE, OHIO."

ME.— Hebron (J. A. Allen).

Pisidium imbecille Sterki.

Sterki, Nautilus, 1900, vol. 14, p. 5. "Byer's Trout Pond, and Button Lake, Kent Co., Mich."

ME.— Aroostook Co. (Nylander).

Pisidium vesiculare Sterki.

Sterki, Nautilus, 1896, vol. 10, p. 21. "GRAND RAPIDS, MICHI-GAN."

ME.— Aroostook Co. (Nylander).

Pisidium glabellum Sterki.

Sterki, Nautilus, 1913, vol. 26, p. 137. "Hess Lake, Newaygo Co., Mich."

ME.— Barren Brook, Aroostook Co. MASS.— Auburndale; Wareham; Ferncroft.

Pisidium lermondi Sterki.

Sterki, Nautilus, 1913, vol. 26, p. 138. "DUCK POND, WARREN, ME."

ME.— Duck Pond, Warren. MASS.— Bourne.

* Pisidium scutellatum Sterki.

Sterki, Nautilus, 1896, vol. 10, p. 66. "PINE LAKE, ** LAKE MICHIGAN ** MINNESOTA."

ME.— Barren Brook, Caribou. VT.— Lake Champlain.

*Pisidium costatum Sterki.

Sterki, Nautilus, 1903, vol. 17, p. 22. "Fossil in a marl bed at Monitor, Bay Co., Michigan."

ME.- Mud Lake, Westmanland (subfossil).

CARDITIDAE.

*Venericardia (Cyclocardia) borealis (Conrad).

Dall, Proc. Acad. Nat. Sci. Phila., 1902, vol. 54, p. 703.

Cardita borealis Conrad, Amer. Marine Conch., 1832, p. 39, pl. 8, fig. 1. "MASSACHUSETTS." Gould, Inv. Mass., 1870, p. 146, fig. 455.

ME.— Casco Bay, common; Frenchman's Bay; Eastport. N. H.



MASS.— Vineyard Sound and Buzzards Bay, 10 to 25 fathoms. R. I.— Off Block Island, 29 fathoms. CONN.— Off New London.

*Venericardia (Cyclocardia) novangliae (Morse).

Actinobolus (Cyclocardia) novangliae Morse, First Ann. Rept. Peabody Acad. Sci., 1869, p. 76, figs. [New England.]

Cyclocardia novangliae Verrill, Rept. Inv. Vineyard Sound, 1873, p. 684, pl. 29, fig. 215.

ME.— Cesco Bay; Frenchman's Bay, 15 to 35 fathoms; Eastport.

MASS.— Off Gay Head, 10 to 25 fathoms; Duxbury.

CONN.— Off New London.

LUCINIDAE.

Myrtaea lens (Verrill and Smith).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 804.

Loripes lens Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, p. 400. "OFF CAPE Cod."

MASS.— Off Cape Cod, 50 to 100 fathoms; south of Marthas Vineyard, 60 to 192 fathoms.

*Phacoides (Lucinoma) filosus (Stimpson).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 809, pl. 40, fig. 11. *Lucina radula* Gould, Inv. Mass., 1841, p. 69 (non Montagu). *Lucina filosa* Stimpson, Shells of New England, 1851, p. 17.
" NEAB P[OIN]T SHIRLEY *** PHILLIPS BEACH [MASS.]."

ME.— Casco Bay; near Machias.

MASS.— Phillips Beach; Shirley Point, 6 fathoms; off Gay Head, 19 fathoms.

R. I.— Off Block Island, 29 fathoms; off Newport. CONN.— Stonington.

Phacoides (Lucinoma) blakeanus (Bush).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 809.

Lucina blakeana Bush, Bull. Mus. Comp. Zoöl., 1893, vol. 23, p. 231, pl. 2, figs. 16, 17. "OFF CAPE FEAR, N. C."

MASS.

*Divaricella quadrisulcata (d'Orbigny).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 815.

Lucina divaricata Gould, Inv. Mass., 1841, p. 70 (non Linné).

Lucina quadrisulcata d'Orbigny, Voy. Amér. Mér., Moll., 1846, vol. 5, p. 584. "ANTILLES."

Lucina strigilla Stimpson, Shells of New England, 1851, p. 17.

Lucina dentata Gould, Inv. Mass., 1870, p. 99, fig. 405 (non Wood, 1815).

MASS.— Nahant: Chatham; Nantucket; Vineyard Sound, 6 to 14 fathoms.

DIPLODONTIDAE.

Diplodonta (Sphaerella) verrilli Dall.

Dall, Trans. Wagner Free Inst. Sci., 1900, vol. 3, pt. 5, p. 1180. Diplodonta turgida Verrill and Smith in Verrill, Amer. Journ. Sci., 1881, ser. 3, vol. 22, p. 303 (non Conrad, 1848). Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 569, pl. 58, fig. 42. [OFF MARTHAS VINEYARD.]

Mass.— Off Marthas Vineyard, 69 fathoms.

THYASIRIDAE.

Thyasira insignis (Verrill and Bush).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 785.

Cryptodon sarsii Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 399 (non Philippi).

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Cryptodon insignis Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 785, pl. 91, figs. 1, 2. "BETWEEN N. LAT. 44° 54′, W. LONG. 59° 46′ 45″, AND N. LAT. 42° 19′, W. LONG. 69° 47½′, IN 65 TO 471 FATHOMS."

MASS. — Off Cape Cod, N. lat. 42° 19', W. long. 69° 47', northward in 65 to 471 fathoms.

*Thyasira gouldii (Philippi).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 786.

Lucina flexuosa Gould, Inv. Mass., 1841, p. 71, fig. 52 (non Montagu, 1813). [MASSACHUSETTS BAY.]

Lucina gouldii Philippi, Zeitsch. für Malak., 1845, p. 75.

Cryptodon gouldii Gould, Inv. Mass., 1870, p. 100, fig. 406.

ME.— Casco Bay; Frenchman's Bay, 20 to 40 fathoms; Eastport.

MASS.— Massachusetts Bay; Wiscasset; Buzzards Bay, 6 fathoms; Duxbury.

R. I.— Off Block Island, 29 fathoms.

CONN.— Stonington.

Thyasira trisinuata (d'Orbigny).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 786.

Lucina trisinuata d'Orbigny, Moll. Cubana, Spanish ed., 1846, vol. 2, p. 300, pl. 27, figs. 46-49. [CUBA.]

Cryptodon obesus Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 287, pl. 7, fig. 2.

ME.— Casco Bay; Wiscasset.

MASS.— Massachusetts Bay; off Marthas Vineyard, 19 fathoms. R. I.— Off Block Island, 29 fathoms.

Thyasira plana (Verrill and Bush).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 786.

Cryptodon planus Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 788, pl. 88, figs. 3, 4. "NORTH OF CAPE COD," ETC.



PELECYPODA.

Thyasira (Axinulus) ferruginosa (Forbes).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 787.

Kellia ferruginosa Forbes, Rept. Brit. Assoc. Adv. Sci. for 1843, 1844, p. 192. [MOREA.]

Cryptodon (Axinulus) ferruginosus Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 793, pl. 87, figs. 7, 8.

MASS.— Off Marthas Vineyard, 153 to 500 fathoms.

Thyasira (Axinulus) ovata (Verrill and Bush).

Cryptodon (Axinulus) oratus Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 793, pl. 91, fig. 7; pl. 93, fig. 1. [OFF MARTHAS VINEYARD.]

MASS.— South of Marthas Vineyard, 100 fathoms.

Thyasira (Axinulus) succisa (Jeffreys).

Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 788.

Azinus incrassatus var. succisa Jeffreys, Ann. Mag. Nat. Hist., 1876, ser. 4, vol. 18, p. 492. "North Atlantic and Mediter-RANEAN."

Off New England, 92 to 1366 fathoms.

Azinopsis orbiculata G. O. Sars.

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 63, pl. 19, figs. 11a-d. "VADSØ." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 569. Dall, Proc. U. S. Nat. Mus., 1901, vol. 23, p. 789.

ME.— Broad Sound, Casco Bay, 15 to 30 fathoms; Frenchman's Bay, 15 fathoms.

Axinopsis orbiculata inequalis Verrill and Bush.

Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 794, pl. 92, figs. 5, 6. "BAY OF FUNDY."

ME.— Frenchman's Bay, 15 fathoms. MASS.— Off Cape Ann, 18 to 26 fathoms.

Axinopsis cordata Verrill and Bush.

Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 795, pl. 97, figs. 5, 6. [OFF MARTHAS VINEYARD.]

MASS.— Off Marthas Vineyard, 43 to 202 fathoms.

Leptaxinus minutus Verrill and Bush.

Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 797, pl. 89, figs. 3-5. "N. LAT. 40° 3', W. LONG. 70° 31', IN 100 FATHOMS."

MASS.— Off Marthas Vineyard, 100 fathoms.

LEPTONIDAE.

Kellia suborbicularis gouldi (Thomson).

Dall, Proc. U. S. Nat. Mus., 1899, vol. 21, p. 889.

? Lepton fabagella Conrad, Amer. Marine Conch., 1831(?), p. 53, pl. 2, fig. 3.

Montacuta gouldi Thomson, Amer. Journ. Conch., 1867, vol. 3, p. 33, pl. 1, fig. 15. "N[EW] BEDFORD HARBOR [MASS.]."

Kellia suborbicularis Gould, Inv. Mass., 1870, p. 83, fig. 394 (non Montagu).

MASS.— Off Salem; New Bedford Harbor. R. I.— Narragansett Bay.

Rochefortia planulata (Stimpson).

Dall, Trans. Wagner Free Inst. Sci., 1900, vol. 3, pt. 5, p. 1161, pl. 45, fig. 7.

Kellia planulate Stimpson, Shells of New England, 1851, p. 17. "New BEDFORD HAR [OF]," ETC.; MASS.

Kellia ruhra Gould, Inv. Mass., 1841, p. 60, fig. 23 [= 33] (non Turton).

Montacuta bidentata Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 779, pl. 93, figs. 7, 8; pl. 94, fig. 6 (non Montagu, non Gould); var. fragilis, p. 780 pl. 92, fig. 8.

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ME.— Casco Bay; Eastport, 8 to 15 fathoms.

MASS.— Boston Harbor, 5 fathoms; Provincetown; Vineyard Sound and Buzzards Bay, 1 to 8 fathoms; Duxbury.

R. I.— Off Block Island; Narragansett Bay; near Watch Hill. CONN.— Near New Haven; Branford.

Rochefortia ovata (Jeffreys).

Montacuta ovata Jeffreys, Proc. Zool. Soc. London, 1881, p. 698, pl. 61, fig. 4. [OFF SPAIN.] Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 781, pl. 92, figs. 9, 10.

Mysella ovata Dall, Proc. U. S. Nat. Mus., 1899, vol. 21, p. 890.

MASS. -- Off Marthas Vineyard, 100 to 157 fathoms.

Montacuta percompressa Dall.

Dall, Proc. U. S. Nat. Mus., 1899, vol. 21, p. 894. "Woods Hole, [MASS.]."

Tellimya ferruginosa Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 225, pl. 30, fig. 13 (non Montagu).

MASS.-- At the "Gutters," Naushon Island, near Woods Hole.

KELLIELLIDAE.

*Turtonia minuta (Fabricius).

Gould, Inv. Mass., 1870, p. 85, fig. 395. Dall, Proc. U. S. Nat. Mus., 1899, vol. 21, p. 895.

Venus minuta Fabricius, Fauna Groenlandica, 1780, p. 412. [GREENLAND.]

ME.— Casco Bay; Frenchman's Bay. MASS.— Massachusetts Bay; Duxbury.

*Aligena elevata (Stimpson).

Dall, Proc. U. S. Nat. Mus., 1899, vol. 21, p. 895.

Montacuta elevata Stimpson, Shells of New England, 1851, p. 16. "New Bedford HARB[OR] *** CHELSEA BEACH, [MASS.]." Montacuta bidentata Gould, Inv. Mass., 1841, p. 59.

Kelliopsis elevata Verrill and Bush, Proc. U. S. Nat. Mus., 1898, vol. 20, p. 784, pl. 93, figs. 2-4; pl. 94, figs. 7, 8.

MASS.— Revere; Wellfleet; Woods Hole; New Bedford Harbor; Duxbury.

R. I.— Narragansett Bay, 8¹/₂ to 10 fathoms. CONN.— Savin Rock, near New Haven.

CARDIIDAE.

*Cardium (Cerastoderma) ciliatum Fabricius.

Cardium ciliatum Fabricius, Fauna Groenlandica, 1780, p. 410. [GREENLAND.]

Cardium pubescens Couthouy, Boston Jcurn. Nat. Hist., 1838, vol. 2, p. 61, pl. 3, fig. 6.

Cardium islandicum Gould, Inv. Mass., 1870, p. 139, fig. 450 (non Linné).

ME. —Casco Bay; Frenchman's Bay, 20 to 30 fathoms; Eastport, 6 to 60 fathoms.

MASS. — Marblehead Harbor, 7 fathoms; off Cape Cod, 35 fathoms; Duxbury, 20 fathoms.

*Cardium (Cerastoderma) pinnulatum Courad.

Cardium pinnulatum Conrad, Journ. Acad. Nat. Sci. Phila., 1831, ser. 1, vol. 6, p. 260, pl. 11, fig. 8. "MASSACHUSETTS." Gould, Inv. Mass., 1870, p. 141, fig. 452.

ME to CONN.— Common, especially north of Cape Cod.

*Cardium (Laevicardium) mortoni Conrad.

Cardium mortoni Conrad, Journ. Acad. Nat. Sci. Phils., 1831, ser. 1, vol. 6, p. 259, pl. 11, figs. 5-7. "NORTHERN COAST [OF UNITED STATES]."

Liocardium mortoni Gould, Inv. Mass., 1870, p. 143, fig. 453.

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MASS.— Cohasset; Vineyard Sound and Buzzards Bay; Nantasket; Duxbury.

R. I.— Narragansett Bay; Buttonwoods; Wickford. Conn.— New Haven.

*Serripes groenlandicus (Gmelin).

Cardium groenlandicum Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3252. "GROENLANDIA ET ISLANDIA."

Aphrodite groenlandica Gould, Inv. Mass., 1870, p. 144, fig. 454. Serripes gronlandicus Dall, Proc. U. S. Nat. Mus., 1900, vol. 23, p. 388.

ME.— Casco Bay, 8 fathoms; Frenchman's Bay, 6 to 16 fathoms.

MASS.— Cape Cod Bay.

CONN.— Off Stonington (Linsley).

Protocardia peramabilis (Dall).

Dall, Proc. U. S. Nat. Mus., 1900, vol. 23, p. 388.

Cardium (Fulvia) peramabilis Dall, Bull. Mus. Comp. Zoöl., 1881, vol. 9, p. 132. [WEST INDIES.] Dall, Bull. Mus. Comp. Zoöl., 1886, vol. 12, p. 269, pl. 4, fig. 7.

Off Rhode Island, 115 fathoms.

VENERIDAE.

*Callocardia (Agriopoma) morrhuana (Linsley).

Dall, Proc. U. S. Nat. Mus., 1902, vol. 26, p. 370.

Cytherea convexa Conrad, Journ. Acad. Nat. Sci. Phila., 1831, ser. 1, vol. 6, p. 261. Gould, Inv. Mass., 1870, p. 131, fig. 444 (non Say, 1824).

Cytherea morrhuana Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 276. "CODFISH STOMACH, STONINGTON, [CONN.]."

ME.- Casco Bay, 3 to 8 fathoms; Eastport.

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MASS.— Marblehead; Nahant; Provincetown; Vineyard Sound and Buzzards Bay, 2 to 10 fathoms.

R. I.- Narragansett Bay.

CONN.--- Stonington; Stratford; New Haven.

*Venus mercenaria Linné.

Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 686. "PENSYLVANIA." Gould, Inv. Mass., 1870, p. 133, fig. 445.

ME.— Quahog Bay, in Casco Bay. MASS.— Revere; Provincetown; common south of Cape Cod. R. I.— Narragansett Bay; Buttonwoods. CONN.— Common along the entire coast.

*Venus mercenaria notata Say.

Venus notata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 271. "COAST OF THE UNITED STATES." Gould, Inv. Mass., 1870, p. 135, fig. 446.

MASS.— Edgartown. R. I.— Newport; Buttonwoods. CONN.— Stonington.

Liocyma fluctuosa (Gould).

Dall, Proc. U. S. Nat. Mus., 1902, vol. 26, p. 364.

Venus fluctuosa Gould, Inv. Mass., 1841, p. 87, fig. 50. "BANK FISHERIES."

Tapes fluctuosa Gould, Inv. Mass., 1870, p. 136, fig. 447.

ME.— Frenchman's Bay, 35 fathoms (Blaney).

*Gemma gemma (Totten).

Gould, Inv. Mass., 1870, p. 137, fig. 448.

Venus gemma Totten, Amer. Journ. Sci., 1834, ser. 1, vol. 26, p. 367, pl. 1, fig. 2. "MASSACHUSETTS AND RHODE ISLAND."



PELECYPODA.

Gemma tottenii Stimpson, Smithson. Misc. Coll., 1860, vol. 2, art. 6, no. 3, p. 3.

Totteniana gemma Perkins, Proc. Boston Soc. Nat. Hist., 1869, vol. 13, p. 148.

ME. to CONN.— Especially abundant on the sandy shores of Massachusetts.

*Gemma gemma purpurea (H. C. Lea).

Dall, Trans. Wagner Free Inst. Sci., 1903, vol. 3, pt. 6, p. 1332, pl. 24, figs. 2, 4, 4b.

Cyrena purpurea H. C. Lea, Amer. Journ. Sci., 1842, ser. 1, vol. 42, p. 106, pl. 1, fig. 1. "DELAWARE BAY."

Gemma manhattensis Gould, Inv. Mass., 1870, p. 138, fig. 449.

MASS.— Vineyard Sound. R. I.— Buttonwoods. Conn.— Near New Haven.

PETRICOLIDAE. .

*Petricola phoiadiformis Lamarck.

Lamarck, Hist. Nat. Anim. sans Vert., 1818, vol. 5, p. 505. Gould, Inv. Mass., 1870, p. 90, fig. 398.

Petricola fornicata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 319. "COAST OF NORTH AMERICA."

ME.- Quahog Bay, in Casco Bay; Old Orchard Beach.

MASS.— Salem; Revere; Cohasset; Vineyard Sound and Buzzards Bay.

R. I.— Narragansett Bay.

CONN.--- Near New Haven.

*Petricola dactylus Sowerby.

Sowerby, Genera Shells, 1820–1825, pl. 53, fig. 3; Thes. Conch., 1855, vol. 2, pt. 2, p. 772, pl. 166, fig. 4. "SOUTH AMERICA."

Gastranella tumida Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 286, pl. 6, figs. 3, 3a (young).

ME.— Casco Bay.

MASS.— Ipswich Beach; Lynn; Cohasset; Cataumet; Chatham.

CONN.- Long Island, near New Haven, 4 to 6 fathoms.

TELLINIDAE.

*Tellina (Angulus) tenera Say.

Tellina tenera Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 303. "COAST OF NEW JERSEY." Gould, Inv. Mass., 1870, p. 97, fig. 403.

Angulus tener Verrill, Rept. Inv. Vineyard Sound, 1873, p. 677, pl. 26, fig. 180; pl. 30, fig. 223.

ME.--- Casco Bay.

MASS.— Ipswich Beach; Revere; Vineyard Sound and Buzzards Bay.

CONN.--- Stonington; New Haven.

Tellina (Angulus) tenella (Verrill).

Angulus modestus Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 285, pl. 6, figs. 2, 2a (non Carpenter, 1864). [VINEYARD SOUND, BUZZARDS BAY AND LONG ISLAND SOUND.]

Angulus tenellus Verrill, Rept. Inv. Vineyard Sound, 1873, p. 677, pl. 30, fig. 224.

MASS.— Vineyard Sound and Buzzards Bay, 6 to 10 fathoms. CONN.— Long Island Sound, off New Haven, 4 to 5 fathoms.

Tellina (Angulus) versicolor DeKay.

Tellina versicolor Cozzens, in Jay's Cat. Shells, ed. 2, 1836, p. 12. "NEW-YORK." DeKay, Nat. Hist. N. Y., Moll., 1843, p. 209, pl. 26, fig. 172.

CONN.— Stratford; Long Beach.

*Macoma balthica (Linné).

Tellina balthica Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 677. "M. BALTHICO."

Macoma fusca Gould, Inv. Mass., 1870, p. 93, fig. 400.

Macoma fragilis Verrill, Rept. Inv. Vineyard Sound, 1873, p. 676, pl. 30, fig. 222.

ME. to CONN.— Common, especially in the harbors and bays.

*Macoma calcarea (Gmelin).

Tellina calcarea Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3236. "MARI ISLANDIAM CIRCUMFLUENTE."

Tellina sordida Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 59, pl. 3, fig. 11.

Macoma proxima Gould, Inv. Mass., 1870, p. 95, fig. 401.

Macoma sabulosa Verrill, Rept. Inv. Vineyard Sound, 1873, p. 677.

ME.— Casco Bay, 3 to 60 fathoms; Frenchman's Bay, 10 to 15 fathoms; Eastport.

MASS.— Off Cape Ann; Georges Bank. R. I.— Off Block Island, 29 fathoms. CONN.— Stonington (Linsley).

*Macoma tenta (Say).

Tellina tenta Say, Amer. Conch., 1834, pl. 65, fig. 3. [SOUTH CAROLINA.] Gould, Inv. Mass., 1870, p. 96, fig. 402.

ME.— Georges River, near Taylor's Point, Cushing's Shore, 6 fathoms (Lermond).

MASS.— Vineyard Sound and Buzzards Bay, 2 to 10 fathoms; New Bedford.

CONN.— Stonington.

PSAMMODIIDAE.

***Tagelus gibbus** (Spengler).

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 675, pl. 26, fig. 181; pl. 30, fig. 217.

Solen gibbus Spengler, Skriv. Nat.-Selsk. Kjobenhavn, 1794, vol. 3, pt. 2, p. 104. "I VESTINDIEN."

Solecurtus gibbus Gould, Inv. Mass., 1870, p. 43, fig. 367.

MASS.— Vineyard Sound and Buzzards Bay; New Bedford; Chatham.

CONN.— Stratford (Linsley).

*Tagelus divisus (Spengler).

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 676, pl. 30, fig. 218. Solen divisus Spengler, Skriv. Nat.-Selsk. Kjobenhavn, 1794, vol.

3, pt. 2, p. 96. "TUNIS."

Solecurtus divisus Gould, Inv. Mass., 1870, p. 44, fig. 368.

N. H.— Hampton Beach.

MASS.— Coffin's Beach; Hyannisport; Vineyard Sound and Buzzards Bay.

R. I.

CONN.- Stonington.

SEMELIDAE.

*Cumingia tellinoides (Conrad).

Gould, Inv. Mass., 1870, p. 79, fig. 390.

Mactra tellinoides Conrad, Journ. Acad. Nat. Sci. Phila., 1831, ser. 1, vol. 6, p. 258, pl. 11, figs. 2, 3. "NORTHERN COAST [OF UNITED STATES]."

MASS.— Provincetown; Vineyard Sound and Buzzards Bay, 3 to 12 fathoms.

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R. I.

CONN.- New Haven; off Stonington.

Abra aequalis (Say).

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 679.

Amphidesma aequalis Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 307. "southern coast [of United States]."

CONN.— Stonington, from cod stomach (Linsley).

SOLENIDAE.

Solen viridis Say.

Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 316. "southern coast [of UNITED STATES]." Verrill, Rept. Inv. Vineyard Sound, 1873, p. 675.

R. I.

CONN.— Stonington (Linsley).

*Ensis directus (Conrad).

Dall, Proc. U. S. Nat. Mus., 1899, vol. 22, p. 107.

Solen directus Conrad, Proc. Acad. Nat. Sci. Phila., 1843, vol. 1, p. 325. "NEUSE RIVER, BELOW NEWBERN, NORTH CAROLINA.

MIOCENE? "

Solen ensis var. americanus Gould, Inv. Mass., 1870, p. 42, fig. 366.

Ensatella americana Verrill, Rept. Inv. Vineyard Sound, 1873, p. 674, pl. 26, fig. 182; pl. 32, fig. 245.

ME. to CONN.- The common "Razor Shell."

*Siliqua costata (Say).

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 675, pl. 32, fig. 244. Solen costatus Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1,

vol. 2, p. 315. "GREAT EGG HARBOUR, NEW JERSEY."

Machaera costata Gould, Inv. Mass., 1870, p. 47, fig. 370.

ME.— Casco Bay; Scarboro. MASS.— Revere; Nahant. R. I. Conn.— New Haven.

Siliqua squama (Blainville).

Solecurtus squama Blainville, Dict. des Sci. Nat., 1827, vol. 49, p. 419. "TERRE-NEUVE."

Machaera squama Gould, Inv. Mass., 1870, p. 46, fig. 369.

Not unfrequently taken from the stomachs of codfish caught at the Banks and sometimes off our shores (Gould).

MACTRIDAE.

*Spisula (Hemimactra) solidissima (Dillwyn).

Dall, Nautilus, 1894, vol. 8, p. 26.

Mactra solidissima Dillwyn, Cat. Recent Shells, 1817, vol. 1, p. 140. "NORTH AMERICA." Gould, Inv. Mass., 1870, p. 73, fig. 387.

ME, to CONN.— The Common Beach Clam or Hen Clam.

Spisula (Hemimactra) solidissima similis (Say).

Mactra similis Say, Journ. Acad. Nat. Sci. Phila., 1822, ser.1, vol. 2, p. 309. "COAST OF THE UNITED STATES."

Mass.— Provincetown. R. I. Conn.

*Spisula (Hemimactra) polynyma (Stimpson).

Mactra polynyma Stimpson, Smithson. Misc. Coll., 1860, vol. 2, art. 6, no. 3, p. 3.

Mactro ovalis Gould, Inv. Mass., 1841, p. 53, fig. 32 (non Sowerby, 1817). Gould, Inv. Mass., 1870, p. 75, fig. 388.

ME.— Casco Bay; Frenchman's Bay; Eastport; Penobscot Bay.

MASS.— Massachusetts Bay; Georges Bank.

*Mulinia lateralis (Say).

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 680, pl. 26, fig. 184, B (not fig. 185, B).

Mactra lateralis Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 309. "COAST OF THE UNITED STATES." Gould, Inv. Mass., 1870, p. 77, fig. 389.

ME.- Casco Bay.

MASS.— Lynn; Boston; Vineyard Sound and Buzzards Bay, 1 to 15 fathoms.

R. I.— Field's Point; Bristol. CONN.— New Haven; Branford.

MESODESMATIDAE.

*Mesodesma arctatum (Conrad).

Mactra arctata Conrad, Journ. Acad. Nat. Sci. Phila., 1831, ser. 1, vol. 6, p. 257, pl. 11, fig. 1. "MASSACHUSETTS."

Ceronia arctata Gould, Inv. Mass., 1870, p. 80, fig. 391.

ME.

MASS.— Plum Island; Nahant; Truro; Chatham; Nantucket. CONN.— Stonington.

Mesodesma deauratum (Turton).

Mactra deaurata Turton, Conch. Insul. Brit. Dithyra, 1830, p. 71, pl. 5, fig. 5. "EXMOUTH [ENGLAND]."

Ceronia deaurata Gould, Inv. Mass., 1870, p. 81, fig. 392.

Georges Bank (Gould).

MYACIDAE.

*Mya arenaria Linné.

Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 670. "O. EUROPAE SEPTENTRIONALIS." Gould, Inv. Mass., 1870, p. 55, fig. 375.

ME. to CONN.- The Common Clam of the New England coast.

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*Mya truncata Linné.

Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 670. "O. EUROPAEO." Gould, Inv. Mass., 1870, p. 58, fig. 376.

ME.— Casco Bay; Frenchman's Bay; Eastport. MASS.— Massachusetts Bay; Georges Bank.

CORBULIDAE.

*Corbula contracta Say.

Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 312. "coasts of Georgia and East Florida." Gould, Inv. Mass., 1870, p. 60, fig. 377.

MASS.— Vineyard Sound and Buzzards Bay, 5 to 19 fathoms. R. I.— Narragansett Bay. CONN.— Near New Haven.

SAXICAVIDAE.

*Saxicava arctica (Linné).

Gould, Inv. Mass., 1870, p. 89.

Mya arctica Linné, Syst. Nat., ed. 12, 1767, p. 1113. "OCEANO NORVEGICO."

Saxicava rugosa Lamarck, Hist. Nat. Anim. sans Vert., 1818, vol. 5, p. 501. Gould, Inv. Mass., 1870, p. 87, fig. 397.

ME. to CONN.— Commonly found adhering to other objects.

*Cyrtodaria siliqua (Spengler).

Mya siliqua Spengler, Skriv. Nat.-Selsk. Kjobenhavn, 1793, vol. 3, pt. 1, p. 48. "NEWFOUNDLAND."

Glycymeris siliqua Gould, Inv. Mass., 1870, p. 53, fig. 374.

ME.— Casco Bay; Frenchman's Bay, 5 fathoms.

MASS.— Ipswich Bay; Nahant; off Provincetown; Buzzards Bay; Duxbury, 20 fathoms. Georges Bank.

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Panomya arctica (Lamarck).

Iredale, Proc. Mal. Soc. London, 1915, vol. 11, p. 341.

Glycimeris arctica Lamarck, Hist. Nat. Anim. sans Vert., 1818, vol. 5, p. 458. "L'OCÉAN ARCTIQUE, LA MER BLANCHE."

Mya norvegica Spengler, Skriv. Nat.-Selsk. Kjobenhavn, 1793, vol. 3, pt. 1, p. 46, pl. 2, fig. 18 (non Gmelin, 1790).

Panopaea arctica Gould, Inv. Mass., 1870, p. 51, fig. 373.

ME.—Off Casco Bay, 115 fathoms; Frenchman's Bay, 25 to 30 fathoms; Eastport, 40 fathoms. Georges Bank.

PHOLADIDAE.

*Barnea costata (Linné).

Pholas costatus Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 669. "EUROPAE AUSTRALIS."

Barnea (Scobina) costata Dall, Trans. Wagner Free Inst. Sci., 1898, vol. 3, pt. 4, p. 816.

Pholas costata Gould, Inv. Mass., 1870, p. 36, fig. 363.

MASS.— New Bedford; Woods Hole; Marthas Vineyard. CONN.— Long Island Sound.

*Barnea truncata (Say).

Dall, Trans. Wagner Free Inst. Sci., 1898, vol. 3, pt. 4, p. 816.

Pholas truncata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 321. "SOUTHERN COAST [OF UNITED STATES]." Gould, Inv. Mass., 1870, p. 38, fig. 364.

ME.— Scarboro (Roper).

MASS.— Salem Harbor (Morse); Revere; Vineyard Sound; New Bedford; Duxbury.

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R. I.— Bristol.

CONN.--- Near New Haven.

*Zirfaea crispata (Linné).

Gould, Inv. Mass., 1870, p. 39, fig. 365.

Mya crispata Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 670. "O. SEPTENTRIONALI."

ME.— Casco Bay, 10 to 20 fathoms; Frenchman's Bay, 10 fathoms; Eastport.

MASS.--- Nahant; Phillips Beach; Woods Hole; Cohasset; Duxbury.

CONN.— Stonington.

*Xylophaga dorsalis (Turton).

Turton, Conch. Ins. Brit., 1822, p. 253, pl. 2, figs. 4, 5. Forbes and Hanley, Brit. Moll., 1853, vol. 1, p. 90, pl. 2, figs. 3, 4.

Teredo dorsalis Turton, Conch. Dict. Brit. Islands. 1819, p. 185. "DEVONSHIBE COAST."

ME.— Casco Bay, between Bates Island and Mink Rocks; Gulf of Maine, 100 to 110 fathoms.

Martesia cuneiformis (Say).

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 671. Johnson, Nautilus, 1904, vol. 18, p. 101, fig. 2. Perkins, Proc. Boston Soc. Nat. Hist., 1869, vol. 13, p. 140.

Pholas cuneiformis Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 322. "SOUTHERN COAST [OF UNITED STATES]."

CONN.— New Haven Bay. One specimen of this species in a pile of shells on the beach (Perkins).

TEREDINIDAE.

Teredo navalis Linné.

Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1267. "INTRA LIGNUM NAVIUM *** EX INDIIS IN EUROPAM PROPAGATA." Gould, Inv. Mass., 1870, p. 28, fig. 355.



PELECYPODA.

MASS.— Vineyard Sound and Buzzards Bay, in cedar buoys; Woods Hole in piles of wharves.

CONN.- New Haven, in piles of wharves.

Teredo norvagica Spengler.

Teredo norvagicus Spengler, Skriv. Nat.-Selsk. Kjobenhavn, 1792, vol. 2, pt. 1, p. 102, pl. 2, figs. 4–6. "FRIEDRIKSVAERNS HAVN I NORGE." Gould, Inv. Mass., 1870, p. 29, fig. 356.

The prevailing indigenous species in the Northern Atlantic seas, but it is rare on the American coast (Gould).

Teredo nana Turton.

Turton, Conch. Insul. Brit., 1822, p. 16, pl. 2, figs. 6, 7. "TOR-BAY, [ENGLAND]."

Teredo megotara Forbes and Hanley, Brit. Conch., 1853, vol. 1, p. 77, pl. 4, fig. 6; pl. 18, figs. 1, 2; vol. 4, p. 246. Gould, Inv. Mass., 1870, p. 30, fig. 357.

ME.--- From driftwood, Ironbound Island, Frenchman's Bay (Blaney).

MASS.— Provincetown; New Bedford; Cohasset. R. I.— Newport.

Teredo thomsonii Tryon.

Tryon, Proc. Acad. Nat. Sci. Phila., 1863, p. 280, pl. 2, figs. 3-5. "New Bedford, Mass." Gould, Inv. Mass., 1870, p. 31, fig. 358.

MASS .- New Bedford; Provincetown.

Teredo dilatata Stimpson.

Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 113. "LYNN, (MASS.)." Gould, Inv. Mass., 1870, p. 32, fig. 359.

ME.- Casco Bay.

MASS.— From pine buoys near Cape Ann; Marblehead; Provincetown.

Teredo (Lyrodus) chlorotica Gould.

Teredo chlorotica Gould, Inv. Mass., 1870, p. 33, fig. 360. "TIM-BERS OF SHIPS THAT HAVE CRUISED IN THE PACIFIC."

Teredo (*Lyrodes*) chlorotica Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 74, pl. 68, fig. 3.

MASS.— From timbers of ships that have cruised in the Pacific (Gould).

Xylotrya fimbriata (Jeffreys).

Gould, Inv. Mass., 1870, p. 34, fig. 361.

Teredo fimbriata Jeffreys, Ann. Mag. Nat. Hist., 1860, ser. 3, vol. 6, p. 126. "LEITH, [ENGLAND.]"

Xylotrya palmulata Perkins, Proc. Boston Soc. Nat. Hist., 1869, vol. 13, p. 141.

MASS.— Taken from one of the timbers of "Old Ironsides" (Gould).

CONN.— In an old submerged wreck near New Haven (Verrill).

SCAPHOPODA.

SOLENCONCHAE.

DENTALIIDAE.

*Dentalium entalis Linné.

Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 785. "O. EUROPAEO, INDICO."

Dentalium striolatum Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 114.

Entalis striolata Gould, Inv. Mass., 1870, p. 266, fig. 528.

ME.— Casco Bay; Frenchman's Bay, 25 to 30 fathoms; Eastport, 10 to 20 fathoms.

N. H.— Off Isles of Shoals.

MASS.— Massachusetts Bay.



Dentalium agile G. O. Sars.

G. O. Sars, Remarkable Forms Anim. Life, 1872, p. 34, pl. 3, figs. 4, 5. [LOFOTEN, 200 TO 300 FATHOMS.] Pilsbry and Sharp, Manual Conch., 1897, ser. 1, vol. 17, p. 46, pl. 8, fig. 36.

ME.- Casco Bay (Kingsley).

*Dentalium occidentale Stimpson.

Stimpson, Shells of New England, 1851, p. 28. "COAST OF MAINE, AND IN MASS. BAY." Pilsbry and Sharp, Manual Conch., 1897, ser. 1, vol. 17, p. 47, pl. 13, figs. 9–11; pl. 9, figs. 41–43.

Dentalium dentale Gould, Inv. Mass., 1841, p. 155, pl. 1, fig. 5 (non Linné).

ME.— Casco Bay; Frenchman's Bay, 10 fathoms; Eastport 10 to 20 fathoms.

MASS.--- Massachusetts Bay.

Dentalium occidentale sulcatum Verrill.

Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 217. [OFF CAPE COD.]

MASS.— East of Cape Cod, 75 fathoms.

SIPHONODENTALIIDAE.

Siphonodentalium lobatum (Sowerby).

Pilsbry and Sharp, Manual Conch., 1897, ser. 1, vol. 17, p. 136, pl. 23, figs. 8-21.

Dentalium lobatum G. B. Sowerby, Jr., Thes. Conch., 1866, vol. 3, p. 100, pl. 3, fig. 44.

Siphonodentalium vitreum Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 557, pl. 42, fig. 19.

Gulf of Maine, 60 to 107 fathoms. MASS.— Off Marthas Vineyard, 100 to 487 fathoms.

Siphonodentalium (Pulsellum) lofotense M. Sars.

Siphonodentalium lofotense M. Sars, Forh. Vid.-Selsk. Christiania for 1864, 1865, p. 297, pl. 6, figs. 29–33. "LOFOTEN." Pilsbry and Sharp, Manual Conch., 1897, ser. 1, vol. 17, p. 138, pl. 24, figs. 40–44.

MASS.— Off Marthas Vineyard, 115 to 500 fathoms (Verrill).

Cadulus jeffreysii (Monterosato).

Helonyx jeffreysii Monterosato, Atti Reale Accad. Sci. Palermo, -1875, vol. 5, p. 20. [MEDITERRANEAN.]

Cadulus propinquus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 558, pl. 58, figs. 31, 32 (non Sars).

Cadulus jeffreysi Pilsbry and Sharp, Manual Conch., 1897, ser. 1, vol. 17, p. 164, pl. 24, fig. 39; pl. 32, figs. 44-46.

MASS.— Off Marthas Vineyard, 100 to 115 fathoms (Verrill).

Cadulus pandionis Verrill and Smith.

Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 399. [OFF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 558, pl. 58, figs. 30, 30a.

MASS.— South of Marthas Vineyard, 85 to 500 fathoms (Verrill).

Cadulus watsoni Dall.

Dall, Bull. Mus. Comp. Zoöl., 1881, vol. 9, p. 34. "OFF C. SAN ANTONIO^{***} YUCATAN STRAIT." Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 429, pl. 27, fig. 12a. Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 219.

MASS.— South of Marthas Vineyard, 197 fathoms.



GASTEROPODA.

GASTEROPODA.

Sub-class STREPTONEURA.

ASPIDOBRANCHIA.

ACMAEIDAE.

*Acmaea testudinalis (Müller).

Pilsbry, Manual Conch., 1891, ser. 1, vol. 13, p. 10, pl. 9, figs. 25-29. Patella testudinalis Müller, Zool. Danicae Prodr., 1776, p. 237. "DANIAE ET NORVEGIAE."

Tectura testudinalis Gould, Inv. Mass., 1870, p. 267, fig. 529.

ME.-- Common along the entire coast.

MASS.— Marblehead; Cohasset; Provincetown; Marthas Vineyard. R. I.— Watch Hill.

CONN.— New Haven, rare.

*Acmaea alveus (Conrad).

Patella alveus Conrad, Journ. Acad. Nat. Sci. Phila., 1831, ser. 1, vol. 6, p. 267, pl. 11, fig. 20. "MASSACHUSETTS." Tectura alveus Gould, Inv. Mass., 1870, p. 269, fig. 530.

ME.— Casco Bay; North Haven; Frenchman's Bay. MASS.— Massachusetts Bay.

Acmaea fergusoni Wheat.

Wheat, Sci. Bull. Brooklyn Inst. Arts and Sci., 1913, vol. 2, p. 17. "NORTH SHORE LONG ISLAND, N. Y."

CONN.— New Haven (Perkins), see Wheat, Nautilus, 1913, vol. 27, p. 72.

LEPTIDAE.

*Lepeta caeca (Müller).

Gould, Inv. Mass., 1870, p. 270, fig. 531.

Patella caeca Müller, Zool. Danicae Prodr., 1776, p. 237. "DANIAE ET NOBVEGIAE."

ME.— Casco Bay; Frenchman's Bay, 25 to 30 fathoms; Eastport.

MASS.— From stomach of fish caught off Barnstable.

Lepetella tubicola Verrill and Smith.

Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, p. 396. [OFF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 534, pl. 58, figs. 29, 29a.

MASS.— Off Marthas Vineyard, in old tubes of Hyalinoecia artifex, 130 to 388 fathoms.

FISSURELLIDAE.

*Puncturella princeps (Mighels and Adams).

Cemoria princeps Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 42, pl. 4, fig. 9. "FROM THE STOMACH OF A HAD-DOCK *** SEVENTY-FIVE TO ONE HUNDRED MILES OFF THE MOUTH OF KENNEBEC RIVER *** FORTY TO SEVENTY-FIVE FATHOMS."

Puncturella noachina Pilsbry, Manual Conch., 1890, ser. 1, vol. 12, p. 229, pl. 27, figs. 69, 70; and authors, non Linné, 1771. Cemoria noachina Gould, Inv. Mass., 1870, p. 276, fig. 537.

ME.— Casco Bay; Frenchman's Bay, 25 to 30 fathoms; Eastport, 30 fathoms.

MASS.— Georges Bank.

COCCULINIDAE.

Cocculina beanii Dall.

Dall, Proc. U. S. Nat. Mus., 1882, vol. 4, p. 403. [SOUTH OF MARTHAS VINEYARD.] Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 347, pl. 25, figs. 2, 4, 8.

MASS.--- South of Marthas Vineyard, 100 to 335 fathoms.

SCISSURELLIDAE.

Scissurella crispata Fleming.

Fleming, Mem. Wern. Nat. Hist. Soc., 1832, vol. 6, p. 385, pl. 6, fig. 3. "Isle of Noss, ZETLAND." Forbes and Hanley, Brit. Moll., 1853, vol. 2, p. 544, pl. 63, fig. 6. Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 168, pl. 48, fig. 15.

N. H.— Hampton Beach (Morse).

TROCHIDAE.

*Molleria costulata (Möller).

Margarita? costulata Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 81. [GBEENLAND.]

Adeorbis costulata Gould, Inv. Mass., 1870, p. 278, fig. 538.

ME.— Frenchman's Bay, 20 to 30 fathoms; Eastport, 30 fathoms. MASS.— Off Cape Ann; off Nantucket, 4 fathoms.

*Margarites helicina (Phipps).

Turbo helicinus Phipps, Voyage toward the North Pole, 1774, p. 198. "ON THE NORTH SIDE OF SPITSBERGEN."

Margarita arctica Gould, Inv. Mass., 1841, p. 255, fig. 163. Margarita helicina Gould, Inv. Mass., 1870, p. 281, fig. 542.

ME.— Casco Bay; Frenchman's Bay, low tide to 20 fathoms; Eastport.

MASS.— Duxbury; Plymouth.

*Margarites olivacea (Brown).

Turbo olivaceus Brown, Illustr. Conch., 1827, pl. 46, figs. 30, 31. "GREENOCK, [ENGLAND]."

Margarita argentata Gould, Inv. Mass., 1870, p. 282, fig. 544.

ME.— Casco Bay; Frenchman's Bay, 25 to 30 fathoms; Eastport.

MASS.— Off Cape Ann and Cohasset.

Margarites acuminata (Sowerby).

Margarita acuminata Sowerby, Mal. and Conch. Mag., 1838, vol. 1, p. 26. [ARCTIC OCEAN.] Pilsbry, Manual Conch., 1889, ser. 1, vol. 11, p. 287, pl. 39, fig. 55; pl. 66, fig. 6.

Gulf of Maine; Grand Manan, in 40 fathoms on a soft muddy bottom off the "Swallow's Tail" (Stimpson).

*Margarites groenlandica (Gmelin).

Trochus groenlandicus Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3574. "GROENLANDIAE LITTORA."

Margarita undulata Gould, Inv. Mass., 1870, p. 280, fig. 541.

ME.— Casco Bay; Frenchman's Bay, 6 to 35 fathoms; Eastport. MASS.— Phillips Beach.

*Margarites cinerea (Couthouy).

Turbo cinereus Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 99, pl. 3, fig. 9. "VICINITY OF CAPE ANN, MASS."

Margarita cinerea Gould, Inv. Mass., 1870, p. 279, fig. 539.

ME.— Casco Bay; Frenchman's Bay, 6 to 30 fathoms; West Isles, near Eastport, 10 fathoms.

MASS.— From fish caught in Massachusetts Bay.

Margarites multilineata (DeKay).

Margarita multilineata DeKay, Nat. Hist. N. Y., Moll., 1843, p. 109, pl. 6, fig. 108. "STOMACHS OF CODFISHES ON THE COAST."

CONN.- Stratford (Linsley).



Margarites minutissima (Mighels).

Margarita minutissima Mighels, Boston Journ. Nat. Hist., 1843, vol. 4, p. 349, pl. 16, fig. 5. "CASCO BAY." Gould, Inv. Mass., 1870, p. 280, fig. 540.

ME.— Casco Bay, from the stomach of a haddock.

*Solariella obscura (Couthouy).

Pilsbry, Manual Conch., 1889, ser. 1, vol. 11, p. 308, pl. 57, figs. 44, 45.

Turbo obscurus Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 100, pl. 3, fig. 12. "WATERS OF MASS. BAY."

Margarita obscura Gould, Inv. Mass., 1870, p. 283, fig. 545.

ME.— Casco Bay; Frenchman's Bay, 6 to 35 fathoms; Eastport, 6 fathoms.

N. H.— Off Isles of Shoals, 20 fathoms.

MASS.— Beverly Harbor; off Egg Rock, near Nahant, 17 fathoms; off Marthas Vineyard, 20 to 25 fathoms.

CONN.— Stonington, from haddock (Linsley).

Solariella obscura bella (Verkrüzen).

Pilsbry, Manual Conch., 1889, ser. 1, vol. 11, p. 310, pl. 64, figs. 57, 58.

Margarita bella Verkrüzen, Jahrb. Deutsch. Mal. Ges., 1875, p. 236. "HAMMERFEST."

ME.— Eastport, 10 to 40 fathoms. Georges Bank, 43 to 45 fathoms.

Solariella obscura planula (Verrill).

Machaeroplax obscura var. planula Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 531. "SOUTH OF CAPE COD."

Mass.— South of Cape Cod, 15 to 30 fathoms (Verrill).

Solariella obscura carinata (Verrill).

Machaeroplax obscura var. carinata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 532. "OFF MARTHA'S VINEYARD."

MASS.— Off Marthas Vineyard, 146 to 335 fathoms.

Solariella lamellosa (Verrill and Smith).

Pilsbry, Manual Conch., 1889, ser. 1, vol. 11, p. 315, pl. 57, fig. 14.

Margarita lamellosa Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 397. [OFF MARTHAS VINEYARD.]

MASS.— South of Marthas Vineyard, 100 to 192 fathoms.

Solariella ottoi (Philippi).

Pilsbry, Manual Conch., 1889, ser. 1, vol. 11, p. 320, pl. 57, fig. 17.

Trochus ottoi Philippi, Enum. Moll. Siciliae, 1844, vol. 2, p. 227, pl. 28, fig. 9. "PROPE MESSINAM."

Margarita regalis Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 397.

MASS.— South of Marthas Vineyard, 115 to 500 fathoms.

*Calliostoma occidentale (Mighels and Adams).

Trochus occidentalis Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 47, pl. 4, fig. 16. "CASCO BAY."

Calliostoma occidentalis Pilsbry, Manual Conch., 1889, ser. 1, vol. 11, p. 393, pl. 37, figs. 2, 3.

ME.— Casco Bay; Penobscot Bay; Frenchman's Bay; Eastport.

Calliostoma bairdii Verrill and Smith.

Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 391, 396. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 530, pl. 57, fig. 26.

MASS.— South of Marthas Vineyard, 65 to 192 fathoms.



GASTEROPODA.

CTENOBRANCHIATA.

EULIMIDAE.

Melanella (Eulima) oleacea (Kurtz and Stimpson).

Eulima oleacea Kurtz and Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 115. "Buzzard's Bay." Gould, Inv. Mass., 1870, p. 332, fig. 603.

MASS.— In Vineyard Sound it is not uncommon on *Thyone briareus* in 4 to 10 fathoms (Verrill); Buzzards Bay, 8 fathoms.

Melanella (Eulima) conoidea (Kurtz and Stimpson).

Eulima conoidea Kurtz and Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 115. "NORTH AND SOUTH CAROLINA."

MASS.— Vineyard Sound and Buzzards Bay (Sumner); Woods Hole (Winkley).

Melanella (Eulima) stenostoma (Jeffreys).

Eulima stenostoma Jeffreys, Ann. Mag. Nat. Hist., 1858, ser. 3, vol. 2, p. 128, pl. 5, fig. 7. "ZETLAND" [= SHETLAND].

MASS.— Woods Hole (Winkley).

*Melanella (Eulima) sarsi (Bush).

Eulima intermedia Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, p. 392 (non Cantraine, 1835). [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 535, pl. 58, fig. 20.

Eulima sarsi Bush, Amer. Journ. Sci., 1909, ser. 4, vol. 27, p. 479.

MASS.— South of Marthas Vineyard, 85 to 155 fathoms.

Melanella (Eulima) perversa (Bush).

Eulima distorta Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, p. 392 (non Deshayes, non Sars). [SOUTH OF MARTHAS VINEYARD.] Eulima perversa Bush, Amer. Journ. Sci., 1909, ser. 4, vol. 27,

p. 479.

MASS.— South of Marthas Vineyard, 115 fathoms.

Pyramis fusca C. B. Adams, Boston Journ. Nat. Hist., 1839, vol. 2, p. 282, pl. 4, fig. 9. "New BedFord, [MASS.]."

Odostomia fusca Gould, Inv. Mass., 1870, p. 325, fig. 594.

ME.- Damariscotta.

MASS.— Massachusetts Bay; Fairhaven; New Bedford; Woods Hole; Naushon Id.

R. I.- Tiverton; Watch Hill.

CONN.-- Stonington; New Haven; Stratford; Branford River.

*Pyramidella (Syrnola?) winkleyi Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 74, pl. 11, fig. 1. "Branford River, Conn."

MASS.— Chatham. CONN.— Branford River (H. W. Winkley).

Turbonilla (Ptycheulimella?) polita (Verrill).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 75.

Aclis polita Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, pp. 210, 282, pl. 6, fig. 5. "EASTPORT HARBOR, [ME.]."

Eulimella polita Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 538, fig. 4.

Eulimella ventricosa Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 380 (in part; non Forbes).

ME.— Eastport, 20 fathoms; Isle au Haute.

Turbonilla stricta Verrill.

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 659. "Long Island Sound, off New Haven, Connecticut." Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 76, pl. 11, figs. 6, 7.

MASS.— Woods Hole; Naushon Id.; Buzzards Bay. CONN.— Off New Haven, 3 to 8 fathoms.

*Turbonilla nivea (Stimpson).

Chemnitzia nivea Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 114. "OFF GRAND MANAN."

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Turbonilla (Turbonilla) nivea Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 77, pl. 11, figs. 9, 10.

ME.— Frenchman's Bay; off Grand Manan, 40 fathoms. MASS.— Woods Hole; off Marthas Vineyard, 100 fathoms. CONN.— New Haven (Perkins).

Turbonilla (Chemnitzia) aequalis (Say).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 78.

Turritella aequalis Say, Journ. Acad. Nat. Sci. Phila., 1827, ser. 1, vol. 5, p. 208. [UNITED STATES.]

MASS.— Vineyard Sound, 6 to 8 fathoms.

Turbonilla (Pyrgiscus) verrilli Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 82, pl. 12, figs. 21, 26. "MARTHA'S VINEYARD, MASS."

MASS.— Marthas Vineyard; Woods Hole.

*Turbonilla (Pyrgiscus) vineae Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 83, pl. 12, figs. 22, 36. "Wood's Holl, Mass., *** BRANFORD, CONN."

MASS.— Woods Hole.

CONN.— Branford (H. W. Winkley).

Turbonilla (Pyrgiscus) elegantula Verrill.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 84, pl. 12, figs. 30, 31.

Turbonilla elegans Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 282, pl. 6, fig. 4 (non Wood, 1842). "VINEYARD SOUND."

Turbonilla elegantula Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 538.

MASS.— Vineyard Sound, 2 to 10 fathoms; Woods Hole (" Eel Pond "). R. I.- Narragansett Bay.

CONN.— Off New Haven, 2 to 6 fathoms; off Old Tower, 9 fathoms.

Turbonilla (Pyrgiscus) elegantula branfordensis Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 85, pl. 12, fig. 27. "BRANFORD, CONN."

MASS.— Swampscott; Woods Hole. CONN.— Branford.

*Turbonilla (Pyrgiscus) areolata Verrill.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 86, pl. 12, figs. 19, 24.

Turbonilla areolata Verrill, Rept. Inv. Vineyard Sound, 1873, p. 658. "NEAR NEW HAVEN [CONN.]."

MASS.— Vineyard Sound, 2 to 8 fathoms; Woods Hole. R. I.— Block Island. CONN.— Long Island Sound, near New Haven; Branford.

*Turbonilla (Pyrgiscus) interrupta (Totten).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 87, pl. 12, figs. 18, 23.

Turritella interrupta Totten, Amer. Journ. Sci., 1835, ser. 1, vol. 28, p. 352, fig. 7. "NEWPORT HARBOR, (R. I.)."

Turbonilla interrupta Gould, Inv. Mass., 1870, p. 331 (not fig. 601).

Turbonilla pseudointerrupta Bush, Amer. Journ. Sci., 1909, ser. 4, vol. 27, p. 481, fig. 9.

ME.- ?Portland Harbor, dead shell (Morse).

MASS.— Woods Hole; Vineyard Sound and Buzzards Bay, 3 to 10 fathoms.

R. I.— Narragansett Bay; Newport.

CONN.— Off Thimble Island and New Haven, 3 to 5 fathoms; Stonington.



Turbonilla (Pyrgiscus) mighelsi Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 88, pl. 14, figs. 52, 54.

Turbonilla costulata Verrill, Rept. Inv. Vineyard Sound, 1873, p. 658 (non Risso, 1826). "NEAB NEW HAVEN, CONN."

MASS.— Vineyard Sound, 1 to 5 fathoms; Woods Hole. CONN.— Long Island Sound, near New Haven.

Turbonilla (Pyrgiscus) buteonis Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 89, pl. 12, figs. 17, 28, 34. "Wood's Holl, MASS."

MASS. -- Massachusetts Bay; Woods Hole; Marthas Vineyard.

*Turbonilla (Pyrgiscus) winkleyi Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 90, pl. 12. figs. 35, 37. "Wood's Holl, Mass."

MASS.--- Woods Hole; Duxbury; Salem.

CONN.— Branford; off Penfield Reef, Long Island Sound, 5 to 10 fathoms.

Turbonilla (Pyrgiscus) winkleyi senilis Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 92, pl. 12, fig. 41. "BRANFORD, CONN."

MASS.— Woods Hole. CONN.— Branford.

Turbonilla (Pyrgiscus) sumneri Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 92, pl. 14, figs. 53, 55. "Wood's Holl, MASS."

MASS.— Woods Hole.



Turbonilla (Pyrgiscus) rathbuni Verrill and Smith.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 94, pl. 12, figs. 33, 39.

Turbonilla rathbuni Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, p. 398. [OFF MARTHAS VINEYARD, 192 FATHOMS.]

MASS.— Woods Hole; south of Marthas Vineyard, 64 to 321 fathoms.

R. I.- Newport.

Turbonilla (Pyrgiscus) cascoensis Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 95, pl. 12, figs. 29, 40. "Casco Bay, ME."

ME.— Casco Bay.

*Odostomia (Chrysallida) seminuda (C. B. Adams).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 97, pl. 13, figs. 45, 48.

Jaminia seminuda C. B. Adams, Boston Journ. Nat. Hist., 1839, vol. 2, p. 280, pl. 4, fig. 13 (not fig. 8). [DARTMOUTH HARBOR, MASS.]

MASS.— Massachusetts Bay; Vineyard Sound and Buzzards Bay, 2 to 10 fathoms; Woods Hole.

R. I.— Off Newport, 12 fathoms; Sakonnet River, 3 to 11 fathoms.

CONN.— Near New Haven; Branford; Stratford.

Odostomia (Chrysallida) bushiana Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 99, pl. 13, fig. 44. "NARRAGANSETT BAY."

MASS.— Vineyard Sound.

R. I.- Narragansett Bay, station 816, 10 fathoms.

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Odostomia (Evalea) bartschi (Winkley).

Winkley, Nautilus, 1912, vol. 26, p. 54.

Pyramidella (Sulcorinella) bartschi Winkley, Nautilus, 1909, vol. 23, p. 39, fig. "WOODS HOLL, MASS."

Mass.--- Woods Hole; Chatham; Duxbury; North Falmouth.

*Odostomia (Evalina) winkleyi Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 100, pl. 13, fig. 47. "BRANFORD, CONN."

ME.— Quahog Bay (Winkley). MASS.— Rowley; Danvers; Duxbury. CONN.— Branford.

*Odostomia (Evalina) katherinae Winkley.

Winkley, Nautilus, 1909, vol. 23, p. 88. "DANVERS RIVER, [MASS.]."

Mass.— Danvers.

Odostomia (Iolaea) hendersoni Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 101, pl. 13, fig. 43. "Wood's Holl, MASS."

MASS.— Woods Hole.

Odostomia (Menestho) impressa (Say).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 103, pl. 13, fig. 51.

Turritella impressa Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 244. "MARYLAND."

MASS.— Massachusetts Bay (Stimpson); New Bedford (Stimpson).

CONN.- Near New Haven.



Odostomia (Menestho) sulcosa (Mighels).

Phasianella sulcosa Mighels, Boston Journ. Nat. Hist., 1843, vol. 4, p. 348, pl. 16, fig. 4. "Casco Bay."

Rissoella sulcosa Gould, Inv. Mass., 1870, p. 297, fig. 565 (fig. 570?).

Odostomia (Menestho) sulcata Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 380.

Menestho sulcata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 539, pl. 58, fig. 17 (non A. Adams, 1860).

Odostomia (Menestho) morseana Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 104.

MASS.— Off Marthas Vineyard, 115 and 365 fathoms.

*Odostomia (Menestho) trifida (Totten).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 104, pl. 13, fig. 46.

Acteon trifidus Totten, Amer. Journ. Sci., 1834, ser. 1, vol. 26, p. 368, figs. 4a, 4b. "Rhode Island."

ME.--- Newcastle; Sheepscott River.

MASS.— Lynn; Massachusetts Bay; Woods Hole; New Bedford; Weepecket Id.

R. I.- Newport; Kettle Point, Providence River; Oakland Beach.

CONN.-- New Haven; Long Beach; Branford.

*Odostomia (Menestho) bisuturalis (Say).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 106, pl. 14, fig. 59.

Turritella bisuturalis Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 244. "Boston HARBOUR, [MASS.]."

ME.— Sheepscott River; Newcastle; Wiscasset; Biddeford Pool. MASS.— Chelsea; Cohasset; Provincetown; Woods Hole; Naushon Id; Vineyard Sound.

FAUNA OF NEW ENGLAND.

R. I.-- Oakland Beach.

CONN.— Branford; New Haven (Savin Rock).

Odostomia (Menestho) bisuturalis ovilensis Bartsch.

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 107, pl. 14, fig. 57. "Sheepscott River, MAINE."

ME.— Sheepscott River; Wiscasset. MASS.— Duxbury.

Odostomia modesta (Stimpson).

Chemnitzia modesta Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 16. "St. Georges BANK."

Odostomia (Odostomia) modesta Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 108, pl. 13, fig. 50.

ME.— Frenchman's Bay, 6 to 8 fathoms (Blaney).

MASS.— Woods Hole; south of Marthas Vineyard, 115 fathoms; Duxbury.

Odostomia gibbosa Bush.

Bush, Amer. Journ. Sci., 1909, ser. 4, vol. 27, p. 482.

Odostomia (Odostomia) modesta Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 108, pl. 13, fig. 50 (non Stimpson). "WOOD'S HOLL, MASS."

ME.— Quahog Bay (Winkley). MASS.— Woods Hole; Duxbury; Provincetown.

Odostomia dealbata (Stimpson).

Gould, Inv. Mass., 1870, p. 327, fig. 595.

Chemnitzia dealbata Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 114. "Boston HARBOR [, MASS.]."

Odostomia (Odostomia) dealbata Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 108.

MASS.— Boston Harbor, 3 fathoms; Duxbury. Conn.— Near New Haven (Perkins).



*Cremula eburnea (Stimpson).

Iredale, Proc. Mal. Soc. London, 1915, vol. 11, p. 336.

Rissoa eburnea Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 14. "OFF CAPE ANN, [MASS.]." Stimpson, Shells of New England, 1851, p. 34, pl. 1, fig. 1.

Rissoellaf eburnea Gould, Inv. Mass., 1870, p. 297 (not fig. 564). Odostomia (Liostomia) eburnea Bartsch, Proc. Boston Soc. Nát. Hist., 1909, vol. 34, p. 109.

ME.— Casco Bay; Frenchman's Bay, 6 to 8 fathoms (Blaney); off Grand Manan, 25 fathoms (Stimpson).

MASS. - Off Cape Ann, 30 fathoms (Stimpson); Duxbury.

*Couthouyella striatula (Couthouy).

Bartsch, Proc. Boston Soc. Nat. Hist., 1909, vol. 34, p. 110, pl. 11, figs. 13, 16; pl. 14, figs. 56, 58.

Pyramis striatulus Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 101, pl. 1, fig. 6. "VICINITY OF CAPE ANN [, MASS.]."

Menestho albula Gould, Inv. Mass., 1870, p. 333, fig. 604 (non Fabricius, 1780).

ME.—Casco Bay; Eastport; Frenchman's Bay, 20 to 30 fathoms; Cashe's Ledge, 46 fathoms.

N. H.— Isles of Shoals, 20 fathoms.

MASS.— Annisquam Harbor; Gloucester Harbor, 10 fathoms; off Baker's Id., 20 fathoms; off Cape Cod, 15 to 46 fathoms; Buzzards Bay.

CONN.— Bridgeport, from the stomachs of ducks (Linsley).

JANTHINIDAE.

Janthina janthina (Linné).

Hedley, Bull. New Zealand Colonial Mus., 1906, no. 1, p. 49.

Helix janthina Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1246. "EUROPA, ASIA, AFRICA."

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Ianthina fragilis Tryon, Manual Conch., 1887, ser. 1, vol. 9, p. 36, pl. 9, figs. 94, 95; pl. 10, figs. 6–10.

MASS.— After a severe gale, in the autumn of 1839, great numbers of them were collected on the shores of Nantucket (Gould).

EPITONIIDAE.

*Epitonium novangliae (Couthouy).

Scalaria novangli (sic in text, but novangliae on plate) Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 96, pl. 3, fig. 5. "MASS-[ACHUSETTS] BAY." Gould, Inv. Mass., 1870, p. 311.

MASS.— Cape Ann, from the stomach of a fish.

*Epitonium lineatum (Say).

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Scalaria lineata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 242. "SOUTHERN COAST [OF UNITED STATES]." Gould, Inv. Mass., 1870, p. 312 (not fig. 580).

MASS.— Vineyard Sound; Buzzards Bay; New Bedford. R. I.— Bristol.

CONN.— New Haven.

Epitonium multistriatum (Say).

Scalaria multistriata Say, Journ. Acad. Nat. Sci. Phila., 1826, ser. 1, vol. 5, p. 208. "Southern Coast [of United States]." Gould, Inv. Mass., 1870, p. 313, fig. 581.

MASS.— Vineyard Sound; Buzzards Bay; Dartmouth Harbor. R. I.— Off Watch Hill; Block Island. CONN.— New Haven.

Epitonium humphreysii (Kiener).

Scalaria humphreysii Kiener, Iconogr. Coq. Viv. (Gen. Scalaire), 1845, p. 15, pl. 5, fig. 16. "ATLANTIQUE AU SUD DE LA CARO-LINE." Gould, Inv. Mass., 1870, fig. 580, as S. lineata, on p. 312. Scala sayana Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 309; Bull. U. S. Nat. Mus., 1889, no. 37, p. 122, pl. 50, fig. 10.

Mass. Conn.— Stonington.

Epitonium angulatum (Say).

Scalaria clathrus var. angulata Say, Amer. Conch., 1831, no. 3, "Scalaria," pl. 27, two upper figs. [NORTH AMERICA.] Verrill, Rept. Inv. Vineyard Sound, 1873, p. 660.

Scala angulata Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 122.

CONN.— Stonington (Linsley).

Epitonium dallianum (Verrill and Smith).

Scalaria dalliana Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 391, 395. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 527, pl. 57, fig. 33.

MASS.--South of Marthas Vineyard, 85 to 192 fathoms.

Epitonium pourtalesii (Verrill and Smith).

Scalaria pourtalesii Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 391, 395. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 527, pl. 57, fig. 32.

MASS.— South of Marthas Vineyard, 85 to 146 fathoms.

Epitonium leeanum (Verrill).

Scalaria (Cirsotrema) leeana Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 526, pl. 57, fig. 34. "OFF MARTHA'S VINEYARD."

MASS.-- South of Marthas Vineyard, 146 fathoms.

*Epitonium (Arctoscala) greenlandicum (Perry).

Scalaria greenlandica Perry, Conch. or Nat. Hist. Shells, 1811, pl. 28, fig. 8 and explanation. "GREENLAND."

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Scalaria subulata Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 93, pl. 3, fig. 4.

Boreoscala groenlandica Sumner, Osburn and Cole, Bull. U. S. Bureau Fisheries, 1913, vol. 31, pt. 2, p. 714.

ME.— Casco Bay; Frenchman's Bay, 10 to 35 fathoms; Eastport, 10 fathoms.

N. H.— Isles of Shoals, 20 fathoms.

MASS.— Phillips Beach; off Nahant, 17 fathoms; Nantucket Shoals, 20 fathoms.

R. I.- Block Island Sound, 17 to 24 fathoms.

Epitonium (Opalia) andrewsii (Verrill).

Scalaria (Opalia) andrewsii Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 526, pl. 57, fig. 35. "OFF NEWPORT, R. I."

R. I.— Off Newport, 100 fathoms (Verrill).

Epitonium (Acirsa) costulatum (Mighels and Adams).

Turritella costulata Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 50, pl. 4, fig. 20. "CASCO BAY."

Acirsa borealis Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 281.

Scala (Acirsa) costulata Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 307.

ME.— Casco Bay, from the stomach of a haddock; Eastport, 10 to 40 fathoms.

Epitonium (Acirsa) gracilis (Verrill).

Acirsa gracilis Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 377. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 528, pl. 57, fig. 31.

MASS.--- South of Marthas Vineyard, 100 to 365 fathoms.



Aclis striata Verrill.

Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 377. "OFF NEWPORT, R. I." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 528, pl. 58, fig. 13.

ME.— Near Eastport. MASS.— South of Newport, 100 fathoms.

Aclis tenuis Verrill.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 528, pl. 58, fig. 19-" OFF MARTHA'S VINEYARD."

Eulimella ventricosa Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 380 (in part; non Forbes).

MASS.— South of Marthas Vineyard, 100 fathoms.

NATICIDAE.

*Natica (Cryptonatica) clausa Broderip and Sowerby.

Natica clausa Broderip and Sowerby, Zool. Journ., 1829, vol. 4, p. 372. No locality. Gould, Inv. Mass., 1870, p. 342, fig. 612.

ME.— Casco Bay; Frenchman's Bay, 25 to 30 fathoms; Eastport.

MASS.— Massachusetts Bay; Duxbury.

*Natica (Cryptonatica) pusilla Say.

Natica pusilla Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 257. "southern coast [of United States]." Gould, Inv. Mass., 1870, p. 344, fig. 613.

ME.— Casco Bay. MASS.— Vineyard Sound and Buzzards Bay, 2 to 10 fathoms.

*Polinices (Neverita) duplicata (Say).

Natica duplicata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 247. "COAST OF THE UNITED STATES."

Neverita duplicata Gould, Inv. Mass., 1870, p. 345, fig. 615.

FAUNA OF NEW ENGLAND.

MASS.— Revere; Provincetown; Vineyard Sound; Nantucket. R. I.— Nayatt; Buttonwoods. CONN.— Stratford.

*Polinices (Euspira) heros (Say).

Natica heros Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 248. "New JERSEY."

Lunatia heros Gould, Inv. Mass., 1870, p. 338, figs. 608, 609.

ME. to CONN .- Common from low water to 40 fathoms.

*Polinices (Euspira) triseriata (Say).

Natica triseriata Say, Journ. Acad. Nat. Sci. Phila., 1826, ser. 1, vol. 5, p. 209. "Boston HARBOUR."

Lunatia triseriata Gould, Inv. Mass., 1870, p. 340, fig. 610.

ME. to CONN.- Common from low water to 30 fathoms.

*Polinices (Euspira) immaculata (Totten).

Natica immaculata Totten, Amer. Journ. Sci., 1835, ser. 1, vol. 28, p. 351, fig. 6. "NEWPORT HARBOR, (R. I.)."

Mamma? immaculata Gould, Inv. Mass., 1870, p. 344, fig. 614.

ME.— Casco Bay; Frenchman's Bay, 25 to 50 fathoms; Eastport, 20 fathoms.

MASS.— Off Marthas Vineyard, 20 fathoms; Duxbury; Georges Bank.

R. I.— East of Block Island, 29 fathoms; off Watch Hill. CONN.— Stonington, from cod.

*Polinices (Euspira) groenlandica (Möller).

Natica groenlandica Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 80. [GREENLAND.]

Lunatia groenlandica Gould, Inv. Mass., 1870, p. 341, fig. 611.

ME.— Frenchman's Bay, 35 fathoms.

MASS.- Massachusetts Bay, from fishes.

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Polinices (Euspira) nana (Möller).

Natica nana Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 80. [GREENLAND.]

Lunatia nana Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 516, pl. 42, fig. 9.

ME.— Casco Bay; Eastport.

MASS.— Off Cape Ann, 115 fathoms; Stellwagen Bank, 26 to 32 fathoms.

R. I.- South of Block Island, 22 to 29 fathoms.

Polinices (Euspira) levicula (Verrill).

Lunatia levicula Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 371. "EASTPORT, ME."

ME.— Casco Bay; Eastport. MASS.— Off Marthas Vineyard, 26 fathoms. R. I.— Off Block Island, 26 to 100 fathoms.

*Amauropsis islandica (Gmelin).

Nerita islandica Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3675. "OCEANO SEPTENTRIONALL."

Amauropsis helicoides Gould, Inv. Mass., 1870, p. 348, fig. 617.

ME.— Off Otter Creek, Mt. Desert, 27 fathoms (Henderson). MASS.— One fine specimen from a fish caught in Massachusetts Bay (Gould); Georges Bank.

*Acrybia smithii (Brown).

Bulbus smithii Brown, Mem. Wern. Nat. Hist. Soc., 1839, vol. 8, p. 104, pl. 1, fig. 18. [MARINE PLEISTOCENE, ARDINCAPLE, SCOT-LAND.]

Natica flava Gould, Amer. Journ. Sci., 1840, ser. 1, vol. 38, p. 196. Bulbus flavus Gould, Inv. Mass., 1870, p. 347, fig. 616.

Ampullina smithii G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 155, pl. 12, fig. 2; pl. 21, fig. 18. ME.— Eastport; "Grand Manan, 50 fathoms, off the Swallow Tail" (Stimpson).

MASS.— Georges Bank.

CONN.— Stonington, from haddock (Linsley).

LAMELLARIIDAE.

Lamellaria pellucida Verrill.

Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 391, 395. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 518, pl. 58, figs. 4, 5, 5a.

MASS.— South of Marthas Vineyard, 86 to 155 fathoms.

*Velutina laevigata (Linné).

Helix laevigata Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1250. No locality.

Velutina haliotoidea Gould, Inv. Mass., 1870, p. 334, fig. 605.

ME.— Frenchman's Bay, 10 to 50 fathoms; Eastport, 20 fathoms.

MASS.— Marblehead; Magnolia; Duxbury.

*Velutina undata Brown.

Brown, Mem. Wern. Nat. Hist. Soc., 1839, vol. 8, p. 102, pl. 1, fig. 15. [PLEISTOCENE, DALMUIR, SCOTLAND.]

Velutina zonata Gould, Inv. Mass., 1870, p. 335, fig. 606.

ME.— Frenchman's Bay, 25 to 30 fathoms; Eastport, 20 fathoms; Casco Bay.

MASS.- From fish caught off Cape Ann; Chelsea Beach (Gould).

*Marsenina glabra (Couthouy).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 517, pl. 42, figs. 1, 1a, 4.



Oxinoe! glabra Couthouy, Boston Journ. Nat. Hist., 1832, vol. 2, p. 90, pl. 3, fig. 16. "MASS[ACHUSETTS] BAY."

Lamellaria perspicua Gould, Inv. Mass., 1870, p. 337, fig. 607.

ME.--- Eastport. MASS.--- Off Cape Cod, 34 fathoms; Georges Bank.

Marsenina prodita (Lovén).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 518, pl. 42, figs. 2, 2a. Lamellaria prodita Lovén, Öfvers. Kongl. Vet.-Akad. Förh., Stockholm, 1846, vol. 3, p. 147. "FINM[ARK]."

ME.- Eastport.

Marsenina ampla Verrill.

Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 374. "EAST-PORT, ME." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 518, pl. 42, figs. 3, 3a.

ME.- Eastport.

CALYPTRAEIDAE.

*Crucibulum striatum (Say).

Gould, Inv. Mass., 1870, p. 275, fig. 536.

Calyptraea striata Say, Journ. Acad. Nat. Sci. Phila., 1826, ser. 1, vol. 5, p. 216. "New Jersey, about three miles north of Long Branch."

ME.— Casco Bay; Frenchman's Bay; Eastport; Isle au Haute. MASS.— Vineyard Sound and Buzzards Bay, 3 to 12 fathoms. CONN.— Off New London.

*Crepidula fornicata (Linné).

Gould, Inv. Mass., 1870, p. 271, fig. 532. Patella fornicata Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1257. "AD ILVAM INSULAM, INQUE M. MEDITERRANEO." Common from Casco Bay, Me., to Connecticut; Frenchman's Bay, Me., rare.

*Crepidula glauca Say.

Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 226. "COAST OF THE UNITED STATES." Gould, Inv. Mass., 1870, p. 274, fig. 535.

ME.— Quahog Bay.

MASS.— Chelsea Beach; Vineyard Sound and Buzzards Bay. CONN.— New Haven; Stratford.

*Crepidula glauca convexa Say.

Crepidula convexa Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 227. "UNITED STATES."

ME. to CONN.— A form due to growing on the shells of *Alectrion* obsoleta and other very convex surfaces.

*Crepidula plana Say.

Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 226. [New JERSEY TO FLORIDA.] Gould, Inv. Mass., 1870, p. 272, fig. 533.

ME.— Casco Bay; Old Orchard; Isle au Haute.

MASS.— Revere; Provincetown; Vineyard Sound and Buzzards Bay, 1 to 12 fathoms.

R. I.- Narragansett Bay; Watch Hill.

CONN.— Stonington; New Haven; Stratford.

CAPULIDAE.

Capulus ungaricus (Linné).

Patella ungarica Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1259. "M. MEDITERRANEO."

Capulus hungaricus Tryon, Manual Conch., 1886, ser. 1, vol. 8,

p. 131, pl. 39, figs. 72-74. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 519.

MASS.- Off Marthas Vineyard, 69 and 458 fathoms.

TRUNCATELLIDAE.

Truncatella truncata (Montagu).

Turbo truncatus Montagu, Test. Brit., 1803, pt. 2, p. 300, pl. 10, fig. 7. "Southampton, at Plymouth, and other parts of the Devonshire coast."

Truncatella truncatula Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 376; Trans. Conn. Acad., 1882, vol. 5, p. 525, pl. 58, figs. 8, 8a, 8b.

R. I.— 'Among the docks at Newport, July, 1880. "It occurred among decaying sea-weeds thrown up at high-water mark" (Verrill).

ASSIMINEIDAE.

Assiminea modesta (H. C. Lea).

Cingula modesta H. C. Lea, Proc. Boston Soc. Nat. Hist., 1845, vol. 1, p. 205. "BROOKLYN, LONG ISLAND."

Assiminea grayana Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 525, pl. 58, fig. 7 (non Leach).

Assiminia modesta Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 253.

R. I.— Found in July, 1880, living among decaying sea-weed at high-water mark, between the docks at Newport (Verrill).

VIVIPARIDAE.

*Campeloma decisum (Say).

Limnaea decisa Say, Nich. Encycl., 1817, pl. 3, fig. 6.

Paludina decisa Haldeman, Monogr. Limniades, 1840, pt. 1, p. 4, pl. 1.

Melantho decisa Gould, Inv. Mass., 1870, p. 289, figs. 552-554.

ME.— Saco River; Aroostook and Fish Rivers. Common in most of the streams and lakes, from northern MAINE to CONNECTI-CUT.

*Campeloma rufum (Haldeman).

Baker, Bull. Chicago Acad. Sci., 1902, no. 3, pt. 2, p. 358, pl. 36, figs. 4, 6.

Paludina rufa Haldeman, Monogr. Limniades, 1844, pt. 3, p. 3 of wrapper, pl. 3, fig. 1.

ME.— South Pond, Buckfield (J. A. Allen). VT.— Lake Champlain. MASS.— Pontoosuc Lake. CONN.— Housatonic River.

*Viviparus malleatus (Reeve).

Paludina malleata Reeve, Conch. Icon., 1863, vol. 14, Paludina, pl. 5, figs. 25a, 25b. "JAPAN."

MASS.— Muddy River, between Boston and Brookline — introduced (see Nautilus, 1915, vol. 29, p. 35).

VALVATIDAE.

*Valvata tricarinata (Say).

Gould, Inv. Mass., 1870, p. 286, figs. 549, 550. Walker, Nautilus, 1902, vol. 15, p. 122, fig. 1.

Cyclostoma tricarinata Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 13. "RIVER DELAWARE."

ME. to CONN.— Common in most of the lakes and ponds.

*Valvata tricarinata confusa Walker.

Walker, Nautilus, 1902, vol. 15, p. 124, fig. 2. No locality.

VT.— Shelburne Bay, Lake Champlain.



*Valvata tricarinata basalis Vanatta.

Vanatta, Nautilus, 1915, vol. 28, p. 105, figs. 3, 4. "Hudson River, New York."

VT.--- Shelburne Bay, Lake Champlain.

*Valvata tricarinata unicarinata DeKay.

Valvata unicarinata DeKay, Nat. Hist. N. Y., Moll., 1843, p. 118, pl. 6, fig. 129. "LAKE CHAMPLAIN ** ERIE CANAL."

VT.--- Shelburne Bay, Lake Champlain.

*Valvata tricarinata simplex Gould.

Gould, Inv. Mass., 1841, p. 226. "VERMONT."

VT.-- Shelburne Bay, Lake Champlain.

Valvata sincera Say.

Say, Narrative Long's Exped., 1824, vol. 2, p. 264, pl. 15, fig. 11. "NORTH-WEST TERRITORY."

ME.— Dredged in the Fish River Lakes (Nylander). VT.

*Valvata sincera nylanderi Dall.

Valvata (sincera var.?) nylanderi Dall, Harriman Alaska Exped., 1905, vol. 13, p. 122. "AROOSTOOK COUNTY, MAINE."

ME.- Portage Lake, Fish River.

Valvata lewisi Currier.

Currier, Misc. Pub. Kent Sci. Inst., 1868, no. 1, p. 9. Dall, Harriman Alaska Exped., 1905, vol. 13, p. 123, fig. 44.

Valvata striata Lewis, Proc. Acad. Nat. Sci. Phila., 1856, p. 260 (non Philippi, 1836). [OTSEGO Co., N. Y.]

Vт.

AMNICOLIDAE.

*Amnicola limosa (Say).

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Gould, Inv. Mass., 1870, p. 293, fig. 559.

Paludina limosa Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 125. "RIVERS DELAWARE AND SCHUYLKILL."

Amnicola porata Gould, Inv. Mass., 1841, p. 229, fig. 157.

ME. to CONN.--- Common in most of the ponds and brooks.

Amnicola pallida Haldeman.

Haldeman, Monogr. Limniades, 1841, pt. 4, cover pp. 3, 4; 1845, pt. 8, p. 12, pl. 1, fig. 7. "MIDDLEBURY, VERMONT." Gould, Inv. Mass., 1870, p. 292, fig. 558.

ME.— Saco; South Jefferson. Vr.— Lake Champlain; Hartland. CONN.— Hartford (Linsley); Housatonic River.

*Amnicola winkleyi Pilsbry.

Pilsbry, Nautilus, 1912, vol. 26, p. 1, pl. 1, figs. 9, 10. "Saco, MAINE."

ME.— Saco. Recorded by Lermond as A. schrokingeri Ffid. N. H.— Keene.

MASS.— Ipswich (Bryant).

*Lyogyrus pupoidea (Gould).

Gill, Proc. Acad. Nat. Sci. Phila., 1863, p. 34.

Valvata pupoidea Gould, Amer. Journ. Sci., 1840, ser. 1, vol. 38, p. 196. "CAMBRIDGE, MASSACHUSETTS." Gould, Inv. Mass., 1841, p. 226, fig. 155.

ME.— Monmouth; Orono.

MASS.— Fresh Pond, Cambridge; Concord; Danvers; Duxbury; Wareham.

CONN.— Housatonic and Mystic Rivers.

Lyogyrus brownii (H. F. Carpenter).

Amnicola brownii H. F. Carpenter, Central Falls (R. I.) Weekly Visitor, 1872; Random Notes Nat. Hist., 1885, vol. 2, p. 63. "CUNLIFF'S POND, AT ELMVILLE, [R. I.]."

R. I.— Lakes in Roger Williams Park, and old Warwick Pond near Providence.

*Lyogyrus granum (Say).

Pilsbry, Nautilus, 1898, vol. 12, p. 42.

Paludina grana Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 378. "PENNSYLVANIA."

Amnicola granum Gould, Inv. Mass., 1870, p. 294, fig. 560.

MASS.— South Sudbury. Conn.— New Haven (Linsley).

*Somatogyrus subglobosus (Say).

Baker, Bull. Chicago Acad. Sci., 1902, no. 3, pt. 2, p. 340, fig. 123. Paludina subglobosa Say, Journ. Acad. Nat. Sci. Phila., 1825, ser. 1, vol. 5, p. 125. "NORTH-WESTERN TERRITORY."

Somatogyrus isogonus Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 3, p. 77, fig. 151.

VT.-- St. Albans Bay, Lake Champlain (Dr. H. F. Perkins).

*Bythinia tentaculata (Linné).

Baker, Bull. Chicago Acad. Sci., 1902, no. 3, pt. 2, p. 328, fig. 34, figs. 116, 117.

Helix tentaculata Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1249. "IN EUROPAE STAGNIS."

VT.— Lake Champlain (Dr. H. F. Perkins).

*Paludestrina salsa Pilsbry.

Pilsbry, Nautilus, 1905, vol. 19, p. 90, pl. 3, fig. 10, " COHASSET, MASS." MASS.— Cohasset (Bryant); East Wareham; Danvers and Rowley (Winkley).

CONN.— Branford (Winkley).

*Paludestrina minuta (Totten).

Turbo minutus Totten, Amer. Journ. Sci., 1834, ser. 1, vol. 26, p. 369, fig. 6a, b. "MASS[ACHUSETTS], AND R[HODE] I[SLAND]."

Rissoa minuta Gould, Inv. Mass., 1870, p. 298, fig. 566. Littorinella minuta Verrill, Rept. Inv. Vineyard Sound, 1873,

ME. to CONN.— Common, especially upon the salt marshes.

Paludestrina laevis (DeKay).

Cingula laevis DeKay, Nat. Hist. N. Y., Moll., 1843, p. 111, pl. 6, fig. 118. "STRATFORD, (CONN.)."

Littorinella laevis Verrill, Rept. Inv. Vineyard Sound, 1873, p. 653.

Rissoa stimpsoni Smith, Ann. Lyc. Nat. Hist. N. Y., 1870, vol. 9, p. 393.

CONN.- Stratford; Near New Haven.

*Pomatiopsis lapidaria (Say).

Gould, Inv. Mass., 1870, p. 295, figs. 561, 562.

Cyclostoma lapidaria Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 13. No locality.

MASS.— Revere ? (Roper Coll.) CONN.— Housatonic River; New Haven.

RISSOIDAE.

*Cingula carinata Mighels and Adams.

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Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 49. Cingula semicostata Mighels and Adams, Boston Journ. Nat.



p. 653, pl. 24, fig. 140.

Hist., 1842, vol. 4, p. 49, pl. 4, fig. 23 (non Montagu). "CASCO BAY."

Rissoa pelagica Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 15.

Rissoa carinata Gould, Inv. Mass., 1870, p. 301, fig. 572.

ME.— Casco Bay; Frenchman's Bay, abundant in 15 fathoms (Blaney); Eastport.

*Cingula arenaria Mighels and Adams.

Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 49, pl. 4, fig. 24. "Casco Bay."

Rissoa exarata Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 15.

Rissoa mighelsi Gould, Inv. Mass., 1870, p. 301 (not fig. 570).

ME.— Casco Bay, 6 to 25 fathoms; Frenchman's Bay, 6 to 8 fathoms; Eastport.

MASS.— Boston Harbor, 3 fathoms.

R. I.— Watch Hill, 4 to 5 fathoms, among rocks and algae (Verrill).

CONN.— Stonington, from cod (Linsley).

*Cingula areolata (Stimpson).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 524, pl. 43, fig. 2.

Turritella areolata Stimpson, Shells of New England, 1851, p. 35. "MASS[ACHUSETTS] BAY."

ME.— Frenchman's Bay, 6 to 8 fathoms (Blaney); Mt. Desert, 10 to 15 fathoms (Verrill).

MASS.— Massachusetts Bay; off Marthas Vineyard, 130 fathoms.

*Cingula castanea (Möller).

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 174, pl. 10, figs. 1a, 1b.

Rissoa castanea Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 82. [GREENLAND.]

ME.— Frenchman's Bay, 6 to 12 fathoms; Eastport; Penobscot Bay.

Cingula latior Mighels and Adams.

Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 48, pl. 4, fig. 22. "CASCO BAY."

Rissoa latior Gould, Inv. Mass., 1870, p. 299, fig. 567.

ME.— Casco Bay, from the stomach of a haddock.

Cingula harpa (Verrill).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 523, pl. 58, fig. 6.

Rissoa (Cingula) harpa Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 374. "OFF MASSACHUSETTS BAY."

MASS.— Off Massachusetts Bay, 160 fathoms; off Marthas Vineyard, 312 to 487 fathoms.

*Cingula multilineata (Stimpson).

Rissoa multilineata Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 14. "GT. MISERY ISLAND, AND ALSO NEAR NAHANT, [MASS.]." Gould, Inv. Mass., 1870, p. 300, fig. 569.

ME.— Frenchman's Bay, 5 fathoms (Blaney).

MASS.— Off Great Misery Id., 5 fathoms; near Nahant; Provincetown.

*Onoba aculeus (Gould).

Cingula aculeus Gould, Inv. Mass., 1841, p. 266, fig. 172. " EAST BOSTON."

Rissoa aculeus Gould, Inv. Mass., 1870, p. 299, fig. 568.

ME.— Casco Bay; Frenchman's Bay; Eastport.



MASS.— Massachusetts Bay; Vineyard Sound; Duxbury; Provincetown.

R. I.- Watch Hill.

CONN.- New Haven; Stratford.

LITIOPIDAE.

*Litiopa bombix Kiener.

Kiener, Ann. des Sci. Nat., 1833, vol. 30, p. 222, pl. 17, B, figs. 1-3. No locality. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 523.

Litiopa melanostoma Sumner, Osburn, and Cole, Bull. U. S. Bureau Fisheries, 1913, vol. 31, pt. 2, p. 720.

MASS.— Off Marthas Vineyard. Pelagic, found attached to floating gulfweed (Sargassum sp.).

HOMALOGYRIDAE.

*Homalogyra atomus (Philippi).

Jeffreys, Brit. Conch., 1867, vol. 4, p. 69, pl. 1, fig. 5. *Truncatella atomus* Philippi, Arch. f. Naturg., 1841, vol. 7, pt. 1, p. 54, pl. 5, fig. 4. "IN SORRENT [ITALY]."

N. H.- Hampton Beach (Morse).

SKENEIDAE.

*Skenea planorbis (Fabricius).

Gould, Inv. Mass., 1870, p. 296, fig. 563.

Turbo planorbis Fabricius, Fauna Groenlandica, 1780, p. 394. [GREENLAND.]

ME.— Common, Casco Bay to Eastport.

MASS.— Cape Ann; Provincetown; Cohasset; Woods Hole. R. I.— Watch Hill.

CONN.- Near New Haven.

Adeorbis supranitidus orbignyi Fischer.

Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 278.

Adeorbis orbignyi Fischer, Journ. de Conch., 1857, vol. 6, pp. 173, 286. "CUBA."

Omalaxis! lirata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 529.

R. I.— Off Newport, 81 fathoms.

Adeorbis? olivaceus (Verrill).

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Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 150, pl. 44, fig. 5.

Cithna (?) olivacea Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 185, pl. 29, fig. 5. "OFF MARTHA'S VINEYARD."

MASS.— Off Marthas Vineyard, 193 fathoms, and 1290 fathoms.

SOLARIIDAE.

Architectonica borealis (Verrill and Smith).

Solarium boreale Verrill and Smith in Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 376. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 529, pl. 57, figs. 29, 30.

MASS.— South of Marthas Vineyard, 115 and 146 fathoms.

FOSSARIDAE.

Fossarus elegans Verrill and Smith.

Verrill and Smith in Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 522, pl. 57, fig. 28. "OFF MARTHA'S VINEYARD."

MASS.— South of Marthas Vineyard, 100 fathoms.

LITORINIDAE.

*Litorina littorea (Linné).

Turbo littoreus Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 761. "O. EUROPAEO." Littorina litorea Gould, Inv. Mass., 1870, p. 308, fig. 577.

ME. to CONN.— This species, now common along the entire coast, first appeared on the coast of Maine in 1871.

*Litorina obtusata palliata (Say).

Turbo palliatus Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 240. "New England."

Littorina palliata Gould, Inv. Mass., 1870, p. 309, fig. 578. Littorina obtusata palliata Dautzenberg and Fischer, Journ. de Conch., 1915, vol. 62, p. 107, pl. 2, fig. 4.

ME. to CONN.— Common on the rocks between tides.

*Litorina rudis (Donovan).

Turbo rudis Donovan, Brit. Shells, 1804, vol. 1, pl. 33, fig. 3 and explanation. "DEVONSHIRE, [ENGLAND]."

Littorina rudis Gould, Inv. Mass., 1870, p. 304, fig. 575.

ME. to CONN.— Common on the rocks of the ocean shore.

*Litorina rudis tenebrosa (Montagu).

Turbo tenebrosus Montagu, Test. Brit., 1803, p. 303; Suppl., 1808, pl. 20, fig. 4. "DEVONSHIRE *** KENT [ENGLAND]."

Littorina tenebrosa Gould, Inv. Mass., 1870, p. 306, fig. 576.

ME. to CONN.— Common about wharves, bridges and upon the salt marshes.

Litorina irrorata (Say).

Turbo irroratus Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 239. [New JERSEY TO FLORIDA.]

Littorina irrorata Gould, Inv. Mass., 1870, p. 311, fig. 579.

MASS.— Vineyard Sound.

*Lacuna vincta (Montagu).

Gould, Inv. Mass., 1841, p. 262, fig. 168.

Turbo vinctus Montagu., Test. Brit., 1803, p. 307; Suppl., 1808, pl. 20, fig. 3. "SALCOMB BAY [ENGLAND]."

ME. to CONN.- Common among algae in 2 to 5 fathoms.

*Lacuna vincta fusca Gould.

Gould, Inv. Mass., 1841, p. 263, fig. 169. [MASSACHUSETTS.] ME. to CONN.— Associated with the typical form.

*Lacuna puteola (Turton).

Turbo puteolus Turton, Conch. Dictionary, 1819, p. 193, figs. 90, 91. "Dublin bay, and on the rocks between Teignmouth and Dawlish, in Devonshire, attached to Fuci."

Lacuna puteolus Forbes and Hanley, Hist. Brit. Moll., 1853, vol. 3, p. 58, pl. 72, figs. 7–9; pl. 74, fig. 9. Tryon, Manual Conch., 1887, ser. 1, vol. 9, p. 265, pl. 50, figs. 51, 52.

MASS.—Vineyard Sound; Buzzards Bay near the Elizabeth Islands; Nantucket.

*Lacuna pallidula neritoidea Gould.

Lacuna neritoidea Gould, Amer. Journ. Sci., 1840, vol. 38, p. 197. [CHELSEA BEACH, MASS.] Gould, Inv. Mass., 1870, p. 303, fig. 574.

ME.- Casco Bay; Cape Elizabeth; Eastport.

MASS. -- Swampscott; Revere; Duxbury.

CONN.— Oyster River; Long Beach; Stratford (Linsley). These records are questioned by Prof. Verrill.

TURRITELLIDAE.

***Turritella erosa** Couthouy.

Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 103, pl. 3, fig. 1. "MASS[ACHUSETTS] BAY." Gould, Inv. Mass., 1870, p. 317, fig. 585.



GASTEROPODA.

ME.— Casco Bay; Frenchman's Bay, 7 fathoms; near Eastport, 50 fathoms.

MASS.— Ipswich Bay; Massachusetts Bay.

CONN.— From stomach of a cod off Stonington (Linsley).

*Turritellopsis acicula (Stimpson).

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 186, pl. 10, figs. 14a, 14b.

Turritella acicula Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 15. "FROM FISHES CAUGHT OFF * * * CAPE ANN, [MASS.]." Gould, Inv. Mass., 1870, p. 319, fig. 588.

MB.— Casco Bay; Frenchman's Bay, 5 to 10 fathoms; near Eastport, 40 fathoms.

MASS.— From fish caught off Cape Ann; Lynn and Marshfield; Duxbury.

VERMETIDAE.

*Vermicularia spirata (Philippi).

Vermetus spiratus Philippi, Arch. f. Naturg., 1836, vol. 2, pt. 1, p. 224, pl. 7, fig. 1. "AD HAVANAM, [CUBA]."

Vermetus radicula Stimpson, Shells of New England, 1851, p. 37. Gould, Inv. Mass., 1870, p. 316, fig. 584.

MASS.— Vineyard Sound and Buzzards Bay, 3 to 10 fathoms; New Bedford Harbor.

CONN.— New Haven (Linsley).

CAECIDAE.

*Caecum pulchellum Stimpson.

Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 112. "BUZZARD'S BAY [, MASS.]." Gould, Inv. Mass., 1870, p. 315, fig. 583.

N. H.— Hampton Beach (Morse).

MASS.- Vineyard Sound, 1 to 4 fathoms; New Bedford Harbor.

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*Caecum cooperi S. Smith.

S. Smith, Ann. Lyc. Nat. Hist. N. Y., 1860, vol. 7, p. 154 (non Carpenter, 1864). "GARDINER'S BAY, [L. I.]."

Caecum costatum Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 283, pl. 6, fig. 6.

MASS.— Vineyard Sound, 8 to 10 fathoms.

*Caecum johnsoni Winkley.

Winkley, Nautilus, 1908, vol. 22, p. 54. "Woods Hole, MASS." MASS.— Woods Hole.

TRICHOTROPIDAE.

*Trichotropis borealis Broderip and Sowerby.

Broderip and Sowerby, Zool. Journ., 1828, vol. 4, p. 375. "OCEANO BOREALI PROPE INSULAM MELVILLE." Gould, Inv. Mass., 1870, p. 390, fig. 651.

Trichotropis costellatus Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 108, pl. 3, fig. 2.

ME.— Casco Bay; Frenchman's Bay, 25 to 50 fathoms; Eastport, 20 fathoms.

MASS.— Deep waters of Massachusetts Bay (Couthouy).

Trichotropis conica Möller.

Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 85. [GREEN-LAND.] G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 163, pl. 13, fig. 3. Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 374.

Gulf of Maine, off Cape Sable, 75 fathoms.

Torellia fimbriata Verrill and Smith.

Verrill and Smith in Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 520, pl. 57, figs. 27, 27a. [OFF THE COAST OF MAINE AND SOUTH OF MARTHAS VINEYARD.]



Gulf of Maine, near Cashe's Ledge, 52 to 90 fathoms. MASS.— South of Marthas Vineyard, 142 to 258 fathoms.

Torellia vestita Jeffreys.

Jeffreys, Brit. Conch., 1867, vol. 4, p. 244, pl. 4, fig. 1. "EAST COAST OF SHETLAND (BARLEE)." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 521, pl. 47, fig. 5.

Gulf of Maine, 150 fathoms.

MASS.— South of Marthas Vineyard, 86 to 146 fathoms.

PLEUROCERIDAE.

*Goniobasis virginica (Gmelin).

Tryon, Smithson. Misc. Coll., 1873, vol. 16, art. 1, p. 290, figs. 562-566.

Buccinum virginicum Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3505. "IN VIRGINIAE FLUVIIS."

Melania virginica Say, Amer. Conch., 1832, pt. 5, pl. 47, fig. 2 and text.

MASS.— Connecticut River, at Agawam, below Springfield (Winkley).

CONN.— Connecticut River, at Deep River (Reid).

*Goniobasis virginica multilineata (Say).

Melania multilineata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 380. "TRIBUTARIES TO THE DELAWARE."

Goniobasis virginica Tryon, Smithson. Misc. Coll., 1873, vol. 16, art. 1, p. 290, fig. 567.

CONN.— Connecticut River, at Deep River (Reid).

Goniobasis depygis (Say).

Tryon, Smithson. Misc. Coll., 1873, vol. 16, art. 1, p. 247, figs. 481, 482.

Melania depygis Say, New Harmony (Ind.) Disseminator, 1829, p. 291. [FALL OF THE OH10.]

VT.--- Lake Champlain.

*Goniobasis haldemani Tryon.

Tryon, Amer. Journ. Conch., 1865, vol. 1, p. 38, pl. 1, fig. 8. "LAKE ERIE, LAKE CHAMPLAIN." Tryon, Smithson. Misc. Coll., 1873, vol. 16, art. 1, p. 282.

VT.— Lake Champlain.

TRIPHORIIDAE.

*Triphoris perversa nigrocincta (C. B. Adams).

Cerithium nigrocinctum C. B. Adams, Boston Journ. Nat. Hist., 1839, vol. 2, p. 286, pl. 4, fig. 11. "DARTMOUTH HARBOR, [MASS.]." Triforis nigrocinctus Gould, Inv. Mass., 1870, p. 323, fig. 592.

MASS.— Vineyard Sound and Buzzards Bay, low water to 10 fathoms; Wellfleet.

R. I.- Narragansett Bay; Watch Hill.

CONN.-- Stonington on oysters; near New Haven.

CERITHIOPSIDAE.

*Cerithiopsis greenii (C. B. Adams).

Verrill, Rept. Inv. Vineyard Sound, 1873, p. 647, pl. 24, fig. 153. Cerithium greenii C. B. Adams, Boston Journ. Nat. Hist., 1839,

vol. 2, p. 287, pl. 4, fig. 12. "DARTMOUTH HARBOR, [MASS.]." Bittium greenii Gould, Inv. Mass., 1870, p. 322, fig. 591.

MASS.— Boston Harbor; Vineyard Sound and Buzzards Bay, 3 to 10 fathoms.

R. I.— Narragansett Bay; Watch Hill. CONN.— Near New Haven (Perkins).

*Cerithiopsis subulata (Montagu).

Murex subulatus Montagu, Test. Brit., Suppl., 1808, p. 115, pl. 30, fig. 6. "AT SCALASDALE, IN THE SOUND OF MULL."



Cerithiopsis emersonii Gould, Inv. Mass., 1870, p. 387, fig. 649. Cerithiopsis (Eumetal) subulata Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 252, pl. 20, fig. 4.

MASS.— Vineyard Sound and Buzzards Bay, 2 to 12 fathoms; New Bedford Harbor; Nantucket; Wellfleet. R. I.

Cerithiopsis costulata (Möller).

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 189, pl. 13, fig. 7. *Turritella 1 costulata* Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 83. [GREENLAND.]

ME.— Off Eastport, Bay of Fundy (Verrill).

*Seila adamsii (H. C. Lea).

Dall, Trans. Wagner Free Inst. Sci., 1892, vol. 3, pt. 2, p. 267.
Cerithium terebrale C. B. Adams, Boston Journ. Nat. Hist., 1840, vol. 3, p. 320, pl. 3, fig. 7 (non Lamarck). "New BEDFORD
[, MASS.]."

Cerithium adamsii H. C. Lea, Trans. Amer. Phil. Soc., 1846, new ser., vol. 9, p. 268.

Cerithiopsis terebralis Gould, Inv. Mass., 1870, p. 389, fig. 650.

MASS.— Vineyard Sound and Buzzards Bay, 2 to 12 fathoms. R. I.— Narragansett Bay. CONN.

CERITHIIDAE.

*Bittium alternatum (Say).

Turritella alternata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 243. "UNITED STATES."

Pasithea nigra Totten, Amer. Journ. Sci., 1834, ser. 1, vol. 26, p. 369, pl. 1, figs. 7a, 7b (young).

Bittium nigrum Gould, Inv. Mass., 1870, p. 321, fig. 590.

MASS.— Boston Harbor; Vineyard Sound and Buzzards Bay, low water to 8 fathoms, among algae.

R. I.- Narragansett Bay.

CONN.- New Haven.

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APORRHAIDAE.

*Aporrhais (Arrhoges) occidentalis (Beck).

Gabb, Amer. Journ. Conch., 1868, vol. 4, p. 145.

Rostellaria occidentalis Beck, Mag. de Zool., 1836, vol. 6, classe 5, pl. 72 and text. [GULF OF ST. LAWRENCE AND NEWFOUNDLAND.]

Aporrhais occidentalis Gould, Inv. Mass., 1870, p. 320, fig. 589.

ME.— Casco Bay; Frenchman's Bay, 10 to 35 fathoms; Eastport, 20 fathoms.

MASS.— Nahant Beach; off Duxbury.

DOLIIDAE.

Eudolium crosseanum (Monterosato).

Dolium crosseanum Monterosato, Journ. de Conch., 1869, vol. 17, p. 228, pl. 12, fig. 1. [OFF PALERMO, ITALY.]

Dolium bairdii Verrill and Smith in Verrill, Amer. Journ. Sci., 1881, ser. 3, vol. 22, p. 299. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 515; 1884, vol. 6, p. 253, pl. 29, figs. 2, 2a, 2b.

Dolium (Eudolium) crosseanum Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 134, pl. 15, fig. 5; pl. 44, figs. 2-2b; pl. 62, figs. 83, 83a.

MASS.— Off Marthas Vineyard, 94 to 202 fathoms.

PTEROTRACHEIDAE.

Firoloida lesueurii (d'Orbigny).

E. A. Smith, Rept. Voy. Challenger, Zool., 1888, vol. 23, art. 5, p. 23. • Verrill, Trans. Conn. Acad., 1885, vol. 6, p. 430.

Firola (Cerophora) lesueurii d'Orbigny, Voy. Amér. Mérid., 1836, vol. 5, p. 151, pl. 10, figs. 11, 12. [OCÉAN AUSTRAL, S. LAT. 30°, W. LONG. 89°.]

MASS.— South of Marthas Vineyard, N. lat. 39° 43', W. long. 70° 07', surface.

CARINARIIDAE.

Carinaria atlantica Adams and Reeve.

Adams and Reeve, Zool. Voy. Samarang, Moll., 1848, no. 3, p. 63, pl. 13, fig. 12. "NORTH ATLANTIC OCEAN." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 529; 1884, vol. 6, p. 274.

MASS.— Off Marthas Vineyard, N. lat. 40° 05', W. long. 70° 23', 65 fathoms.

ATLANTIDAE.

*Atlanta peronii Lesueur.

Lesueur, Journ. de Physique, 1817, vol. 85, p. 390, pl. 2, figs. 1, 2. Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 274, pl. 28, figs. 4, 4a. *Atalanta peronii* Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 529.

Near the Georges Bank, N. lat. 41° 25', W. long. 65° 30', surface.

Atlanta gaudichaudii Eydoux and Souleyet.

Eydoux and Souleyet, Voy. Bonité, Zoöl., 1852, vol. 2, p. 379; atlas, pl. 19, figs. 29-34. "PACIFIQUE." Verrill, Trans. Conn. Acad., 1884, vol. 6, pp. 211, 274.

Off the Georges Bank, N. lat. 40° 02' 49", W. long. 68° 40', surface.

Atlanta rosea Eydoux and Souleyet.

Eydoux and Souleyet, Voy. Bonité, Zoöl., 1852, vol. 2, p. 377; atlas, pl. 19, figs. 16–20. "ATLANTIQUE." Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 211.

Off the Georges Bank, N. lat. 40° 16' 15", W. long. 67° 05' 15", surface.

Atlanta inclinata Eydoux and Souleyet.

Eydoux and Souleyet, Voy. Bonité, Zoöl., 1852, vol. 2, p. 375; atlas, pl. 19, figs. 9–15. "PACIFIQUE ET ATLANTIQUE." Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 211.

Off Georges Bank, N. lat. 40° 16' 50", W. long. 67° 05' 15", surface.

Atlanta pulchella Verrill.

Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 211. "OFF DELAWARE BAY, N. LAT. 39° 22', W. LONG. 68° 34' 30'."

MASS.— Off Marthas Vineyard, N. lat. 40°, surface.

Oxygyrus keraudrenii (Lesueur).

H. and A. Adams, Genera Recent Moll., 1858, vol. 2, p. 92; vol 3, pl. 69, figs. 6-6b. Verrill, Trans. Conn. Acad., 1885, vol. 6 p. 430.

Atlanta keraudrenii Lesueur, Journ. de Physique, 1817, vol. 85, p. 391, pl. 2.

MASS.— South of Marthas Vineyard, N. lat. 39° 44', W. long 70° 03', surface.

MURICIDAE.

*Eupleura caudata (Say).

Stimpson, Amer. Journ. Conch., 1865, vol. 1, p. 58, pl. 8, fig. 5 Ranella caudata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1 vol. 2, p. 236. "COAST OF THE UNITED STATES." Gould, Inv Mass., 1870, p. 386, fig. 648.

MASS.— Vineyard Sound, 1 to 8 fathoms; Buzzards Bay Nantucket; Marthas Vineyard.

R. I.— Coweset Bay; Nayatt.

CONN.—Off New Haven, 1 to 5 fathoms; Long Beach; Stratford



*Trophon clathratus (Linné).

Murex clathratus Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1223. "IN ISLANDIAE MARI."

Trophon scalariformis Gould, Inv. Mass., 1870, p. 378, fig. 644.

ME.— Casco Bay; Eastport, 20 fathoms.

MASS.— From a fish caught in Massachusetts Bay.

Trophon clathratus gunneri (Lovén).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 512, pl. 43, fig. 8. Tritonium gunneri Lovén, Öfvers. Kongl. Vet.-Akad. Förh. Stockholm, 1846, vol. 3, p. 144. "NORDL[ICHE] FINM[ARK.]"

Gulf of Maine, off Grand Manan; off Cape Sable, 59 fathoms.

Trophon truncatus (Ström).

Buccinum truncatum Ström, Norske Vidensk. Selsk. Skr.; 1767, vol. 4, p. 369, pl. 16, fig. 26.

Fusus bamfius Gould, Inv. Mass., 1841, p. 289, fig. 198.

Trophon clathratus Gould, Inv. Mass., 1870, p. 377, fig. 643 (non Linné).

ME.— Casco Bay; Frenchman's Bay, 35 to 50 fathoms; Eastport, 20 fathoms.

Trophon muricatus (Montagu).

Gould, Inv. Mass., 1870, p. 379.

Murex muricatus Montagu, Test. Brit., 1803, p. 262, pl. 9, fig. 2. "SALCOMB BAY, [ENGLAND]."

MASS.— Phillips Beach.

Trophon lintoni Verrill and Smith.

Verrill and Smith in Verrill, Amer. Journ. Sci., 1882, ser. 3, vol. 24, p. 365. [OFF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 176, pl. 29, fig. 1.

MASS.— Off Marthas Vineyard, 70 fathoms.

*Urosalpinx cinerea (Say).

Stimpson, Amer. Journ. Conch., 1865, vol. 1, p. 58, pl. 8, figs. 6, 7. Fusus cinereus Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 236. [MARYLAND AND NEW JERSEY.]

Buccinum cinereum Gould, Inv. Mass., 1870, p. 370, fig. 637.

ME.- Quahog Bay; Casco Bay.

MASS.— Lynn; Cohasset; Vineyard Sound and Buzzards Bay, from above low water to 8 fathoms; Nantucket.

R. I.- Narragansett Bay; Watch Hill.

CONN.- New Haven; Stratford.

*Thais (Nucella) lapillus (Linné).

Dall, Prof. Paper U. S. Geol. Survey, 1909, no. 59, p. 50. Buccinum lapillus Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 739.

"AD OCEANI EUROPAEI LITTORA." Purpura lapillus Gould, Inv. Mass., 1870, p. 360, fig. 630.

ME. to CONN.— Common on the rocky shores.

COLUMBELLIDAE.

*Columbella (Anachis) avara Say.

Colombella avara Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 230. "COAST OF THE SOUTHERN STATES."

Anachis avara Verrill, Rept. Inv. Vineyard Sound, 1873, p. 643.

MASS.— Woods Hole; Vineyard Sound, low water to 10 fathoms; Duxbury; Wellfleet.

R. I.- Narragansett Bay.

CONN.-New Haven.

*Columbella (Anachis) avara similis Ravenel.

Columbella similis Ravenel, Proc. Acad. Nat. Sci. Phila., 1861, p. 41. "North and South CAROLINA."

Columbella avara Gould, Inv. Mass., 1870, p. 356, fig. 626.



MASS.— Massachusetts Bay; Wellfleet; Plymouth; Woods Hole; Nantucket; Marthas Vineyard.

R. I.— Narragansett Bay.

CONN.-New Haven; Stratford.

Columbella (Anachis) haliaeeti Jeffreys.

Columbella haliaeeti Jeffreys, Brit. Conch., 1867, vol. 4, p. 356; 1869, vol. 5, p. 219, fig. 3. " IN 85-95 F. ABOUT 25 MILES N.N.W. OF UNST."

Anachis costulata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 513, pl. 43, fig. 7 (non Cantraine).

ME.— Gulf of Maine, at Cashe's Ledge, Jeffrey Bank, etc., 30 to 114 fathoms.

MASS.— Off Cape Cod, 67 to 96 fathoms; south of Marthas Vineyard, common in 146 to 506 fathoms (Verrill).

*Columbella (Astyris) lunata (Say).

Nassa lunata Say, Journ. Acad. Nat. Sci. Phila., 1826, ser. 1, vol. 5, p. 213. "Southern States."

Buccinum zonalis Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 285. Gould, Amer. Journ. Sci., 1848, ser. 2, vol. 6, p. 236, fig. 8.

Columbella lunata Gould, Inv. Mass., 1870, p. 359, fig. 629.

ME.— Quahog Bay; Orr's Isle; Damariscotta (Winkley).

MASS.— Swampscott; Provincetown; Vineyard Sound and Buzzards Bay, 1 to 10 fathoms.

R. I.— Narragansett Bay.

CONN.-- New Haven; Stratford.

*Columbella (Astyris) dissimilis Stimpson.

Columbella dissimilis Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 114. "BAY OF FUNDY."

ME.— Eastport Harbor; Penobscot Bay.

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*Columbella (Astyris) rosacea (Gould).

Buccinum rosaceum Gould, Amer. Journ. Sci., 1840, ser. 1, vol. 38, p. 197. [FROM FISH OFF COHASSET, MASS.]

Columbella rosacea Gould, Inv. Mass., 1870, p. 357, fig. 627.

ME.— Casco Bay, 10 to 20 fathoms; Frenchman's Bay, 6 to 35 fathoms; Eastport.

N. H.— Isles of Shoals, 20 fathoms.

MASS.— Massachusetts Bay, 15 to 25 fathoms; off Chatham, 16 fathoms.

R. I.— East of Block Island, 29 fathoms. CONN.— Stonington.

Columbella (Astyris) diaphana (Verrill).

Astyris diaphana Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 513, pl. 58, fig. 2. "OFF MARTHA'S VINEYARD."

MASS.— Off Marthas Vineyard, 65 to 487 fathoms.

Columbella (Astyris) pura (Verrill).

Astyris pura Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 515. "OFF MARTHA'S VINEYARD."

MASS.—Off Marthas Vineyard, 100 to 487 fathoms.

ALECTRIONIDAE.

*Alectrion (Hima) vibex (Say).

Nassa vibex Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 231. "Southern and Middle coast [of the United States]." Gould, Inv. Mass., 1870, p. 365, fig. 633.

Nassa fretensis Perkins, Proc. Boston Soc. Nat. Hist., 1869, vol. 13, p. 117, fig.

MASS.— Vineyard Sound; New Bedford; Cataumet. R. I.— Coweset Bay. CONN.— New Haven.



Alectrion (Hima?) nigrolabra (Verrill).

Nassa nigrolabra Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 371. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 512, pl. 58, fig. 12.

MASS.— South of Marthas Vineyard, 155 fathoms.

*Alectrion (Ilyanassa) obsoleta (Say).

Nassa obsoleta Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 232. "COAST OF THE UNITED STATES." Gould, Inv. Mass., 1870, p. 362, fig. 631.

Common from the mouth of the Kennebec River, Me., southward, on mud flats.

*Alectrion (Tritia) trivittata (Say).

Nassa trivittata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 231. "MIDDLE AND SOUTHERN STATES." Gould, Inv. Mass., 1870, p. 364, fig. 632.

Common from Eastport, Me., southward, in from 1 to 40 fathoms.

BUCCINIDAE.

*Buccinum undatum Linné.

WHELK.

Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1204. "O. EUROPAEO." Gould, Inv. Mass., 1870, p. 366, fig. 634.

ME.— Casco Bay; Frenchman's Bay; Eastport, common. MASS.— Massachusetts Bay; off Gay Head, 6 to 19 fathoms. R. I.— Rocks at Newport (Carpenter). CONN.— Stonington, taken in eel-pots (Linsley).

Buccinum cyaneum Bruguière.

Bruguière, Encycl. Méth., Hist. Nat. des Vers, 1792, vol. 1, p. 266. "côtes du Groenland." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 492, pl. 43, fig. 5.

Gulf of Maine, off Cape Sable, 82 to 91 fathoms. About 15 miles east of Cape Cod, 70 to 90 fathoms.

Buccinum cyaneum perdix (Beck).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 492.

Tritonium groenlandicum var. perdix Beck in Mörch, Faun. Moll. Islandiae, 1868, p. 211. [ICELAND.]

About 15 miles east of Cape Cod, 70 to 90 fathoms.

Buccinum tenue Gray.

Gray, Zool. Beechey's Voy., 1839, p. 128, pl. 36, fig. 19. "Icr CAPE." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 495, pl. 43, fig. 4.

Gulf of Maine, off Cape Sable, 88 to 91 fathoms.

Buccinum sandersoni Verrill.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 490, pl. 58, fig. 9. " off Martha's Vineyard."

MASS.— Off Marthas Vineyard, 156, 208, and 258 fathoms.

*Neptunea decemcostata (Say).

Fusus 10-costatus Say, Journ. Acad. Nat. Sci. Phila., 1826, ser. 1, vol. 5, p. 214. "NEAR BOSTON [, MASS.]." Gould, Inv. Mass., 1870, p. 375, fig. 642.

ME.— Casco Bay; Penobscot Bay; Frenchman's Bay; Eastport.

MASS.— Off Nahant, 17 fathoms; off Cape Cod, 35 fathoms; Duxbury.

*Neptunea despecta tornata (Gould).

Fusus tornatus Gould, Amer. Journ. Sci., 1840, ser. 1, vol. 38, p. 197. [BANK FISHERIES.] Gould, Inv. Mass., 1841, p. 286, fig. 201; 1870, p. 374, fig. 641.

GASTEROPODA.

Neptunea despecta var. tornata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 499.

Off Georges Bank, 69 to 100 fathoms (Verrill).

*Colus stimpsonii (Mörch).

Fusus stimpsonii Mörch, Vid. Medd. Naturh. Foren. Kjöbenhavn, 1868, p. 83. "FAERÖ."

Fusus islandicus Gould, Inv. Mass., 1870, p. 371, fig. 638 (non Linné).

Neptunea curta Verrill, Rept. Inv. Vineyard Sound, 1873, p. 638. Sipho stimpsonii Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 499.

ME.--- Casco Bay; Frenchman's Bay; Eastport.

MASS.— Ipswich Beach; Phillips Beach; Provincetown; Duxbury.

CONN.— Stonington, from fish stomachs (Linsley).

Colus stimpsonii liratulus (Verrill).

Sipho stimpsonii var. liratulus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 500.

Neptunea (Sipho) arata Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 370 (non Gould). [SOUTH OF MARTHAS VINEYARD.]

ME.- Rockland; Sheepscot River.

MASS.— South of Marthas Vineyard, 64 to 192 fathoms.

*Colus stimpsonii brevis (Verrill).

Sipho stimpsonii var. brevis Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 500. "OFF CHATHAM, [MASS.]."

ME.- Isle au Haute.

MASS.— Off Chatham, 17 fathoms; Ipswich.

Colus pubescens (Verrill).

Sipho pubescens Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 501, pl. 43, fig. 6. "OFF CAPE SABLE, N. S. * * OFF MARTHA'S VINE-YARD."

Neptunos propingues Verrill. Amer. Journ. Sci., 1878. ser. 4. vol. 16, p. 210 non Alder.

Gud of Maine, off Cape Sable, 88 to 91 fathoms. MASS.— Off Marthas Vineyard, 86 to 410 fathoms.

*Colus ventricosus Gray .

Funus rentriconus Gray, Zool. Beechey's Voy., 1839, p. 117. No locality. Gould, Inv. Mass., 1870, p. 373, fig. 640.

Mr.

Mass.-- Nantucket Shoals and Georges Bank (Stimpson).

*Colus pygmaeus (Gould).

Funns islandicus var. pygmaeus Gould, Inv. Mass., 1841, p. 284, fig. 199. [New England.]

Funus trumbulli Linsley, Amer. Journ. Sci., 1845, ser. 1, vol. 48, p. 285, figs. 1, 2.

Neptunea (Neptunella) pygmaea Verrill, Rept. Inv. Vineyard Sound, 1873, p. 639, pl. 21, fig. 115.

Mr.— Casco Bay, 10 to 20 fathoms; Frenchman's Bay; Eastport.

MASS. - Massachusetts Bay.

R. L.-- Off Block Island, 29 fathoms; off Edgartown, 18 to 20 fathoms; off Gay Head, 19 fathoms.

CONN.— Off Stonington and New London.

Colus pygmaeus planulus (Verrill).

Sipho pygmaeus var. planulus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 505. "OFF MARTHA'S VINEYARD."

MASS.-- Off Marthas Vineyard, 20 to 350 fathoms.

Colus sabinii (Gray).

Buccinum sabinii Gray, Suppl. to App. Parry's First Voyage, 1819-20, 1824, p. ccxl. [Northwest Passage.] Sipho sabinii Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 503, pl. 57, fig. 23.

Dredged on Cashe's Ledge, Gulf of Maine.

*Busycon carica (Gmelin).

Gould, Inv. Mass., 1870, p. 383, fig. 646.

Murex carica Gmelin, Syst. Nat., 1790, vol. 1, pt. 6, p. 3545. No locality.

Fulgur carica Verrill, Rept. Inv. Vineyard Sound, 1873, p. 640, pl. 22, fig. 127.

MASS.— Vineyard Sound, 1 to 10 fathoms; Nantucket.

R. I.— Narragansett Bay.

CONN.— Long Island Sound near New Haven.

*Busycon canaliculatum (Linné).

Gould, Inv. Mass., 1870, p. 380, fig. 645.

Murez canaliculatus Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1222. "AD CANADAM."

Sycotypus canaliculatus Verrill, Rept. Inv. Vineyard Sound, 1873, p. 640.

MASS. — Vineyard Sound, 1 to 8 fathoms; Duxbury (introduced with seed oysters).

R. I.— Narragansett Bay.

CONN.— Long Island Sound near New Haven.

PTYCHATRACTIDAE.

*Ptychatractus ligatus (Mighels and Adams).

Stimpson, Amer. Journ. Conch., 1865, vol. 1, p. 59, pl. 8, fig. 8. Fasciolaria ligata Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 51, pl. 4, fig. 17. "MINGAN IN THE GULF OF ST. LAWRENCE."

ME.—Casco Bay, 20 to 40 fathoms; Eastport, 20 fathoms. CONN.—Stonington, from codfish (Linsley).

MARGINELLIDAE.

Marginella apicina borealis Verrill.

Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 136.

Marginella borealis Verrill, Trans. Conn. Acad., 1884, vol. 6, . p. 165, pl. 29, fig. 4. "OFF NORFOLK, VA."

MASS.— Off Marthas Vineyard, 64.5 to 100 fathoms.

CANCELLARIIDAE.

*Admete couthouyi (Jay).

Cancellaria buccinoides Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 105, pl. 3, fig. 3 (non Sowerby, 1832). "MASS-[ACHUSETTS] BAY."

Cancellaria couthouyi Jay, Cat. Shells, 1839, ed. 3, p. 77.

Admete viridula Stimpson, Shells of New England, 1851, p. 44. Gould, Inv. Mass., 1870, p. 391, fig. 652 (non Fabricius).

ME.— Casco Bay; Frenchman's Bay, 25 to 30 fathoms; Eastport, 10 fathoms.

MASS.— Massachusetts Bay; Duxbury, 20 fathoms; off Nauset Light.

TURRITIDAE.

Drillia dalli (Verrill and Smith).

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 98, pl. 60, figs. 66, 66a. *Pleurotoma dalli* Verrill and Smith in Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 451, pl. 57, figs. 1, 1a. "OFF MARTHA'S VINEYARD, *** OFF DELAWARE BAY."

MASS.— Off Marthas Vineyard, 94 to 146 fathoms.

Drillia carpenteri (Verrill and Smith).

Pleurotoma carpenteri Verrill and Smith in Verrill, Amer. Journ.

Sci., 1880, ser. 3, vol. 20, pp. 391, 395. [OFF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 452, pl. 57, fig. 2.

MASS.— Off Marthas Vineyard, 86 to 155 fathoms.

*Bela nobilis (Möller).

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 228, pl. 16, figs. 19, 20.
Defrancia nobilis Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4,
p. 85. [GREENLAND.]

ME.--- Frenchman's Bay, 10 to 15 fathoms; Eastport.

Bela scalaris (Möller)/

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 471, pl. 57, figs. 12, 12a.

Defrancia scalaris Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 85. "GROENLAND."

Bela turricula Gould, Inv. Mass., 1870, p. 351, fig. 620.

Bela americana Packard, Mem. Boston Soc. Nat. Hist., 1867, vol. 1, p. 285, pl. 7, fig. 11.

ME.— Broad Sound, Casco Bay and off Halfway Light, 14 to 29 fathoms; Eastport, 10 fathoms.

N. H.— Isles of Shoals, 25 fathoms; Jeffrey's Ledge, 15 fathoms. MASS.— Massachusetts Bay, 29 to 40 fathoms; off Cape Cod, 15 to 32 fathoms; Duxbury, 20 to 30 fathoms.

Bela rugulata gouldii Verrill.

Bela gouldii Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 462, pl. 57, figs. 6, 6a. "MASSACHUSETTS BAY *** GULF OF MAINE."

ME.— Casco Bay, 17 to 30 fathoms; Frenchman's Bay, 25 to 30 fathoms.

MASS.— Massachusetts and Cape Cod Bays, 15 to 50 fathoms; off Cape Cod, 122 fathoms.

*Bela cancellata (Mighels and Adams).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 475, pl. 43, figs. 10,. 11; pl. 57, fig. 13.

Fusus cancellatus Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 52, pl. 4, fig. 18. "CASCO BAY."

ME.— Frenchman's Bay, south of Egg Rock Light, 25 fathoms; Eastport, 10 fathoms.

MASS.— Massachusetts Bay and off Cape Cod, 12 to 92 fathoms; off Marthas Vineyard, 126 to 312 fathoms.

*Bela decussata (Couthouy).

Gould, Inv. Mass., 1870, p. 354, fig. 623. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 479, pl. 43, fig. 13.

Pleurotoma decussata Couthouy, Boston Journ. Nat. Hist., 1839, vol. 2, p. 183, pl. 4, fig. 8. "MASSACHUSETTS BAY."

Bela decussata var. tenuicostata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 481 (non Sars).

ME.— Casco Bay; Frenchman's Bay, 10 to 12 fathoms; Eastport.

MASS.— Off Cape Ann, 38 to 75 fathoms; off Cape Cod, 28 to 30 fathoms.

Bela decussata pusilla Verrill.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 481. "CASCO BAY."

ME.— Casco Bay, 12 to 15 fathoms; Frenchman's Bay; Wiscasset.

*Bela exarata (Möller).

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 232, pl. 16, fig. 18. Defrancia exarata Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4,

p. 85. [GREENLAND.]

Tritonium mitrula Lovén, Öfvers. Kongl. Vet.-Akad. Förh., Stockholm, 1846, vol. 3, p. 145.

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Bela concinnula Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 468, pl. 43, fig. 15.

ME.— Casco Bay; Frenchman's Bay, 10 to 12 fathoms; Gulf of Maine, 25 to 118 fathoms.

MASS.— Massachusetts Bay, 16 to 29 fathoms; off Cape Cod, 25 to 122 fathoms.

*Bela rosea Sars.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 485.

Bela harpularia var. rosea G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 234, pl. 23, fig. 10. "TROMSØ OG LOFOTEN *** VESTKYST (CHRISTIANSUND) [NORWAY]."

ME.— Penobscot Bay.

MASS.- Duxbury, 20 fathoms; Georges Bank.

*Bela incisula Verrill.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 461, pl. 43, fig. 12; pl. 57, fig. 14. "OFF NEWPORT, R. I., NORTHWARD TO LABRADOR."

Bela impressa? Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 365 (non Mörch).

Gulf of Maine, 10 to 70 fathoms.

ME.— Casco Bay, 10 fathoms; Frenchman's Bay, 10 to 35 fathoms; Eastport.

MASS.— Salem Harbor, 5 fathoms; Massachusetts and Cape Cod Bays, 13 to 30 fathoms; off Cape Cod, 26 to 67 fathoms; off Marthas Vineyard, 28 fathoms.

R. I.— Off Newport, 27 fathoms.

Bela blaneyi Bush.

Bush, Nautilus, 1909, vol. 23, p. 61, fig. 1. "south of Egg Rock buoy in about 30 fathoms,*** Frenchman's Bay, Maine."

ME.— Frenchman's Bay.

*Bela harpularia (Couthouy).

Gould, Inv. Mass., 1870, p. 352, fig. 621. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 473, pl. 43, fig. 14; pl. 57, fig. 9.

Fusus harpularius Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 106, pl. 1, fig. 10. "MASS[ACHUSETTS] BAY."

ME.— Casco Bay; Frenchman's Bay, 15 to 50 fathoms; Eastport, 10 to 50 fathoms.

MASS.— Massachusetts Bay, 8 to 29 fathoms; off Cape Cod, 15 to 34 fathoms; off Gay Head, 18 to 29 fathoms.

R. I.— Off Block Island, 20 to 28 fathoms.

*Bela pleurotomaria (Couthouy).

Gould, Inv. Mass., 1870, p. 355, fig. 625. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 478.

Fusus pleurotomarius Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 107, pl. 1, fig. 9. "MASS[ACHUSETTS] BAY."

ME.— Casco Bay; Frenchman's Bay, 10 to 50 fathoms; Eastport, 10 fathoms.

MASS.— Massachusetts Bay, 31 to 48 fathoms; off Cape Cod, 30 to 122 fathoms; off Chatham, 16 fathoms.

*Bela bicarinata (Couthouy).

Pleurotoma bicarinata Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 104, pl. 1, fig. 11. "MASS[ACHUSETTS] BAY." Gould, Inv. Mass., 1870, p. 349, fig. 618.

ME.— Caseo Bay; Frenchman's Bay, 35 fathoms; Eastport, 10 to 50 fathoms.

MASS.— Off Cape Ann, 38 fathoms; off Cape Cod, 27 to 31 fathoms; Vineyard Sound, 6 to 12 fathoms.

CONN.— Stonington.

*Bela bicarinata violacea (Mighels and Adams).

Pleurotoma violacea Mighels and Adams, Proc. Boston Soc. Nat.

Hist., 1841(?), vol. 1, p. 50. "Casco Bay." Boston Journ. Nat. Hist., 1842, vol. 4, p. 51, pl. 4, fig. 21.

ME.— Frenchman's Bay, 10 to 35 fathoms; Eastport, 10 to 50 fathoms.

MASS.-- Massachusetts Bay; Georges Bank, 45 to 60 fathoms.

Bela pingelii (Möller).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 464, pl. 43, fig. 16. Defrancia pingelii Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 86. [GREENLAND.]

ME.— Eastport, 20 to 90 fathoms. MASS.— Off Cape Cod, 34 fathoms; Georges Bank.

Bela tanneri (Verrill and Smith).

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 100, pl. 61, fig. 78. *Typhlomangelia tanneri* Verrill and Smith in Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 163, pl. 31, fig. 8. "N. LATITUDE 40° 16' 50", W. LONGITUDE 67° 05' 15" IN 1290 FATHOMS."

Gulf of Maine and Georges Bank (Dall).

*Mangilia plicosa (C. B. Adams).

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 100, pl. 50, fig. 14.

Pleurotoma plicata C. B. Adams, Boston Journ. Nat. Hist., 1840, vol. 3, p. 318, pl. 3, fig. 6 (non Lamarck). "HARBOUR OF NEW BEDFORD [MASS.]."

Pleurotoma plicosa C. B. Adams, Contr. to Conch., 1850, no. 4, p. 54.

MASS.— Dartmouth; New Bedford Harbor; North Falmouth. CONN.— Near New Haven.

Mangilia cerina (Kurtz and Stimpson).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 488, fig. 1. Pleurotoma cerinum Kurtz and Stimpson, Proc. Boston Soc.

Nat. Hist., 1851, vol. 4, p. 115. "Buzzard's Bay and ** South Carolina."

MASS.— Vineyard Sound and Buzzards Bay, 3 to 12 fathoms; New Bedford.

R. I.- Near Newport; near Watch Hill.

CONN.--- Near New Haven.

Mangilia comatotropis (Dall).

Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 116, pl. 11, fig. 12. Pleurotoma (Mangilia) comatotropis Dall, Bull. Mus. Comp. Zoöl., 1881, vol. 9, p. 58. "CAPE SAN ANTONIO, 640 FMS."

MASS.— Off Marthas Vineyard, 100 to 487 fathoms.

Pleurotomella packardii Verrill.

Verrill, Amer. Journ. Sci., 1873, ser. 3, vol. 5, p. 15. [N. LAT. 42° 5', W. LONG. 67° 45', 110 FATHOMS.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 453, pl. 43, fig. 9; pl. 57, fig. 5.

Gulf of Maine, 85 to 110 fathoms. MASS.— Off Cape Cod, 96 fathoms.

Pleurotomella agassizii (Verrill and Smith).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 454, pl. 57, figs. 3, 3a. *Pleurotoma agassizii* Verrill and Smith in Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, p. 394. [OFF MARTHAS VINEYARD.]

MASS.— South of Marthas Vineyard, 65 to 500 fathoms.

Pleurotomella (Gymnobela) blakeana (Dall).

Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 126, pl. 10, fig. 1. Pleurotoma (Bela) blakeana var. normalis Dall, Bull. Mus. Comp. Zoöl., 1881, vol. 9, p. 54. "OFF CAPE SAN ANTONIO, 640 FMS."

Gymnobela brevis Verrill, Trans. Conn. Acad., 1885, vol. 6, p. 417.

MASS.— Off Nantucket Shoals; Georges Bank; Gulf of Maine.

OPISTHOBRANCHIATA.

TECTIBRANCHIA.

ACTEONIDAE.

Acteon punctostriatus (C. B. Adams).

Tornatella puncto-striata C. B. Adams, Boston' Journ. Nat. Hist., 1840, vol. 3, p. 323, pl. 3, fig. 9. "New BEDFORD [MASS.]." Actaeon punctostriatus Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 157, pl. 18, figs. 98, 99; pl. 19, figs. 22, 23.

MASS.— Vineyard Sound and Buzzards Bay; South Dennis. R. I.— Narragansett Bay.

CONN.--- Stonington, from haddock (Linsley); near New Haven.

TORNATINIDAE.

*Tornatina canaliculata (Say).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 184, pl. 22, fig. 23; pl. 50, figs. 25, 26.

Volvaria canaliculata Say, Journ. Acad. Nat. Sci. Phila., 1826, ser. 1, vol. 5, p. 211. "South CAROLINA."

Utriculus canaliculatus Gould, Inv. Mass., 1870, p. 219, fig. 510.

ME.— Portland Harbor (Fuller).

MASS.— Massachusetts Bay; Vineyard Sound and Buzzards Bay, 2 to 8 fathoms.

R. I.- Narragansett Bay; near Watch Hill.

CONN.-- Stonington; near New Haven.

*Retusa pertenuis (Mighels).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 216, pl. 23, figs. 48, 49.

Bulla pertenuis Mighels, Boston Journ. Nat. Hist., 1843, vol. 4, p. 346, pl. 16, fig. 3. "CASCO BAY."

Utriculus pertenuis Gould, Inv. Mass., 1870, p. 218, fig. 509.

ME.— Casco Bay; Frenchman's Bay, 4 to 10 fathoms. MASS.— Massachusetts Bay; Duxbury.

Retusa obtusa turrita (Möller).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 215, pl. 23, fig. 52.

Bulla turrita Möller, Krøyer's Naturh. Tidskr., 1842, vol. 4, p. 79. [GREENLAND.]

Bulla incincta Mighels, Proc. Boston Soc. Nat. Hist., 1844, vol. 1, p. 188.

ME.— Casco Bay (Mighels); Frenchman's Bay (Blaney).

Betusa gouldii (Couthouy).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 217, pl. 23, figs. 58, 59.

Bulla gouldii Couthouy, Boston Journ. Nat. Hist., 1839, vol. 2, p. 181, pl. 4, fig. 6. "MASSACHUSETTS BAY."

Utriculus gouldii Gould, Inv. Mass., 1870, p. 217, fig. 508.

ME.— Casco Bay; Frenchman's Bay, 4 to 10 fathoms.

MASS.— Stellwagens Bank, 15 to 25 fathoms; from fish taken off Cohasset; Provincetown; Georges Bank.

Retusa mayoi (Dall).

Utriculus mayoi Dall, Bull. Mus. Comp. Zoöl., 1889, vol. 18, p. 46. "PORTLAND, MAINE."

ME.— Portland, from fish stomach (Mayo)...

Betusa obesiuscula (Brugnone).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 231, pl. 23, figs. 60, 61.

Cylichna obesiuscula Brugnone, Bull. Soc. Mal. Ital., 1877, vol. 3, p. 39, pl. 1, fig. 7. "FICARAZZI [PLIOCENE OF PALERMO]."

Diaphana conulus Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 543, pl. 58, fig. 25 (non Deshayes).

MASS.— Off Marthas Vineyard, 100 to 155 fathoms.



SCAPHANDRIDAE.

Scaphander punctostriatus (Mighels and Adams).

Gould, Inv. Mass., 1870, p. 215, fig. 505.

Bulla puncto-striata Mighels and Adams, Proc. Boston Soc. Nat. Hist., 1841 (?), vol. 1, p. 49. "CASCO BAY." Mighels and Adams, Boston Journ. Nat. Hist., 1842, vol. 4, p. 43, pl. 4, fig. 10.

ME.— Casco Bay; Gulf of Maine. MASS.— Massachusetts Bay.

Diaphana debilis (Gould).

Gould, Inv. Mass., 1870, p. 216, fig. 507. Bulla debilis Gould, Amer. Journ. Sci., 1840, ser. 1, vol. 38, p. 196.

ME.— Casco Bay, 6 fathoms; Frenchman's Bay, 10 to 16 fathoms; Eastport. MASS.— Massachusetts Bay; Duxbury. CONN.— Stonington, from stomach of cod (Linsley).

Diaphana hiemalis (Couthouy).

Gould, Inv. Mass., 1870, p. 216, fig. 506. Bulla hiemalis Couthouy, Boston Journ. Nat. Hist., 1839, vol. 2, p. 180, pl. 4, fig. 5. "OFF PROVINCETOWN [, MASS.]."

ME.— Casco Bay; Bristol. MASS.— Provincetown, from fish.

Diaphana globosa (Lovén).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 286, pl. 26, fig. 75. Amphisphyra globosa Lovén, Öfvers. Kongl. Vet.-Akad. Förh., 1846, vol. 3, p. 143. "BOH[USLAN]-FINM[ARK, NORWAY]." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 543.

MASS.— Off Marthas Vineyard, 115 to 364 fathoms (Verrill).

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*Cylichna alba (Brown).

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Gould, Inv. Mass., 1870, p. 220, fig. 511.

Volvaria alba Brown, Illustr. Conch. Great Brit., 1827, pl. 38 figs. 43, 44. "GREENOCK [, ENGLAND]."

Bulla triticea Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2 p. 88, pl. 2, fig. 8.

ME.— Casco Bay; Frenchman's Bay, 10 to 30 fathoms; East port.

MASS.— Massachusetts Bay, off Nahant, 17 fathoms; Duxbury Georges Bank.

R. I.- Narragansett Bay; near Block Island.

CONN.--- Stonington, from haddock stomach (Linsley).

Cylichna occulta (Mighels and Adams).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 292, pl. 28 figs. 35-41.

Bulla occulta Mighels and Adams, Journ. Boston Soc. Nat. Hist. 1842, vol. 4, p. 54, pl. 4, fig. 11. [WESTBROOK, MAINE (fossil).]

Me.

Cylichna oryza (Totten).

Gould, Inv. Mass., 1870, p. 221, fig. 512.

Bulla oryza Totten, Amer. Journ. Sci., 1835, ser. 1, vol. 28, p. 350, fig. 5. "NewPORT HARBOR, (R. I.)."

ME.

MASS.— Vineyard Sound and Buzzards Bay; New Bedford Harbor, 4 fathoms.

R. I.- Newport.

CONN.- Near New Haven; Stratford.

BULLARIIDAE.

Bullaria gemma (Verrill).

Diaphana (Utriculus) gemma Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 399. [SOUTH OF MARTHAS VINEYARD.] GASTEROPODA.

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Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 543, pl. 58, fig. 22.

Bulla gemma Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 339.

MASS.— South of Marthas Vineyard, 100 to 115 fathoms.

*Haminea solitaria (Say).

Pilsbry, Manual Conch., 1893, ser. 1, vol. 15, p. 357, pl. 28, fig. 44; pl. 41, fig. 32.

Bulla solitaria Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 245. "SOUTHERN COAST OF THE UNITED STATES."

MASS.— Massachusetts Bay; shores of Vineyard Sound and Buzzards Bay; Duxbury.

R. I.— Newport; Mark Rock; White Camp; near Watch Hill. CONN.— New Haven Harbor, near Fort Hale.

RINGICULIDAE.

Ringicula nitida Verrill.

Verrill, Amer. Journ. Sci., 1873, ser. 3, vol. 5, p. 16. [NORTH OF THE GEORGES BANK, N. LAT. 42° 5′, W. LONG. 67° 49′, 110 AND 150 FATHOMS.] Verrill, Trans. Conn. Acad., 1874, vol. 3, p. 48, pl. 1, fig. 2; *Ibid.*, 1882, vol. 5, p. 540.

MASS.— Off Marthas Vineyard, 100 to 300 fathoms.

PHILINIDAE.

Philine sinuata Stimpson.

Stimpson, Proc. Boston Soc. Nat. Hist., 1850, vol. 3, p. 333. "BOSTON HARBOR, [MASS.]." Gould, Inv. Mass., 1870, p. 213, fig. 502.

ME.-- Casco Bay.

MASS.— Broad Bay, Boston Harbor, 4 to 7 fathoms (Stimpson); Duxbury.

Philine quadrata (S. V. Wood).

Gould, Inv. Mass., 1870, p. 213, fig. 503.

Bulla quadrata S. V. Wood, Charlesworth's Mag. Nat. Hist., 1839, vol. 3, p. 461, pl. 7, fig. 1. "COBALLINE CRAG, SUTTON, [ENGLAND]."

Philine formosa Stimpson, Proc. Boston Soc. Nat. Hist., 1850, vol. 3, p. 334.

Me.

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MASS.— Off Cape Ann, 30 fathoms; Massachusetts Bay; Duxbury, 20 fathoms; Georges Bank.

*Philine lima (Brown).

Pilsbry, Manual Conch., 1895, ser. 1, vol. 16, p. 20, pl. 5, figs. 7-11.

Utriculus lima Brown, Illustr. Recent Conch. Great Brit., 1844, ed. 2, p. 58, pl. 19, figs. 39, 40. "GREENOCK [ENGLAND]."

Bulla lineolata Couthouy, Boston Journ. Nat. Hist., 1839, vol. 2, p. 179, pl. 3, fig. 15.

Philine lineolata Gould, Inv. Mass., 1870, p. 214, fig. 504.

ME.— Frenchman's Bay, off Egg Rock.

MASS.— Massachusetts Bay, from stomachs of fishes; Georges Bank.

Philine amabilis Verrill.

Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 398. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 544, pl. 58, figs. 23, 24.

MASS.— South of Marthas Vineyard, 120 and 130 fathoms.

Philine cingulata G. O. Sars.

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 297, pl. 26, figs. 7a-7c. [LOFOTEN, NORWAY, 120 TO 200 FATHOMS.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 544.

Gulf of Maine, off Cape Sable, 90 fathoms.

Philine fragilis G. O. Sars.

G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 296, pl. 18, figs. 11a-11c. "VADSØ, [NORWAY]." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 544.

Gulf of Maine, Jeffrey's Ledge, 88 to 92 fathoms; off Cape Sable, 90 fathoms.

Philine finmarchica M. Sars.

M. Sars in G. O. Sars, Moll. Reg. Arct. Norv., 1878, p. 296, p. 18, figs. 10a-d. [FINMARK.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 544.

Gulf of Maine, off Cape Sable, 90 fathoms.

Off Cape Cod, 16 fathoms; off Marthas Vineyard, 86 fathoms.

Philine tincta Verrill.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 544. [OFF MARTHAS VINEYARD.]

MASS.— South of Marthas Vineyard, 65 fathoms.

Philine angulata Jeffreys.

Jeffreys, Brit. Conch., 1867, vol. 4, p. 451. "LARNE, CO. ANTRIM, HEBRIDES, AND SHETLAND." Pilsbry, Manual Conch., 1895, ser. 1, vol. 16, p. 17, pl. 3, figs. 41, 42.

ME.— Casco Bay (Kingsley).

APLYSIIDAE.

Tethys willcoxi (Heilprin).

Pilsbry, Manual Conch., 1895, ser. 1, vol. 16, p. 80, pl. 35, figs. 30-32.

Aplysia willcoxi Heilprin, Proc. Acad. Nat. Sci. Phila., 1886, p. 364; Trans. Wagner Free Inst. Sci., 1887, vol. 1, p. 130, pl. 19. "LITTLE GASPARILLA BAY, WEST COAST OF FLORIDA."

MASS.— Katama Bay, Oct. 31, 1900; Buzzards Bay, Oct. 11, 1906; New Bedford; Westport, Lamberts Cove; Tarpaulin Cove; Robinsons Hole and Menemsha Bight (Sumner, Osburn, and Cole).

PLEUROBRANCHAEIDAE.

Pleurobranchaea tarda Verrill.

Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 398. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 546, pl. 58, fig. 26.

MASS.— South of Marthas Vineyard, 28 to 250 fathoms, abundant in 45 and 69 fathoms.

R. I.- South of Block Island, 38 fathoms.

Koonsia obesa Verrill.

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 545. "OFF MARTHA'S VINEYARD." Verrill, Rept. U. S. Comm. Fish and Fisheries for 1883, 1885, p. 571, pl. 28, fig. 107. Pilsbry, Manual Conch., 1895, ser. 1, vol. 16, p. 222, pl. 74, fig. 94.

MASS.— Marthas Vineyard, 192 to 258 fathoms.

PTEROPODA.

Superfamily THECOSOMATA.

LIMACINIDAE.

Limacina retroversa (Fleming).

Pelseneer, Rept. Voy. Challenger, Zool., 1888, vol. 23, art. 1, p. 27.

Fusus retroversus Fleming, Mem. Wern. Nat. Hist. Soc., 1823, vol. 4, p. 498, pl. 15, fig. 2. "Noss Island, ZETLAND."

Heterofusus retroversus Gould, Inv. Mass., 1870, p. 505, pl. 27, figs. 345-348.

Heterofusus balea Gould, Inv. Mass., 1870, p. 505, pl. 27, fig. 349.

GASTEROPODA.

^v Spirialis gouldii Stimpson, Proc. Boston Soc. Nat. Hist., 1851, vol. 4, p. 8.

ME.- Casco Bay.

MASS.— Abundant at Nahant during the summer of 1863 (A. Agassiz); Massachusetts Bay, Feb. to Apr. (Stimpson); near Naushon Island. This species was found alive at about 100 different localities in the Gulf of Maine by the "Grampus" in July and August, 1913 and 1914.

Limacina retroversa macandrei (Forbes and Hanley).

Spirialis macandrei Forbes and Hanley, Brit. Moll., 1853, vol. 2, p. 385, pl. 57, figs. 6, 7. "FIFTEEN MILES TO THE SOUTH OF MIZEN HEAD, SOUTH OF IRELAND."

Spirialis retroversus var. macandrei Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 275.

MASS.— South of Marthas Vineyard.

Limacina helicina (Phipps).

Pelseneer, Rept. Voy. Challenger, Zool., 1888, vol. 23, art. 1, p. 21.

Clio helicina Phipps, A Voyage towards the North Pole, 1774, p. 195. "ARCTICK SEAS."

Gulf of Maine.

Limacina inflata (d'Orbigny).

Atlanta inflata d'Orbigny, Voy. Amér. Mérid., 1836, vol. 5, p. 174, pl. 12, figs. 16–19. "Océan atlantique et dans le grand Océan."

Spirialis rostralis Verrill, Trans. Conn. Acad., 1885, vol. 6, p. 431.

"Grampus "Exp. 1914, N. lat. 39° 54', W. long. 70° 43', alive; and N. lat. 42° 11', W. long. 69° 59', alive.



CAVOLINIDAE.

Cavolina telemus (Linné).

Dall, Bull. Mus. Comp. Zoöl., 1908, vol. 43, p. 230.

Monoculus telemus Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 635. "ALGIRIAE."

Anomia tridentata Forskål, Descr. Anim. Orient. Observ., 1775, p. 124.

Cavolina tridentata Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 554, figs. 6, 7.

MASS.— Off Marthas Vineyard, 19 and 22 fathoms; "Grampus" Exp. 1914, N. lat. 40° 39', W. long. 67° 28', alive.

R. I.- Newport, from stomach of a bluefish, off Block Island.

Cavolina uncinata (Rang).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 554.

Hyalaea uncinata Rang (MS.) in d'Orbigny, Voy. Amér. Mérid., 1836, vol. 5, p. 93, pl. 5, figs. 11–15. "ATLANTIQUE, 24° S. LAT."

MASS.— Off Marthas Vineyard, 65 to 487 fathoms; "Grampus" Exp. 1914, N. lat. 40° 6′, W. long. 68° 6′, alive.

Cavolina longirostris (Lesueur).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 555.

Hyalaea longirostris Lesueur (MS.) in Blainville, Dict. des Sci. Nat., 1821, vol. 22, p. 81. "OCÉAN ATLANTIQUE, 22° 9' [N. LAT.]."

MASS.— Off Marthas Vineyard, 64 to 500 fathoms; "Grampus" Exp. 1914, N. lat. 40° 6', W. long. 68° 6', alive.

Cavolina gibbosa (Rang).

Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 213.

Hyalaea gibbosa Rang (MS.) in d'Orbigny, Voy. Amér. Mérid., 1836, vol. 5, p. 95, pl. 5, figs. 16–20. [SOUTH ATLANTIC.]

MASS.— South of Marthas Vineyard.



Cavolina trispinosa (Lesueur).

Hyalaea trispinosa Lesueur (MS.) in Blainville, Dict. des Sci. Nat., 1821, vol. 22, p. 82. "LA MER DES ANTILLES."

Diacria trispinosa Gould, Inv. Mass., 1870, p. 504.

MASS.— Off Marthas Vineyard; occasionally cast ashore on Nantucket; "Grampus" Exp. 1913, 10 miles NNW. of Eastern Point, Gloucester, alive; "Grampus" Exp. 1914, N. lat. 40° 6', W. long. 68° 6', alive.

Diacria quadridentata (Lesueur).

Tesch, F. E. Schulze's Das Tierreich, 1913, pt. 36, Pteropoda, p. 41.

Hyalaea quadridentata Lesueur (MS.) in Blainville, Dict. des Sci. Nat., 1821, vol. 22, p. 81. "OCÉAN ATLANTIQUE, *** LAT. 23° 36', LONGIT. 27° 22'."

Off Georges Bank, N. lat. 40° 16′ 50″, W. long. 67° 05′ 15″ (Verrill).

Creseis acicula Rang.

Rang, Ann. des Sci. Nat., 1828, vol. 13, p. 318, pl. 17, fig. 6. "L'OCÉAN ET LA MER DES INDES."

Creseis recta Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 80, pl. 66, fig. 118.

Near Georges Bank, N. lat. 41° 25', W. long. 65° 30', Sept. 15, 1872, at surface (Verrill); "Grampus" Exp. 1914, N. lat. 40° 6', W. long. 68° 6'.

Creseis virgula Rang.

Rang, Ann. des Sci. Nat., 1828, vol. 13, p. 316, pl. 17, fig. 2. "L'OCÉAN ATLANTIQUE ET LES ANTILLES."

Styliola virgula Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 557.

Near Georges Bank, N. lat. 41° 25', W. long. 65° 30', Sept. 15, 1872, at surface (Verrill).

Creseis conica Eschscholtz.

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Eschscholtz, Zool. Atlas, 1829, pt. 3, p. 17, pl. 15, fig. 3. "Küste von Brasilien."

Styliola vitrea Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 284, pl. 6, fig. 7.

MASS.— Taken at the surface among Salpae, off Gay Head, Sept. 9, 1871 (Verrill); "Grampus" Exp. 1914, N. lat. 40° 6', W. long. 68° 6'.

Styliola subula (Quoy and Gaimard).

Cleodora subula Quoy and Gaimard, Ann. des Sci. Nat., 1827, vol. 10, p. 233, pl. 8d, figs. 1-3, "LA CÔTE DE TÉNÉRIFFE."

Styliola subulata Verrill, Trans. Conn. Acad., 1884, vol. 6, pl. 213.

MASS.— South of Marthas Vineyard, N. lat. 39° 49', W. long. 68° 28' 30" (Verrill).

Hyalocyclis striata (Rang).

Creseis striata Rang, Ann. des Sci. Nat., 1828, vol. 13, p. 315, pl. 17, fig. 3. "Océan atlantique et la mer des Indes."

Clio (Hyalocylix) striata Pelseneer, Rept. Voy. Challenger, Zool., 1888, vol. 23, art. 1, p. 54, pl. 2, fig. 3.

"Grampus" Exp. 1914, N. lat. 40° 6', W. long. 68° 6', alive.

Clio pyramidata Linné.

Linné, Syst. Nat., ed. 12, 1767, vol. 1, p. 1094. "IN OCEANO." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 555.

MASS.— South of Marthas Vineyard, N. lat. 40° 05', W. long. 70° 23', 65 to 500 fathoms (Verrill).

Clio recurva (Children).

Balantium recurrum Children, Journ. Roy. Inst., 1829, vol. 15, p. 220, pl. 7, fig. 107.

Clio balantium Pelseneer, Rept. Voy. Challenger, Zool., 1888, vol. 23, art. 1, p. 61.

MASS.— Off Marthas Vineyard, N. lat. 40° 05', W. long. 70° 23' (Verrill).

Cuvierina columnella (Rang).

Pelseneer, Rept. Voy. Challenger, Zool. 1888, vol. 23, art. 1, p. 67.

Curieria columnella Rang, Ann. des Sci. Nat., 1827, vol. 12, p. 323, pl. 45, B, figs. 1–8. "OCÉAN ATLANTIQUE."

Triptera columnella Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 557; 1884, vol. 6, p. 214.

MASS.— South of Marthas Vineyard, N. lat. 39° 55' 28", W. long. 69° 47' (Verrill); "Grampus" Exp. 1914, N. lat. 40° 6', W. long. 68° 6'.

PERACLIDIDAE.

Peracle reticulata (d'Orbigny).

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 80.

Atlanta reticulata d'Orbigny, Voy. Amér. Mérid., 1836, vol. 5, p. 178, pl. 12, figs. 32-34. [S. LAT. 20°, W. LONG. 89°.]

"Grampus " Exp. 1914, N. lat. 40° 6', W. long. 68° 6', alive.

CYMBULIIDAE.

Corolla calceola (Verrill).

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, p. 200, explanation of plate 66, fig. 120.

Cymbulia calceola Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 394. [NEAR N. LAT. 40° 05', W. LONG. 70° 23'.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 553, pl. 58, fig. 33.

MASS.— South of Marthas Vineyard; "Grampus" Exp. 1914, N. lat. 40° 6', W. long. 68° 6'; one mile off Gay Head, Aug. 27, 1890 (Edwards).

R. I.— ESE. of Block Island at surface, Oct. 2, 1880.

Superfamily GYMNOSOMATA.

CLIONIDAE.

Clione limacina (Phipps).

Gould, Inv. Mass., 1870, p. 507, fig. 754.

Clio limacina Phipps, A Voyage towards the North Pole, 1774, p. 195. [ABCTIC SEAS.]

p. 195. [ARCIIC SEAS.]

Clione papillonacea Verrill, Rept. Inv. Vineyard Sound, 1873, p. 668.

ME.- Portland, April and May, 1868.

MASS .--- Vineyard Sound; Woods Hole.

CONN.— Off Stonington.

"Grampus" Exp. 1913, 1914, at many stations in the Gulf of Maine.

Paedoclione doliiformis Danforth.

Danforth, Proc. Boston Soc. Nat. Hist., 1907, vol. 34, p. 2, pls. 1-4. "CASCO BAY."

ME.— Casco Bay, plankton, nights of Aug. 28 and Sept. 5-8, 1902.

NUDIBRANCHIA.

HERMAEIDAE.

Hermaea cruciata Gould.

Gould (A. Agassiz MS.), Inv. Mass., 1870, p. 253, pl. 17, fig. 256. "NAUSHON ISLAND [, MASS.]."

MASS.— Naushon Island, Sept., 1863 (A. Agassiz).

Stiliger fuscatus (Gould).

Calliopaea (?) fuscata Gould, Inv. Mass., 1870, p. 250, pl. 16, figs. 218-221. "Boston."

Stiliger fuscata Rathbun, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 127.

MASS.— Boston, on logs in a mast yard, July 22, 1842 (Gould).

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Alderia harvardiensis Gould.

Gould, Inv. Mass., 1870, p. 254, pl. 16, figs. 226–228. "CAM-BRIDGE, [MASS.]."

MASS.— "Found in great numbers, in brackish waters, at Cambridge, April, 1848" (Agassiz); Cohasset in marsh creeks.

ELYSIIDAE.

Elysia chlorotica Gould.

Gould (A. Agassiz MS.), Inv. Mass., 1870, p. 255, pl. 17, figs. 251–255. "CAMBRIDGE [, MASS.]."

MASS.— Found in great numbers in brackish water on the Cambridge marshes, in the spring of 1848 (Agaesiz); Cohasset on eel-grass; Duxbury.

Elysia (Elysiella) catula (Gould).

Placobranchus simplex Girard, Proc. Boston Soc. Nat. Hist., 1854, vol. 5, p. 89.

Placobranchus catulus Gould (A. Agassiz MS.), Inv. Mass., 1870, p. 256, pl. 17, figs. 249, 250. "EAST BOSTON."

Elysiella catulus Verrill, Amer. Journ. Sci., 1872, ser. 3, vol. 3, p. 284, pl. 7, figs. 5, 5a; Rept. Inv. Vineyard Sound, 1873, pp. 480, 668, pl. 25, fig. 171.

Elysia catulus Apgar, Journ. Trenton (N. J.) Nat. Hist. Soc., 1891, vol. 2, p. 129, pl. 3, fig. 26.

MASS.— "Channel near East Boston, January, 1848 "(Agassiz); Chelsea Beach (Girard); Woods Hole, adhering to eel-grass; Duxbury.

CONN.— New Haven.

LIMAPONTIIDAE.

Limapontia zonata (Girard).

Gould, Inv. Mass., 1870, p. 258.

Niobe zonata Girard, Proc. Boston Soc. Nat. Hist., 1852, vol. 4,

p. 211. "BOSTON HARBOR, [MASS.]."

AEOLIDIIDAE.

*Acolidia papillosa (Linné).

Limax papillosus Linné, Fauna Suecica, 1761, ed. 2, p. 508. "IN MARI NORVEGICO."

Eolis farinacea Stimpson, Smithson. Contr. Knowl., 1854, vol. 6, art. 5, p. 25.

Aeolis papillosa Gould, Inv. Mass., 1870, p. 238, fig. 518, pl. 18, figs. 257, 261.

ME.— Casco Bay; Eastport.

MASS.— Boston; Rocky Neck and Brace's Cove, East Gloucester, Apr. 1908 (Balch).

R. I.--- Watch Hill, among roots of Laminariae (Verrill).

CRATENIDAE.

Cuthona aurantia (Alder and Hancock).

Eolis aurantia Alder and Hancock, Ann. Mag. Nat. Hist., 1842, ser. 1, vol. 9, p. 34. "WHITLEY [, ENGLAND]."

Eolis aurantiaca Alder and Hancock, Monogr. Brit. Nud. Moll., 1851, pt. 5, fam. 3, pl. 27; 1855, pt. 7, pl. 47, fig. 21.

Montagua gouldii Verrill, Rept. Inv. Vineyard Sound, 1873, p. 667.

Cuthona aurantiaca Sars, Moll. Reg. Arct. Norv., 1878, p. 321, pl. 28, figs. 6a, 6b; pl. 16, fig. 7.

Cratena gymnota Verrill and Emerton in Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 390 (in part).

MASS.--- Massachusetts Bay.

CONN.- New Haven; off Thimble Island, Long Island Sound.

Cratena gymnota (Couthouy).

Bergh, Syst. der Nud. Gaster., 1892, p. 31.

Eolis (Tergipes, Cuv.) gymnota Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 69, pl. 1, fig. 3. "TIDE WATER OF CHARLES RIVER, MASS."



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Aeolis gymnota Gould, Inv. Mass., 1870, p. 249, fig. 520 (ova), pl. 16, figs. 238-241.

MASS.— Charles River, near Craigie's Bridge, Boston; Warren Bridge, about the roots of Tubularia, Oct. and Nov., 1847 (Couthouy); Woods Hole (Verrill); Cohasset, Nov. (Owen Bryant).

Cratena pilata (Gould).

Bergh, Syst. der Nud. Gaster., 1892, p. 31.

Aeolis pilata Gould, Inv. Mass., 1870, p. 243, pl. 19, figs. 270, 277, 279, 281. "Charles River, [Mass.]."

Aeolis vermiferus Smith, Ann. Lyc. Nat. Hist. N. Y., 1870, vol. 9, p. 391.

Aeolidia pilata and Montagua pilata Verrill, Rept. Inv. Vineyard Sound, 1873, pp. 383, 666, pl. 25, fig. 174.

MASS.— Charles River, in Sept., on timbers (Gould); Duxbury. CONN.— New Haven Harbor, on piles of Long Wharf (Verrill); Thimble Island, Long Island Sound (Verrill).

Cratena veronicae Verrill.

Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 389. " OFF CAPE COD."

MASS.— Off Cape Cod, in 23 to 31 fathoms, among hydroids, Sept. 6, 1879; Cohasset, Sept. 1906, on Laminariae (Owen Bryant); Rocky Neck, Gloucester Harbor, Apr. 1908 (Balch).

Cratena? pustulata (Alder and Hancock).

Bergh, Malacol. Unters., 1878, vol. 15, p. 18.

Eolis pustulata Alder and Hancock, Monogr. Brit. Nud. Moll., 1855, pt. 7, fam. 3, pl. 45, figs. 4, 5; pl. 47, fig. 22. "CULLER-COATS, [ENGLAND]."

Eolis purpurea Stimpson, Smithson. Contr. Knowl., 1854, vol. 6, art. 5, p. 25.

Aeolis purpurea Gould, Inv. Mass., 1870, p. 246.

Grand Manan, "Duck Island, under stones at low-water" (Stimpson).

Tergipes despectus (Johnston).

Verrill, Rept. Inv. Vineyard Sound, 1873, pp. 495, 667; Proc. U. S. Nat. Mus., 1880, vol. 3, p. 391.

Eolidia despecta Johnston, Loudon's Mag. Nat. Hist., 1835, vol. 8, p. 378, fig. 35e. "BERWICK BAY [ENGLAND]."

Aeolis despecta Gould, Inv. Mass., 1870, p. 248, pl. 16, figs. 222–225 (in part according to Verrill, see Galvina exigua).

ME.— Casco Bay; Eastport Harbor.

MASS.— Timber dock, Charles River, Sept., 1842; South Boston, July; on piles of Warren Bridge, low tide, among Campanularia, June and July (Stimpson *teste* Gould); Gloucester (Gould).

R. I.— Off Watch Hill, 4 to 5 fathoms, on Laminaria, among hydroids (Verrill).

CONN.— Stonington.

Embletonia fuscata Gould.

Gould, Inv. Mass., 1870, p. 251, pl. 16, figs. 229–232. "Charles River * * * South Boston Bridge, [Mass.]."

MASS.— Charles River, on logs in timber dock; South Boston Bridge, on *Laomedea geniculata*, July, 1842 and 1865 (Gould); Provincetown among the filamentous green algae (Rathbun); Duxbury.

Embletonia fuscata lanceolata Gould.

Gould, Inv. Mass., 1870, p. 252, fig. 521. No locality.

MASS.

Embletonia remigata Gould.

Gould, Inv. Mass., 1870, p. 252, pl. 16, figs. 214–217. "Charles River and at South Boston Bridge, [Mass.]."

MASS.— Charles River and at South Boston Bridge, with E. fuscata, in July, upon Laomedea geniculata.

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Galvina picta (Alder and Hancock).

Sars, Moll. Reg. Arct. Norv., 1878, p. 461, tab. anat. struct. pl. 16, fig. 5 (dent.).

Eolis pallida Alder and Hancock, Ann. Mag. Nat. Hist., 1842, ser. 1, vol. 9, p. 35. "CULLERCOATS SANDS [ENGLAND]."

Eolis picta Alder and Hancock, Monogr. Brit. Nud. Moll., 1847, pt. 3, fam. 3, pl. 33.

Aeolis picta Gould, Inv. Mass., 1870, p. 246, pl. 19, fig. 282.

MASS.— Timber dock, Boston, 1842, (Gould); dredged in 5 fathoms, near Governor's Id., Boston Harbor, June, 1850 (Stimpson *teste* Gould); Rocky Neck, Gloucester Harbor, 1908 (Balch).

Galvina exigua (Alder and Hancock).

Sars, Moll. Reg. Arct. Norv., 1878, p. 461, tab. anat. struct. pl. 16, fig. 6 (dent.).

Eolis exigua Alder and Hancock, Ann. Mag. Nat. Hist., 1848, ser. 2, vol. 1, p. 192. "Fowey HARBOUR [ENGLAND]." Alder and Hancock, Monogr. Brit. Nud. Moll., 1851, pt. 5, fam. 3, pl. 37.

Aeolis despecta Gould, Inv. Mass., 1870, p. 248, pl. 16, figs. 222– 225 (in part, see Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 553).

MASS.— Salem, 1879, on Obelia (Emerton); Boston, spring and early summer.

CORYPHELLIDAE.

Coryphella rufibranchialis (Johnston).

Sars, Moll. Reg. Arct. Norv., 1878, p. 319.

Eolis rufibranchialis Johnston, Loudon's Mag. Nat. Hist., 1832, vol. 5, p. 428, fig. 85. "BERWICK BAY, [ENGLAND]." Alder and Hancock, Monogr. Brit. Nud. Moll., 1848, pt. 4, fam. 3, pl. 14; 1855, pt. 7, pl. 47, fig. 9 (dent.).

Aeolis rufibranchialis Gould, Inv. Mass., 1870, p. 242, pl. 19, figs. 269, 272 (in part according to Verrill, see C. r. mananensis).

Mass.

Coryphella rufibranchialis mananensis (Stimpson).

Balch, Nautilus, 1909, vol. 23, p. 35.

Eolis mananensis Stimpson, Smithson. Contr. Knowl., 1854, vol. 6, art. 5, p. 26. "IN 35 F[ATHOMS],*** HAKE BAY [GRAND MANAN]."

Aeolis rufibranchialis Gould, Inv. Mass., 1870, p. 242 (in part according to Verrill).

ME.- Casco Bay; Kennebunk; Eastport.

Dredged in many localities from off Fisher's and Block Island to Halifax, N. S., in 20 to 90 fathoms, among hydroids, the most common species at such depths (Verrill).

MASS.— Rocky Neck, Gloucester Harbor, April 26–30, 1908 (Balch); Cohasset, Nov. (Bryant).

Coryphella rufibranchialis chocolata Balch.

Balch, Nautilus, 1909, vol. 23, p. 35. "ROCKY NECK [MASS.]."

MASS.— Rocky Neck, Gloucester Harbor, April 26-30, 1908; Bass Rocks, May 20, 1915 (Balch).

Coryphella stellata (Stimpson).

Bergh, Syst. der Nud. Gaster., 1892, p. 36.

Eolis stellata Stimpson, Smithson. Contr. Knowl., 1854, vol. 6, art. 5, p. 25. [GRAND MANAN.]

Aeolis stellata Gould, Inv. Mass., 1870, p. 245, pl. 19, figs. 271, 278.

Grand Manan.

Coryphella(?) **salmonacea** (Couthouy).

Eolis (Carolina, Brug.) salmonacea Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 68, pl. 1, fig. 2. "CHARLES RIVER, MASS."

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Aeolis salmonacea Gould, Inv. Mass., 1870, p. 240, pl. 18, figs. 264, 265.

MASS.— "Tide-water of Charles River," Boston.

Coryphella diversa (Couthouy).

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Bush, Proc. U. S. Nat. Mus., 1883, vol. 6, p. 242.

Eolis diversa Couthouy, Boston Journ. Nat. Hist., 1839, vol. 2, p. 187, pl. 4, fig. 14 (not fig. 9). "MASSACHUSETTS BAY, CHELSEA BEACH."

Aeolis diversa Gould, Inv. Mass., 1870, p. 247, pl. 19, figs. 267, 268 (not fig. 280, ?fig. 276).

MASS.— Massachusetts Bay, spring, among roots of Laminaria saccharina.

Coryphella stimpsoni (Verrill).

Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 388; Trans. Conn. Acad., 1882, vol. 5, p. 552, pl. 42, fig. 14.

Cuthona stimpsoni Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 314. "EASTPORT, ME."

ME.— Eastport, low water; Jeffreys Ledge, 51 fathoms. MASS.— Salem Harbor; Massachusetts Bay.

Coryphella rutila Verrill.

Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 314. "EAST-PORT, ME." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 552.

ME.— Eastport at low water.

Coryphella nobilis Verrill.

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Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 388. "OFF CAPE COD." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 552, pl. 42, fig. 15.

Off Cape Cod, in 75 fathoms, Sept. 1, 1879 (Verrill).

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FACELINIDAE.

Facelina bostoniensis (Couthouy).

Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 389.

Eolis bostoniensis Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 67, pl. 1, fig. 1. "TIDE WATER OF CHARLES RIVER, MASS."

Aeolis bostoniensis Gould, Inv. Mass., 1870, p. 241, pl. 19, figs. 266, 273-275, 283.

MASS.— Sept. with ova at Craigie's Bridge, Charles River; rather common in various parts of Boston Harbor by dredging, and at Lynn (Stimpson *teste* Gould); Cohasset, Sept., on Laminaria (Owen Bryant); common from low water to 20 fathoms, on Obelia and other hydroids, from Massachusetts Bay to Block Id. and Newport, R. I. (Verrill).

FIONIDAE.

Fiona marina (Forskål).

Bergh, Rept. Voy. Challenger, Zool., 1884, vol. 10, art. 1, p. 9, pl. 11, fig. 1.

Limax marinus Forskål, Descr. Anim. Orient., Observ. 1775, p. 99; Icon. Rer. Nat. in Itinere Orient., 1776, pl. 26, fig. G. g. "MARI MEDITERRANEO."

Fiona nobilis Alder and Hancock, Monogr. Brit. Nud. Moll., 1855, pt. 7, fam. 3, pl. 38a; pl. 47, fig. 30 (dent.). Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 551.

South of Marthas Vineyard, in large numbers among Anatifera, on pieces of floating timber (Verrill).

GLAUCIDAE.

Glaucus atlanticus Forster.

Forster, Voy. "Resolution," 1777, vol. 1, p. 49. [SOUTH ATLAN-TIC.] Bergh, Rept. Voy. Challenger, Zool., 1884, vol. 10, art. 1, p. 16, pl. 14, fig. 16.

Glaucus margaritaceus Verrill, Trans. Conn. Acad., 1885, vol. 6,

p. 430; Rept. U. S. Comm. Fish and Fisheries for 1883, 1885, p. 592, pl. 28, figs. 113, 113a, 113b.

South of Marthas Vineyard, pelagic; N. lat. 39° 05' 30", W. long. 70° 44' 30".

DOTOIDAE.

Doto coronata (Gmelin).

Gould, Inv. Mass., 1870, p. 236, fig. 517 (ova), pl. 16, figs. 233-237.

Doris coronata Gmelin, Syst. Nat., 1790, p. 3105. "AD LITTUS INSULAE WALCHEREN SEELANDIAE."

ME.- Casco Bay; Bay of Fundy.

MASS.— Charles River on piles of Craigie's Bridge, below lowwater mark; Nahant; off Marthas Vineyard; Rocky Neck, Gloucester Harbor.

R. I.— Off Watch Hill, 4 to 5 fathoms on Obelia.

CONN.— Long Island Sound, near New Haven.

Doto formosa Verrill.

Verrill, Amer. Journ. Sci., 1875, ser. 3, vol. 10, p. 41, pl. 3, fig. 4. " off Point Judith [R. I.] 10–14 fathoms."

ME.— Eastport, from low-water mark to 50 fathoms, usually on hydroids (Verrill).

MASS.— Off Point Judith, 10 to 14 fathoms, Aug. 19.

DENDRONOTIDAE.

Dendronotus frondosus (Ascanius).

Amphitrite frondosa P. A. Ascanius, Kongl. Vid. Selsk. Skrift., 1774, vol. 5, p. 158, pl. 5, fig. 2. "IN MARI NORVEGICO."

Tritonia arborescens Gould, Inv. Mass., 1841, p. 5.

Dendronotus arborescens Gould, Inv. Mass., 1870, p. 234, pl. 22, figs. 311-313.

Tritonia reynoldsii Couthouy, Boston Journ. Nat. Hist., 1838, vol. 2, p. 74, pl. 2, figs. 1-4.

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ME.- Casco Bay; Kennebunk; also at Grand Manan.

MASS.— Craigie's Bridge, Boston (Gould); Cohasset, Nov.; Rocky Neck and Brace's Cove, Gloucester (Balch); Duxbury. Common among hydroids.

R. I.— Watch Hill, 4 to 5 fathoms, common on Laminaria among Obelia (Verrill).

Dendronotus frondosus elegans Verrill.

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Dendronotus elegans Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 385. "OFF CAPE COD." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 551.

Dendronotus arborescens Bergh, Syst. der Nud. Gaster., 1892, p. 59.

Off Cape Cod, 26 fathoms, Sept. 6, 1879.

Dendronotus robustus Verrill.

Verrill, Amer. Journ. Sci., 1870, ser. 2, vol. 50, p. 405, fig. 1, a-c. "WHALE COVE, GRAND MENAN." Verrill, Proc. U. S. Nat. Mus., 1879, vol. 2, p. 197; Trans. Conn. Acad., 1882, vol. 5, p. 550.

Dendronotus velifer Sars, Moll. Reg. Arct. Norv., 1878, p. 315, pl. 28, fig. 2; tab. anat. struct. pl. 15, fig. 4 (dent.).

ME.— Casco Bay; Eastport.

MASS.— Ipswich Bay, 19 fathoms, July; Cohasset on kelp with *D. frondosus*, November (Owen Bryant); south of Marthas Vineyard, in 192 fathoms (Verrill).

SCYLLAEIDAE.

*Scyllaea pelagica marginata Bergh.

Bergh, Verh. Zool.-Bot. Ges. Wien, 1871, vol. 21, p. 1292.

Scyllaea edwardsii Verrill, Amer. Journ. Sci., 1878, ser. 3, vol. 16, p. 211; Trans. Conn. Acad., 1882, vol. 5, p. 550, pl. 42, fig. 10.

MASS.— Woods Hole, in Little Harbor, attached to eel-grass and sargassum, autumn of 1877 (Verrill); Vineyard Sound on sargassum (Gray).

GASTEROPODA.

HOLOHEPATICA.

DORIDIDAE.

Geitodoris complanata (Verrill).

Bergh, Bull. Mus. Comp. Zoöl., 1894, vol. 25, p. 163, pl. 4, figs. 13–18; pl. 5, figs. 1–5.

Doris complanata Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, pp. 392, 399. [SOUTH OF MARTHAS VINEYARD, 86 FATHOMS.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 549, pl. 58, figs. 34–34b.

MASS.— South of Marthas Vineyard, 85 to 146 fathoms, among sponges (Verrill).

Cadlina obvelata (Müller).

Doris obvelata Müller, Zoöl. Danicae Prodr., 1776, p. 229. |DENMARK.]

Doris planulata Gould, Inv. Mass., 1870, p. 231, pl. 20, figs. 294, 296.

Doris repanda Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 312.

Cadlina repanda Bergh, Bull. Mus. Comp. Zoöl., 1894, vol. 25, p. 169, pl. 7, figs. 4-11.

ME.— Casco Bay, 3 to 30 fathoms; Gulf of Maine, 60 to 150 fathoms (Verrill); Passamaquoddy Bay, July (Gould); Frenchnan's Bay (Dwight Blaney); Blue Hill Bay, on stones, 10 fathoms, Sept.

MASS.— Cohasset, on stones, 5 fathoms, August.

POLYCERIDAE.

Issa lacera (Abildgaard).

Bergh, Verh. Zool.-Bot. Ges. Wien, 1881, vol. 30, p. 646, pl. 13, figs. 12-15; pl. 14, figs. 4-12. Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 547, pl. 42, fig. 11.

Doris lacera Abildgaard in Müller, Zool. Danicae, 1806, vol. 4, p. 23, pl. 138, figs. 3-4. "IN MARI NORVEGICO."

Cashe's Ledge.

Off Cape Ann, 25 to 80 fathoms; Massachusetts Bay, 35 to 48 fathoms; off Cape Cod, 70 fathoms; on and near Stellwagens Bank, 25 to 60 fathoms, August (Mayer and Balch).

Issa ramosa Verrill and Emerton.

Verrill and Emerton in Verrill, Amer. Journ. Sci., 1881, ser. 3, vol. 22, p. 301. [SOUTH OF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 547, pl. 58, figs. 36, 36a.

South of Marthas Vineyard, 100 to 130 fathoms.

Palio lessonii (d'Orbigny).

Bergh, Verh. Zool.-Bot. Ges. Wien, 1881, vol. 29, p. 602.

Polycera lessonii d'Orbigny, Mag. de Zool., 1837, vol. 7, art. 8, cl. 5, p. 5, pl. 105. "ENVIRONS DE LA ROCHELLE [FRANCE]." Gould, Inv. Mass., 1870, p. 226, pl. 17, figs. 242-248.

Doris illuminata Gould, Inv. Mass., 1841, p. 4.

ME.— Common in Casco Bay and Bay of Fundy, low water to 20 fathoms (Verrill).

MASS.— Craigie's Bridge and Aspinwall's shipyard (Gould); Cohasset, on kelp, Nov. (Owen Bryant).

R. I.— Watch Hill, 3 to 6 fathoms.

CONN.— Savin Rock, near New Haven, and off south end, 4 to 5 fathoms (Verrill).

Polycerella emertoni Verrill.

Verrill, Proc. U. S. Nat. Mus., 1880, vol. 3, p. 387. "Wood's HOLL [, MASS.].*** NEW HAVEN, CONN.*** NEWPORT, R. I." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 548. Bergh, Verh. Zool.-Bot. Ges. Wien, 1884, vol. 33, p. 162, pl. 8, figs. 9–19; pl. 9, figs. 1–6 (anat.).

MASS. — Woods Hole, among eel-grass, Aug. and Sept.

R. I.— Newport, on filamentous algae, July and August (Verrill). CONN.— New Haven, on hydroids from piles of Long Wharf, Oct. (Verrill).



GONIODORIDAE.

Acanthodoris pilosa (Abildgaard).

Doris pilosa Abildgaard, in Müller, Zool. Danica, 1789, vol. 3, p. 7, pl. 85, figs. 5-8. "IN FUCIS MARIS NORVAGICI."

Doris bifida Verrill, Amer. Journ. Sci., 1870, ser. 2, vol. 50, p. 406. Acanthodoris stellata Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 313.

Acanthodoris citrina Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 313.

ME.- Eastport, at low-water mark, Aug. 19, 1868.

MASS.— Charlestown Navy Yard, 1849 (Gould); Brace's Cove, East Gloucester, Apr. 1908 (Balch).

CONN.— Savin Rock, near New Haven, low-water mark, egglaying, Oct.

Acanthodoris pilosa ornata (Verrill).

Acanthodoris ornata Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 313. "EASTPORT, ME." Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 549, pl. 42, fig. 12. Bergh, Syst. der Nud. Gaster., 1892, p. 159.

ME.— Eastport, at low-water mark, August (Verrill).

Adalaria proxima (Alder and Hancock).

Bergh, Dall's Sci. Results Expl. Alaska, 1880, art. 6, p. 225, pl. 9, figs. 12–15.

Doris proxima Alder and Hancock, Monogr. Brit. Nud. Moll., 1854, pt. 6, fam. 1, pl. 9, figs. 10–16; 1855, pt. 7, pl. 46, fig. 8 (dent.). "BIRKENHEAD, [ENGLAND]."

ME.— Eastport, at low-water mark (Verrill).

Lamellidoris muricata (Müller).

Bergh, Dall's Sci. Results Expl. Alaska, 1880, art. 6, p. 221, pl. 9, fig. 18; pl. 11, figs. 10-12.

Doris muricata Müller, Zool. Danicae Prodr., 1776, p. 229. [DENMARK.]

Onchidoris muricata Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 314.

ME.- Eastport.

R. I.— Block Island.

*Lameilidoris aspera (Alder and Hancock).

Bergh, Syst. der Nud. Gaster., 1892, p. 161.

Doris aspera Alder and Hancock, Ann. Mag. Nat. Hist., 1842, ser. 1, vol. 9, p. 32. "TYNEMOUTH, CULLERCOATS AND WHITLEY, [ENGLAND]."

Doris pallida Gould, Inv. Mass., 1870, p. 229, pl. 20, figs. 284, 287, 288 (not fig. 291).

Onchidoris pallida Verrill, Amer. Journ. Sci., 1870, ser. 2, vol. 50, p. 408.

ME.— Casco Bay; Eastport Harbor, low water to 30 fathoms (Verrill).

MASS.— Beverly, Feb., 1848 (Agassiz); dredged near Governor's Id., Boston Harbor, Oct., 1849 (Stimpson *teste* Gould); Cohasset, on kelp, Nov. (Owen Bryant); off Cuttyhunk Id. (Verrill); Brace's Cove, East Gloucester, on corallines, Apr. 1908 (Balch).

R. I.- Newport.

Lamellidoris diaphana (Alder and Hancock).

Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 550.

Doris diaphana Alder and Hancock, Ann. Mag. Nat. Hist., 1845, ser. 1, vol. 16, p. 313. "MEADFOOT SANDS, TORBAY, [ENGLAND]." Alder and Hancock, Monogr. Brit. Nud. Moll., 1846, pt. 2, fam. 1, pl. 10; 1855, pt. 7, pl. 46, fig. 9 (dent.).

ME.— Eastport, at low-water mark (Verrill).

GASTEROPODA.

*Lamellidoris bilamellata (Linné).

Bergh, Semper's Reisen Archipel d. Philippinen, pt. 2, 1878, vol. 2, no. 14, p. 606, pl. 64, fig. 13; pl. 65, figs. 1-5.

Limax bilamellatus Linné, Fauna Suecica, 1761, ed. 2, p. 508. "MARIS NORVEGICI."

Doris bilamellata Gould, Inv. Mass., 1870, p. 228, pl. 20, figs. 285, 286; pl. 21, figs. 299, 305–309.

MASS.— Under a floating log at East Boston, May, 1849 (Gould); Beverly, June (Agassiz); Boston Harbor near Governor's Id., 4 fathoms, May, 1853 (Stimpson); Castle Id., Boston Harbor, May, 1915 (Humphrey).

Lameilidoris (?) tenella (Gould).

Bergh, Syst. der Nud. Gaster., 1892, p. 161.

Doris tenella Gould, Inv. Mass., 1870, p. 229, pl. 20, figs. 289, 290, 293. "BEVERLY, [MASS.]."

Onchidoris tenella Verrill, Amer. Journ. Sci., 1870, ser. 2, vol. 50, p. 407.

ME.— Near Eastport, low-water mark, 1870 (Verrill). MASS.— Beverly, February, 1848 (Agassiz).

Lameilidoris (?) grisea (Gould).

Bergh, Syst. der Nud. Gaster., 1892, p. 161.

Doris grisea (Stimpson MS.) Gould, Inv. Mass., 1870, p. 232, pl. 20, figs. 292, 295. "Charles River *** Chelsea Beach *** East Boston Point, [Mass.]."

Onchidoris grisea Verrill, Amer. Journ. Sci., 1870, ser. 2, vol. 50, p. 407.

ME.- Near Eastport, in a pool at low-water mark (Verrill).

MASS.— On floating Zostera in Charles River, November 9, 1842; also on the under side of Fucus-covered stone at East Boston Point, in April (Stimpson *teste* Gould).

Lamellidoris (?) diademata Gould.

Bergh, Syst. der Nud. Gaster., 1892, p. 161.

Doris diademata Gould, Inv. Mass., 1870, p. 230, pl. 21, figs. 298, 300-304. "BOSTON AND BEVERLY HARBORS [, MASS.]."

MASS.— "Found in deep water, Boston and Beverly Harbors" (Agassiz).

Idalia (Idaliella) pulchella Alder and Hancock.

Idalia pulchella Alder and Hancock, Ann. Mag. Nat. Hist., 1854, ser. 2, vol. 14, p. 103. "St. IVES, [ENGLAND]." Alder and Hancock, Monogr. Brit. Nud. Moll., 1854, pt. 6, fam. 1, pl. 17, figs. 5, 6; 1855, pt. 7, App., p. v.

Idaliella pulchella Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 548, pl. 42, fig. 13.

MASS.— Salem.

Idalia (Idaliella) modesta Verrill.

Idalia modesta Verrill, Amer. Journ. Sci., 1875, ser. 3, vol. 10, p. 41, pl. 3, fig. 3. [OFF FISHER'S ISLAND; BLOCK ISLAND SOUND; N. OF LITTLE GULL ISLAND, 40 FATHOMS.]

Idaliella modesta Verrill, Trans. Conn. Acad., 1882, vol. 5, p. 548.

MASS.--- Vineyard Sound and off No Man's Land.

R. I.- Block Island Sound, 17 to 24 fathoms, Aug. 6.

CONN.- Off west end of Fisher's Island, Aug. 25, 1874 (Verrill).

Ancula cristata sulphurea Stimpson.

Ancula sulphurea Stimpson, Smithson. Contr. Knowl., 1854, vol. 6, art. 5, p. 26. [GRAND MANAN.] Gould, Inv. Mass., 1870, p. 233, fig. 516 (ova), pl. 22, figs. 310, 314.

MASS.— Among corallines, on Zostera, and under stones in Boston Harbor; Brace's Cove, East Gloucester, Apr. 1908 (Balch).

CORAMBIDAE.

Doridella obscura Verrill.

Verrill, Amer. Journ. Sci., 1870, ser. 2, vol. 50, p. 408, figs. 2, a-b, 3. "SAVIN ROCK NEAR NEW HAVEN [, CONN.]." Verrill, Rept. Inv. Vineyard Sound, 1873, pp. 664, 400, pl. 25, fig. 173, a-b; Trans. Conn. Acad., 1882, vol. 5, p. 547, fig. 5.

MASS.--- Vineyard Sound, low water to 10 fathoms.

R. I.- Off Block Island, 13 fathoms.

CONN.— Savin Rock, Oct. 28, 1868; Long Island Sound, near New Haven, low water to 5 fathoms.

PULMONATA.

AURICULIDAE.

*Carychium exiguum (Say).

Gould, Inv. Mass., 1870, p. 466, fig. 720. Pilsbry, Proc. Acad. Nat. Sci. Phila., 1891, p. 319.

Pupa exigua Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 375. [NEAR PHILADELPHIA, PA.]

ME.— Kennebunkport; Orono; Woodland, Aroostook Co.; Bethel; Mt. Desert.

MASS.— Boston; Lexington; Westfield.

R. I.— Providence.

CONN.-- New Haven.

*Carychium exile H. C. Lea.

H. C. Lea, Amer. Journ. Sci., 1842, ser. 1, vol. 42, p. 109, pl. 1, fig. 5. "WISSAHICCON CREEK, NEAR PHILADELPHIA." Pilsbry, Nautilus, 1894, vol. 8, p. 63, figs. 10–14.

ME.- Caribou; Woodland; Hebron; Buckfield.

Carychium exile canadense Clapp.

Clapp, Nautilus, 1906, vol. 19, p. 139, pl. 8, figs. 1, 2, 6, 7. "KENNEBUNKPORT, ME."

BASOMMATOPHORA.

ME.— Kennebunkport; Islesboro; Eagle Lake; Caribou, Aroostook Co.

VT.- Hartland.

Carychium minimum Müller.

Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 125. [EU-ROPE.] Forbes and Hanley, Brit. Moll., 1853, vol. 4, p. 198, pl. 125, fig. 6.

MASS.--- Norfolk Downs, in the vicinity of greenhouses. Introduced.

*Alexia myosotis (Draparnaud).

Gould, Inv. Mass., 1870, p. 463, figs. 718, 719.

Auricula myosotis Draparnaud, Tabl. Moll. France, 1801, p. 53, pl. 3, figs. 16, 17. "Côtes de la Méditerranée."

Auricula denticulata Gould, Inv. Mass., 1841, p. 199, fig. 129 (non Montfort).

ME.— Portland; Eastport; Castine.

MASS.- Boston; Woods Hole; Marblehead.

R. I.— Newport; Wickford.

CONN.— Stonington; New Haven; West River, near West Haven; Branford.

*Melampus lineatus Say.

Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 246. "MARYLAND AND NEW JERSEY."

Melampus bidentatus Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 245 (non Montagu, 1803). Gould, Inv. Mass., 1870, p. 467, fig. 721.

ME.- Portland; Biddeford Pool; New Meadows River.

MASS.— Ipswich; Revere; Plymouth; Provincetown; Woods Hole.

R. I -- Nayatt; Narragansett Bay.

CONN.- New Haven.

PHYSIDAE.

*Physa heterostropha (Say).

Gould, Inv. Mass., 1870, p. 483, fig. 735.

Lymnaea heterostropha Say, Nich. Encycl., 1817, pl. 1, fig. 6. "DELAWARE RIVER."

ME. to CONN.— Common in most of the ponds and streams.

*Physa ancillaria Say.

Say, Journ. Acad. Nat. Sci. Phila., 1825, ser. 1, vol. 5, p. 124. "Delaware river near Easton, and *** Connecticut river above Hartford." Gould, Inv. Mass., 1870, p. 485, fig. 736.

ME.— Mud and Square Lakes, Aroostook Co.; Waterville; Prospect; North Warren.

N. H.— Merrimack River.

VT.— Lake Champlain; Hartland.

MASS.— Fresh Pond, Cambridge; Lynnfield.

CONN .-- Connecticut River, above Hartford; near New Haven.

*Physa sayii Tappan.

Tappan, Amer. Journ. Sci., 1839, ser. 1, vol. 35, p. 269, pl. 3, fig. 3. "Lake Pipin, *** Portage County, Ohio."

ME.- Caribou (Nylander); Fort Kent.

Physa fragilis Mighels.

Mighels, Proc. Boston Soc. Nat. Hist., 1843 (?), vol. 1, p. 49. "MONMOUTH, ME." Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 89, fig. 153.

ME.— Monmouth, in a mill pond (Mighels).

Physa gyrina Say.

Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 171.

"BOWYER CREEK, NEAR COUNCIL BLUFF, [IOWA]." Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 77, fig. 130.

VT.— Lake Champlain (Adams).

?R. I.— Tiverton (Carpenter).

Physa elliptica Lea.

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Lea, Trans. Amer. Phil. Soc., 1837, new ser., vol. 5, p. 115, pl. 19, fig. 83. No locality.

ME.— Aroostook Co.

*Aplexa hypnorum (Linné).

Dall, Harriman Alaska Exped., 1905, vol. 13, p. 106, fig. 81.

Bulla hypnorum Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 727. "IN EUROPAE MUSCIS."

Physa elongata Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 171.

Bulinus elongatus Gould, Inv. Mass., 1870, p. 486, fig. 738.

ME.— Portland; Bethel; Monmouth; Bangor; Woodland; North Warren; Saco.

N. H.-Keene.

VT.- Hartland; Burlington.

MASS.— Cambridge; Southborough; Milton.

R. I.— Tiverton.

CONN.- New Haven.

LYMNAEIDAE.

*Lymnaea stagnalis appressa (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 137, pl. 19, figs. 4–10; pl. 20, figs. 1–6; pl. 21, figs. 1–3.

Lymneus appressus Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 168. "LAKE SUPERIOR."

VT.— Lake Champlain; Burlington (Adams); mouth of the Winooski River (Dr. H. F. Perkins); Lake Hortonia; Chimney Point.

• *Pseudosuccinea columella (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 163, pl. 23, figs. 8-20; pl. 24, figs. 1-4.

Lymnaea columella Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 14. No locality. [COLD WATER CREEK, Mo.]

Limnaea columella Gould, Inv. Mass., 1870, p. 471, fig. 723.

Limnea acuminata Adams, Amer. Journ. Sci., 1840, ser. 1, vol. 39, p. 374.

ME.— York, Cumberland, Oxford, Knox and Penobscot Counties. VT.

MASS.- New Bedford; Winchester; Danvers; Waltham.

R. I.— Tiverton.

CONN.- Branford.

*Pseudosuccinea columella chalybea (Gould).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 171, pl. 24, figs. 5-13.

Lymnea chalybea Gould, Amer. Journ. Sci., 1840, ser. 1, vol. 38, p. 196. [CAMBRIDGE, MASS.]

Limnaea columella var. chalybea, Gould, Inv. Mass., 1870, p. 472.

ME.- Thomaston; Union.

VT.- Lake Hortonia.

MASS.— Cambridge; Green Lodge Station, Neponset River; Duxbury; Uxbridge.

R. I.- Tiverton; Newport.

*Radix auricularia (Linné).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 179, pl. 22, figs. 12–15. Clapp, Nautilus, 1913, vol. 26, p. 116.

Helix auricularia Linné, Syst. Nat., ed. 10, 1758, p. 774. "IN EUBOPAE FLUVIIS, STAGNIS."

MASS.— Common in the Charles River about three miles above the Dam, on both the Cambridge and the Boston shores. Introduced.

*Bulimnea megasoma (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 184, pl. 25, figs. 1-6.

Lymneus megasomus Say, Narrative Long's Exped., 1824, vol. 2, p. 263, pl. 15, fig. 10. "Bois Blanc Lake, North-West Terri-TORT."

Limnaea (Bulimnea) megasoma Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 37, figs. 46, 47.

VT.- Lake Champlain; Burlington (Adams); "Intervels," mouth of the Winooski River (H. F. Perkins).

?Мазя.

*Acella haldemani (Deshayes).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 192, pl. 18, fig. 1; pl. 26, figs. 1-4.

Lymnaea gracilis Jay, Cat. Shells, 1839, ed. 3, p. 112, pl. 1, figs. 10, 11 (non Zieten, 1830). "Essex Co., N. Y."

Limnaea (Acella) gracilis Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 69, figs. 112, 114.

Limnaea haldemani Deshayes in Binney, Journ. de Conch., 1867, ser. 3, vol. 7, p. 428 (new name for L. gracilis Jay, preoccupied).

VT.— Lake Champlain (Adams); mouth of Potash Brook (H. F. Perkins); Chimney Point.

Galba caperata (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 225, pl. 28, figs. 20-33; pl. 29, figs. 1-3.

Lymnaeus caperatus Say, New Harmony (Ind.) Disseminator, 1829, vol. 2, p. 230. [INDIANA.]

Limnaea caperata Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 56, fig. 87.

ME.— Ironbound Id. MASS.— Westfield. R. I.— Smithfield. CONN.— Housatonic.

*Galba umbilicata (C. B. Adams).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 236, pl. 30, figs. 1-7.

Limnea umbilicata C. B. Adams, Amer. Journ. Sci., 1840, ser. 1, vol. 39, p. 374. "NEW BEDFORD, [MASS.]." Gould, Inv. Mass., 1870, p. 480, fig. 731.

ME.— North Haven; Buckfield; Woodland; Fox Id., Penobscot River; Fort Kent.

N. H.-Keene.

VT.- Burlington.

MASS.— Cambridge; Salem; Cohasset; Southborough; Westfield; Duxbury.

R. I.- Pawtucket.

CONN.- Farmington River, Unionville.

Galba parva (Lea).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 243, pl. 29, figs. 5-14; pl. 30, figs. 9-12.

Lymnea parva Lea, Proc. Amer. Phil. Soc., 1841, vol. 2, p. 33. "CINCINNATI, OHIO."

ME.— Rockland. Conn.

*Galba humilis modicella (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 259, pl. 19, figs. 31–37; pl. 31, figs. 1–9.

Lymneus modicellus Say, Journ. Acad. Nat. Sci. Phila., 1825, ser. 1, vol. 5, p. 122. "Owego, on the Susquehanna river NEAR THE STATE OF NEW YORK."

Limnaea humilis Gould, Inv. Mass., 1870, p. 482, fig. 734 (non Say).

Limnea linsleyi DeKay, Nat. Hist. N. Y., Moll., 1843, p. 72, pl. 4, fig. 74.

ME.- Caribou; Woodland; Rockland.

N. H.

MASS.-- Uxbridge; Duxbury; Pittsfield; Arlington.

Conn.

Galba humilis rustica (Lea).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 268, pl. 31, figs. 10-14.

Lymnea rustica Lea, Proc. Amer. Phil. Soc., 1841, vol. 2, p. 33. "POLAND, OHIO."

ME.- Saco.

MASS.-- Woburn; Arlington; Cambridge (Clapp).

*Galba obrussa (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 270, pl. 26, figs. 8-13; pl. 31, figs. 20-37.

Lymneus obrussus Say, Journ. Acad. Nat. Sci. Phila., 1825, ser. 1, vol. 5, p. 123. "HARROWGATE" [PHILADELPHIA, PA.].

Limnea desidiosa Haldeman, Monogr. Limniades, 1842, p. 31, pl. 10; p. 48, pl. 13, figs. 16-18.

Limnaea desidiosa Gould, Inv. Mass., 1870, p. 478, fig. 729 (non Say).

ME.- Westbrook; Saco; Aroostook Co.; Rockland.

VT.- Manchester.

MASS.— Waltham; Winchester; Williamstown; Neponset River.

R. I.— Olneyville.

CONN.— Near New Haven; Orange; Milford.

Galba obrussa peninsulae (Walker).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 283, pl. 32, figs. 1-6.

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Lymnaea desidiosa var. peninsulae Walker, Nautilus, 1908, vol. 22, pp. 9, 16, pl. 2, fig. 7. "HEADWATERS OF THE UNION RIVER, ONTONAGON COUNTY, MICHIGAN."

ME.- Unity (Berry); Thomaston (Lermond); Woodland.

Galba obrussa exigua (Lea).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 285, pl. 32, figs. 7-14.

Lymnea exigua Lea, Proc. Amer. Phil. Soc., 1841, vol. 2, p. 33. "TENN[ESSEE]."

ME.— Aroostook River, Caribou; Caribou Stream, Woodland (Nylander); Fort Kent; Orono.

CONN.— Branford.

Galba obrussa decampi (Streng).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 289, pl. 32, figs. 15-22.

Limnaea desidiosa var. decampi Streng, Nautilus, 1896, vol. 9, p. 123, fig. "BROOK'S LAKE, NEWAYGO CO., MICH."

ME.— Barren Brook, Caribou (Nylander).

*Galba palustris (Müller).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 298, pl. 26, figs. 17–37; pl. 33, figs. 1–25; pl. 34, fig. 20.

Buccinum palustre Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 131. [EUROPE.]

Limnaea elodes Gould, Inv. Mass., 1870, p. 475, fig. 728.

Limnea expansa Haldeman, Monogr. Limniades, 1842, no. 4, p. 29, pl. 9, figs. 6–8.

ME.- Caribou; Scarboro.

VT.— Shelburn Bay and Larrabee Point, Lake Champlain; Hartland.

MASS.- Cambridge; Chebacco Lake; Woburn.

R. I.- Providence and Worcester Canal near Long Bridge; Lonsdale.

CONN.- Housatonic River.

Galba elodes shurtleffii (Tryon).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 330, pl. 34, fig. 13.

Lymnaea (Limnophysa) shurtleffii Tryon, Amer. Journ. Conch., 1866, vol. 2, p. 111, pl. 10, figs. 4, 5. "Weatogue, Hartford Co., CONN."

CONN.— Weatogue, Hartford Co.

*Galba reflexa (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 332, pl. 30, figs. 30, 31; pl. 35, figs. 3, 5–22; pl. 36, figs. 1–11; pl. 18, fig. 10.

Lymneus reflexus Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 167. "LAKES ERIE AND SUPERIOR."

VT.— Lake Champlain (Roper).

*Galba pallida (C. B. Adams).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 377, pl. 40, figs. 1-5.

Limnea pallida C. B. Adams, Amer. Journ. Sci., 1840, ser. 1, vol. 39, p. 374. "SHOREHAM, VT."

Limnaea pallida Gould, Inv. Mass., 1870, p. 481, fig. 733.

VT.— Higate and Larrabee Point; Burlington, Lake Champlain. ?MASS.— Andover (Adams).

*Galba catascopium (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 380, pl. 30, figs. 25, 26; pl. 40, figs. 6-35; pl. 61, figs. 1-4; pl. 47, fig. 10.

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GASTEROPODA.

Lymnaea catascopium Say, Nich. Encycl., Amer. ed., 1817, vol. 2 (no pagination), pl. 2, fig. 3. "DELAWARE RIVER."

Lymneus pinguis Say, Journ. Acad. Nat. Sci. Phila., 1825, ser. 1, vol. 5, p. 123.

Lymnea linsleyi DeKay, Nat. Hist. N. Y., Moll., 1843, p. 72, pl. 4, fig. 74.

ME.— Waterville. VT.— Burlington. MASS. CONN.— Stratford.

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*Galba decollata (Mighels).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 400, pl. 42, figs. 23-26; pl. 41, figs. 8-10.

Limnaea decollata Mighels, Proc. Boston Soc. Nat. Hist., 1843 (?), vol. 1, p. 49. "UNITY, ME." Gould, Inv. Mass., 1870, p. 473, fig. 725.

ME.— Winnecook Lake, Unity, Waldo Co.; Portland; Lincoln. ?Conn.— Housatonic River.

*Galba emarginata (Say).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 408, pl. 30, figs. 27, 28; pl. 41, figs. 18–24; pl. 43, figs. 1–12.

Lymneus emarginatus Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 170. "LAKES OF MAINE."

Limnaea emarginata Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 51, figs. 75, 79.

ME.— Mud Lake or Second Eagle Lake; west branch of Fish River between Eagle and Portage Lakes; St. John River, at Fort Kent.

*Galba emarginata mighelsii (Binney).

Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 416, pl. 43, figs. 13-21; pl. 41, fig. 25.



Limnea ampla Mighels, Boston Journ. Nat. Hist., 1843, vol. 4, p. 347, pl. 16, figs. 1a, 1b, 1c (non Hartmann). "Second Eagle LAKE, MAINE."

Limnaea mighelsii Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 31, footnote.

Limnaea emarginata var. mighelsi Nylander, Distr. of Limnaea emarginata in Maine, 1901, pls. 3, 4.

ME.— Square Lake Inlet, Cross and Portage Lakes, Aroostook Co.; Sebago Lake.

*Galba oronoensis (Baker).

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Lymnaea decollata oronoensis Baker, Nautilus, 1904, vol. 18, p. 62. "ORONO, MAINE."

Galba oronensis Baker, Spec. Publ. Chicago Acad. Sci., 1911, no. 3, p. 438, pl. 47, figs. 1-9.

ME.--Orono; Penobscot River at Lincoln; Caribou River, Aroostook Co.; Lake Auburn.

*Planorbis antrosus Conrad.

Conrad, Amer. Journ. Sci., 1834, ser. 1, vol. 25, p. 343. "Ran-DON'S CREEK, NEAR CLAIBORNE, ALABAMA."

Planorbis bicarinatus Say, Nich. Encycl., 1817, vol. 2 (no pagination), pl. 1, fig. 4. Gould, Inv. Mass., 1870, p. 491, fig. 742. Walker, Nautilus, 1909 (non Lamarck, 1804), vol. 23, p. 1, pl. 1, fig. 3.

ME. to CONN.—Common in most of the ponds and streams.

*Planorbis antrosus aroostookensis Pilsbry.

Planorbis bicarinatus aroostookensis Pilsbry, Nautilus, 1895, vol. 8, p. 115. "EAST BRANCH OF SALMON BROOK, WOODLAND, AROOSTOOK CO., ME." Walker, Nautilus, 1909, vol. 23, p. 7, pl. 1, figs. 1, 2.

ME.— East branch of Salmon Brook, Woodland; Collin's Pond; Caribou River, Caribou (Nylander).

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Planorbis antrosus striatus Baker.

Planorbis bicarinatus striatus Baker, Nautilus, 1902, vol. 15, p. 120. "MILWAUKEE, WISCONSIN [PLEISTOCENE]." Baker, Trans. Acad. Sci. St. Louis, 1906, vol. 16, p. 9, pl. 1, fig. 11.

ME.— Square Lake; Rockville. N. H.— Profile Lake.

*Planorbis antrosus portagensis Baker.

Planorbis bicarinatus portagensis Baker, Nautilus, 1908, vol. 22, p. 45. "PORTAGE LAKE, ON FISH RIVER, AROOSTOOK COUNTY, MAINE." Walker, Nautilus, 1909, vol. 23, p. 8, pl. 1, fig. 9.

ME.— Square Lake; Cross Lake; Second Lake and Moosehead Lake.

*Planorbis trivolvis Say.

Say, Nich. Encycl., 1817, vol. 2, pl. 11, fig. 2. "FRENCH CREEK NEAR LAKE ERIE." Gould, Inv. Mass., 1870, p. 488, fig. 740.

ME. to CONN.— Common in most of the ponds and streams.

*Planorbis trivolvis fallax Haldeman.

Haldeman, Monogr. Limniades, 1844, no. 7, p. 15, pl. 3, figs. 1-3. "MASSACHUSETTS, LAKE ERIE, INDIANA.?"

Planorbis lentus Gould, Inv. Mass., 1870, p. 490, fig. 741 (non Say).

ME.— Unity. VT. MASS.— Revere; Mystic Lake, Arlington.

*Planorbis binneyi Tryon.

Tryon, Amer. Journ. Conch., 1867, vol. 3, p. 197.

Planorbis corpulentus Gould, U. S. Expl. Exped. under Wilkes, 1852, vol. 12, p. 113; Atlas, pl. 8, figs. 130, a, b (non Say). "CO-LUMBIA RIVER, OREGON."

Planorbis trivolvis Gould, Inv. Mass., 1870, p. 488 (in part), fig. 740.

VT.— Lake Champlain. MASS.— Dalton (Winkley).

*Planorbis campanulatus Say.

Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 166. "CAYUGA LAKE, [NEW YORK]." Gould, Inv. Mass., 1870, p. 492, fig. 743.

ME. to CONN.-Common in most of the lakes and streams.

*Planorbis (Menetus) exacuous Say.

Planorbis exacuous Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 165. "LAKE CHAMPLAIN."

Planorbis exacutus Gould, Inv. Mass., 1870, p. 495, fig. 746.

ME.- Norway.

VT.— Burlington; Chimney Point, Lake Champlain.

MASS.- Lynnfield; Cambridge; Concord.

R. I.- Valley Falls Pond; near Pawtucket (Carpenter).

CONN.— Tashua Church Brook (Linsley); West River, near-New Haven.

*Planorbis (Gyraulus) hirsutus Gould.

Planorbis hirsutus Gould, Amer. Journ. Sci., 1840, ser. 1, vol. 38, p. 196. [MANSFIELD, MASS.] Gould, Inv. Mass., 1870, p. 493, fig. 744.

Planorbis albus Binney, Smithson. Misc. Coll., 1865, vol. 7, art. 2, p. 132, figs. 219-221 (non Müller).

ME.- Portage Lake; Rockland.

Vт.

MASS.— Cambridge; Dedham; Dorchester; Sharon; Duxbury; Wareham.

R. I.— Providence and Worcester Canal; Valley Falls.

CONN.— Stonington; New Haven.

GASTEROPODA.

*Planorbis (Gyraulus) deflectus Say.

Planorbis deflectus Say, Narrative Long's Exped., 1824, vol. 2, p. 261, pl. 15, fig. 8. "North-west Territory." Gould, Inv. Mass., 1870, p. 494, fig. 745.

Planorbis virens Adams, Amer. Journ. Sci., 1840, ser. 1, vol. 39, p. 374.

ME.- Portage Lake.

Vт.

MASS.— Winchester; Lynnfield; New Bedford; Cambridge. R. I.— Valley Falls Pond.

CONN.— Bantam Lake, Litchfield; near New Haven.

*Planorbis (Gyraulus) dilatatus Gould.

Planorbis dilatatus Gould, Inv. Mass., 1841, p. 210, fig. 140. "NANTUCKET * * * HINGHAM, [MASS.]." Gould, Inv. Mass., 1870, p. 498, fig. 748.

ME.— Harrison. MASS.— Magnolia; Duxbury; Plymouth. R. I.— Smithfield. CONN.— Yantic River, Norwich: Stratford and near New Haven.

*Planorbis (Gyraulus) parvus Say.

Planorbis parrus Say, Nich. Encycl., 1817, vol. 2, pl. 1, fig. 5. "DELAWARE RIVER." Gould, Inv. Mass., 1870, p. 497, fig. 747. Planorbis elevatus C. B. Adams, Boston Journ. Nat. Hist., 1840, vol. 3, p. 327, pl. 3, fig. 16.

ME.- Barren Brook, Caribou; Portland; Rockland.

N. H.- Keene.

VT.— Burlington.

MASS.— Revere; Norfolk and Plymouth Counties; Pittsfield. R. I.— Cunliff's Pond, Elmville.

*Planorbis (Armiger) crista (Linné).

Dall, Harriman Alaska Exped., 1905, vol. 13, p. 96.

Nautilus crista Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 709. "IN GERMANIAE PALUDIBUS."

Planorbis nautileus Gray, Turton's Manual Land and Freshwater Shells, 1857, p. 236, pl. 8, fig. 94.

ME.- Barren Brook, Caribou (Nylander).

*Segmentina armigera (Say).

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Gould, Inv. Mass., 1870, p. 499, figs. 749, 750. *Planorbis armigerus* Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 164. "UPPER MISSOURI."

ME.— Bangor; Monmouth; North Warren. VT.— Burlington; Chimney Point. MASS.— Auburndale; Cohasset; Revere; Andover. R. I.— Tiverton.

Segmentina jenksii (H. F. Carpenter).

Davis, The Apteryx, 1905, vol. 1, p. 117, pl. 9, figs. A. B.

Planorbis jenksii Carpenter, Central Falls Visitor, March 2, 1871; Conch. Exch., 1887, vol. 2, p. 2. "NEAR HAMMOND'S POND, PAWTUCKET, R. I."

R. I.- Near Hammond's Pond, Pawtucket.

ANCYLIDAE.

*Ancylus fuscus C. B. Adams.

Adams, Boston Journ. Nat. Hist., 1840, vol. 3, p. 329, pl. 3, fig. 17. "ANDOVER^{***} MANSFIELD, [MASS.]." Walker, Nautilus, 1903, vol. 17, p. 15, pl. 1, figs. 1–9.

MASS.— Fresh Pond, Cambridge; Winchester. CONN.— Near New Haven.

*Ancylus rivularis Say.

Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 125. [UNITED STATES.] Walker, Nautilus, 1904, vol. 18, pp. 16, 25, pl. 1, figs. 1-10, 13-15. ME.— Collins' Millpond, Caribou (Nylander). MASS.

*Ancylus tardus Say.

Say, New Harmony (Ind.) Disseminator, Jan. 15, 1831. "WA-BASH RIVER." Walker, Nautilus, 1904, vol. 18, p. 27, pl. 1, figs. 11, 12, 16–23.

ME.— Aroostook River, Caribou; Orono. Vr.— Hartland.

*Ancylus parallelus Haldeman.

Haldeman, Monogr. Limniades, 1841, no. 2, p. [3] of cover. "VERMONT." *Ibid.*, 1844, no. 7, Ancylus, p. 11, pl. 1, fig. 6. Walker, Nautilus, 1904, vol. 18, p. 77, pl. 5, figs. 1–9.

Ancylus rivularis Gould, Inv. Mass., 1841, p. 224, fig. 153 (non Say).

ME.— Collins' Millpond, Caribou Stream, Caribou; Cross Lake; Salmon Brook, Woodland (Nylander).

Ancylus ovalis Morse.

Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 44, figs. 101, 102. "BETHEL, ME." Walker, Nautilus, 1904, vol. 18, p. 79.

ME.— Androscoggin River, at Bethel.

Ancylus borealis Morse.

Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 45, figs. 103, 104. "PATTEN, [ME.]." Walker, Nautilus, 1904, vol. 18, p. 80, pl. 6, figs. 14-16.

ME.— Patten (Morse); St. John River, at Fort Kent (Nylander).

Ancylus novangliae Walker.

Ancylus (Ferrissia) novangliae Walker, Nautilus, 1908, vol. 21, p. 138, pl. 9. figs. 5-7. "CAMBRIDGE, MASS.

MASS.— A small pond near Cambridge.

Ancylus pumilus Sterki.

Sterki, Eighth Ann. Rept. Ohio State Acad. Sci., 1900, p. 36. [TUSCARAWAS COUNTY, OHIO.] Walker, Nautilus, 1904, vol. 18, p. 82, pl. 6, figs. 20-22.

ME.— Orono.

STYLOMMATOPHORA.

HELICIDAE.

*Helix (Tachea) hortensis Müller.

Helix hortensis Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 52. [EUROPE.] Gould, Inv. Mass., 1870, p. 429, fig. 688.

Helix subglobosa Binney, Boston Journ. Nat. Hist., 1867, vol. 1, p. 485, pl. 17.

Tachea hortensis Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 10, fig. 11.

ME.— Cape Porpoise; Brown Cow, Inner Green and Cliff Islands, Casco Bay; Pumpkin Knob; Seal Rock; Little Egg Rock; Spruce Head; Bar Harbor; Little Duck Island; Isle au Haute.

MASS.— Rockport; Gloucester; Magnolia; Manchester; Salt, Eagle, House, and Kettle Islands; Cohasset; Provincetown; Chatham; Nantucket; Marthas Vineyard; Tuckernuck and Chappaquiddic Islands.

CONN.— Weston (Linsley).

NOTE.— *Helix aspersa* Müller was recorded by Binney from Portland, Me., in 1869. It was also introduced at Woods Hole, Mass., in 1883 (Bull. U. S. Fish Comm., 1884, vol. 4, p. 87). There is now no evidence of its existence at either locality.

*Hygromia hispida (Linné).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 274.

Helix hispida Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 771. "SVECIA."

Fruticicola hispida Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 464, fig. 505.

ME.- Rockland (Lermond).

MASS.-- Marthas Vineyard, near Gay Head (Thomson).

Hygromia rufescens (Pennant).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 274.

Helix rufescens Pennant, Brit. Zool., 1777, vol. 4, p. 134, pl. 85, fig. 127. [ENGLAND.]

Fruticicola rufescens Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 464, fig. 506.

MASS.— Naushon Island, near the "French water place" (Thomson).

*Polygyra tridentata (Say).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 76.

Helix tridentata Say, Nich. Encycl., 1816, vol. 2, pl. 2, fig. 1. "MIDDLE STATES." Gould, Inv. Mass., 1870, p. 422, fig. 680.

Triodopsis tridentata Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 291, fig. 312.

N. H.- Concord; Squam Lake.

VT.— Burlington; St. Johnsbury; Newport; Coventry; Mt. Equinox; Sudbury; Mt. Ascutney.

MASS. — North Adams; Williamstown; Bashbish Falls; Chester.

CONN.- Stratford; Greenwich.

*Polygyra sayana Pilsbry.

Pilsbry, Proc. Acad. Nat. Sci. Phila., 1906, p. 127.

Helix diodonta Say, Narrative Long's Exped., 1824, vol. 2, p. 257, pl. 15, fig. 4 (non Muhlfeld). "New York."

Helix sayii A. Binney, Boston Journ. Nat. Hist., 1840, vol. 3, p. 379, pl. 16 (non Wood, 1828).

ME.— Caribou; Woodland; Capens, Moosehead Lake; Bethel; Bangor; Bridgeton. N. H.

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VT.— St. Johnsbury; Mt. Equinox; Mt. Ascutney. Mass.— Westport; Williamstown; North Adams.

R. I.— Tiverton (Thomson).

*Polygyra albolabris (Say).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 76.

Helix albolabris Say, Nich. Encycl., 1816, vol. 2, pl. 1, fig. 1. [UNITED STATES.]

Mesodon albolabris Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 298, fig. 319.

ME. to CONN.— Common in the woods and on many of the islands along the coast.

Polygyra albolabris dentata (Tryon).

Mesodon albolabris dentata Tryon, Amer. Journ. Conch., 1867 vol. 3, p. 39, pl. 7, fig. 6. "MAINE, MASSACHUSETTS, PENNSYL VANIA, OHIO, IOWA, ILLINOIS, MICHIGAN, &C."

MASS.

7

R. I.- Tiverton.

*Polygyra dentifera (A. Binney).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 77.

Helix dentifera A. Binney, Boston Journ. Nat. Hist., 1837, vol. 1 p. 494, pl. 21. "VERMONT."

Mesodon dentiferus Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 312, fig. 333.

ME.— Caribou; Woodland; Capens, Moosehead Lake; Bethel N. H.— Fitzwilliam.

VT.— East side of the Green Mts. (Adams); Mt. Ascutney. MASS.— Chester; North Adams.



*Polygyra thyroidus (Say).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 77.

Helix thyroidus Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 123. [UNITED STATES.]

Mesodon thyroides Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 313, fig. 335.

ME.

Vт.

MASS.— Cohasset; New Bedford; Westport; Dartmouth; Swansea; Williamstown; Blue Hill; Naushon Id.; Clarendon Hill.

R. I.- Tiverton; Cumberland.

CONN.— Greenwich.

*Polygyra palliata (Say).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 77.

Helix palliata Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 152. "ILLINOIS."

Triodopsis palliata Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 284, fig. 303.

VT.— Mt. Ascutney, Windsor Co.; Orange Co. MASS.— Berkshire Co.

*Polygyra hirsuta (Say).

Pilsbry, Manual Conch., 1894, ser. 2, vol. 9, p. 78.

Helix hirsuta Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 17. [UNITED STATES.]

Stenotrema hirsutum Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 278, fig. 295.

MASS.— Pittsfield (Roper). CONN.— Stonington; Weston; New Haven; Greenwich.

*Polygyra fraterna (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 470, fig. 23.

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Helix fraterna Say, Narrative Long's Exped., 1824, vol. 2, p. 257, pl. 15, fig. 3. "PENNSYLVANIA."

Helix monodon Gould, Inv. Mass., 1870, p. 418, fig. 678.

Stenotrema monodon Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 280, fig. 298.

ME.— Caribou; Capens, Moosehead Lake; Bethel; Prospect; Ironbound Id.

N. H.- Livermore; Glen House; Jackson.

VT.— St. Johnsbury; Hartford; Burlington; Mt. Equinox; Mt. Ascutney.

MASS.—Williamstown; North Adams; Westport; Westfield.

R. I.— Tiverton.

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CONN.—Orange; Stratford; New Haven; Greenwich.

CIRCINARIIDAE.

*Circinaria concava (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 472, figs. 25-28.

Helix concara Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 159. "ILLINOIS AND MISSOURI."

Macrocyclis concara Gould, Inv. Mass. 1870, p. 406, fig. 668.

ME.— Bethel; Oxford Co.

VT.— St. Johnsbury; Cloak Island, Lake Champlain; Manchester; Newport.

MASS.- North Adams.

ZONITIDAE.

*Omphalina fuliginosa (Griffith).

Walker, Rept. Geol. Surv. Mich., 1906, p. 474, figs. 29-32.

Helix fuliginosa Griffith in Gould, Boston Journ. Nat. Hist., 1840, vol. 3, p. 417, pl. 24. "Southern, Middle, and Western States."

Zonites fuliginosa Gould, Inv. Mass., 1870, p. 454, fig. 714.

VT.— Mt. Equinox. MASS.— Bashbish Falls. CONN.— Stratford; Greenwich.

*Omphalina inornata (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 475, fig. 33. Helix inornata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 371. "PENNSYLVANIA." Zonites inornata Gould, Inv. Mass., 1870, p. 453, fig. 712.

VT.— Middlebury (Adams). MASS.— North Adams; Chester.

*Vitrina limpida Gould.

Gould, Agassiz's Lake Superior, 1850, p. 243. "CAPE GOUR-GANNE, [LAKE SUPERIOR]." Gould, Inv. Mass., 1870, p. 394, fig. 653.

Vitrina pellucida Adams in Thompson's Hist. Vt., 1842, p. 162.

ME.—Caribou; Fort Kent; Presque Isle; Orono; Bethel; Mt. Desert; near Portland and on several islands in Casco Bay. VT.

MASS.—Westport.

*Vitrea cellaria (Müller).

Walker, Rept. Geol. Surv. Mich., 1906, p. 477, fig. 41.

Helix cellaria Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 28. "IN CELLIS VINARIIS HAVNIAE."

Hyalina cellaria Gould, Inv. Mass., 1870, p. 395, fig. 654.

A European species introduced by commerce.

ME.— Portland; Saco; Castine.

MASS.— Salem; Marblehead; Lynn; Boston; New Bedford; Newtonville.

R. I.— Providence; Pawtucket. CONN.— Huntington.



*Vitrea hammonis (Ström).

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Baker, Bull. Chicago Acad. Sci., 1902, no. 3, pt. 2, p. 180, figs. 36 (2), 37.

Helix hammonis Ström, Trondhjem. Selsk. Skrift., 1765, vol. 3, p. 435, fig. 16. [NORWAY.]

Helix radiatula Alder, Trans. Nat. Hist. Soc. Northumberland, Durham, Newcastle-upon-Tyne, 1831, vol. 1, p. 38.

Hyalina electrina Gould, Inv. Mass., 1870, p. 397, fig. 656.

ME. to CONN.— A common and widely distributed species.

*Vitrea binneyana (Morse).

Walker, Rept. Geol. Surv. Mich., 1906, p. 479, fig. 44.

Hyalina binneyana Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 13, text-fig. 25; pl. 2, fig. 9; pl. 4, fig. 13; pl. 6, fig. 26. [MAINE.] Gould, Inv. Mass., 1870, p. 400, fig. 659.

ME.— Caribou; Woodland; Bethel; Orono; Ironbound Id. N. H.— Three-Mile Island, Lake Winnipesaukee. VT.— Burlington. MASS.— Cambridge; Westport; Lexington. R. I.

*Vitrea wheatleyi (Bland).

Walker, Rept. Geol. Surv. Mich., 1906, p. 478, fig. 43.

Zonites wheatleyi Bland, Ann. N. Y. Acad. Sci., 1882, vol. 2, p. 368, fig. 1. "KNOXVILLE, TENNESSEE *** TIVERTON, RHODE ISLAND."

R. I.— Tiverton, "rare, found with H. ferrea" (Thomson).

*Vitrea indentata (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 480, fig. 48.

Helix indentata Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 372. "HARRIGATE, [PHILADELPHIA]."

Hyalina indentata Gould, Inv. Mass., 1870, p. 398, fig. 657.



ME.— Cape Elizabeth. VT. MASS.— Revere; Brookline; Westport; Cohasset; North Adams; Duxbury; Magnolia. R. I.— Tiverton. CONN.— Plymouth.

Vitrea rhoadsi Pilsbry.

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Pilsbry, Nautilus, 1899, vol. 12, p. 101. "New JERSEY: WHITE POND, WARREN COUNTY." Pilsbry, Nautilus, 1906, vol. 19, p. 109, fig. 1.

ME.— Buckfield; Kennebunkport; South Portland. CONN.— West Granby, Hartford Co.

*Vitrea multidentata (Binney).

Walker, Rept. Geol. Surv. Mich., 1906, p. 481, fig. 50.

Helix multidentata A. Binney, Boston Journ. Nat. Hist., 1840, vol. 3, p. 425, pl. 22, fig. 5. "VERMONT, ON THE EASTERN SLOPES OF THE GREEN MOUNTAINS."

Hyalina multidentata Gould, Inv. Mass., 1870, p. 404, fig. 666.

ME.— Cumberland and Oxford Cos.; Buxton; Norway. VT.— Middlebury; Hartland. MASS.— Westport. R. I.— Tiverton (Thomson).

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*Striatura ferrea Morse.

Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 17, figs. 36-39. [MAINE.]

Hyalina ferrea Gould, Inv. Mass., 1870, p. 401, fig. 663.

ME.— Bethel; Orono; Caribou; Woodland; Ironbound Id. MASS.— Waverly; Duxbury; Westfield. R. I.— Tiverton (Thomson).

*Striatura milium (Morse).

Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 18, fig. 41. Helix milium Morse, Proc. Boston Soc. Nat. Hist., 1859, vol. 7, p. 28. "MAINE."

Hyalina milium Gould, Inv. Mass., 1870, p. 401, fig. 662.

ME.— Bethel; Augusta; Portland; Orono; Woodland; Mt. Desert; Saco.

N. H.- Deering.

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MASS.— Cambridge; Lexington; Duxbury.

R. I.- Tiverton.

*Euconulus fulvus (Müller).

Walker, Rept. Geol. Surv. Mich., 1906, p. 482, fig. 53.

Helix fulva Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 56. [EUROPE.]

Conulus fulrus Pilsbry, Nautilus, 1899, vol. 12, p. 115.

ME.— Woodland; Buckfield; Moosehead; Mt. Desert; Westbrook; Kennebunkport.

MASS.- Cambridge; New Bedford; Westfield.

*Euconulus chersinus (Say).

Helix chersina Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 156. "SEA ISLANDS OF GEORGIA."

Hyalina chersina Gould, Inv. Mass., 1870, p. 402, fig. 664.

Conulus chersina Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 19, fig. 46.

Euconulus chersinus polygyratus Walker, Rept. Geol. Surv. Mich., 1906, p. 482, fig. 54.

ME.— Fort Kent; Bucksfield; Kennebunkport. VT.

Mass.

*Zonitoides nitida (Müller).

Walker, Rept. Geol. Surv. Mich., 1906, p. 483, fig. 57.



GASTEROPODA.

Helix nitida Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 32. "IN SCALA LAPIDEA HORTI FRIDRICHSBERGENSIS."

Hyalina nitida Binney and Bland, Smithson. Misc. Coll., 1869, vol. 8, art. 3, p. 31, figs. 35, 63.

ME.— Bar Harbor. MASS.— Dorchester. R. I.— Tiverton.

*Zonitoides arborea (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 484, fig. 58.

Helix arboreus Say, Nich. Encycl., 1817, pl. 4, fig. 4. [UNITED STATES.]

Hyalina arborea Gould, Inv. Mass., 1870, p. 396, fig. 655.

ME. to CONN.— Common on decaying logs and stumps.

Zonitoides (Pseudohyalina) minuscula (Binney).

Walker, Rept. Geol. Surv. Mich., 1906, p. 485, fig. 60.

Helix minuscula Binney, Boston Journ. Nat. Hist., 1840, vol. 3, p. 435, pl. 22, fig. 4. "OHIO."

Pseudohyalina minuscula Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 16, fig. 34.

Hyalina minuscula Gould, Inv. Mass., 1870, p. 399, fig. 658.

ME.— Vicinity of Portland; Kennebunk; Rockland; North Haven.

Vт.

MASS.— Westport; Duxbury; Blackstone.

R. I.- Tiverton.

CONN.— Hartford; Whittemore; New Haven.

*Zonitoides (Pseudohyalina) exigua (Stimpson).

Walker, Rept. Geol. Surv. Mich., 1906, p. 485, fig. 61.
Helix exigua Stimpson, Proc. Boston Soc. Nat. Hist., 1850, vol. 3,
p. 175. "MASSACHUSETTS, VICINITY OF BOSTON."

Pseudohyalina exigua Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 16.

Hyalina exigua Gould, Inv. Mass., 1870, p. 400, figs. 660, 661.

ME.— Caribou; Woodland; Orono; Bethel; Mt. Desert. MASS.— Cambridge; Salem; Westport; Duxbury; Wareham. R. I.

CONN.— Stony Creek, New Haven.

Gastrodonta suppressa (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 488, fig. 71. Helix suppressa Say, New Harmony (Ind.) Disseminator, 1829,

vol. 2, p. 229. "PENNSYLVANIA." Zonites suppressa Gould, Inv. Mass., 1870, p. 454, fig. 713.

Conn.

LIMACIDAE.

*Limax maximus Linné.

Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 652. No locality. Gould, Inv. Mass., 1870, p. 407, fig. [669.]

Introduced and gradually spreading inland from the seaports.

ME.- Portland; Bar Harbor.

MASS.— Boston; Cambridge; Auburndale; Wellesley; Milton. R. I.— Newport.

Conn.

Limax flavus Linné.

Linné, Syst. Nat., ed. 10, 1758, vol. 2, p. 652. No locality. Gould, Inv. Mass., 1870, p. 410, fig. 672.

Limax variegatus Binney, Terr. Moll., 1851, vol. 2, p. 34, pl. 65, fig. 1.

Introduced and confined chiefly to the seaports.

ME.— Portland.



GASTEROPODA.

MASS.— Boston; Cambridge; New Bedford. CONN.— New Haven.

*Agriolimax agrestris (Linné).

Walker, Rept. Geol. Surv. Mich., 1906, p. 489, figs. 72-74.

Limax agrestris Linné, Syst. Nat., ed. 10, 1758, vol. 2, p. 652.

No locality. Gould, Inv. Mass., 1870, p. 408, fig. 670.

Limax tunicata Gould, Inv. Mass., 1841, p. 3.

Introduced from Europe and widely distributed.

ME.- Portland; Mt. Desert.

MASS.— Boston; Cambridge; New Bedford; Cohasset; Duxbury.

CONN.- Northfield; New Haven.

*Agriolimax laevis campestris (Binney).

Taylor, Monogr. Land and Freshwater Moll. Brit. Isles, 1907, pt. 10, p. 132, fig. 145.

Limax campestris Binney, Proc. Boston Soc. Nat. Hist., 1842 (?), vol. 1, p. 52. "New England States, New York, Ohio, Missouri." Gould, Inv. Mass., 1870, p. 409, fig. 671.

ME. to CONN.- Common under wood and stones.

ARIONIDAE.

*Arion hortensis Férussac.

Férussac, Tabl. Syst. des Anim. Moll., 1819, pt. 1, Hist. Nat. Pulmonés sans Opercule, p. 65, pl. 2, figs. 4, 5. "PARIS, [FRANCE]." Taylor, Monogr. Land and Freshwater Moll. Brit. Isles, 1907, pt. 11, p. 210, pl. 24.

Arion fuscus Gould, Inv. Mass., 1870, p. 451, fig. 711.

Introduced from Europe.

ME.- Portland.

MASS.— Ipswich; Boston; Cohasset; New Bedford; Chester; Arlington.

CONN.- New Haven.

Arion subfuscus cinereofuscus (Draparnaud).

Taylor, Monogr. Land and Freshwater Moll. Brit. Isles, 1907 pt. 11, p. 193, pl. 24.

Limax subfuscus cinereo-fuscus Draparnaud, Hist. Nat. Moll France, 1805, p. 125, pl. 9, fig. 8. [FRANCE.]

Introduced from Europe.

MASS.— Jamaica Plain, Boston (Cockerell, Nautilus, 1905, vol 19, p. 84).

PHILOMYCIDAE.

*Philomycus carolinianus (Bosc).

Limax carolinianus Bosc, Hist. Nat. des Vers, suites à Buffon ed. Déterville, 1802, vol. 1, p. 80, pl. 3, fig. 1. "L'AMÉRIQUI SEPTENTRIONALE."

Limax togata Gould, Inv. Mass., 1841, p. 3.

Tebennophorus carolinensis Gould, Inv. Mass., 1870, p. 457 fig. 716.

Philomycus carolinensis Baker, Bull. Chicago Acad. Sci., 1902 no. 3, pt. 2, p. 201, pl. 30, fig. 1.

ME.- Capens, Moosehead Lake; Isle au Haute.

N. H.

Vт.

MASS.— Cohasset; Westport; Uxbridge; North Adams; Chester.

CONN.— Stratford.

Philomycus pennsylvanicus Pilsbry.

Pilsbry, Proc. Acad. Nat. Sci. Phila., 1894, p. 22. "York Furnace, York Co., Pa. *** South Mountain, near Pa. and Md. State boundary."

N. H.- Mt. Monadnock (Dr. W. H. Dall).

Pallifera dorsalis (Binney).

Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 8, fig. 5, pl. 3, fig. 6.

Philomycus dorsalis Binney, Proc. Boston Soc. Nat. Hist., 1842 (?), vol. 1, p. 52. "MASSACHUSETTS AND VERMONT."

Tebennophorus dorsalis Gould, Inv. Mass., 1870, p. 460, fig. 717.

ME.- Isle au Haute.

Vт.

MASS. - Westport.

ENDODONTIDAE.

*Pyramidula alternata (Say).

Baker, Bull. Chicago Acad. Sci., 1902, no. 3, pt. 2, p. 206, pl. 28, figs. 19, 21-24.

Helix alternata Say, Nich. Encycl., 1817, vol. 2, pl. 1, fig. 2. "MIDDLE STATES." Gould, Inv. Mass., 1870, p. 412, fig. 673.

Anguispira alternata Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 11, text-fig. 15; pl. 4, fig. 16.

ME. to CONN.— Common in woods under decaying logs.

*Pyramidula cronkhitei anthonyi Pilsbry.

Pilsbry, Proc. Acad. Nat. Sci. Phila., 1906, p. 153.

Helix striatella Anthony, Boston Journ. Nat. Hist., 1840, vol. 3, p. 278, pl. 3, fig. 2 (non Rang, 1831). "CINCINNATI, [OHIO]." Gould, Inv. Mass., 1870, p. 413, fig. 674.

Patula striatella Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 21, text-fig. 48; pl. 2, fig. 6; pl. 8, fig. 49.

ME. to CONN.-- Common under the bark of decaying logs.

*Pyramidula cronkhitei catskillensis Pilsbry.

Pyramidula striatella catskillensis Pilsbry, Nautilus, 1898, vol. 12, p. 86. "TANNERSVILLE VALLEY, CATSKILL MOUNTAINS, N. Y.; WHITE POND, WARREN COUNTY, N. J."

MASS.— Mt. Greylock.

*Pyramidula (Planogyra) asteriscus (Morse).

Walker, Rept. Geol. Surv. Mich., 1906, p. 494, fig. 84.

Helix asteriscus Morse, Proc. Boston Soc. Nat. Hist., 1857, vol. 6 p. 128. "BETHEL, ME."

Planogyra asteriscus Morse, Journ. Portland Soc. Nat. Hist. 1864, vol. 1, p. 24, text-figs. 50-52; pl. 2, fig. 5; pl. 8, fig. 53.

ME.— Caribou; Woodland; Orono; Gorham. MASS.— Salem; Westport.

*Helicodiscus parallellus (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 495, fig. 88.

Helix lineata Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1 vol. 1, p. 18 (non Olivier).

Planorbis parallellus (sic) Say, Journ. Acad. Nat. Sci. Phila. 1821, ser. 1, vol. 2, p. 164. "UPPER MISSOURI."

Helicodiscus lineata Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 25, text-figs. 61, 62; pl. 2, fig. 3; pl. 8, fig. 63.

Hyalina lineata Gould, Inv. Mass., 1870, p. 404, fig. 667.

ME.- Woodland; Bethel; Mt. Desert; Little Duck Id.

VT.-- Newport; Burlington.

MASS.— Revere; Duxbury; Westfield; Blackstone; Magnolia Cohasset; Brookline.

R. I.

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CONN.- New Haven.

*Punctum pygmaeum minutissimum (Lea).

Helix minutissima Lea, Trans. Amer. Phil. Soc., 1844, new ser. vol. 9, p. 17. "CINCINNATI [, OHIO]."

Punctum minutissimum Morse, Journ. Portland Soc. Nat. Hist. 1864, vol. 1, p. 27, text-figs. 69, 70; pl. 8, fig. 71.

Hyalina minutissima Gould, Inv. Mass., 1870, p. 403, fig. 665

ME.— Caribou; Woodland; Orono; Bethel; Ironbound Id. MASS.— Cambridge; Westport; Duxbury; Lexington; West

field.

R. I.- Tiverton.

*Sphyradium edentulum (Draparnaud).

Dall, Harriman Alaska Exped., 1905, vol. 13, p. 54, fig. 37.

Pupa edentula Draparnaud, Hist. Nat. Moll. France, 1805, p. 59, pl. 3, figs. 28, 29. [FRANCE.]

Pupa simplex Gould, Boston Journ. Nat. Hist., 1840, vol. 3, p. 403, pl. 3, fig. 21.

Vertigo simplex Gould, Inv. Mass., 1870, p. 444, fig. 706.

ME.— Woodland; Capens, Moosehead Lake; Orono; Mt. Desert.

N. H.-Francestown.

MASS.— Cambridge; Westport; Lexington.

SUCCINEIDAE.

*Succinea retusa Lea.

Lea, Trans. Amer. Phil. Soc., 1837, new ser., vol. 5, p. 117, pl. 19, fig. 86. "Ohio, NEAR CINCINNATI."

Succinea ovalis Gould, Inv. Mass., 1870, p. 445, fig. 707 (non Say, 1817).

ME. to CONN.— Common in moist places.

*Succinea ovalis Say.

Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 15. [NORTH AMERICA.]

Succinea campestris Gould, Inv. Mass., 1841, p. 195, fig. 126 (non Say).

Succinea obliqua Say, Narrative Long's Exped., 1824, vol. 2, p. 260, pl. 15, fig. 7. Gould, Inv. Mass., 1870, p. 447, fig. 709.

ME. to CONN.

*Succinea ovalis totteniana Lea.

Succinea totteniana Lea, Proc. Amer. Phil. Soc., 1841, vol. 2, p. 32. "NEWPORT, R. I." Gould, Inv. Mass., 1870, p. 448, fig. 710.

ME.— Prospect; Ironbound Id. N. H — Francestown.

MASS.— Fresh Pond, Cambridge; Revere; Cohasset. R. I.— Newport.

*Succinea avara Say.

Say, Narrative Long's Exped., 1824, vol. 2, p. 260, pl. 15, fig. 6. "NORTH-WEST TERRITORY." Gould, Inv. Mass., 1870, p. 446, fig. 708.

ME.— Square Lake; Mt. Desert; Ironbound Id; Monmouth. MASS.— Wayland; Cambridge; Duxbury. CONN.— New Haven.

PUPILLIDAE.

*Strobilops labyrinthica (Say).

Pilsbry, Proc. Acad. Nat. Sci. Phila., 1892, p. 404.

Helix labyrinthica Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 124. [UNITED STATES.]

Strobila labyrinthica Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 26, text-figs. 64-67; pl. 2, fig. 12, a-b; pl. 8, fig. 68-

ME.— Caribou; Woodland; Orono; Sebago Lake; Mt. Desert. N. H.—Three Mile Island.

Vт.

MASS.— Lynnfield; Dartmouth; Westport; Cambridge; Westfield.

CONN.— Stonington; Hartford; New Haven.

*Strobilops virgo (Pilsbry).

Walker, Rept. Geol. Surv. Mich., 1906, p. 506, fig. 120.

Strobila labyrinthica var. virgo Pilsbry, Nautilus, 1892, vol. 6, p. 94. "SEBEC LAKE, PISCATAQUIS CO., MAINE."

ME.— Sebec Lake (Winkley); Bethel (Roper); Capens. VT.— Burlington.



GASTEROPODA.

Strobilops affinis Pilsbry.

Pilsbry, Nautilus, 1893, vol. 7, pp. 56, 57. " New York, Оню, етс."

ME.— Bethel.

*Zoögenites harpa (Say).

Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 32, pl. 1, figs. 1-3.

Helix harpa Say, Narrative Long's Exped., 1824, vol. 2, p. 256, pl. 15, fig. 1. "North-west Territory."

Pupa costulata Mighels, Proc. Boston Soc. Nat. Hist., 1844, vol. 1, p. 187.

Acanthinula harpa Binney, Bull. U. S. Nat. Mus., 1885, no. 28, p. 185, fig. 183.

ME.— Fort Kent; Bethel; Waterville; Mt. Desert; North Haven; Sebago Lake.

N. H.— Berlin Falls; Wolfeboro. Vr. MASS.— Westport; High Pines, Duxbury Beach. R. I.— Tiverton.

*Pupoides marginatus (Say).

Pilsbry and Vanatta, Proc. Acad. Nat. Sci. Phila., 1900, p. 586. Cyclostoma marginata Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 172. "UPPER MISSOURI."

Pupa fallax Gould, Inv. Mass., 1870, p. 436, fig. 696 (non Say).

MASS.— New Bedford. R. I.— Tiverton.

Bifidaria armifera (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 510, fig. 132.

Pupa armifera Say, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 162. "UPPER MISSOURI." Gould, Inv. Mass., 1870, p. 437, fig. 697.

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VT. MASS.— Boston. R. I.— Tiverton. CONN.— New Haven.

*Bifidaria contracta (Say).

Walker, Rept. Geol. Surv. Mich., 1906, p. 510, fig. 133.

Pupa contracta Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 374. "VIRGINIA." Gould, Inv. Mass., 1870, p. 438, fig. 698.

ME.— Bethel; Bangor. VT.— Burlington. MASS.— Westport; Swampscott. CONN.— Housatonic Valley.

*Bifidaria pentodon (Say).

Vanatta and Pilsbry, Nautilus, 1906, vol. 19, p. 122, pls. 6, 7, figs. 1-41.

Vertigo pentodon Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 376. "PENNSYLVANIA."

Pupa curvidens Gould, Inv. Mass., 1841, p. 189, fig. 120.

Pupa pentodon Gould, Inv. Mass., 1870, p. 434, figs. 693, 694.

ME.— Buckfield; Woodland; Bethel; Fairfield; Westbrook; Orono.

VT.— Burlington.

MASS.-- Cohasset; High Pines, Duxbury; Woburn.

R. I.

CONN.-- New Haven.

Bifidaria tappaniana (C. B. Adams).

Vanatta and Pilsbry, Nautilus, 1906, vol. 19, p. 126, pl. 7, figs. 42–53.

Pupa tappaniana Adams, in Thompson's Hist. Vt., 1842, p. 158. [VERMONT.]

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ME.— Buckfield. VT.— Middlebury. MASS.— Duxbury.

Bifidaria corticaria (Say). .

Walker, Rept. Geol. Surv. Mich., 1906, p. 511, fig. 134. Odostomia corticaria Say, Nich. Encycl., 1817, vol. 4, pl. 4, fig. 5. Pupa corticaria Gould, Inv. Mass., 1870, p. 439, fig. 700.

ME.— Bethel; Gorham. MASS.— Naushon Id.; Woburn. CONN.— Orange.

*Pupilla muscorum (Linné).

Walker, Rept. Geol. Surv. Mich., 1906, p. 513, figs. 137-140.

Turbo muscorum Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 767. "IN EUROPAE MUSCOSIS."

Pupa muscorum Gould, Inv. Mass., 1870, p. 433, fig. 691.

ME.— Near Fort Preble; Ironbound Id.; Mt. Desert; Rockland.

MASS.— Provincetown; Dartmouth; Westport; High Pines, Duxbury.

Pupilla muscorum unidentata (C. Pfeiffer).

Walker, Rept. Geol. Surv. Mich., 1906, p. 514, fig. 141.

Pupa unidentata C. Pfeiffer, Naturgesch. Deutsch. Land- u. Süsswasser-Moll., 1821, vol. 1, p. 58, pl. 3, figs. 19, 20. "BEY CASSEL AUF DEM KRATZENBERGE, UND AUF DEM SCHLOSSE ZU FELSBERG, [GERMANY]."

Pupa badia Adams, Boston Journ. Nat. Hist., 1840, vol. 3, p. 331, pl. 3, fig. 18.

ME.— Thomaston.

Vertigo modesta (Say).

Dall, Harriman Alaska Exped., 1905, vol. 13, p. 29.

Pupa modesta Say, Narrative Long's Exped., 1824, vol. 2, p. 259, p. 15, fig. 5. "North-west Territory."

Pupa decora Gould, Proc. Boston Soc. Nat. Hist., 1847, vol. 2, p. 263.

Mz.— Cape Elizabeth. MASS. CONN.— Stonington.

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*Vertigo gouldii (Binney).

Gould, Inv. Mass., 1870, p. 440, fig. 701.

Pupa gouldii Binney, Proc. Boston Soc. Nat. Hist., 1843 (?), vol. 1, p. 105. "North-Eastern and Middle States."

Isthmia gouldii Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 38, text-fig. 95; pl. 10, fig. 96.

ME.— Westbrook; Bethel; Woodland. N. H. MASS.— Cambridge; Roxbury; Westport. R. I.— Tiverton. CONN.— Northfield.

Vertigo gouldii paradoxa Sterki.

Sterki, Nautilus, 1900, vol. 13, p. 103. "WOODLAND, [MAINE]." ME.— Woodland, Aroostook Co. (Nylander).

*Vertigo bollesiana (Morse).

Gould, Inv. Mass., 1870, p. 442, fig. 703.

Isthmia bollesiana Morse, Ann. Lyc. Nat. Hist. N. Y., 1865, vol. 8, p. 209, figs. 4-6. "MAINE *** NEW HAMPSHIRE; MASSA-CHUSETTS; NEW YORK; AND NORFOLK, VA."

ME.— Ironbound Id. (Blaney); Bethel. N. H.— Francestown. MASS.

*Vertigo ventricosa (Morse).

Gould, Inv. Mass., 1870, p. 443, fig. 705.

Isthmia ventricosa Morse, Ann. Lyc. Nat. Hist. N. Y., 1865, vol. 8, p. 207, figs. 1–3. "MAINE; CONCORD, N. H.; MOHAWK AND GREENWICH, N. Y."

ME.— Woodland; Westbrook; Bethel; Ironbound Id. N. H.— Concord (Morse). CONN.— New Haven.

Vertigo ventricosa elatior Sterki.

Sterki, Land and Fresh Water Moll. New Philadelphia, Ohio, 1894, p. 5. [OH10.]

ME.- Ironbound Id. (Blaney); Woodland; North Warren.

*Vertigo ovata Say.

Say, Journ. Acad. Nat. Sci. Phila., 1822, ser. 1, vol. 2, p. 375. "PENNSYLVANIA." Gould, Inv. Mass., 1870, p. 442, fig. 704.

ME.— Portland. N. H.— Portsmouth. Vr.— Middlebury; Hartland. MASS.— Boston; Lynn; Cohasset; Westport; Duxbury. R. I.— Tiverton. CONN.— Stonington; Deep River; New Haven.

Vertigo tridentata Wolf.

Wolf, Amer. Journ. Conch., 1870, vol. 5, p. 198, pl. 17, fig. 1. "CANTON, ILLINOIS." Walker, Rept. Geol. Surv. Mich., 1906, p. 518, fig. 153.

ME.

Vertigo (Vertilla) milium (Gould).

Dall, Harriman Alaska Exped., 1905, vol. 13, p. 33, fig. 24. *Pupa milium* Gould, Boston Journ. Nat. Hist., 1840, vol. 3, p. 402, pl. 3, fig. 23. "CHELSEA, [MASS.]." 216

Ме. Vт.

MASS.— Oak Island; Chelsea; Westport; High Pines, Duxbury.

*Vertigo (Isthmia) pygmaea (Draparnaud).

Dall, Harriman Alaska Exped., 1905, vol. 13, p. 33.

Pupa pygmaea Draparnaud, Tableau, 1801, p. 57; Hist. Nat. Moll. France, 1805, p. 60, pl. 3, figs. 30, 31. [FRANCE.]

ME.

MASS.— Brookline; Waltham; Waverly.

Vertigo nylanderi Sterki.

Sterki, Nautilus, 1909, vol. 22, p. 107. "Woodland, Aroostook County, Maine."

ME.- Woodland.

COCHLICOPIDAE.

*Cochlicopa lubrica (Müller).

Dall, Harriman Alaska Exped., 1905, vol. 13, p. 33.

Helix lubrica Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 104. [EUROPE.]

Zua lubricoidea Morse, Journ. Portland Soc. Nat. Hist., 1864, vol. 1, p. 30, text-figs. 79-81, 83, 84; pl. 10, fig. 82.

Cionella subcylindrica Gould, Inv. Mass., 1870, p. 431, fig. 690.

ME. to CONN.— Common in woods under leaves and bark.

VALLONIIDAE.

***Vallonia pulchella** (Müller).

Pilsbry, Manual Conch., 1892, ser. 2, vol. 8, p. 248, pl. 32, figs. 1-5.

. Helix pulchella Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 30. [EUROPE.]



Helix minuta Say, Journ. Acad. Nat. Sci. Phila., 1817, ser. 1, vol. 1, p. 123.

ME.— Mt. Desert. MASS.— New Bedford.

*Vallonia excentrica Sterki.

Sterki, Proc. Acad. Nat. Sci. Phila., 1893, p. 252, pl. 8, figs. B, M. [EUROPE AND EASTERN NORTH AMERICA.] Pilsbry, Manual Conch., 1892, ser. 2, vol. 8, p. 249, pl. 32, figs. 6–9.

ME.— Caribou; Saco; Cape Elizabeth; Cliff Island. MASS.— Cambridge; Duxbury; New Bedford.

*Vallonia costata (Müller).

Pilsbry, Manual Conch., 1892, ser. 2, vol. 8, p. 252, pl. 32, figs. 18-22, 27; pl. 33, fig. 54.

Helix costata Müller, Verm. Terr. et Fluv. Hist., 1774, vol. 2, p. 31. "IN LOCO ELEVATO FRIDRICHSDALENSIS."

ME.— Great Cranberry Island; Rockland; Aroostook Co. MASS.— Uxbridge; Cambridge.



CEPHALOPODA.

DIBRANCHIA.

DECAPODA.

TEUTHIDAE.

Lestoteuthis fabricii (Lichtenstein).

Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 390, pl. 45, figs. 1-2d; pl. 49, figs. 1-1f; pl. 55, figs. 1-1d.

Sepia loligo Fabricius, Fauna Groenlandica, 1780, p. 358 (non Linné).

Onychoteuthis fabricii Lichtenstein, Isis, 1818, vol. 19.

Chiloteuthis rapax Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 293, pl. 49, figs. 1-1f.

Onychoteuthis banksii of authors, not of Leach.

Gulf of Maine. — "From the stomach of a cod off Seal Island" (Verrill).

Abralia megalops Verrill.

Verrill, Amer. Journ. Sci., 1882, ser. 3, vol. 24, p. 364. [0FF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1884, vol. 6, p. 143, pl. 28, fig. 2.

MASS.—Off Marthas Vineyard, 173 fathoms.

OMMASTREPHIDAE.

Ommastrephes illecebrosa (Lesueur).

Verrill, Trans. Conn. Acad., 1880, vol. 5, p. 268, pl. 28; pl. 29, figs. 5, 5a; pl. 37, fig. 8; pl. 39.

Loligo illecebrosa Lesueur, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 95, pl. [10]. "SANDY BAY, [MASS.]."

Ommastrephes sagittatus Gould, Inv. Mass., 1870, p. 510, pl. 26, figs. 341-344 (not *L. pavo*); not pl. 25, fig. 339, which really represents a Loligo (Verrill).

ME.— Casco Bay; Mt. Desert; Eastport.

MASS.— Gloucester; Salem; Provincetown; Vineyard Sound. R. I.— Newport.

Sthenoteuthis megaptera (Verrill).

Verrill, Trans. Conn. Acad., 1880, vol. 5, p. 223, pl. 21, figs. 1-9. Architeuthis megaptera Verrill, Amer. Journ. Sci., 1878, ser. 3, vol. 16, p. 207. "CAPE SABLE, N. S."

Gulf of Maine.— "Cast ashore, during a severe gale, near Cape Sable" (Verrill); Georges Bank, from a codfish.

CHIROTEUTHIDAE.

Chiroteuthis lacertosa Verrill.

Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 408, pl. 56, figs. 1-1f. "BROWN'S BANK, OFF NOVA SCOTIA."

Chiroteuthis bonplandi (1) Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 299 (non Verany).

Gulf of Maine.— Brown's Bank, from the stomach of a cod (Verrill).

Brachioteuthis beanii Verrill.

Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 406, pl. 55, figs. 3-3b; pl. 56, figs. 2-2a. "OFF MARTHA'S VINEYARD."

MASS.— Off Marthas Vineyard, in 183 to 368 fathoms; all from fish stomachs (Verrill).

HISTIOTEUTHIDAE.

Histioteuthis collinsii Verrill.

Verrill, Amer. Journ. Sci., 1879, ser. 3, vol. 17, p. 241. "OFF Nova Scotta." Verrill, Trans. Conn. Acad., 1880–81, vol. 5, pp. 234, 300, 404, pls. 22, 26; pl. 27, figs. 3–5; pl. 37, fig. 5.

Georges Bank, northeastern part, in 180 fathoms.

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DESMOTEUTHIDAE.

Taonius pavo (Lesueur).

Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 306.

Loligo paro Lesueur, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 96, pl. [11]. "SANDY-BAY, [MASS.]."

Loligopsis paro Binney in Gould, Inv. Mass., 1870, p. 509, not pl. 26, figs. 341-344 (Verrill). Tryon, Manual Conch., 1879, ser. 1, vol. 1, p. 163, pl. 68, fig. 252; pl. 69, fig. 253.

MASS.— Sandy Bay, Cape Ann.

SPIRULIDAE.

*Spirula spirula (Linné).

Hedley, Bull. New Zealand Colonial Mus., 1906, no. 1, p. 48.

Nautilus spirula Linné, Syst. Nat., ed. 10, 1758, vol. 1, p. 710. "AMERICA."

Spirula fragilis Gould, Inv. Mass., 1870, p. 516, fig. 755.

Spirula peronii Tryon, Manual Conch., 1879, ser. 1, vol. 1, p. 205, pl. 96, figs. 467-469; pl. 105, fig. 585.

MASS.— Nantucket; Marthas Vineyard; Muskeget and No Man's Land, 1904 (Sumner). Shells are occasionally cast upon the outer beaches.

LOLIGINIDAE.

*Loligo pealeii Lesueur.

Lesueur, Journ. Acad. Nat. Sci. Phila., 1821, ser. 1, vol. 2, p. 92, pl. 8. "South Carolina?"

Loligo pealii Binney in Gould, Inv. Mass., 1870, p. 514, pl. 25, figs. 339, 340.

Loligo punctata DeKay, Nat. Hist. N. Y., Moll., 1843, p. 3, pl. 1, fig. 1.



ME.- Casco Bay.

MASS.— Vineyard Sound, 5 to 20 fathoms; Hyannis; Provincetown.

R. I.— Narragansett Bay; off Newport and Point Judith, 16 to 26 fathoms.

CONN.— New Haven; Noank, 3 to 8 fathoms.

Loligo pealeii borealis Verrill.

Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 19, p. 292. "ANNIS-QUAM, MASS." Verrill, Trans. Conn. Acad., 1881, vol. 5, pp. 308, 316, pl. 37, fig. 2; pl. 41, fig. 1.

MASS.— Gloucester; Salem; Provincetown; Massachusetts Bay, 47 fathoms.

Loligo pealeij pallida Verrill.

Verrill, Trans. Conn. Acad., 1881, vol. 5, pp. 308, 317, pl. 34, figs. 1-4; pl. 37, figs. 9-11; pl. 40, fig. 1.

Loligo pallida Verrill, Rept. Inv. Vineyard Sound, 1873, p. 635, pl. 20, figs. 101, 101a. "LONG ISLAND SOUND."

MASS.— Vineyard Sound, 5 to 16 fathoms; Nantucket Sound, 8 to 12 fathoms.

R. I.— Narragansett Bay, 6 to 12 fathoms; off Newport, $4\frac{1}{2}$ to 16 fathoms.

CONN.— Fisher's Island Sound; off New Haven.

SEPIOLIDAE.

Stoloteuthis leucoptera (Verrill).

Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 418.

Sepiola leucoptera Verrill, Amer. Journ. Sci., 1878, ser. 3, vol. 16, p. 378. "Gulf of MAINE 30 MILES E. FROM CAPE ANN." Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 347, pl. 31, figs. 4, 5; pl. 54, fig. 4.

Gulf of Maine, 30 miles east of Cape Ann, 110 fathoms.

MASS.— Off Cape Cod, 94 to 122 fathoms; off Marthas Vineyard, 182 to 388 fathoms.

Rossia hyatti Verrill.

Verrill, Amer. Journ. Sci., 1878, ser. 3, vol. 16, p. 208. "MASSA-CHUSETTS BAY; *** OFF CAPE SABLE; *** OFF HALIFAX, [N. S.]." Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 351, pl. 27, figs. 8, 9; pl. 30, fig. 1; pl. 31, figs. 1, 2; pl. 46, fig. 5.

MASS.— Off Cape Ann, 6 to 14 miles, in 45 to 90 fathoms; off Gloucester $4\frac{1}{2}$ to 8 miles, in 42 to 45 fathoms; off Cape Cod, $6\frac{1}{2}$ to 15 miles, in 45 to 80 fathoms.

Rossia sublaevis Verrill.

Verrill, Amer. Journ. Sci., 1878, ser. 3, vol. 16, p. 209. "MASSA-CHUSETTS BAY."

Rossia sublevis Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 354, pl. 30, fig. 2; pl. 31, fig. 3; pl. 46, fig. 4; pl. 47, figs. 2–4.

MASS.— Off Cape Ann, 6 to 33 miles, in 54 to 110 fathoms; off Cape Cod, 11 to 15 miles, in 45 to 80 fathoms.

R. I.— Off Newport, 155 to 372 fathoms.

Heteroteuthis tenera Verrill.

Verrill, Amer. Journ. Sci., 1880, ser. 3, vol. 20, p. 392. [OFF MARTHAS VINEYARD.] Verrill, Trans. Conn. Acad., 1881, vol. 5, pp. 357, 419.

MASS.— Off Marthas Vineyard, 64 to 192 fathoms. Most abundant in 125 to 150 fathoms.

R. I.— Off Newport, 85 to 252 fathoms.

OCTOPODA.

PHILONEXIDAE.

Parasira catenulata (Férussac).

Verrill, Trans. Conn. Acad., 1881, vol. 5, p. 362, pl. 33, figs. 2, 2a. Octopus catenulatus Férussac, Poulpes, 1828, pls. 6, 6 bis, 6 ter.



CEPHALOPODA.

Octopus granulatus Verrill, Amer. Journ. Sci., 1878, ser. 3, vol. 16, p. 210 (non Lamarck).

MASS.— Vineyard Sound.

ARGONAUTIDAE.

Argonauta argo americana Dall.

Dall, Bull. U. S. Nat. Mus., 1889, no. 37, pp. 174, 200, pl. 43, figs. 1a-b; pl. 64, fig. 142b; pl. 67, figs. 1-3. [SOUTHEASTERN COAST UNITED STATES.]

Argonauta argo Verrill, Trans. Conn. Acad., 1881, vol. 5, pp. 364, 420; *Ibid.*, 1884, vol. 6, p. 247, pl. 28, figs. 1-1b.

MASS.— Off Marthas Vineyard, 64 to 365 fathoms.

POLYPODIDAE.

*Polypus arcticus (Prosch).

Hoyle, Journ. Conch., 1902, vol. 10, pp. 197, 204.

Octopus arcticus Prosch, Kong. Dansk. Vid. Selsk. Skrift., 1849, ser. 5, nat. math. afd., vol. 1, p. 59. "GRÖNLAND."

Octopus bairdii Verrill, Amer. Journ. Sci., 1873, ser. 3, vol. 5, p. 5; Trans. Conn. Acad., 1881, vol. 5, p. 368, pl. 33, figs. 1, 1a; pl. 34, figs. 5, 6; pl. 36, fig. 10; pl. 38, fig. 8; pl. 49, figs. 4, 4a; pl. 51, figs. 1, 1a.

ME.— Off Eastport, 75 to 80 fathoms; off Casco Bay, 50 to 95 fathoms (Verrill).

MASS.— Off Cape Ann, 5 to 13 miles, in 42 to 75 fathoms; off Gloucester, $4\frac{1}{2}$ miles, in 43 to 45 fathoms; off Cape Cod, 14 to 15 miles, in 70 to 94 fathoms; off Marthas Vineyard, 120 to 410 fathoms.

R. I.— Off Newport, 85 to 192 fathoms (Verrill).



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Announcement.

FAUNA OF NEW ENGLAND.

The Library and Publishing Committee will issue, as volume seven of the Occasional Papers, a Catalogue of the animals of New England.

Parts will be published at irregular intervals, and though the details of the several lists will vary somewhat in the different groups, each list will include: 1st, the accepted name (scientific and vernacular); 2d, reference to the original description, and to an authentic description and illustration except in case of groups for which recent check-lists have been issued; and 3d, habitat and occurrence.

The Committee considers these lists a necessary preliminary to a series of comprehensive, illustrated monographs, the publication of which the Socjety has already begun. The Committee also believes that these lists will aid in the accumulation of valuable material for the New England collection. A price list of the parts already published will be found on the back cover page.

Toward the accomplishment of its aims the Committee invites the coöperation of all interested in the Fauna of New England.

Communications concerning specimens should be addressed to the CURATOR of the Society (Chas. W. Johnson), notes and records of occurrence to the EDITOR of the "Fauna of New England."

Boston Society of Natural History, 234 Berkeley St., Boston, Mass.



Occasional Papers of the Boston Society of Hatural History. VII.

FAUNA OF NEW ENGLAND.

14.

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LIST OF THE HEMIPTERA-HETEROPTERA.

BY HOWARD M. PARSHLEY.

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BOSTON: PRINTED FOR THE SOCIETY FROM THE GURDON SALTONSTALL FUND. August, 1917.





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INTRODUCTION.1

FAUNAL lists based on intensive study of circumscribed areas provide the greater part of the data used in more comprehensive investigations of geographical distribution. Their usefulness in this respect, aside from the important questions of completeness and accuracy, depends largely upon the degree of detail with which the subject matter is presented. A species may, for instance, be found in Maine, New Hampshire, and Massachusetts and yet be restricted in reality to a very special habitat; so that an investigator of the general distribution of this species, finding it recorded perhaps as occurring "throughout New England" would be entirely misled, if as a matter of fact the form in question lived only in northern Maine and on the higher elevations of New Hampshire and western Massachusetts, where distinctly boreal conditions prevail. In preparing this list of the Heteropterous Hemiptera of New England I have therefore thought it worth while to present in considerable detail the available distributional and seasonal data not only for the rarer species but also for those of most frequent occurrence, as it is just these common species that are often of greatest interest, but concerning which it is unusual to find in the literature anything more than very general statements. The position and general character of the localities cited may be ascertained by reference to ordinary and topographical maps of the region, while the seasonal data will obviously be of direct usefulness to those interested in the economic aspect of the subject, hibernation. etc.

Full synonymy and bibliography are to be found in the publica-

¹ Contributions from the Entomological Laboratory of the Bussey Institution, Harvard University, No. 133.

Part 2 of a thesis submitted to the Faculty of the School of Applied Biology of Harvard University in partial fulfillment of the requirements for the degree of Doctor of Science.

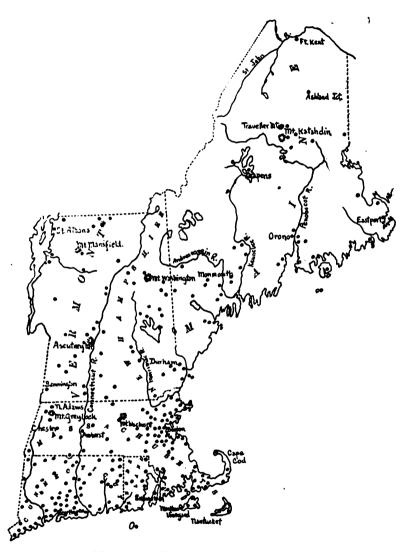
tions of Banks¹ and Van Duzee² and are therefore omitted here as their inclusion would greatly enlarge the paper without materially enhancing its value. In case of certain recently described species, however, the original reference is given. Except for a few points of disagreement, such as the taxonomic standing of the Alydidae, Corizidae, Meziridae (Dysodiidae), and Piesmidae (which I consider entitled to family rank), and certain minor matters, chiefly grammatical, I have adopted the nomenclature and systematic arrangement of Van Duzee's recent check list, which, being based on the latest studies, reflects very well the present condition of the taxonomy of the group.

The very large amount of data at hand, from which have been chosen for publication the records showing most clearly and fully the known distribution of the species and their earliest and latest times of appearance in each State, has been gathered for the most part during a first-hand study of the material contained in the various collections of New England, although published records of importance have been included on the authority of others (and so indicated in every case) when I considered them to be trustworthy. Thus I am personally responsible for the determinations, although in this connection I am glad to acknowledge my indebtedness to Messrs. Abbott, Barber, Heidemann, Knight, McAtee, de la Torre Bueno, and Van Duzee, whose ready assistance in points relating to their specialties has done much to increase the accuracy of the list. It is believed that a very large proportion of the species inhabiting New England is recorded in this paper, since the thorough exploration of the region by collectors, as shown on the accompanying map, has provided very extensive material in the group, which has been made available for the purposes of this study through the kindness of those in charge of the following collections wherein the specimens are now preserved: Boston Society of Natural History (C. W. Johnson); Connecticut Agri-

------ Catalogue of North American Hemiptera (now in press).

¹Banks, Nathan. Catalogue of the Nearctic Hemiptera-Heteroptera. Philadelphia, 1910, 103 + viii pp.

²Van Duzee, E. P. Check List of the Hemiptera... of America, North of Mexico. New York, 1916, xii + 111 pp.



TEXT-FIG. 1.— Map of New England. The dots show where Hemiptera have been collected.



cultural Experiment Station (W. E. Britton); Maine Agricultural Experiment Station (E. M. Patch); Massachusetts Agricultural College (H. T. Fernald); Museum of Comparative Zoölogy (S. Henshaw and N. Banks); New Hampshire Agricultural Experiment Station (W. C. O'Kane); Rhode Island State College (J. Barlow); Wellesley College (A. P. Morse); and many private cabinets the owners of which are mentioned in the appended list of collectors.

It is a great pleasure to take this opportunity of expressing my especial sense of obligation to Charles W. Johnson. His unusual success as a collector, intimate knowledge of our region and its fauna, and stimulating advice have been of the very greatest assistance in the present undertaking; his unfailing enthusiasm and genial nature have made our frequent consultations a constant source of enjoyment,— truly a rare and valued friend!

Analysis of the data presented in the following pages brings out much of general interest, which may now be summarized in part.

FAUNAL ZONES.

The lack of exact knowledge bearing on the distribution of the Hemiptera in British America and many parts of the United States seriously interferes with detailed speculation on the origin and nature of the New England fauna, but the facts at hand seem sufficient to warrant a few observations relative to this subject.

As observed by Scudder in his distributional studies on Lepidoptera,¹ the southern shore of New England as far north as Cape Cod exhibits marked Upper Austral characteristics, a conclusion borne out by the work of many subsequent writers on the fauna and flora of the region. The present investigation furnishes further evidence in support of this view, as I am able to record the discovery within this area of such characteristically southern Hemipterous species as Solubea pugnax, Corizus hyalinus, Mesomiris curtulus, and Garganus fusiformis. Macrotracheliella nigra

¹Scudder, S. H. The Butterflies of the Eastern United States and Canada, Cambridge, 1889, vol. 1, p. 89 et seq.

HEMIPTERA-HETEROPTERA.

may be included here as it is very closely related to the only other member of the genus, a form occurring in Mexico and Panama.

Scudder also pointed out that the northern part of Maine and the higher elevations of the mountains of New England are boreal in character, a statement which has likewise been well supported by later investigations, but here the evidence of the present study is less telling, partly for reasons already mentioned, though chiefly because of the interesting fact that most of the Hemiptera peculiar to these portions of our region are species common to the New and Old Worlds. Whether these forms are truly boreal when subjected to Nearctic conditions (though most of them are not so in Europe); whether they have been for other reasons unable to spread southward; whether they migrated hither from the east or from the west — these are questions which it is impossible to answer now. but which may find explanation when more is known of the distribution of the Hemiptera in Canada. The following are examples of this class. being confined, in New England at least, to northern latitudes or high altitudes: Sciocoris microphthalmus, Nabis limbatus, N. flavomarginatus, Dictyonota tricornis, Lygus pratensis rubidus. Mecomma ambulans. Callicorixa praeusta.

The remaining and larger portion of our region belongs to the Transition Zone in which typically northern and typically southern forms find respectively their southern and northern limits. Here each species is a law unto itself, some extending far into the zone, others for but a short distance. The following may be cited as exhibiting this irregular dispersal: from the south, Piesma cinerea, Leptostyla heidemanni, Hesperotingis antennata, Systelloderes biceps, Phymata erosa, Zelus socius, Rhynocoris ventralis, Gerris canaliculatus; from the north, Homaemus aeneifrons, Eurygaster alternata, Corizus crassicornis, Ligyrocoris contractus, Calocoris norvegicus, Poeciloscytus unifasciatus, Limnoporus rufoscutellatus.

SPECIES COMMON TO NEW ENGLAND AND THE PALABARCTIC REGION.

More of the species of Hemiptera common to the Nearctic and Palaearctic faunas are to be found in New England, according

to present knowledge, than in any other area of similar extent in this country, 36 or 60% of the 61 recorded by Horváth¹ finding place in the subjoined list, besides ten detected since. Horváth gives evidence tending to show that a great majority of these species are of Palaearctic origin, and supposes further that their migration was largely eastward, by way of Alaska. The latter opinion seems hardly in accord with the apparent massing of the species on the eastern side of the continent, referred to above, but at least one of the species listed below, *Callicorixa praeusta*, occurs in both Maine and Alaska, and possibly the range of others may be found likewise to extend westward when our knowledge of the fauna of British America is more nearly complete. The following New England species occur also in the Palaearctic region:

- Sciocoris microphthalmus Zicrona caerulea Corizus hvalinus C. crassicornis Aradus lugubris Nysius thymi N. ericae † Trapezonolus arenarius² Sphragisticus nebulosus † Dictyonota tricornis † Galeatus peckhami † Leptobursa rhododendri⁸ Reduvius personatus 4 Nabis limbatus N. flavomarginatus N. ferus
- Cimex lectularius 4 † Xylocoris cursitans Miris dolabratus Stenodema trispinosum Trigonotylus ruficornis T. brevipes
- † Pithanus maerkeli Stenotus binotatus Calocoris norvegicus Poeciloscytus unifasciatus Capsus ater Lygus pabulinus L. apicalis L. pratensis L. campestris L. rubicundus
- ¹ Horvåth, G. Les relations entre les faunes hémiptérologiques de l'Europe et de l'Amérique du Nord. Ann. Hist.-Nat. Mus. Nat. Hung. Budapest, 1908, vol. 6, pp. 1-14.
 - * The dagger indicates additions to Horvath's list.
 - ³ Introduced from the United States into Europe.

⁴ Probably imported, but thoroughly acclimated and hence to be considered as members of our fauna. *Nabis brevis* has not established itself and is therefore omitted from this list.



HEMIPTERA-HETEROPTERA.

Deraeocoris ruber Monalocoris filicis † Halticus apterus Orthotylus flavosparsus † Mecomma ambulans † Orthocephalus mutabilis Onychumenus decolor Campylomma verbasci Limnoporus rufoscutellatus Saldula xanthochila S. pallipes ? S. opacula ? † S. saltatoria Callicorixa praeusta

HEMIPTERA OF MT. WASHINGTON.

Mt. Washington is our highest elevation and supports a rich and diversified fauna upon its slopes; it has therefore received a great deal of attention from entomological collectors and students of distribution. In the present list, 96 species are recorded from the mountain, the altitude of capture being mentioned in most cases, but it should be remembered in connection with those taken on the boreal summit that most of the species normally confined to lower levels may on occasion be carried by ascending atmospheric currents to altitudes where they are quite unable to maintain a continuous existence. Some of the rarest and most remarkable of the New England Hemiptera have been found on Mt. Washington: - Sciocoris microphthalmus, a Palaearctic species of which not more than three or four examples have been taken in North America; Hesperophylum heidemanni, the only Nearctic representative of the peculiar family Termatophylidae: Zicrona caerulea. a cosmopolitan species of very rare occurrence in this part of the world; and Galeatus peckhami, reported from Japan and from a few widely separated points in North America.

NUMERICAL SUMMARY.

Nearly 1500 species of Hemiptera-Heteroptera are now known to inhabit America north of Mexico, of which 419 are here listed as occurring in New England. Of the 37 North American families all but 5, the Pyrrhocoridae, Isometopidae, Dipsocoridae, Schizopteridae, and Gelastocoridae, occur within our limits, and it is very

FAUNA OF NEW ENGLAND.

probable that representatives of at least the two first mentioned will ultimately be found here. The following table shows the numerical strength of the New England families:

Family	Genera	Species	Family	Genera	Species
Scutelleridae	2	2	Mesoveliidae	1	1
Cydnidae	5	10	Nabidae	3	12
Pentatomidae	29	47	Cimicidae	2	3
Coreidae	5	7	Anthocoridae	4	4
Alydidae	3	5	Termatophylidae	e 1	1
Corizidae	2	6	Miridae	62	139
Aradidae	1	.12	Hydrometridae	1	1
Meziridae	2	4	Gerridae	4	9
Neididae	2	2	Veliidae	2	5
Lygaeidae	38	52	Saldidae	4	16
Piesmidae	1	1	Notonectidae	3	8
Tingidae	11	21	Naucoridae	1	1
Enicocephalidae	1	1	Nepidae	2	4
Phymatidae	1	2	Belostomatidae	3	5
Reduviidae	13	20	Ochteridae	1	1
Hebridae	1	1	Corixidae	4	16

Totals 215

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LIST OF COLLECTORS.

I am greatly indebted to the collectors mentioned in the following list, since the paper is based entirely on the results of their work. To them, I am sure, the arid waste of dates will not be without oases, and the mention of favored collecting grounds will recall most pleasant memories.

Abbott, J. F.	Bangs, O. (O. Bangs).	
Adkins, W. S.	Barber, H. G.	
Alexander, C. P.	Barlow, J.	
Allen, G. M.	Barrows, W. M.	
Allen, J. A.	Blanchard, F.	

HEMIPTERA-HETEROPTERA.

Bourne, A. I. Bridwell, J. C. Britton, W. E. Brooks, W. S. Brues, C. T. Bryant, O. (O. B.). Bullard, C. Burgess, E. Buttrick, P. L. Caffrey, D. J. Carnochan, F. G. Champlain, A. B. Clinch, W. T. Cole, W. H. Crampton, G. C. Cushman, J. A. Davis, C. A. Davis, I. W. Davis, W. T. Davison, C. H. Dickerman, L. L. Dickerson, E. L. Dodge, F. W. Dohanian, S. M. Dow, R. P. Easton, N. S. Eddy, F. A. Edwards, A. M. Ely, C. R. Emerton, J. H. Engelhardt, G. P. Fernald, H. T. Fiske, W. F. Foote, H. W. Frost, C. A. Greene, E. Harris, T. W. Henshaw, S. Hill, W. B. Hochstein, R. Hollister, G. H. Holt, H. Hyslop, J. A.

Johnson, C. W. Johnson, H. L. Jump, E. R. Kirk, H. B. Kirkland, A. H. Knab, E. Lewis, J. K. Lowry, Q. S. Mann, W. M. Marchand, W. Mason, S. L. McAtee, W. L. Merrill, E. D. Miller, C. S. Minot, C. S. Montgomery, T. H. Moore, E. J. S. Morse, A. P. Nelson, S. A. Olsen, C. E. Osborn, H. Osterberg, C. Packard, A. S. Parshley, H. M. Parshley, N. F. Patch, E. M. Pepper, G. W. Reiff, W. Renshaw, A. H. Ripley, L. B. Sanborn, F. G. Sarsfield, W. Sharp, O. Shaw, S. A. Sherriff, F. A. Slosson, A. T. Small, C. L. Smith, H. E. Smith, S. J. Sprague, F. H. Sprague, P. S. Stebbins, S. Stoddard, E. M.



Stover, O. O. Tenney, A. J. Thompson, E. W. Torre Bueno, J. R. de la Uhler, P. R. Vaillant, G. H. Van Duzee, E. P. Viereck, H. L. Walden, B. H. Webber, R. T. Weed, C. M. Wheatland, R. H. Wheeler, W. M. Whiting, P. W. Whitney, C. P. Whittlesey, E. B. Wilcox, A. M. Williams, F. X. Willis, W. E. Winkley, H. W. Wood, H. Wood, H. Woods, W. C. Zappe, M. P.

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HEMIPTERA-HETEROPTERA.

SCUTELLERIDAE.

TETYRINAE.

Homaemus aeneifrons (Say).

ME.— Ft. Kent, 19 Aug. '10 (C. W. J.); Ironbound Id., 10 Aug. '08 (J. A. C.); Machias, 22 July '09 (C. W. J.); Orono, 12 Sept. '13 (H. M. P.); Pemaquid Pt., Aug. '06 (H. W. F.); Pownal, 26 Aug. '00 (O. O. S.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Alstead, 3 Aug. '04 (A. P. M.); Crawfords, 3 Oct. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Mt. Washington, base, 19 Sept. '09 (C. W. J.); summit (fide Slosson).

MASS.— Amherst, 9 Aug. '04; Forest Hills (A. M. W.); Ipswich, 1 Sept. '13 (E. R. J.); Peru, 28 Aug. '04 (J. B.); Sherborn, 8 July '92 (A. P. M.); Tyngsboro, 7 Sept. '02 (F. B.).

CONN.— Colebrook, 1 Sept. '11 (W. M. W.); Litchfield, 16 Sept. '08 (L. B. W.); Scotland, 10 Aug. '05 (B. H. W.); Thompson, 11 July '05 (H. L. V.).

Odontotarsinae.

Eurygaster alternata (Say).

ME.— Eastport, 15 July '09 (C. W. J.); Ironbound Id., 10 Aug. '08 (J. A. C.); Liberty, 17 July '12 (J. A. C.); Orono, 8 Aug. '13; Pownal (O. O. S.).

N. H.— Durham (C. M. W. & W. F. F.); Mt. Washington, base, 6 July '14 (C. A. F.); summit (fide Slosson); Surrey, 30 Aug. '02.

VT.— St. Johnsbury, 23 July '91 (A. P. M.).

MASS.— Amherst, 11 July '94; Beach Bluff, 28 June '15 (H. M. P.); Cohasset, 6 Sept. '07 (O. B.); Forest Hills, 30 May '72 (S. H.); Nantucket, 19 Aug. '09 (J. A. C.); Springfield, 13 July

'05 (C. W. J.); West Chop, 22 July '93 (A. P. M.); Williamsburg, 9 Aug. '10 (C. W. J.); Winchendon, 1 July '92 (A. P. M.); Woods Hole, 1 July '05 (J. A. C.).

R. I.— Cumberland, 3 July '10 (J. B.); Kingston, 5 May '08 (J. B.); 29 Aug. '91 (A. P. M.).

CONN.— Litchfield, 31 May '13 (L. B. W.); New Haven, 8 June '04 (W. E. B.); Scotland, 25 July '04 (B. H. W.); S. Meriden, 19 June '14 (H. L. J.); Thompson, 3 Aug. '92 (A. P. M.).

CYDNIDAE.

THYREOCORINAE.

Thyreocoris ater (Amyot and Serville).

ME.— Orono, 15 Sept. '13 (H. M. P.); Paris, 9 July '15 (C. A. F.); Pownal (O. O. S.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Fitzwilliam, July '07 (J. H. E.); Mt. Washington, summit (fide Slosson).

MASS.— Amherst, 10 May '15; Beach Bluff, 31 Aug. '14 (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Lynn, 17 May '14 (F. W. D.); Nantucket, 19 Aug. '09 (J. A. C.); Sherborn, 20 Oct. '16 (C. A. F.); Tyngsboro, 26 Mar. '06 (F. B.).

R. I.— Kingston, 15 July '05 (J. B.); Warwick, 10 Sept. '97. CONN.— Brookfield, 27 July '10 (E. L. D.).

Thyreocoris nitiduloides (Wolff).

ME.— Deering, 21 Aug. '92 (A. P. M.); Orono, 15 Sept. '13 (H. M. P.); Paris, 10 July '15 (C. A. F.).

MASS.— Amherst; Forest Hills, 16 Sept. '14 (H. M. P.); Framingham, 2 May '15 (C. A. F.); Southboro, 24 May '14 (C. A. F.); Tyngsboro (F. B.); Wellesley, 4 Nov. '98 (A. P. M.); Winchendon, 5 July '92 (A. P. M.).

R. I.— Kingston, 14 Sept. '07 (J. B.).

CONN.— Litchfield, 7 Sept. '01 (L. B. W.); Milldale, 21 May '06 (B. H. W.); Salem, 10 July '14 (H. W. F.); S. Meriden, 21 May '15 (H. L. J.); Westville, 9 Aug. '06 (B. H. W.).



Thyreocoris lateralis (Fabricius).

MASS.— Woods Hole, 23 Aug. '14 (W. M. M.).

R. I.- June.

CONN.— Chapinville, 26 May '04 (W. E. B.); Winnipauk, 16 June '09 (C. W. J.).

Thyreocoris pulicarius (Germar).

ME.—Orono, 31 May '14 (H. M. P.); Paris, 10 July '15 (C. A. F.). VT.— Winooski, Aug. '01 (C. A. D.).

MASS.— Amherst, 31 July '97; Blue Hills, 22 May '15 (H. M. P.); Fall River, 22 July '05 (J. A. C.); Framingham, 2 May '15 (C. A. F.); Lynn, 18 Aug. '15 (H. M. P.); Springfield, 13 July '05 (C. W. J.); Tyngsboro (F. B.).

R. I.— Buttonwoods, 25 July '11 (C. W. J.); Kingston, 28 May '05 (J. B.); Providence, 16 Aug. (C. A. D.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Litchfield, 3 Aug. '01 (L. B. W.); New Haven, 17 May '06 (B. H. W.); Stafford, 24 Aug. '05 (W. E. B.).

CYDNINAE.

Tribe CYDNINI.

Pangaeus bilineatus (Say).

MASS.— (fide Uhler). CONN.— (fide Uhler).

Geotomus robustus (Uhler).

Mass.— (fide Uhler).

Amnestus spinifrons (Say).

MASS.— Amherst, 13 June '97; Forest Hills, 17 April '15 (F. G. C.); Framingham, 21 Oct. '07 (C. A. F.); Milton, 28 Mar. '28 (Harris Coll.); Tyngsboro, 21 Apr. '95 (F. B.); W. Springfield, 21 Oct. '15 (H. E. S.).

R. I.— Kingston, 26 Feb. '07, in greenhouse (J. B.).

CONN.— Orange, 21 May '11 (B. H. W.); Southington, 27 April '10 (W. E. B.); S. Meriden, 1 May '14 (H. L. J.); West Haven, 11 May '05 (B. H. W.); Yalesville, 26 May '08 (B. H. W.).

Amnestus pusillus Uhler.

ME.— Paris, 10 July '15 (C. A. F.). MASS.— Tyngsboro (F. B.).

Amnestus pallidus Zimmer.

MASS.— Cambridge; Saugus, 21 June '14 (F. W. D.); Wellesley, 27 May '91 (A. P. M.).

CONN.— New Haven, 15 May '05 (B. H. W.).

Tribe SEHIRINI.

Sehirus cinctus (Palisot de Beauvois).

ME.— Capens, 11 July '07 (C. W. J.); Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Orono, 7 April '12 (H. M. P.); Paris, 4 July '15 (C. A. F.); Sherman, 28 Aug. '03 (O. O. S.); The Forks (O. O. S.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Glen House, 3 July '14 (C. W. J.); Mt. Washington, base, 19 Sept. '09 (C. A. F.); summit (fide Slosson); Halfway House, 16 July '15 (C. W. J.); Randolph, Oct. '98 (F. B.).

VT.— Jay, 17 July '91 (A. P. M.); Weston, July '01.

MASS.— Amherst; Boston, 2 July '03 (H. M. P.); Milton, 22 April '29 (Harris Coll.); Peru, June '04 (J. B.).

R. I.— Providence, 1 July (C. A. D.).

CONN.— Brookfield, 27 July '10 (E. L. D.); New Haven, 9 July '11 (B. H. W.).

PENTATOMIDAE.

GRAPHOSOMATINAE.

Tribe PODOPINI.

Podops cinctipes (Say).

N. H.— Hampton, 13 Feb. '02 (S. A. S.).

MASS.— Beach Bluff, 21 June '15 (H. M. P.); Boston, 29 April '03 (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Framingham, 16 May '09 (C. A. F.); Tyngsboro, 2 Oct. '02 (F. B.); Woods Hole, 1 July '14 (W. S. A.).



CONN.— New Haven, 20 Aug. '09 (B. H. W.); S. Meriden, 7 June '14 (H. L. J.).

Podops parvula Van Duzee.

MASS.- Revere, 18 Sept. '97; Woods Hole.

PENTATOMINAE.

Tribe SCIOCOBINI.

Sciocoris microphthalmus Flor.

ME.— Southwest Harbor, 1 (?) Aug. '87 (H. T. F.). N. H.— Mt. Washington, summit (fide Slosson, Van Duzee).

Tribe HALVINI.

Brochymena arborea (Say).

N. H.— Mt. Washington, summit (fide Slosson).

MASS.— Amherst; Ashland, 4 June '11 (C. A. F.); Cohasset, 1 Sept. '05 (O. B.); Concord, 6 Aug. '14 (W. R.); Hopkinton, 21 Sept. '12 (W. R.); Hyde Park, 27 April '12 (W. R.); Sutton (Harris Coll.); Tyngsboro, Jan. '98 (F. B.).

CONN.— Lyme, 14 May '11 (A. B. C.); New Canaan, 22 Sept. '10 (W. E. B.); New Haven, 5 Sept. '11 (D. J. C.); North Branford, 8 June '12 (B. H. W.); Stonington, May '14 (I. W. D.).

Brochymena quadripustulata (Fabricius).

N. H.- Durham (C. M. W. & W. F. F.).

Mass.— Amherst; Forest Hills, 8 Oct. '16 (A. M. W.); Lynn, 17 May '14 (F. W. D.); Sherborn, Sept. (C. A. F.); Tyngsboro (F. B.).

CONN.— Farmington, 11 June '14 (W. M.); New Canaan, 9 Oct. '02 (B. H. W.); New Haven, 6 Sept. '02 (B. H. W.); Portland, 15 May '14 (B. H. W.); S. Glastonbury, 18 Oct. '04 (W. E. B.).

Brochymena carolinensis (Westwood).

MASS.— Framingham, 5 June '10 (C. A. F.); Tyngsboro, May '96 (F. B.); Waltham (C. B.).

CONN.— Rainbow, 7 May '14 (M. P. Z.).

Tribe PENTATOMINI.

Peribalus limbolarius Stål.

•Mass.— Amherst, 10 July '95; Beach Bluff, 26 July '14 (H. M. P.); Boston, 28 Aug. '76 (S. H.); Forest Hills, 21 May '16 (A. M. W.); Nantucket, Sept. '92 (S. H.); Norwood, 18 April '09 (W. R.).

CONN.— Hamden, 24 July '10 (B. H. W.); Manchester, 30 Aug. '12 (D. J. C.); New Haven, 24 June '02 (E. J. S. M.); Rainbow, 24 May '15 (M. P. Z.); S. Meriden, 22 April '15 (H. L. J.).

Trichopepla semivittata (Say).

MASS.— Amherst, 2 Aug. '97; Chilmark, 7 Aug. '11 (J. A. C.); Cohasset, 21 Sept. '14 (H. M. P.); Forest Hills, 24 May '16 (A. M. W.); Nantucket, 4 July '04 (J. A. C.); Sharon, 25 Aug. '13; West Chop, 15 July '93 (A. P. M.); Woods Hole, 11 Aug. '05 (J. A. C.).

R. I.— Kingston, 26 Aug. '07 (J. B.); Providence, 13 Sept. (C. A. D.).

CONN.— New Haven, 24 June '02 (E. J. S. M.), 12 Sept. '04 (B. H. W.); S. Meriden, 28 May '15 (H. L. J.).

Rhytidolomia saucia (Say).

MASS.— Cohasset, 21 Sept. '14 (H. M. P.); Greenbush, 11 May '13 (W. S. B.); Ipswich, 31 Aug. '13 (E. R. J.); Milton, 1 Sept. '27 (Harris Coll.); Provincetown; Woods Hole, July (T. H. M.).

CONN.— East Haven, 2 May '12 (B. H. W.); Greenwich, 21 Aug. '94 (A. P. M.); Lyme, 3 July '10 (A. B. C.); New Haven, 20 July '05 (B. H. W.).

Rhytidolomia senilis (Say).

MASS.— Cambridge, 20 Sept.; Cohasset, 5 Sept. '05 (0. B.); Dorchester, 23 Aug. '01 (A. P. M.); Faneuil, 12 Aug. '04 (A. P. M.); Forest Hills, 20 Mar. '15 (C. T. B.); Milton, 10 May '35 (Harris Coll.); Revere, 23 Sept. '96; Wollaston, 17 Nov. '95 (F. H. S.).

R. I.— Providence, July (C. A. D.).

CONN.— Branford, 20 Aug. '05 (H. W. W.); East Haven, 2 May '12 (B. H. W.); New Haven, 7 May '11 (A. B. C.).



Chlorochroa uhleri Stål (= C. persimilis Horváth).

ME.— Houlton, 24 Aug. '13; Orono, 26 Sept. '12 (H. M. P.); Pownal, 26 Aug. '00 (O. O. S.); Southwest Harbor (H. T. F.).

N. H.— Contoocook, 7 Aug. '06; Durham (C. M. W. & W. F. F.); Pelham, 5 Sept. '05; Three Mile Id., 3 June '09 (F. B.); Webster (W. F. F.).

VT.— Middlebury, July '12.

Mass.— Amherst, 9 Sept. '05; Framingham, 31 May '09 (C. A. F.); Lynn, 17 May '14 (F. W. D.); Nantucket, 17 Sept. '92 (S. H.); Provincetown, 8 Sept. '90 (A. P. M.); Tyngsboro, 13 Sept. '91 (F. B.); West Chop, 24 July '93 (A. P. M.).

CONN.— Manchester, 4 Sept. '13 (B. H. W.); S. Meriden, 1 June '15 (H. L. J.).

Mormidea lugens (Fabricius).

ME.— Dexter, 15 June '00 (0. 0. S.); Liberty, 13 Sept. '13 (J. A. C.); Orono, 25 July '05; Wales, 18 June (C. A. F.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Burlington, 22 June '06 (C. W. J.); St. Albans, 29 June '13 (C. W. J.),

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Hanover (C. M. W.); Durham, 20 June '07; Waterville (W. F. F.); Webster (W. F. F.); Wonalancet, 13 Sept. '12 (J. A. C.).

MASS.— Amherst, 24 May '04; Beach Bluff, 5 July '14; (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Framingham, 21 Jan. '06 (C. A. F.); Martha's Vineyard, 11 Sept. '15 (W. S. A.); Nantucket, 6 Aug. '13 (J. A. C.); Provincetown, 1 Sept. '14; Woods Hole, 1 July '05.

R. I.— Kingston, 16 June '07 (J. B.); Providence, 6 June (C. A. D.); Tiverton, 31 July '13 (N. S. E.).

CONN.— Danbury, 15 June '09 (C. W. J.); Darien, 27 May '13 (C. W. J.); New Haven, 20 June '02 (E. J. S. M.); Portland, 5 June '14 (B. H. W.); Scotland, 30 July '04 (B. H. W.); Stonington, 1 July '14 (I. W. D.); Torrington, 7 July '05 (W. E. B.).

Solubea pugnax (Fabricius).

CONN.— Stamford, 13 Aug. '91 (A. P. M.).

Euschistus euschistoides (Vollenhoven) (= E. fissilis Uhler).
ME.— Liberty, 13 Sept. '13 (J. A. C.); Monmouth, 15 July '14 (C. A. F.); Orono, 20 June '07.

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Crawfords, 28 Sept. '16 (H. M. P.); Durham, 9 Aug. '07; Hanover (C. M. W.); Jackson, 22 Sept. (C. W. J.); Webster (W. F. F.); Wonalancet, 13 Sept. '12 (J. A. C.).

MASS.— Amherst, 17 June '05; Cohasset, 21 Sept. '14 (H. M. P.); Forest Hills, 25 April '16, 30 Sept. '15 (H. M. P.); Martha's Vineyard, Gay Head, 11 Sept. '15 (W. S. A.); Nantucket, 5 Sept. '07 (H. T. F.); Provincetown, 28 June '91 (A. P. M.); Rutland, 20 Sept. '16 (C. W. J.); Woods Hole, 11 Aug. '05 (J. A. C.).

R. I.— Block Id., 28 Aug. '91 (A. P. M.).

CONN.— Colebrook, 20 July '05 (W. E. B.); Darien, 12 June '15 (C. W. J.); Farmington, 6 Sept. '14 (W. M.); Greenwich, 9 July '07 (J. A. C.); Litchfield, 31 May '13 (L. B. W.); New Haven, 12 July '05 (B. H. W.); Scotland, 10 Aug. '05 (B. H. W.); S. Meriden, 17 July '14 (H. L. J.); Stonington, 22 July '13 (L. B. R.).

Euschistus politus Uhler.

N. H.- Mt. Washington, summit (fide Slosson).

MASS.— Blue Hills, 14 Aug. '78 (S. H.); Framingham, 27 May '16 (C. A. F.); Lynn, 2 Sept. '15 (H. M. P.); Provincetown, 8 Sept. '07 (A. P. M.); Saugus, 7 Sept. '14 (H. M. P.); Tyngsboro (F. B.); Waltham, 30 May '97 (C. B.).

R. I.— Kingston, Sept. '06 (J. B.).

Euschistus tristigmus (Say).

ME.— Capens, 12 July '07 (C. W. J.); Durham, 21 July '97 (O. O. S.); Ft. Kent, 14 June '13 (C. W. J.); Machias, 26 July '09 (C. A. F.); Monmouth, 15 July '14 (C. A. F.); Orono, 17 Sept. '13 (H. M. P.); Traveller Mt., 27 July '10 (J. A. C.).

N. H.— Bretton Woods, 25 June '13 (C. W. J.); Claremont' (R. P. D.) (fide Torre Bueno); Crawfords, 28 Sept. '16 (H. M. P.); Hanover (C. M. W.); Pelham, 5 April '05; Webster (W. F. F.).

VT.— Dummerston, 14 July '08 (C. W. J.); S. Hero, Grand Isle,



9 July '04 (A. P. M.); Norwich, 8 July '08 (C. W. J.); Winooski, 22 Aug. '01 (C. A. D.).

Mass.— Amherst, 27 May '11; Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Chester, 27 May '12 (C. W. J.); Nantucket, 3 July '06 (J. A. C.); N. Adams, 18 June '06 (C. W. J.); Peru, 26 Aug. '04 (J. B.); Provincetown, 8 Sept. '07 (A. P. M.); Westfield, 22 June '13 (P. W. W.); Woods Hole, 5 Sept. '15 (W. S. A.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Kingston, 13 May '06 (J. B.).

CONN.— Colebrook (W. M. W.); Danbury, 15 June '09 (C. W. J.); E. Hartford, 13 Aug. '06 (B. H. W.); New Canaan, 21 Sept. '05 (W. E. B.); New Haven, 27 Aug. '14 (W. E. B.); Portland, 29 May '14 (B. H. W.); Torrington, 7 July '05 (W. E. B.).

Euschistus variolarius (Palisot de Beauvois).

N. H.— Durham (C. M. W. & W. F. F.); Mt. Washington, 1 July '74 (J. H. E.); Pelham, 29 Aug. '05.

MASS.— Amherst, 22 Oct. '94; Blue Hills, 22 May '15 (H. M. P.); Boston, Chestnut Hill, 24 Sept. '15 (H. M. P.); Cohasset, 13 Sept. (O. B.); Mt. Greylock, 3500 ft., 17 Aug. '94 (A. P. M.); Peru, 28 July '04 (J. B.); W. Springfield, 2 Oct. '15 (H. E. S.); Winchendon, 2 July '92 (A. P. M.); Woods Hole, 5 Sept. '15 (W. S. A.).

CONN.--- Greenwich, 4 Nov. '04 (W. E. B.); Hartford, 19 Oct. '04 (W. E. B.); Mystic, 25 July '15 (M. P. Z.); New Haven, 13 Aug. '03 (B. H. W.); Scotland, 25 July '04 (B. H. W.); Torrington (R. H.).

Euschistus ictoricus (Linné).

VT.-- Winooski, 14 Aug. '01 (C. A. D.).

MASS.— Beach Bluff, 15 Aug. '14 (H. M. P.); Boston, Chestnut Hill, 15 Sept. '14 (H. M. P.); Nantucket, 20 Sept. '15 (W. S. A.); Provincetown, 8 Sept. '07 (A. P. M.); Tyngsboro, 22 Oct. '93 (F. B.); Wellesley, 13 June '91 (A. P. M.); Woods Hole, 5 Sept. '15 (W. S. A.).

R. I.— Block Id., 28 Aug. '91 (A. P. M.); Buttonwoods, 18 June '12 (C. W. J.).

CONN.— Branford, 16 Sept. '04 (H. W. W.); Hamden, 24 July '10 (B. H. W.); New Haven, 27 July '04 (P. L. B.).

Coenus delius (Say).

ME.— Bar Harbor; Orono, 5 May '12 (H. M. P.); Norway (S. J. S.); Pownal, 26 Aug. '00 (O. O. S.); Westbrook, 25 Sept. '00 (O. O. S.).

N. H.— Durham (C. M. W. & W. F. F.); Hanover, 30 June '01; Jaffrey, 15 Sept. '96 (S. H.).

MASS.— Amherst, 24 May; Arlington, 26 April '77 (S. H.); Beach Bluff, 25 June '15 (H. M. P.); Blue Hills, 15 Sept. '14 (H. M. P.); Framingham, 27 June '14 (C. A. F.); Nantucket, 4 July '05 (J. A. C.); Siasconset, 12 Sept. '15 (W. S. A.); Southboro (O. S.); Woods Hole, July (T. H. M.); Springfield; Tyngsboro (F. B.).

R. I.— Kingston, 29 July '91 (A. P. M.).

CONN.— Farmington, 10 Aug. '14 (W. M.); New Haven, 18 March '91 (A. B. C.); Scotland, 25 July '04 (B. H. W.); Stamford, 16 Aug. '12 (W. E. B.); Thompson, 10 May '10 (B. H. W.); Yalesville, 6 Oct. '10 (D. J. C.).

Hymenarcys nervosa (Say).

MASS.— Milton, 15 May '26 (Harris Coll.); Orleans, 13 May '91 (F. B.); Taunton (G. W. P.).

R. I.— Kingston, 21 Sept. '05 (J. B.).

Neottiglossa undata (Say).

ME.— Bar Harbor, 31 Aug. '13; Bowlin Pond, 31 July '10 (J. A. C.); Liberty, 17 July '12 (J. A. C.); Mistake Id., 9 Aug. '07 (J. A. C.); Orono, 19 May '14; Pownal, 26 Aug. '00 (O. O. S.); The Forks, 16 June '00 (O. O. S.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.).

MASS.— Amherst, 23 June '95; Beach Bluff, 21 June '14 (H. M. P.); Framingham, 18 April '14 (C. A. F.); Peru, 29 Aug. '04 (J. B.); Provincetown, 29 June '91 (A. P. M.); Tyngsboro (F. B.).

CONN.— Middlebury, 2 June '16 (M. P. Z.); North Haven, 3 Aug. '05 (H. L. V.).



Cosmopepla bimaculata (Thomas) (= C. carnifex Fabricius, Auctt.).

ME.— Capens, 12 July '07 (C. W. J.); Eastport, 15 July '09 (C. W. J.); Ft. Fairfield; Monmouth, 15 July '14 (C. A. F.); Orono, 13 Aug. '07; Paris, 10 July '14 (C. A. F.); Pemaquid Pt., Aug. '06 (H. W. F.); Pownal, '94 (O. O. S.); Sherman, 28 Aug. '03 (O. O. S.).

N. H.— Bretton Woods, 27 June '13 (C. W. J.); Claremont (R. P. D.) (fide Torre Bueno); Crawfords, 28 Sept. '16 (H. M. P.); Glen House, 15 July '15 (C. W. J.); Mt. Washington, 3000 ft., 4 July '13 (C. W. J.).

VT.— Bennington, 18 June '15 (C. W. J.); Jay, 15 July '91 (A. P. M.); St. Albans, 29 June '13 (C. W. J.); Winooski, 21 Aug. '01 (C. A. D.).

MASS.— Amherst, 10 June '11; Beach Bluff, 27 July '14 (H. M. P.); Chester, 22 May '12 (C. W. J.); Dracut, 18 June '91 (F. B.); Forest Hills, 4 Oct. '15 (H. M. P.); Mt. Tom, 14 July '05 (C. W. J.); N. Adams, 20 June '06 (C. W. J.); Sherborn, 19 June '15 (C. A. F.).

CONN.— Canaan, 19 Aug. '94 (A. P. M.); Danbury, 15 June '09 (C. W. J.); Meriden, 3 June '10 (W. E. B.); Norfolk, 13 July '15 (M. P. Z.); Thompson, 11 July '05 (H. L. V.).

Menecles insertus (Say).

Mass.— Amherst, 1 June; Blue Hills, 22 May '15 (S. M. D.); Boston, City Point, 8 May '14 (W. M.); Cambridge, 21 Feb. '74; Concord, 26 April '13 (W. R.); Forest Hills, 8 Sept. '15 (A. M. W.); Medford, 30 Mar. '02 (C. A. F.); Tyngsboro, 29 July '01 (F. B.); Wellesley, 23 June '92 (A. P. M.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Warwick, 1 July.

CONN.— New London, 2 May '13 (D. J. C.); Stonington, 16 June '14 (I. W. D.); Wallingford, 20 July '10 (D. J. C.).

Thyanta custator (Fabricius).

MASS.— Sherborn, 15 June '92 (A. P. M.); Taunton (G. W. P.).

Thyanta calceata (Say) Barber.

MASS.— Cambridge (Harris Coll.). CONN.— New Canaan, 2 Oct. '07 (B. H. W.).

Murgantia histrionica (Hahn).

MASS.—Boston, 8 April '16, on vegetables brought from the South (C. W. J.).

CONN.— Meriden, 7 April '10 (H. L. J.). This record probably, and the preceding certainly, are due to accidental introduction of individual specimens, though the species is more or less firmly established on Long Island and in New Jersey.

Acrosternum pennsylvanicum (De Geer).

MASS.—Cambridge (Harris Coll.); Waltham, 30 May '97 (C. B.). CONN.— Stonington, 30 June '14 (I. W. D.).

Acrosternum hilare (Say).

VT.--- Winooski, 22 Aug. '01, nymph (C. A. D.).

MASS.— Amherst, 12 Sept. '02; Blue Hills, 22 May '15 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Framingham, 12 Sept. '09 (C. A. F.).

R. I.— Kingston, 12 Nov. '09 (J. B.); Providence, 16 Sept. (C. A. D.).

CONN.— Farmington, 3 Sept. '14 (W. M.); Lyme, 4 July '11 (H. B. K. & A. B. C.); New Canaan, 15 Sept. '05 (B. H. W.); New Haven, 2 June '05 (B. H. W.); Poquonock, 27 June '05 (H. L. V.); S. Meriden, 5 Sept. '14 (H. L. J.); Westville, 2 May '15 (W. E. B.).

Banasa dimidiata (Say).

ME.— Houlton (F. A. E.); Orono, 1 July '13; Sherman; S. Orrington, 28 Sept. '13 (H. M. P.); Southwest Harbor, 28 June '10 (H. T. F.).

N. H.— Durham, 20 June '07; Mt. Washington, base, 7 July '15 (C. W. J.); summit (fide Slosson); Pelham, 29 Aug. '05.

MASS.— Amherst, 26 June '95; Blue Hills, 30 May (C. W. J.); Boston, 19 Sept. '15 (H. M. P.); Chester, 5 Aug. '14 (C. W. J.);

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HEMIPTERA-HETEROPTERA.

Cohasset, Sept. '07 (O. B.); Forest Hills, 7 April '16 (A. M. W.); Mt. Wachusett, 30 May '14 (C. W. J.); Saugus, 21 June '14 (F. W. D.); Sherborn, 6 Sept. '14 (C. A. F.); Tyngsboro, 19 Nov. '93 (F. B.).

R. I.— Kingston, 23 June (J. B.).

CONN.— Farmington, 14 June '14 (W. M.); Hartford, 19 Oct. '06 (W. E. B.); Portland, 15 May '14 (B. H. W.); Stonington, 13 June '14 (I. W. D.); Union, 26 May '16 (M. P. Z.); Wallingford, 28 June '11 (J. K. L.).

Banasa calva (Say).

CONN.— Hartford, 1 Nov. '16 (W. E. B.); Yalesville, 19 Oct. '03 (H. L. V.).

Banasa sordida (Uhler).

MASS.— Cambridge; Milton, 30 Aug. '28 (Harris Coll.).

Dendrocoris humeralis (Uhler).

N. H.— Pelham (F. B.).

MASS.— Amherst; Andover; Beach Bluff, 18 July '15 (H. M. P.); Blue Hills, 17 June '03 (H. M. P.); Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Fall River, 13 May '08 (N. S. E.); Forest Hills, 16 April '16 (F. G. C.), 20 Oct. '14 (H. M. P.); Franklin, 10 July '15 (C. T. B.); Saugus, 5 Sept. '14 (H. M. P.); Tyngsboro, 22 Oct. '93 (F. B.).

CONN.— Killingly, 11 June '15 (W. E. B.); Meriden, 10 May '10 (A. B. C.); Portland, 22 May '14, 12 Aug. '13 (B. H. W.); Stonington, 6 July '14 (I. W. D.).

ACANTHOSOMATINAE.

Meadorus lateralis (Say).

ME.— Eustis; Kineo, 3 Sept. '07 (J. A. C.); Mercer, 3 Aug. '08; Mt. Katahdin, 650 ft., 5000 ft., 21 Aug. '13 (C. P. A.); Northeast Harbor, 23 Aug. '09 (C. S. M.).

N. H.-Glen House, 3 July '14 (C. W. J.); Mt. Lafayette,

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summit, 22 Sept. '95 (F. B.); Mt. Washington, Halfway House, 4 July '14 (C. W. J.); summit (C. A. F.).

VT.- Woodstock, Aug. '09 (A. P. M.).

MASS.— Chester, 7 Oct. '12 (C. W. J.); Mt. Wachusett, 30 May '14 (C. W. J.); Salem; Sherborn (A. P. M.); Tyngsboro (F. B.); Woods Hole, 31 Aug.

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Kingston, 18 Sept. '10 (J. B.).

CONN.— Canterbury, 14 Aug. '05 (B. H. W.); Litchfield, 1 Sept. '14 (L. B. W.); Lyme, 4 July '11 (H. B. K. & A. B. C.); Portland, 15 May '14 (B. H. W.).

Elasmostethus cruciatus (Say).

ME.— Ft. Kent, 14 Aug. '10 (C. W. J.); Mt. Katahdin, July '00; Northeast Harbor, 27 Sept. '07 (C. S. M.); Orono, 12 June '07; Paris, 10 July '14 (C. A. F.); Pemaquid, 1 Aug. '06 (H. W. F.).

N. H.— Kearsage Village, 2 July '91 (A. P. M.); Mt. Washington, base, 7 July '15 (C. W. J.).

VT.-St. Albans, 29 June '13 (C. W. J.).

MASS.— Amherst, 15 July '02.

CONN.— Eastford, 15 June '16 (W. E. B.); Litchfield, 5 July '08 (L. B. W.).

ASOPINAE.

Stiretrus anchorago fimbriatus (Say).

N. H.— Durham (C. M. W. & W. F. F.); Hampton, 11 Aug. '02 (S. A. S.); Pelham (F. B.); Rochester, 13 June '16 (W. S.).

MASS.— Amherst, 19 Sept. '88; Blue Hills (W. M. M.); Framingham, 12 June '07 (C. A. F.); Malden, 24 Aug. '79 (S. H.); Milton, 10 Aug. '25 (*Harris Coll.*); Quincy, 12 July '99; Tyngsboro (F. B.).

R. I.— Kingston, 24 June '14 (J. B.).

CONN.— Lyme, 27 Aug. '11 (A. B. C.).

Perillus circumcinctus Stål.

ME.- Orono, 17 May '14.

N. H.- Claremont (R. P. D.) (fide Torre Bueno); Crawfords,

28 Sept. '16 (H. M. P.); Hampton, 2 Aug. '02 (S. A. S.); Newington, 24 July '12 (W. E. B.).

MASS.— Amherst, 23 April '08; Beach Bluff, 3 Aug. '16 (H. M. P.); Boston, 9 July '03 (H. M. P.); Forest Hills (A. M. W.); Framingham, 10 July '06 (C. A. F.); Lynn, 17 May '14 (F. W. D.).

CONN.— Colebrook, 10 Aug. '09 (W. E. W.); S. Meriden, 3 May '14 (H. L. J.).

Perillus exaptus (Say).

ME.- Orono, 19 May '14, 30 Aug. '13.

N. H.— Mt. Washington, base, 6 July '14 (C. W. J.); summit (fide Slosson).

MASS.— Amherst; Beach Bluff, 10 July '15 (H. M. P.); Blue Hills, 22 May '15 (W. M. M.); Milton, 15 Aug. '28 (Harris Coll.); Saugus, 21 June '14 (F. W. D.); Tyngsboro (F. B.).

CONN.— Gales Ferry, 26 April '13 (D. J. C.); New Haven, 26 April '08 (B. H. W.); Portland, 14 July '14 (M. P. Z.); S. Meriden, 10 July '14 (H. L. J.); Thompson, 13 July '94 (A. P. M.).

Rhacognathus americanus Stål.

MASS.— Wellesley, 27 June '94 (A. P. M.).

Mineus strigipes (Herrich-Schaeffer).

MASS.— Boston, 2 July '03 (H. M. P.); Framingham, 4 May '19 (C. A. F.); Lynn, 17 May '14 (F. W. D.); Nantucket, 18 Sept. '92 (S. H.); Southbridge, 8 June '13 (C. W. J.); Taunton (G. W. P.); Wellesley, 2 Aug. '04 (A. P. M.).

R. I.— Cranston; Providence, July (C. A. D.); Westerly.

Apateticus cynicus (Say).

ME.— Orono, 25 Aug.; Pittsfield.

N. H.— Durham (C. M. W. & W. F. F.); Mt. Lafayette, summit, 22 Sept. '95 (F. B.).

VT.— Middlebury, July '12.

MASS.— Auburndale, 19 July (C. W. J.); Beach Bluff, 18 July '15 (H. M. P.); Cambridge, 9 Sept. '37 (Harris Coll.); Chester, 7 Aug. '14 (C. W. J.); Tyngsboro, 15 Sept. (F. B.). CONN.— Brookfield, 27 June '10 (E. L. D.); Durham, 1 Sept. '09 (B. H. W.); New Canaan, 29 Sept. '09 (A. I. B.); Portland, 15 Aug. '13 (B. H. W.); S. Meriden, 13 July '15 (H. L. J.).

Apateticus bracteatus (Fitch).

ME.— Houlton, 24 Aug. '13; Long Id., Penobscot Bay, 6 Aug. '11 (F. A. E.).

N. H.- Crawfords, 28 Sept. '16 (H. M. P.).

VT.— Weston, July '01.

MASS.— Amherst, 13 Aug. '94; Auburndale, 1 Oct. (C. W. J.); Beach Bluff, 27 Aug. '14 (H. M. P.); Dover, 10 Sept. '08 (A. P. M.); Ipswich, 31 Aug. '13 (E. R. J.); Mt. Greylock, 3500 ft., 17 Aug. '94 (A. P. M.); Nantucket, 10 Sept. '92 (S. H.); Salem; Sherborn, 5 Sept. '15 (C. A. F.).

CONN.— Litchfield, 10 Aug. '01 (L. B. W.); New Haven, 24 Aug. '14 (M. P. Z.); Prospect, 15 Aug. '06 (W. E. B.); S. Meriden, 2 Aug. '13 (H. L. J.).

Podisus maculiventris (Say).

ME.— Liberty, 16 Sept. '13 (J. A. C.); Norway; Orono, 18 June '08; Pownal (O. O. S.); Wales, 18 June (C. A. F.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Durham, 14 Aug. '06; Mt. Washington, base, 7 July '15 (C. W. J.); summit (fide Slosson).

VT.— Middlebury, July '12; Winooski, 25 Aug. '01 (C. A. D.); Woodstock, 20 Aug. '11 (A. P. M.).

MASS.— Amherst, 4 Aug. '05; Boston, 10 May '12 (W. R.); 3 Oct. '15 (H. M. P.); Cohasset, 13 Sept. (O. B.); Forest Hills, 7 May '16 (A. M. W.); Mt. Greylock, 27 Aug. '07 (C. W. J.); Nantucket, 18 Aug. '11 (H. T. F.); Provincetown, 6 Sept. '90 (A. P. M.); Rockport, 28 Aug. '13 (C. W. J.); Woods Hole, 25 July '05 (J. A. C.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Kingston, 18 May '06 (J. B.); Providence, 10 June; Tiverton, 31 July '13 (N. S. E.); Warwick, 26 May; Washington, 19 June '12 (C. W. J.).

CONN.— Granby, 3 Oct. '05; Moosup, 29 July '14 (C. S. M.);

New Haven, 6 June '02 (E. J. S. M.); Southington, 5 July '05 (B. H. W.); S. Meriden, 6 July '14 (H. L. J.); Windsor, 26 July '05 (W. E. B.); Winnipauk, 4 Aug. '08 (C. W. J.).

Podisus fretus Olsen.

Bull. Brooklyn Ent. Soc., 1916, vol. 11, p. 82.

MASS.— Amherst, 16 May '10 (G. P. E.); Orleans, 13 May '91 (F. B.).

Podisus serieventris Uhler.

ME.— Casco Bay, 12 Sept. '12 (G. P. E.); Orono, 28 June '07. N. H.— Franconia (*fide Slosson*); Mt. Washington, base, 7 July '15 (C. W. J.); summit, 3 July (S. A. N.).

MASS.— Beach Bluff, 31 Aug. '14 (H. M. P.); Rutland, 20 Sept. '16 (C. W. J.).

R. I.— Kingston, 14 Sept. '07 (J. B.).

CONN.- Woodstock, 13 May '15 (W. E. B.).

Podisus modestus (Dallas).

ME.— Capens, 12 July '07 (C. W. J.); Eastport, 14 July '09 (C. W. J.); Machias, 26 July '09 (C. W. J.); Monmouth, 23 June '03 (C. A. F.); Orono (H. T. F.).

N. H.— Center Harbor, 10 Sept. '14; Crawfords, 28 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Glen House, 23 July '15 (C. W. J.); Hanover, 8 July '08 (C. W. J.); Mt. Washington, Alpine Garden, 4 July '14 (C. W. J.); base, 7 July '15 (C. W. J.); Pelham, 5 Sept. '05 (J. C. B.).

Vr.— Amsden, 10 July '08 (C. W. J.); Bennington, 19 July '15 (C. W. J.); Montgomery, 18 July '91 (A. P. M.); Pompanoosuc (C. M. W.); St. Albans, 21 June '13 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Amherst, 29 Aug. '91; Auburndale, 4 April '04 (C. W. J.); Bashbish Falls, 28 June (C. W. J.); Beach Bluff, 28 Aug. '15 (H. M. P.); Blue Hills, 15 Sept. '14 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Chester, 27 May '12 (C. W. J.); N. Adams, 18 June '06 (C. W. J.); Tyngsboro (F. B.); Waquoit,

21 Sept. '10 (C. W. J.); Westford, 22 June '13 (P. W. W.); Winchendon, 5 July '92 (A. P. M.); Woods Hole, 24 July (T. H. M.). R. I.— Kingston, 13 May '06, 15 Aug. '05 (J. B.).

CONN.— S. Meriden, 29 May '15 (H. L. J.).

Podisus placidus Uhler.

ME.— Capens, 12 July '07 (C. W. J.).

N. H.— Durham (C. M. W. & W. F. F.); Mt. Washington, base, 7 July '16 (C. W. J.); Webster (W. F. F.).

MASS.— Amherst; Blue Hills, 22 May '15 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Forest Hills, 9 May '15 (W. M. M.); Malden, 16 May '96 (A. H. K.); Orleans, 13 May '91 (F. B.); Southbridge, 16 July '14 (C. W. J.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Colebrook (B. H. W.); Killingly, 11 June '15 (W. E. B.); Litchfield, 23 Aug. '11 (L. B. W.); New Haven, 22 June '11 (A. B. C.); N. Stonington, 20 May '15 (I. W. D.); Wallingford, 29 July '12 (D. J. C.).

Zicrona caerulea (Linné).

ME.— Newbury Neck, Surrey, 22 June '03 (F. A. E.).

N. H.— Mt. Washington, summit (A. T. S.) (fide Van Duzee).

COREIDAE.

MEROCORINAE.

Corynocoris distinctus (Dallas).

ME.— Orono, 10 May '14 (H. M. P.).

N. H.— Durham (C. M. W. & W. F. F.); Holderness, Lake Asquam, 28 Aug. '99 (A. P. M.); Milford (C. P. W.); Webster (W. F. F.).

VT.— Middlebury, July '12.

MASS.— Amherst, 21 July '05; Barnstable, 5 July '04 (C. W. J.); Chilmark, 17 Aug. '11 (J. A. C.); Fall River, 22 July '05 (N. S. E.); Framingham, 10 July '06 (C. A. F.); Truro; Tyngsboro, 2 Oct. '02 (F. B.); Woods Hole, 10 Sept. '15 (W. S. A.).



R. I.— Buttonwoods, 25 July '11 (C. W. J.); Kingston, Oct. '04 (J. B.); Plum Beach, Sept. '08.

CONN.— Litchfield, 21 Sept. '01 (L. B. W.); New Haven, 26 June '02 (E. J. S. M.); Scotland, 27 July '04 (B. H. W.); S. Meriden, 6 July '15 (H. L. J.).

COREINAE.

Tribe ACANTHOCEPHALINI.

Acanthocephala terminalis (Dallas).

MASS.— Amherst, 14 July '00; Boston, 12 June '02, 8 Oct. '15 (H. M. P.); Dedham, 4 Sept. '08 (C. W. J.); Westport Factory, 31 July '13 (C. W. J.).

R. I.— Kingston, 5 Sept. '12 (J. B.).

CONN.— Brookfield, 30 Aug. '14 (W. M.); Greenwich, 5 Oct. '09 (A. I. B.); Manchester, 30 Aug. '12 (D. J. C.); New Haven, 4 June '11 (W. E. B.); S. Meriden, 6 June '14 (H. L. J.); Stamford, 13 Aug. '91 (A. P. M.).

Tribe ANISOSCELINI.

Leptoglossus fulvicornis (Westwood). (= *L. magnoliae* Heidemann).

Mass.— Amherst, Hatch Exp. Sta., 7 Oct. '01 (H. T. F.).

Tribe MICTINI.

Euthochtha galeator (Fabricius).

N. H.— Durham (C. M. W. & W. F. F.).

MASS.— Amherst, 18 July '00; Concord, 3 Aug. '13 (W. R.); Dartmouth, 16 Sept. '13 (N. S. E.); Ellis, 24 May '12 (C. W. J.); Saugus, 5 Sept. '14 (H. M. P.); Southwick, 3 Aug. '05; Tyngsboro, 15 June '09 (F. B.); Westport Factory, 31 July '13 (C. W. J.). R. I.— Kingston, 2 Oct. '10 (J. B.).

CONN.— Brookfield, 30 Aug. '14 (W. M.); Farmington, 6 Sept. '14 (W. M.); Lyme, 4 July '11 (H. B. K. & A. B. C.); Manchester, 12 Sept. '10 (W. E. B.); New Haven, 3 July '02 (W. E. B.); S. Meriden, 27 April '15 (H. L. J.); Stamford, 22 Aug. '94 (A. P. M.).

Tribe COREINI.

Anasa tristis (De Geer).

Common injurious species such as this are often neglected by collectors, and hence it is sometimes impossible to get an adequate number of definite records. No doubt the squash-bug is found throughout New England, wherever its food-plants are grown.

ME.— Orono, 11 May '14 (H. M. P.).

N. H.— Durham (W. F. F.).

VT.--- Williamsville, 24 June '15 (W. T. C.).

MASS.— Blue Hills, 15 Sept. '14 (H. M. P.); Edgartown, 22 Aug. '12 (C. W. J.); Forest Hills, 12 April '15, 22 Sept. '14 (H. M. P.); Truro; Woods Hole, 12 Sept. '15 (W. S. A.).

R. I.— Kingston (J. B.).

CONN.— Berlin, 16 Sept. '15 (W. E. B.); Hamden, 24 June '13 (E. M. S.); New Haven, 26 March, 16 Oct.; Wallingford, 16 June (J. K. L.).

Anasa repetita Heidemann.

MASS.— Allston, 11 Sept. '11 (C. W. J.); Amherst; Beach Bluff, 23 June '13 (H. M. P.); Boston, Jamaica Plain, 13 June '13 (N. F. P.); Chestnut Hill, 24 Sept. '14 (H. M. P.).

CONN.— Wallingford, '11 (D. J. C.).

Anasa armigera (Say).

MASS.— Amherst, June '14 (G. C. C.); Boston, Chestnut Hill, 24 Sept. '14, 13 Oct. '15 (H. M. P.).

ALYDIDAE.

Tribe MICRELYTRINI.

Protenor belfragei Haglund.

ME.- Norway; Orono, 7 Aug. '13; Pushaw Lake.

N. H.— Alstead, 9 Aug. '04 (A. P. M.); Durham (C. M. W. & W. F. F.); Squam Lake, 3 Aug. '07 (G. M. A.).

MASS. — Amherst, 3 Aug. '88; Beach Bluff, 28 July '14 (H. M.



P.); Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Salem, 7 Sept. '66 (J. H. E.); Springfield, Sept. '62; Woods Hole, 5 Sept. '15 (W. S. A.).

CONN.— New Haven, 20 July '08 (B. H. W.); Scotland, 10 Aug. '05 (B. H. W.); Westville, 9 Aug. '06 (B. H. W.).

Tribe ALYDINI.

Megalotomus quinquespinosus (Say).

ME.— Orono, 3 Aug. '06; S. Orrington, 28 Sept. '13 (H. M. P.). N. H.— Durham (C. M. W. & W. F. F.); Webster (W. F. F.). VT.— Winooski, 26 Aug. '01 (J. B.).

MASS.— Amherst, 31 Aug. '05; Melrose Highlands, 20 Aug. '15 (F. X. W.); Rutland, 20 Sept. '16 (C. W. J.); Sherborn, 15 July '92 (A. P. M.); Southbridge, 8 July '13 (C. W. J.); Springfield, 27 Aug. '12; Tyngsboro, 19 Sept. '91 (F. B.); Woods Hole, July (T. H. M.).

CONN.— Branford, 28 July '05 (H. L. V.); Canaan, 18 Aug. '94 (A. P. M.); Darien, 4 Aug. '08 (C. W. J.); Granby, 3 Oct. '05 (B. H. W.); New Haven, 9 July '14 (M. P. Z.); Portland, 15 Aug. '13 (B. H. W.); S. Meriden, 16 Aug. '13 (H. L. J.); Woodbury, 19 July '13 (W. E. B.).

Alydus eurinus (Say).

ME.— Orono, 19 June.

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Concord; Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Lee (C. M. W. & W. F. F.); Webster (W. F. F.).

VT.— Wells River, 11 July '91 (A. P. M.); Winooski, 26 Aug. '01 (C. A. D.).

MASS.— Amherst, 12 July '05; Fall River, 9 July '05 (N. S. E.); Forest Hills, 17 Sept. '14 (H. M. P.); Manomet, 26 July (C. W. J.); Sherborn, 15 July '92 (A. P. M.); Tyngsboro, 19 Sept. '91 (F. B.); Winchendon, 5 July '92 (A. P. M.); Woods Hole, 5 Sept. '15 (W. S. A.).

R. I.— Kingston, 26 Sept. '04 (J. B.); Providence, 6 July (C. A. D.).

CONN.— Farmington, 6 Sept. '14 (W. M.); New Haven, 5 June '10 (A. B. C.); S. Meriden, 4 June '15 (H. L. J.); Thompson, 11 July '05 (W. E. B.); Yalesville, 19 Oct. '03 (H. L. V.).

Alydus conspersus Montandon.

ME.- Ashland (O. O. S.); Orono, 3 Aug. '06.

N. H.— Alstead, 8 Aug. '04 (A. P. M.); Durham (C. M. W. & W. F. F.); Hanover, 3 July '08 (C. W. J.); Holderness, 17 Aug. '99 (A. P. M.).

MASS.— Amherst, 10 Aug. '05; Beach Bluff, 24 June '14 (H. M. P.); Boston, 2 July '03 (H. M. P.); Marblehead, 17 July '14 (H. M. P.); Tyngsboro, 11 Sept. '91 (F. B.); Winchendon, 2 July '92 (A. P. M.).

Alydus pilosulus Herrich-Schaeffer.

ME.— Katahdin Iron Works, 8 Sept. '99 (F. A. E.); Orono, 8 Sept.

MASS.— Amherst; Beach Bluff, 24 June '14 (H. M. P.); Blue Hills, 15 Sept. '14 (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Forest Hills, 1 Oct. '16 (A. M. W.); Martha's Vineyard, 17 July '03 (J. A. C.); Nantucket, 20 Sept. '15 (W. S. A.); Tyngsboro, 11 Sept. '91 (F. B.); Woods Hole, 19 Sept. '15 (W. S. A.).

R. I.— Kingston, June '05 (J. B.); Providence, 6 July (C. A. D.).

CONN.— Farmington, 6 Sept. '14 (W. M.); New Haven, 8 June '11 (A. B. C.); Poquonock, 27 June '05 (H. L. V.); Scotland, 25 July '04 (B. H. W.); Stamford, 13 Aug. '91 (A. P. M.).

CORIZIDAE.

Tribe HARMOSTINI.

Harmostes reflexulus (Say).

ME.— Princeton, 12 July (C. W. J.).

MASS.— Amherst, 2 Aug. '05; Chatham, 1 July '09 (C. W. J.); Forest Hills, 1 June '15 (H. M. P.); Hyde Park, 21 Oct. '15 (H.



M. P.); Nantucket, 19 Aug. '09 (J. A. C.); Tisbury, 25 July '11 (J. A. C.); Tuckernuck Id., 5 Aug. '15 (J. A. C.).

R. I.— Block Id., 28 Aug. '91 (A. P. M.); Buttonwoods, 22 June '12 (C. W. J.); Kingston, 2 Aug. '05 (J. B.); Providence (C. A. D.).

CONN.— Brookfield, 27 July '10 (E. L. D.).

Tribe CORIZINI.

Corizus hyalinus (Fabricius).

Mass.— Woods Hole, 2 July '05 (T. H. M.).

Corizus crassicornis (Linné).

ME.— Capens, 11 July '07 (C. W. J.); Ft. Kent, 19 July '10 (C. W. J.); Ironbound Id., 10 Aug. '08 (J. A. C.); Lower Black River Rapids, 13 Sept. '07 (J. A. C.); Monmouth, 26 June '06 (C. A. F.); Orono, 22 April '14 (H. M. P.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Bretton Woods, 27 June '13 (C. W. J.); Crawfords, 28 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Glen House, 7 July '14 (C. W. J.); Hanover (C. M. W.); Jackson, 3 July '91 (A. P. M.); Mt. Washington, 1 July '74 (J. H. E.).

VT.— Ascutney Mt., 14 Aug. '98 (A. P. M.).

Mass.— Chester, 27 May '12 (C. W. J.).

Corizus lateralis (Say).

ME.— Orono.

N. H.— Durham (C. M. W. & W. F. F.).

VT.— St. Albans, 21 June '13 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

Mass.— Amherst, 6 June '01; Beach Bluff, 21 June '14 (H. M. P.); Manomet, 5 Aug. '12 (W. S. B.); Rockport, 15 July '04 (C. W. J.); Sankaty Head, 20 Sept. '15 (W. S. A.).

R. I.— Buttonwoods, 25 July '11 (C. W. J.); Providence, 6 Oct. (C. A. D.).

CONN.— New Haven, 5 Nov. '10 (D. J. C.); Scotland, 25 July '04 (B. H. W.); S. Meriden, 24 May '14 (H. L. J.). Corisus bohemani Signoret.

ME.— Paris, 10 July '14 (C. A. F.).

N. H.— Durham (C. M. W. & W. F. F.); Hanover (C. M. W.). MASS.— Amherst; Tyngsboro, '95 (F. B.).

CONN.— Meriden, 28 July '09 (A. I. B.); New Haven, 1 June '11 (B. H. W.); Scotland, 8 Aug. '05 (B. H. W.).

Corisus hirtus Torre Bueno.

MASS.— Nantucket, 19 Aug. '09 (J. A. C.).

ARADIDAE.

Aradus acqualis Say.

 $V_{T.}$ — (*P. S. S.*).

Aradus quadrilineatus Say.

ME.— Holden, 17 June '02 (F. A. E.); Monmouth (O. O. S.); Mt. Katahdin, Aug. '02 (H. G. B.); Paris, 10 July '14 (C. A. F.).

N. H.— Claremont; Concord; Durham; Glen House, 22 Sept. '07 (O. B.); Mt. Washington, summit (fide Slosson); Webster (W. F. F.).

MASS.— Amherst; Boston, 30 April '03 (H. M. P.); Natick, 1 Nov. '00; Saugus, 21 June '14 (F. W. D.); Swansea, 10 Aug. '08. R. I.— Providence, 7 May (C. A. D.); Warwick, 26 May.

CONN.— Hartford, 11 May '14 (W. M.); Lyme, 30 April '13 (D. J. C.); Saybrook, 25 April '13 (D. J. C.); S. Meriden, 10 May '14 (H. L. J.).

Aradus robustus Uhler.

ME.— Manchester (0. 0. S.); Monmouth, 27 June '01 (C. A. F.); Orono, 24 April '14 (H. M. P.).

MASS.— Amherst, 26 May '92; Cambridge, 12 Sept.; Forest Hills, 26 May '16 (A. M. W.); Milton, 20 May '29 (Harris Coll.).

R. I.— Kingston, May (J. B.).

CONN.— Meriden, 10 May '10 (A. B. C.); New Haven, 26 Feb. '11 (A. B. C.), 21 May '11 (W. E. B.); Rainbow, 7 May '14 (M. P. Z.); Stonington, May '14 (M. P. Z.).



Aradus hubbardi Heidemann.

ME.— Mt. Katahdin, 19 Aug. '02 (H. G. B.); Orono, 4 June '13 (H. M. P.).

Aradus similis Say.

ME.— Orono, 29 April, 4 June '13 (H. M. P.).

MASS.— Forest Hills, 8 Nov. '16 (W. M. B.); Springfield \cdot (J. A. A.); Tyngsboro, 6 May '00 (F. B.).

CONN.— Meriden, 8 May '11 (A. B. C.); Stonington, May '14 (I. W. D.).

Aradus acutus Say.

Me. - Norway (0. 0. S.).

N. H.- Aug. '50 (Harris Coll.); Temple, 26 May '00 (F. B.).

Aradus borealis Heidemann.

N. H.— Mt. Washington, Lake of the Clouds, 2 July '96 (F. B.).

Aradus tuberculifer Kirby, Bergroth.

ME.— Orono (H. T. F.).

Aradus uniformis Heidemann.

MASS.— Chicopee, 25 June '03.

Aradus lugubris Fallén.

ME.— Mt. Katahdin, 3000 ft., Aug. '02 (H. G. B.); Norway; Orono, 10 May '14 (H. M. P.).

N. H.— Milford (C. P. W.); Mt. Washington, summit (fide Slosson).

MASS.— Amherst; Boston, 11 July '78; Beach Bluff, June 25. R. I.— Kingston, 17 June '06 (J. B.).

Aradus abbas Bergroth.

ME.— Ashland Junction, 16 Aug. '10 (C. W. J.); Ft. Kent, 17 Aug. '10 (C. W. J.); Machias, 17 Aug. (C. W. J.); Mt. Katahdin, Aug. '02 (H. G. B.).

VT.— St. Johnsbury, 27 June '06 (C. W. J.).

MASS.— Boston, 1 Sept.; Concord, 26 April '13 (W. R.).

CONN.— New Haven, 24 April '15 (Q. S. L.); 31 July '11 (A. B. C.); Wallingford, 5 June '12 (D. J. C.).

Aradus niger Stål.

ME.— Orono, 29 April '14, 27 May '13 (H. M. P.); Mt. Katahdin, Aug. '02 (H. G. B.).

N. H.— Crawfords, 26 Sept. '16 (H. M. P.). Mass.— (S. H.).

MEZIRIDAE.

Tribe MEZIRINI.

Neuroctenus simplex (Uhler).

ME.— Orono (H. T. F.). MASS.— (H. T. F.).

Aneurus inconstans Uhler.

ME.— Orono, 24 Sept.

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Crawfords, 2 Oct. '16 (H. M. P.).

VT.— Montpelier, 25 June '06 (C. W. J.).

MASS.— Amherst; Beach Bluff, 18 July '14 (H. M. P.); Boston, 3 Feb. '04 (H. M. P.); Cambridge, 19 Nov. '69 (E. B.); Milton,

29 May '22 (Harris Coll.).

R. I.— Providence, April, 11 June '06 (C. A. D.). CONN.— Lyme, 14 May '11 (A. B. C.).

Aneurus simplex Uhler.

VT.- (P. S. S.).

Aneurus fiskei Heidemann.

CONN.— Brookfield, 27 July '10 (E. L. D.).

NEIDIDAE.

NEIDINAE.

Neides muticus (Say).

ME.— Monmouth, 16 June (C. A. F.); Orono, 10 June '13 (C. P. A.); Paris, 9 July '14 (C. A. F.).

MASS.— Amherst; Boston, Chestnut Hill, 24 Sept. '15 (H. M. P.);

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HEMIPTERA-HETEROPTERA.

Danvers, 3 Aug. '15 (H. M. P.); Forest Hills, 19 Sept. '15 (H. M. P.); Framingham, 18 April '09 (C. A. F.); Freetown, 17 July '08 (C. W. J.); Williamsburg, 7 Aug. '11 (C. W. J.).

CONN.— Meriden, 29 April '07 (B. H. W.); New Haven, 30 July '09 (B. H. W.); Woodbridge, 12 May '07 (W. E. B.).

METACANTHINAE.

Jalysus spinosus (Say).

ME.— Bangor, 6 June (F. A. E.).

MASS.— Amherst (G. C. C.); Beach Bluff, 4 July '15 (H. M. P.); Blue Hills, 15 Sept. '14 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Cohasset, 13 Sept. '07 (O. B.); Dedham, 20 May (C. W. J.); Saugus, 5 Sept. '14 (H. M. P.); Tyngsboro, June '01 (F. B.); Woods Hole, July (T. H. M.).

R. I.— Cumberland, 3 July '10 (J. B.); Kingston, May '06 (J. B.).

CONN.— New Haven, 26 Feb. '11 (A. B. C.); Rainbow, 29 May . '15 (B. H. W.).

LYGAEIDAE.

Lygaeinae.

Tribe LYGAEINI.

Oncopeltus fasciatus (Dallas).

MASS.— Beach Bluff, 27 July '13 (H. M. P.); Malden, 1 Sept. '70 (S. H.).

CONN.— S. Meriden, 11 Sept. '13 (H. L. J.); Stamford, 13 Aug. '91 (A. P. M.); Stonington, July '09 (G. H. H.).

Lygaeus turcicus Fabricius.

Mass.— Lynn, 2 Sept. '14 (H. M. P.).

Lygaeus kalmi Stål.

ME.— Green Lake, near Holden, 27 July '09 (F. A. E.). N. H.— Claremont (R. P. D.) (fide Torre Bueno); Durham (C. M. W. & W. F. F.); Glen House, 15 July '15 (C. W. J.); Hanover, 10 Aug. '01; Jackson, 22 Sept. '07 (O. B.); Mt. Washington, summit (*fide Slosson*); N. Conway, 30 July '91 (A. P. M.); Pelham (F. B.); Webster (W. F. F.).

VT.— Norwich, 4 July '08 (C. W. J.); Woodstock, 13 Aug. '10 (A. P. M.).

MASS.— Amherst, 17 Aug. '05; Beach Bluff, 4 July '12 (H. M. P.); Lynn, 17 May '14 (F. W. D.); Forest Hills, 21 Mar. '13; Medford, 3 Oct. '02 (C. A. F.); Truro; Tyngsboro, 29 June '90 (F. B.); Woods Hole, 9 Sept. '15 (W. S. A.).

R. I.— Buttonwoods, 20 June '12 (C. W. J.).

CONN.— Farmington, 21 May '14 (W. M.); Hartford, 12 Sept. '07 (W. E. B.); New Canaan, 26 Sept. '06 (W. E. B.); New Haven, 15 July '99 (W. E. B.); S. Meriden, 16 April '15 (H. L. J.); Stamford, 13 Aug. '91 (A. P. M.); Stonington, July '09 (G. H. H.).

Lygaeus albulus Distant.

MASS.— Saugus, 22 Aug. '14 (H. M. P.); Nantucket, 9 Sept. '09 (H. T. F.); Woods Hole, July '98 (fide Barber).

R. I.— Cumberland, 3 July '10 (J. B.).

Tribe ORSILLINI.

Ortholomus longiceps Stål.

ME.— Liberty, 16 Sept. '13 (J. A. C.); Orono, 10 Sept. '06; Portland (P. R. U.) (fide Uhler).

N. H.— Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Holderness, 1 Aug. '99 (A. P. M.).

MASS.— Beach Bluff, 10 July '15 (H. M. P.); Provincetown, 7 Sept. '07 (A. P. M.); Southwick, 3 Aug. '05.

CONN.— Brookfield, 27 July '10 (E. L. D.).

Nysius californicus Stål.

CONN.— New Haven, 20 July '04 (B. H. W.).

Nysius thymi (Wolff).

ME.— Machias, 19 July '09 (C. W. J.); Paris, 4 July '15 (C. A. F.).



N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Dublin, 1 Aug.; Hanover, 3 July '15 (C. W. J.); N. Conway, 30 July '91 (A. P. M.); Wonalancet, 13 Sept. '12 (J. A. C.).

VT.--- Wells River, 11 July '91 (A. P. M.).

MASS.— Warwick.

Nysius ericae (Schilling).

ME.— Naples, 1 July '13 (C. W. J.); Orono, 28 Sept.; Westbrook (O. O. S.).

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Crawfords,
28 Sept. '16 (H. M. P.); Dublin, 1 Aug. (C. W. J.); Durham
(C. M. W. & W. F. F.); Hanover, 8 July '08 (C. W. J.); Littleton
(C. M. W.); N. Conway, 30 July '91 (A. P. M.); Webster (W. F. F.).
VT.— Mt. Equinox, 5 June '10 (C. W. J.); Wells River, 11 July

'91 (A. P. M.).

MASS.— Amherst, 19 June '95; Beach Bluff, 27 Aug. '14 (H. M. P.); Blue Hills, 22 May '15 (H. M. P.); Cohasset, 8 Sept. (O. B.); Squantum, 3 Oct. '14 (H. M. P.); Tisbury, 25 July '11 (J. A. C.).

CONN.— Brookfield, 27 July '10 (E. L. D.); New Haven, 4 Aug. '09 (B. H. W.); Poquonock, 27 June '05 (H. L. V.); Rainbow, 14 May '15 (M. P. Z.).

Belonochilus numenius (Say).

MASS.— Milton, 1 Sept. '29 (Harris Coll.); Woods Hole (T. H. M.).

CYMINAE.

Tribe Ischnorrhynchini.

Ischnorrhynchus geminatus (Say).

ME.— Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Orono, 22 May '14 (H. M. P.); Township 4, Range 7, Penobscot Co., 1 Aug. '10 (J. A. C.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Jackson, 22 Sept. '07 (O. B.);

Mt. Washington, 3000 ft., 4 July '13 (C. W. J.); Webster (W. F. F.).

MASS.— Amherst; Chester, 8 Aug. '12 (C. W. J.); Edgartown, 22 Aug. '12 (C. W. J.); Framingham, 16 April '14 (C. A. F.); Franklin, 26 May '16 (H. M. P.); Hyde Park, 21 Oct. '15 (H. M. P.); Nantucket, 16 Aug. '11 (H. T. F.); Provincetown, 1 Sept. '14 (C. W. J.); Woods Hole.

CONN.— Brookfield, 27 July '10 (E. L. D.); New Haven, 4 May '04 (H. L. V.); Portland, 13 Aug. '13 (B. H. W.); Rainbow, 9 May '12 (B. H. W.).

Tribe CYMINI.

Cymus luridus Stål.

ME.— Eastport, 15 July '09 (C. W. J.); Ironbound Id., 10 Aug. '08 (J. A. C.); Orono, 24 May; S. Harpswell, 27 July '08 (J. A. C.). N. H.— Mt. Washington, summit (*fide Slosson*).

VT.- Mt. Mansfield, 4000 ft., 21 July '91 (A. P. M.).

MASS.— Beach Bluff, 21 June '15 (H. M. P.); Edgartown, 28 June '12 (C. W. J.); Gloucester, 22 May '15 (C. W. J.); Nantucket, 6 Aug. '13 (J. A. C.); Provincetown, 1 Sept. '14 (C. W. J.); Tuckernuck Id., 6 Aug. '09 (J. A. C.); Woods Hole, July (T. H. M.).

R. I.— Buttonwoods, 17 June '12 (C. W. J.).

CONN.— New Haven, 17 May '06 (B. H. W.); Stony Creek, 27 July '04 (H. L. V.).

Cymus angustatus Stål.

ME.— Capens, 12 July '07 (C. W. J.); Eastport, 15 July '09 (C. W. J.); Liberty, 13 Sept. '13 (J. A. C.); Monmouth, 23 June '07 (C. A. F.); Naples, 1 July '13 (C. W. J.); Orono.

N. H.— Durham (C. M. W. & W. F. F.); Hanover, 3 July '15 (C. W. J.); Mt. Washington (W. F. F.); Webster (W. F. F.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Mt. Mansfield, 4000 ft., 21 June '91 (A. P. M.); St. Albans, 21 June '13 (C. W. J.).

MASS.— Amherst; Chilmark, 7 Aug. '11 (J. A. C.); Forest Hills, 20 May '15 (H. M. P.); Nantucket, 19 Aug. '09 (J. A. C.); N. Adams, 20 June '08 (C. W. J.); Provincetown, 29 June '91 (A. P. M.); Springfield, 14 July '05 (C. W. J.); Tuckernuck Id., 6 Aug. '09 (J. A. C.); Woods Hole, July (T. H. M.).

R. I.— Buttonwoods, 15 June '12 (C. W. J.); Cumberland, 3 July '10 (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Danbury, 15 June '09 (C. W. J.); New Haven, 26 Feb. '11 (A. B. C.); Thompson, 11 July '05 (H. L. V.).

Cymus discors Horváth.

ME.— Eastport, 15 July '09 (C. W. J.); Holden, 20 July '00 (F. A. E.); Machias, 22 July '09 (C. W. J.); Orono, 31 May '14 (H. M. P.).

N. H.— Durham (C. M. W. & W. F. F.); Hanover, 3 July '15 (C. W. J.); Mt. Washington, summit (fide Slosson).

VT.— Burlington, 22 June '06 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Highgate Springs (fide Horváth); St. Albans, 21 June '13 (C. W. J.).

MASS.— Beach Bluff, 21 June '15 (H. M. P.); Edgartown, 28 June '12 (C. W. J.); Pocasset, 6 Aug. '12 (J. A. C.); Sherburn, 6 Jan. '17 (C. A. F.); Tisbury, 25 July '11 (J. A. C.); Wellesley, 15 Aug. '00 (A. P. M.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.).

BLISSINAE.

Ischnodemus falicus (Say).

Mass.— Beach Bluff, 22 June '14 (H. M. P.); Cohasset, 13 Sept. '07 (O. B.); Tyngsboro, Jan. '98 (F. B.); Woods Hole, July (T. H. M.).

CONN.— Orange, 21 May '11 (B. H. W.).

Blissus leucopterus (Say).

MASS.— Amherst, 26 June '00; Beach Bluff, 21 June '15, 26 July '14 (H. M. P.); Nantucket, 9 Sept. '09 (H. T. F.); Woods Hole, July (T. H. M.).

R. I.— Providence, Sept. '15 (J. B.).

CONN.— New Haven, 11 Aug. '08 (B. H. W.); Orange, 21 May '11 (B. H. W.); S. Meriden, 15 April '14 (H. L. J.).

Blissus hirtus Montandon.

ME.— Harbor, 20 April '12 (S. L. M.); Orono, 7 April '12, 12 June '13 (H. M. P.).

N. H.- Crawfords, 28 Sept. '16 (H. M. P.).

MASS.— Forest Hills, 20 May '15, 14 Sept. '14 (H. M. P.); Hazelwood, 10 Aug. '00 (A. P. M.); Salem, 6 April '91 (A. P. M.); Tisbury, 5 Aug. '11 (J. A. C.).

CONN.— Stamford, 13 Aug. '91 (A. P. M.).

GEOCORINAE.

Geocoris bullatus (Say).

ME.— Orono, 15 June; Pownal (0. 0. S.); Paris, 7 July '15 (C. A. F.).

N. H.- Mt. Washington, summit (fide Slosson).

VT.--- Wells River, 11 July '91 (A. P. M.).

MASS.— Amherst; Beach Bluff, 21 June '15 (H. M. P.); Boston, 19 Nov. '77 (S. H.); Framingham, 17 June '15 (C. A. F.); Winchendon, 1 July '92 (A. P. M.).

CONN.— New Hayen, 10 June '07 (J. B.).

Geocoris bullatus discopterus Stål.

ME.— Paris, 10 July '15 (C. A. F.).

N. H.— Bretton Woods, 18 June '12 (C. W. J.); Webster (W. F. F.).

VT.-- S. Hero, Grand Isle, 9 July '04 (A. P. M.).

MASS.— Beach Bluff, 21 June '15, (H. M. P.); Forest Hills, 28 June '79 (S. H.); Somerville, 4 Sept. '90 (A. P. M.).

CONN.-- New Haven, 19 July '04 (P. L. B.), 3 Aug. '05 (B. H. W.).

Geocoris uliginosus (Say).

ME.- Paris, 10 July '15 (C. A. F.); Pownal, 4 July (O. O. S.);

Township 4, Range 7, Penobscot Co., 1 Aug. '10 (J. A. C.); Westbrook, 13 Sept. (0. 0. S.).

N. H.- Durham, July '00 (W. F. F.).

MASS.— Forest Hills, 31 Mar. '15 (S. L. M.); Provincetown, 27 June '91 (A. P. M.); Sherborn, 6 Jan. '17 (C. A. F.); Wellesley, 14 Sept. '98 (A. P. M.); Woods Hole, July (T. H. M.).

Geocoris uliginosus speculator Montandon.

N. H.— White Mts. (W. F. F.).

MASS.— Beach Bluff, 18 July '15 (H. M. P.); Lowell (fide Montandon).

CONN.— New Haven, 9 July '11 (B. H. W.).

Geocoris uliginosus lateralis (Fieber).

Mass.— Sherborn, 6 Sept. '14 (C. A. F.).

Geocoris uliginosus limbatus Stål.

ME.— Naples, 1 July '13 (C. W. J.); Paris, 10 July '15 (C. A. F.). N. H.— Webster (W. F. F.).

VT.-- Woodstock, 26 Oct. '09 (A. P. M.).

MASS.— Beach Bluff, 21 June '15 (H. M. P.); Edgartown, 27 Aug. '12 (C. W. J.); Framingham, 20 Aug. '15 (C. A. F.); Nantucket, 9 Sept. '09 (H. T. F.); Provincetown, 1 Sept. '14 (C. W. J.); Sherborn, 3 April '92 (A. P. M.).

Isthmocoris piceus (Say).

MASS.— Andover (*fide McAtee*); Cohasset, 21 Sept. '14 (*H. M. P.*); Forest Hills, 18 May '15 (*F. X. W.*); Sherborn, 12 June '15 (*C. A. F.*); Tyngsboro, 1 Mar. '01 (*F. B.*); Wellesley, 6 Sept. '00 (*A. P. M.*).

R. I.- Tiverton, 25 May '07 (N. S. E.).

CONN.— Hamden, 24 April '11 (B. H. W.); Portland (fide McAtee).

PACHYGRONTHINAE.

Phlegyas abbreviatus (Uhler).

ME.— Calais, 10 July (C. W. J.); Holden, 23 June '01 (F. A. E.); Orr's Id., 25 July '09 (C. W. J.); Paris, 15 July '14 (C. A. F.). N. H.— Claremont (R. P. D.) (fide Torre Bueno); Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Holderness, 3 Aug. '99 (A. P. M.); Littleton (C. M. W.); Mt. Washington (W. F. F.); Nottingham (C. M. W. & W. F. F.); Twin Mt. (W. F. F.).

VT.-- Dummerston, 14 July '08 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

MASS.— Amherst, 5 July '97; Blue Hills, 15 Sept. '14 (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Edgartown, 28 June '12 (C. W. J.); Forest Hills, 28 March '15 (W. M.); Nantucket, 4 July '04 (J. A. C.); Provincetown, 6 Sept. '90 (A. P. M.); Winchendon, 1 July '92 (A. P. M.); Woods Hole, 2 July '05 (J. A. C.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Cumberland (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Litchfield, 1 July '16 (L. B. W.); New Haven, 1 June '11, 17 July '08 (B. H. W.); Middlebury, 16 June '11 (B. H. W.); S. Meriden, 25 May '14 (H. L. J.).

Oedancala dorsalis (Say).

ME.— (fide Stover).

N. H.— Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Wonalancet, 13 Sept. '12 (J. A. C.).

VT.— St. Albans, 21 June '13 (C. W. J.).

MASS.— Beach Bluff, 25 June '15 (H. M. P.); Forest Hills, 28 May '15, 4 Oct. '15 (H. M. P.); Framingham, 30 May '08 (C. A. F.); Woods Hole, July (T. H. M.).

R. I.— Apponaug, 22 June '12 (C. W. J.); Buttonwoods, 18 June '12 (C. W. J.).

CONN.— Danbury, 15 June '09 (C. W. J.); Darien, 27 May '15 (C. W. J.); Lyme, 20 Aug. '10 (B. H. W.); New Haven, 26 May '11 (A. B. C.); S. Meriden, 7 June '14 (H. L. J.); Wallingford, 8 June '11 (B. H. W.).

OXYCARENINAE.

Crophius disconotus (Say).

ME.— Liberty, 13 Sept. '13 (J. A. C.).



N. H.— Crawfords, 3 Oct. '16 (H. M. P.); Mt. Washington, summit (fide Slosson).

MASS.— Beach Bluff, 21 June '14 (H. M. P.); Forest Hills, 14 Sept. '14 (H. M. P.); Hyde Park, 21 Oct. '15 (H. M. P.); Tyngsboro, 13 Mar. '98 (F. B.); Wollaston, 27 Oct. '95 (F. H. S.).

RHYPAROCHROMINAE.

Tribe MYODOCHINI.

Myodochus serripes Olivier.

ME.— Orono, 24 May '14 (H. M. P.).

N. H.— Durham (C. M. W. & W. F. F.).

VT.- S. Hero, Grand Isle, 7 July '04 (A. P. M.).

MASS.— Blue Hills, 22 May '15 (W. H. C.); Boston, 26 May '03 (H. M. P.); Framingham, 21 Jan. '06 (C. A. F.); Milton, 25 March '28 (Harris Coll.); Swampscott, 19 Aug. '14 (H. M. P.); Woods Hole, July (T. H. M.).

CONN.— East River, 15 July '08 (C. R. E.); Farmington, 18 Aug. '14 (W. M.); Lyme, 30 April '11 (A. B. C.); New Haven, 17 June '02 (E. J. S. M.); Wallingford, 23 Nov. '12 (H. B. K.); Winnipauk, 12 June '15 (C. W. J.).

Heraeus plebejus Stål.

MASS.— Brookline, 25 Sept. '13 (C. W. J.); Cambridge; Tyngsboro, 13 Mar. '98 (F. B.).

CONN.— New Haven, 7 May '11 (A. B. C.).

Sphaerobius insignis (Uhler).

ME.— Fryeburg, 20 Aug. '92 (A. P. M.); Machias, 2 July (C. W. J.); Westbrook, 25 Sept. (O. O. S.).

N. H.— Hanover (C. M. W.); Mt. Washington (A. T. S.) (fide Barber).

Ligyrocoris diffusus (Uhler).

ME.— Calais, 10 July (C. W. J.); Liberty, 13 Sept. '13 (J. A. C.); Orono, 15 Sept. '13 (H. M. P.); Paris, 10 July '14 (C. A. F.); Township 4, Range 7, Penobscot Co., 1 Aug. '10 (J. A. C.). N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Dublin, 1 Aug. (C. W. J.); Glen House, 20 July '15 (C. W. J.); Hampton (C. M. W. & W. F. F.); Hanover (C. M. W.); Holderness, 1 Aug. '99 (A. P. M.); Jackson, 22 Sept. '07 (O. B.); Mt. Washington, 5000 ft., Lake of the Clouds, 5 July '14 (C. A. F.).

VT.— Ascutney Mt., 23 July '12 (C. W. J.); Montgomery, 18 July '91 (A. P. M.); Norwich (C. M. W.); S. Hero, Grand Isle, July '04 (A. P. M.).

MASS.— Amherst; Beach Bluff, 21 June '15 (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Edgartown, 22 Aug. '12 (C. W. J.); Forest Hills, 30 Sept. '15 (H. M. P.); Nantucket, 9 Sept. '09 (H. T. F.); Newton, 16 June '14 (J. R. T. B.); Provincetown, 7 Sept. '07 (A. P. M.); Woods Hole, July (T. H. M.).

R. I.— Block Id., 28 Aug. '91 (A. P. M.); Kingston, 25 July '05 (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Colebrook, 21 July '05 (H. L. V.); New Haven, 28 June '11 (B. H. W.); Thompson, 3 Aug. '92 (A. P. M.).

Ligyrocoris contractus (Say).

ME.— Belfast, 21 June '12 (J. A. C.); Bowlin Pond, 31 July '10 (J. A. C.); Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Mistake Id., 9 Aug. '07 (J. A. C.); Orono, 12 Sept. '13 (H. M. P.); Paris, 15 July '14 (C. A. F.); Roque Bluff, 15 Aug. '07 (J. A. C.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Glen House, 20 July '15 (C. W. J.); Mt. Washington, summit (fide Slosson); Won-alancet, 13 Sept. '12 (C. W. J.).

VT.— Amsden, 10 July '08 (C. W. J.); Ascutney Mt., 11 July '08 (C. W. J.); Jay, 17 July '91 (A. P. M.); Stratton, 10 July '13 (P. W. W.).

Mass.— Peru, 28 Aug. '04 (J. B.).

Perigenes constrictus (Say).

N. H.- Hampton.

MASS.— Amherst; Beach Bluff, 31 Aug. '14 (H. M. P.); Milton,



15 Aug. '31 (*Harris Coll.*); Nahant, 16 July '15 (*H. M. P.*); Newton, 16 June '14 (*J. R. T. B.*); Provincetown, 8 Sept. '90 (*A. P. M.*); Saugus, 2 Sept. '15 (*H. M. P.*); Wellesley, 6 Oct. '93 (*A. P. M.*); Woods Hole, July (*T. H. M.*).

Perigenes costalis Van Duzee.

N. H.— Durham (C. M. W. & W. F. F.). MASS.— Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Mt. Tom, 22 Sept. '05 (C. W. J.). CONN.— S. Meriden, 6 July '14 (H. L. J.).

Orthaea basalis (Dallas).

MASS.— Boston, 8 May '15 (W. M.); Framingham, 19 April '14 (C. A. F.); Tyngsboro (F. B.). CONN.— Rainbow, 9 May '12 (B. H. W.).

Ptochiomera nodosa Say.

MASS.— Woods Hole, July (T. H. M.).

Carpilis ferruginea Stål.

ME.— Orono (H. T. F.).

Cnemodus mavortius (Say).

ME.— Skowhegan, 19 June (0. 0. S.).

MASS.— Beverly, 22 Aug. '09 (C. W. J.); Cambridge (Harris Coll.); Freetown, 3 Aug. '08 (N. S. E.); Wellesley, 4 Nov. '03 (A. P. M.); West Chop, 6 Aug. '93 (A. P. M.); Woods Hole (T. H. M.) (fide Montgomery).

CONN.— Lyme, 12 March '11 (A. B. C.); S. Meriden, 18 May '15 (H. L. J.).

Pseudocnemodus canadensis (Provancher).

MASS.— Beach Bluff, 15 Aug. '14 (H. M. P.); Manomet, 13 Aug. '12 (W. S. B.); Saugus, 5 Sept. '14 (H. M. P.); Tisbury, 31 July '11 (J. A. C.); Tyngsboro (F. B.); Waquoit, 21 Sept. '10 (C. W. J.); Woods Hole, 25 July '05 (J. A. C.).

Tribe RHYPAROCHROMINI.

Ozophora picturata Uhler.

N. H.— Massabesic Lake, 10 Oct. '93 (F. B.).

MASS.— Cambridge, 9 April '35 (*Harris Coll.*); Cohasset, 13 Sept. (O. B.); Forest Hills, 14 April '17 (W. M. M. & W. M. B.); Tyngsboro, 20 Oct. '98 (F. B.).

CONN.— New Haven, 11 March '11 (A. B. C.).

Antillocoris pilosulus (Stål).

MASS.— Tyngsboro (F. B.).

Antillocoris pallidus (Uhler).

ME.— Orono, 22 April '13 (H. M. P.).

MASS.— Cambridge, 12 Sept. '73; Framingham, 10 July '05 (C. A. F.); Nahant, 7 July '16 (H. M. P.); Sherborn (C. A. F.); Tewksbury; Tyngsboro, April '96 (F. B.); Wollaston, 27 Oct. '95 (F. H. S.).

CONN.— New Haven, 5 June '16 (M. P. Z.).

Rhyparochromus plenus Distant.

MASS.— Beach Bluff, 18 July '15, 1 Aug. '16 (H. M. P.); Mt. Tom, 14 July '05 (C. W. J.).

CONN.—Georgetown (fide Barber).

Plinthisus americanus Van Duzee.

N. H.-Franconia.

MASS.— Tyngsboro (F. B.).

Peritrechus fraternus Uhler.

N. H.- Hampton.

MASS.— Beverly, June (E. B.); Nantucket, 19 Aug. '09 (J. A. C.); Somerset, 29 May '09 (N. S. E.); Tyngsboro, 10 Jan. '97 (F. B.).

Tribe GONIANOTINI.

Emblethis vicarius Horváth.

N. H.- Hampton.

MASS.— Beach Bluff, 28 June '15 (H. M. P.); Framingham,



3 May '14 (C. A. F.); Readville, 2 Sept. '79; Springfield (S. S.); Tyngsboro, April '01 (F. B.).

R. I.— Portsmouth, 4 Sept. '13 (N. S. E.).

CONN.— Lyme, 1 May '10 (A. B. C.); N. Windham, 14 July '94 (A. P. M.); S. Meriden, 5 March '15 (H. L. J.); Waterford, 18 July '14 (I. W. D.).

Tribe BEOSINI.

Trapezonotus arenarius (Linné).

MASS.— Boston, City Point, 8 May '14 (W. M.).

Sphragisticus nebulosus (Fallén).

ME.— Pownal, 3 Sept. (0. 0. S.).

MASS.— Amherst; Beach Bluff, 22 Aug. '14 (H. M. P.); Forest Hills, 3 June '16 (A. M. W.).

Delochilocoris umbrosus (Distant).

Mass.— Tyngsboro (F. B.).

CONN.— Orange, 21 May '11 (B. H. W.); Wallingford, 5 June '12 (D. J. C.); Windsor, 18 July '04 (B. H. W.).

Tribe LETHAEINI.

Drymus unus (Say).

ME.— Liberty, 13 Sept. '13 (J. A. C.); Northeast Harbor, 27 Sept. '07 (C. S. M.); Orono.

N. H.— Alton (F. B.); Center Harbor, 10 Sept. '14; Mt. Lafayette, summit, 22 Sept. '95 (F. B.); Mt. Washington, summit (fide Slosson); Sunapee (F. B.).

MASS.— Berlin, 8 Aug. '15 (C. A. F.); Fall River, 27 March '09 (N. S. E.); Forest Hills, 16 Sept. '14 (H. M. P.); Framingham, 10 July '05 (C. A. F.); Tyngsboro, Oct. '93 (F. B.).

Drymus crassus Van Duzee.

N. H.— Mt. Washington (A. T. S.) (fide Van Duzee). CONN.— Brookfield, 27 July '10 (E. L. D.).

Eremocoris ferus (Say).

ME.— Capens, 14 July '07 (C. W. J.); Holden, 27 April '01 (F. A. E.); Monmouth, 16 June (C. A. F.); Orono.

N. H.— Durham (C. M. W. & W. F. F.); Littleton, 15 Oct. '97 (F. B.); Mt. Washington, Lake of the Clouds, 2 July '96 (F. B.); Sunapee.

VT.- Manchester, 8 June '10 (C. W. J.).

MASS.— Amherst, 2 Aug. '97; Beach Bluff, 21 June '15 (H. M. P.); Boston, 19 April '15 (H. M. P.); Edgartown, 29 June '12 (C. W. J.); Fall River, 8 Oct. '09 (N. S. E.); Forest Hills, 8 Oct. '14 (H. M. P.); Ipswich, 16 Oct.; S. Natick, 26 Oct. '05 (A. P. M.); Woods Hole, July (T. H. M.).

CONN.— Orange, 21 May '11 (B. H. W.); Oxford, 21 May '04 (W. E. B.); Wallingford, 8 June '11 (B. H. W.).

Scolopostethus thomsoni Reuter.

N. H.— Mt. Washington, 2 July '96 (F. B.). MASS.— Tyngsboro (F. B.).

Scolopostethus atlanticus Horváth.

ME.— Orono, 29 March '14 (H. M. P.); Princeton, 12 July '09 (C. W. J.).

MASS.— Danvers, 3 Aug. '15 (H. M. P.); Tyngsboro, 22 Oct. '95 (F. B.); Woods Hole, 11 Aug. '05 (J. A. C.).

R. I.— Cumberland (J. B.).

CONN.— New Haven, 15 May '11 (A. B. C.).

Scolopostethus diffidens Horváth.

ME.-- 30 April '07.

MASS.— Berlin, 8 Aug. '15 (C. A. F.); Cambridge, 12 Sept. '13; Framingham, 3 May '14 (C. A. F.).

Xestocoris nitens Van Duzee.

ME.— Orono, 22 April '13 (H. M. P.).

N. H.— Durham (C. M. W. & W. F. F.); Littleton, 15 Oct. '97 (F. B.).



MASS.— Tyngsboro, 19 Feb. '11 (F. B.); Wellesley, 19 May '05 (A. P. M.).

CONN.— Lyme, 30 April '11 (A. B. C.).

Cryphula parallelogramma Stål.

Mass.— Fall River, 28 March '08 (N. S. E.); Forest Hills, 24 March '15 (H. M. P.); Hyde Park, 21 Oct. '15 (H. M. P.); Tyngsboro, 7 Mar. '01 (F. B.).

CONN.- New Haven, 26 Feb. '11 (A. B. C.).

PIESMIDAE.

Piesma cinerea (Say).

MASS.— Amherst, 6 April '00; Beach Bluff, 21 June '15 (H. M. P.); Cambridge.

R. I.— Kingston, 29 July '08 (J. B.).

CONN.— Hamden, 23 Aug. '10 (W. E. B.); Manchester, 18 Sept. '11 (W. E. B.); Milford, 11 July '16 (W. E. B.); New Haven, 4 Aug. '09 (H. B. W.); Stonington, 30 Dec. '13 (I. W. D.).

TINGIDAE.

Tribe TINGINI.

Acalypta lillianis Torre Bueno.

Bull. Brooklyn Ent. Soc., 1916, vol. 11, p. 39.

ME.— The Forks, 16 June '00 (0. 0. S.). N. H.— (fide Osborn and Drake).

Dictyonota tricornis americana Parshley.

Psyche, 1916, vol. 23, p. 164.

ME.— Eastport, 15 July '09 (C. W. J.); Machias, 26 July '06 (C. W. J.); Roque Bluff, 15 July '07 (J. A. C.).

Corythucha ciliata (Say).

ME.— (A. S. P.) (fide Packard).



MASS.— Melrose Highlands, 15 Jan. '16 (R. T. W.); Nantucket, 19 Aug. '09 (J. A. C.); Needham, 3 Sept. '11.

R. I.— Kingston, July '05 (J. B.).

CONN.— Hartford, 26 Sept. '10 (G. H. H.); Mystic, 4 March '15 (M. P. Z.); New Canaan, 14 Sept. '05 (W. E. B.); New Haven, 3 Aug. '09 (B. H. W.); N. Stonington, 21 Jan. '15 (M. P. Z.); S. Meriden, 8 March '14 (H. L. J.).

Corythucha arcuata (Say).

N. H.— Durham (C. M. W. & W. F. F.); Hampton, 27 May '10 (S. A. S.).

MASS.— Auburndale, 22 July (C. W. J.); Beverly, 24 Oct. '66 (E. B.); Blue Hills, 15 Sept. '14 (H. M. P.); Cohasset, 8 Sept. (O. B.); Sherborn, 5 Aug. '96 (A. P. M.); Squantum, 3 Oct. '14 (H. M. P.).

R. I.— Kingston, 1 June '05 (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Litchfield, 1 Sept. '14 (L. B. W.); Mystic, 4 March '15 (M. P. Z.); New Haven, 19 Sept. '10 (W. E. B.); Portland, 14 Aug. '14 (B. H. W.).

Corythucha crataegi Morrill.

MASS.— Beach Bluff, 1 Aug. '16 (H. M. P.); Cohasset, 15 Sept. (O. B.); Ellis, 24 May '15 (C. W. J.); Needham, 3 Sept. '11; Wellesley, Oct. '03 (A. P. M.).

CONN.— New Haven, 9 July '11 (B. H. W.).

Corythucha pergandei Heidemann.

ME.— Orono, 17 Sept. '13 (H. M. P.).

N. H.— Durham (C. M. W. & W. F. F.); Fabyans (W. F. F.). MASS.— Springfield, 29 Aug. '02; Tuckernuck Id., 5 Aug. '13 (J. A. C.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Chapinville, 26 May '04 (W. E. B.); Pine Orchard, 26 July '04 (W. E. B.).

Corythucha marmorata (Uhler).

ME.— Princeton, 12 July '09 (C. W. J.).



N. H.— Bretton Woods, 18 June '12 (C. W. J.); Durham (C. M. W. & W. F. F.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.).

MASS. — Amherst; Beach Bluff, 25 June '14 (H. M. P.); Blue Hills, 16 June (C. W. J.); Chilmark, 14 Aug. '11 (J. A. C.); Edgartown, 22 Aug. '12 (C. W. J.); Forest Hills, 8 Oct. '14 (H. M. P.); Southbridge, 16 July '14 (C. W. J.); Tisbury, 27 June '11 (J. A. C.); Woods Hole, 1 July '05 (J. A. C.).

R. I.— Buttonwoods, 25 July '11 (C. W. J.); Kingston, 20 July '05 (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Granby, 1 July '14; New Haven, 23 June '12 (W. E. B.); S. Meriden, 12 June '15 (H. L. J.).

Corythucha juglandis (Fitch).

ME.— Eastport, 15 July '09 (C. W. J.); Lower Goose Id., Casco Bay, 24 July '08 (W. M. W.); Machias, 19 July '09 (C. W. J.); Orono, 22 May '14 (H. M. P.); Princeton, 12 July '09 (C. W. J.).

N. H.— Bretton Woods, 26 June '13 (C. W. J.); Glen House, 24 July '15 (C. W. J.); Mt. Washington, 2500 ft., 28 July '15 (C. W. J.).

Mass.— Chester, 28 May '12 (C. W. J.); Dover, 10 Sept. '08 (A. P. M.); Tuckernuck Id., 5 Aug. '13 (J. A. C.); Washington, 8 Aug. '12 (C. W. J.).

R. I.— Kingston, Aug. '05 (J. B.).

CONN.— Scotland, 15 Aug. '05 (B. H. W.); Stamford, 16 Aug. '12 (W. E. B.).

Galeatus peckhami (Ashmead).

ME.— Princeton, 12 July '09 (C. W. J.).

N. H.— Glen House, Osgood Trail, 20 July '15 (C. W. J.).

Leptobyrsa rhododendri (Horváth) (= L. explanata Heidemann). ME.— Bar Harbor.

Mass.— Amherst, 21 June '05; Beach Bluff, 15 Aug. '14 (H. M. P.); Chester, 3 Aug. '11 (C. W. J.); Danvers, 3 July '14; Saugus, 5 Sept. '14 (H. M. P.). CONN.— Greenwich, 3 July '13 (W. E. B.); New Haven, 30 June '15 (W. E. B.); Rockville, 28 June '09 (H. W.).

Gargaphia tiliae (Walsh).

N. H.— Hampton, 8 May '09 (S. A. S.); Intervale, 18 Aug. '08 (C. W. J.); Mt. Washington, summit (*fide Slosson*).

MASS.— Chester, 5 Aug. '14 (C. W. J.).

CONN.— Pleasant Valley, Litchfield Co., 5 Sept. '15 (G. P. E.).

Gargaphia angulata Heidemann.

MASS.— Westfield, 10 July '05 (C. W. J.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Hartford, 15 June '13 (W. E. B.); New Haven, 19 Aug. '13 (L. B. R.).

Leptostyla heidemanni Osborn and Drake.

Bull. Ohio Biol. Surv., 1916, vol. 2, no. 8, p. 238.

Mass.— Eastham, 27 June '04 (C. W. J.); Fall River, 22 July '05 (J. A. C.); Forest Hills, 8 Aug. '78 (S. H.); Newton, 16 June '14 (J. R. T. B.); Woods Hole, 25 July '05 (J. A. C.).

Physatocheila plexa (Say) Parshley.

R. I.— Kingston, 2 May '10 (J. B.); Providence (C. A. D.).

Physatocheila brevirostris Osborn and Drake.

Bull. Ohio Biol. Surv., 1916, vol. 2, no. 8, p. 243.

MASS.— Beach Bluff, 4 July '15 (H. M. P.).

Physatocheila variegata Parshley.

Psyche, 1916, vol. 23, p. 166.

ME.- Orono, 8 May '80 (H. T. F.).

MASS.— Wellesley, 19 May '91 (A. P. M.).

CONN.— Brookfield, 25 July '10 (E. L. D.); Portland, 15 May '14 (B. H. W.).

Melanorhopala clavata Stål.

ME.— Pownal, 15 July (O. O. S.).

MASS.— Amherst, 18 July '00; Beach Bluff, 21 June '15 (H.



HEMIPTERA-HETEROPTERA.

M. P.); Fall River, 22 June '05 (J. A. C.); Newton, 16 June '14 (J. R. T. B.); Woods Hole, July (T. H. M.).
R. I.— Cumberland, 3 July '10 (J. B.).
CONN.— New Haven, 23 July '10 (B. H. W.).

Melanorhopala obscura Parshley.

Psyche, 1916, vol. 23, p. 167.

MASS.— Beach Bluff, 21 June '15 (H. M. P.); Nahant, 16 July '15 (H. M. P.); Wollaston, 28 June '96 (F. H. S.).

Hesperotingis antennata Parshley.

Psyche, 1917, vol. 24, p. 21.

CONN.— New Haven, 4 Sept. '11 (C. E. O.).

Hesperotingis antennata borealis Parshley.

Psyche, 1917, vol. 24, p. 24.

N. H.- Hampton, 15 Aug. '09 (S. A. S.).

Alveotingis grossocerata Osborn and Drake.

Bull. Ohio Biol. Surv., 1916, vol. 2, no. 8, p. 245.

ME.— Orono, 5 Aug. '13 (H. O.). N. H.— Mt. Washington (W. F. F.).

ENICOCEPHALIDAE.

Systelloderes biceps (Say).

R. I.— Buttonwoods, 18 June '12 (C. W. J.).

PHYMATIDAE.

Phymata vicina Handlirsch.

MASS.— Amherst, 6 June '03; Cliftondale, 29 May '78 (S. H.); Gardner, 15 Aug. '16; Nantucket, 4 July '05 (J. A. C.). R. I.— (fide Van Duzee). CONN.— New Haven, 9 July '11 (B. H. W.).



Phymata erosa wolffi Stål.

VT.— Middlebury, July '12; Winooski, 14 Aug. '01 (C. A. D.); Woodstock, 20 Aug '10 (A. P. M.).

MASS.— Amherst; Beach Bluff, 19 Aug. '13 (H. M. P.); Edgartown, 22 Aug. '12 (C. W. J.); Forest Hills, 3 Oct. '16 (C. A. F.); Nantucket, 4 July '05 (J. A. C.); Provincetown, 1 Sept. '14 (C. W. J.); Woods Hole, 23 Aug. '14 (W. M. M.).

R. I.— Buttonwoods, 25 July '11 (C. W. J.); Kingston (J. B.); Providence (C. A. D.).

CONN.— Greenwich, 9 July '07 (J. A. C.); New Canaan, 14 Sept. '05 (W. E. B.); New Haven, 7 Sept. '05 (E. B. W.); S. Meriden, 3 Aug. '14 (H. L. J.).

REDUVIIDAE.

Emesinae.

Tribe PLOIARIOLINI.

Ploiariola errabunda (Say).

N. H.— (Harris Coll.).

MASS.— Amherst, 5 June '14 (G. C. C.); Beverly, 15 July '09 (C. W. J.).

Ploiariola tuberculata Banks.

ME.— Monmouth, 27 June '12 (C. A. F.); Paris, 4 July '16 (C. A. F.).

MASS.— Fall River, 22 May '11 (N. S. E.); Sherborn, 30 May '16 (C. A. F.).

Ploiariola hirtipes Banks.

ME.— Orono (H. T. F.). VT.— Brattleboro, 15 July '08 (C. W. J.). MASS.— Nantucket, 21 Aug. '11 (H. T. F.). R. I.— Kingston, 19 Aug. '05 (J. B.).



Tribe EMESINI.

Emesa brevipennis (Say) (= E. longipes DeGeer).

MASS.— Amherst; Boston, 23 Sept. '09 (C. W. J.); Cambridge, 22 Sept. '00 (C. O.); Cohasset, 10 Sept. '05 (O. B.); Concord, 14 Oct. '10 (C. W. J.); Saugus, 22 Aug. '14 (H. M. P.); Wellesley, Aug. '98 (A. P. M.); Wollaston, 1 Oct. '82 (F. H. S.).

R. I.- Kingston, Sept. '03 (J. B.).

CONN.— Farmington, 17 Aug. '14 (W. M.); Manchester, 14 Sept. '10 (B. H. W.); New Canaan, 21 Sept. '09 (A. I. B.); New Haven, 27 Aug. '11 (M. P. Z.).

Barce annulipes Stål.

N. H.— Jackson, 22 Sept. '07 (0. B.).

Mass.— Andover, 9 Sept. '15 (F. X. W.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Framingham, 10 July '05 (C. A. F.); Malden.

CONN.- New Haven, 26 Feb. '11 (A. B. C.).

Barce uhleri brunnea Banks.

Mass.— Brookline, 24 Sept. '13 (C. W. J.); Forest Hills, 30 March '15 (F. X. W.), 17 April '15 (C. T. B.), 31 May '15 (F. X. W.); Truro, 4 Sept. '04 (A. P. M.); Tyngsboro, 6 Mar. '98 (F. B.).

Barce fraterna (Say).

MASS.— Cambridge, Sept. (fide Banks); Framingham, 26 Aug. '06 (C. A. F.); Milton, 17 June '27 (Harris Coll.); Salem (Harris Coll.).

STENOPODINAE.

Pygolampis sericea Stål. N. H.— Durham (C. M. W. & W. F. F.).

Pygolampis pectoralis (Say).

ME.— Manchester (fide Stover). N. H.— Mt. Washington, summit (fide Slosson).



MASS.— Amherst, 28 May '92; Framingham, 10 July '05 (C. A. F.); Milton, 15 May '26 (Harris Coll.); Tyngsboro (F. B.).

REDUVIINAE.

Reduvius personatus (Linné).

ME.— Brunswick (fide Stover); Gorham, 10 June '13 (W. B. H.); Newbury Neck, near Surry, 22 June '03 (F. A. E.); Orono, 21 July '12; Pownal (O. O. S.).

N. H.— Durham (C. M. W. & W. F. F.); Mountain View, Aug. '15 (A. M. W.).

VT.— Middlebury, July '12.

MASS.— Amherst; Cohasset, 20 June '08 (O. B.); Danvers, 1 June '08; Forest Hills, 11 June '14 (H. M. P.); Framingham, 9 July '07 (C. A. F.); Tyngsboro (F. B.); W. Brookfield, 12 July. CONN.— Litchfield, June '09 (L. B. W.).

PIRATINAE.

Melanolestes picipes (Herrich-Schaeffer).

N. H.— Webster, July '00.

MASS.— Framingham, 16 April '05 (C. A. F.); Sherborn, 15 May '14 (C. A. F.); Wellesley, 8 Aug. '07 (A. P. M.).

R. I.— Kingston, 26 Sept. '07 (J. B.); Providence, 6 Oct. (C. A. D.).

CONN.— Durham, 16 Sept. '10 (W. E. B.); Lyme, 20 Aug. '10 (A. B. C.); Middlebury, 26 May '11 (W. E. B.); S. Meriden, 27 Sept. '14 (H. L. J.); W. Haven, 11 May '05 (B. H. W.).

Melanolestes picipes abdominalis (Herrich-Schaeffer).

MASS.— Framingham (C. A. F.).

R. I.— Kingston, 13 May '05, 18 Oct. '05 (J. B.); Providence (C. A. D.).

CONN.— Canaan, 4 May '12 (D. J. C.); New Canaan, 22 Sept. '10 (W. E. B.); New Haven, 25 May '11 (A. B. C.); Salisbury, 27 Aug. '04 (W. E. B.); Torrington (G. H. H.).



Apiomerinae.

Apiomerus crassipes (Fabricius).

CONN.— New Haven, 20 June '02 (E. J. S. M.); Woodbury, 19 July '13 (W. E. B.).

HARPACTORINAE.

Tribe ZELINI.

Zelus exsanguis Stål.

ME.— Manchester (O. O. S.).

N. H.— Durham (C. M. W. & W. F. F.); Mt. Washington, summit (fide Slosson).

VT.— Bennington, 22 June '14 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

MASS.— Amherst, 1 June '98; Chester, 27 May '12 (C. W. J.); Edgartown, 28 June (C. W. J.); Forest Hills, 15 June '16 (A. M. W.); Woods Hole, 9 Aug. '14 (W. S. A.); Worcester, 6 July '15 (F. X. W.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Kingston, July '14 (J. B.); Tiverton, 12 July '16 (C. W. J.).

CONN.— Portland, 5 June '15 (M. P. Z.); Wallingford, 2 July '12 (D. J. C.).

Zelus socius Uhler.

ME.— Monmouth, 18 July '14 (C. A. F.); Northeast Harbor, 27 July '11 (C. S. M.).

Mass.— Hopkinton, 14 June '14 (C. A. F.).

Zelus audax Banks.

MASS.— Andover; Tyngsboro (F. B.). CONN.— Portland, 10 Aug. '13 (B. H. W.).

Rhynocoris ventralis (Say).

ME.— Monmouth, 26 June '06 (C. A. F.). MASS.— Framingham, 12 June '04 (C. A. F.).



Pselliopus cinctus (Fabricius).

MASS.— Amherst; Auburndale, 25 Sept. '11 (C. W. J.); Bedford, 12 May (C. W. J.); Blue Hills, 15 Sept. '14 (H. M. P.); Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Forest Hills, 16 May '16 (A. M. W.); Framingham, 4 Sept. '04 (C. A. F.).

R. I.— Kingston, 4 July '14 (J. B.); Providence (C. A. D.).

CONN.— Lyme, 14 May '11 (A. B. C.); New Canaan, 20 Sept. '12 (H. B. K.); New Haven, 9 June '14 (Q. S. L.); Poquonock, 27 June '05 (B. H. W.); Portland, 15 Aug. '13 (B. H. W.); S. Meriden, 31 May '14 (H. L. J.); Stonington, 1 July '14 (I. W. D.).

Fitchia aptera Stål.

ME.— Manchester; Monmouth; Orono, 31 May '14 (H. M. P.). N. H.— Hampton, 27 April '98 (S. A. S.); Hanover (C. M. W.). VT.— Norwich (C. M. W.).

MASS.— Cohasset, 21 Sept. '14 (H. M. P.); Forest Hills, 27 March '15 (F. X. W.); Framingham (C. A. F.); Horseneck Beach, 30 July '13 (C. W. J.); S. Sudbury, 5 Nov. '05 (O. B.); Tyngsboro, 16 Oct. (F. B.).

CONN.— New Haven, 21 April '11 (A. B. C.); Orange, 21 May '11 (B. H. W.); S. Meriden, 3 Oct. '14 (H. L. J.).

Tribe HARPACTORINI.

Acholla multispinosa (DeGeer).

ME.— (fide Stover).

N. H.— Alton (F. B.); Durham (C. M. W. & W. F. F.).

MASS.— Amherst, 14 Aug. '00; Cambridge, 27 Aug. '07 (A. P. M.); Cohasset, 21 Sept. '14 (H. M. P.); Fall River; Forest Hills, 16 Sept. '14 (H. M. P.); Sherborn, 31 Aug. '14 (C. A. F.).

R. I.— Kingston, Oct. '04 (J. B.).

CONN.— Hartford, 22 Oct, '06 (B. H. W.); Manchester, 21 Sept. '11 (B. H. W.); New Canaan, 2 Oct. '07 (W. E. B.); Wallingford, 14 Aug. '10 (D. J. C.); Westville, 7 Sept. '05 (B. H. W.); Windsor Locks, 1 Sept. '03 (W. E. B.).



Sinea diadema (Fabricius).

ME.— Fryeburg, 20 Aug. '12 (A. P. M.); Orono, 3 Sept. '13; Westbrook, 13 Sept. '00 (O. O. S.).

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Crawfords, 28 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Holderness, 17 Aug. '99 (A. P. M.).

VT.— Hartland, 9 Aug. '13 (P. W. W.); Newport, 12 July '91 (A. P. M.).

MASS.— Amherst, 2 Aug. '05; Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Forest Hills, 17 Sept. '14 (H. M. P); Nantucket, 20 Sept. '15 (W. S. A.); N. Adams, 13 Aug. '07 (C. W. J.); Peru, 26 Aug. '04 (J. B.); West Chop, 22 July '93 (A. P. M.); West Newbury; Woods Hole, 9 Aug. '15 (W. S. A.).

R. I.— Kingston, 2 Aug. '05 (J. B.); Providence, 15 Sept. (C. A. D.).

CONN.— Canaan, 18 Aug. '94 (A. P. M.); Colebrook, 1 Sept. '11 (W. M. W.); New Canaan, 11 Sept. '14 (M. P. Z.); Meriden, '28 July '09 (A. I. B.); Stafford, 24 Aug. '05 (W. E. B.); Torrington (R. H.).

HEBRIDAE.

Hebrus burmeisteri Lethierry and Severin.

MASS.— Edgartown, 28 June '12 (C. W. J.); Framingham, 22 Oct. '16 (C. A. F.); Sherborn, 6 Jan. '17 (C. A. F.); Tyngsboro, April '91 (F. B.).

CONN.— New Haven, 25 March '11 (A. B. C.).

MESOVELIIDAE.

Mesovelia mulsanti White.

MASS.— Forest Hills, 17 June '14, 8 Oct. '14 (H. M. P.); Saugus, 22 Aug. '15 (H. M. P.).



NABIDAE.

PROSTEMMINAE.

Pagasa fusca (Stein).

ME.— Orono; Paris, 10 July '15 (C. A. F.).

N. H.— Mt. Washington, summit (fide Slosson).

VT.-- Stratton, 7 July '13 (P. W. W.).

MASS.— Boston, 30 Aug. '14 (F. X. W.); Framingham, 10 Oct. '07 (C. A. F.); Milton, 17 June '27 (Harris Coll.).

R. I.— Portsmouth, 23 July '08 (N. S. E.).

CONN.— Lyme, 20 Aug. '10 (A. B. C.); New Canaan, 23 Sept. '10, winged form (W. E. B.).

NABINAE.

Tribe NABINI.

Nabis subcoleoptratus Kirby.

ME.— Belfast; Ft. Kent, 17 Aug. '10 (C. W. J.); Orono, 11 July '05; Pemaquid Pt., Aug. '06 (H. W. F.); Southwest Harbor, 25 July '10 (H. T. F.).

N. H.— Hanover, 3 July '08 (C. W. J.); N. Conway, 30 July '91 (A. P. M.); Webster (W. F. F.).

VT.— Newport, 12 July '91 (A. P. M.); St. Johnsbury, 23 July '91 (A. P. M.).

MASS.— Amherst, 2 July '94; Framingham, 10 Oct. '07 (C. A. F.); Winchendon, 1 July '92 (A. P. M.).

CONN.— Litchfield, 29 June '13 (L. B. W.); Salisbury, 29 Aug. '04 (W. E. B.).

Nabis sordidus Reuter.

MASS.— Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Brookline, 6 Sept. (C. W. J.); Woods Hole, 10 July '05 (J. A. C.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.).

Nabis annulatus Reuter.

MASS.- Auburndale, 16 Aug. (C. W. J.); Blue Hills, 14 Aug.



'78 (S. H.); Boston, Chestnut Hill, 24 Sept. '14 (C. W. J.); Sharon,
25 Aug. '13; Weston, 23 July '11; Woods Hole (fide T. H. M.).
R. I.— Kingston, 18 Aug. '07 (J. B.).
CONN.— Portland, 7 Aug. '13 (B. H. W.).

Nabis propinquus Reuter.

ME.— Liberty, 17 July '12 (J. A. C.).

Mass.— Beach Bluff, 13 Aug. '14 (H. M. P.); Fanueil, 12 Aug. '04 (A. P. M.); Tisbury, 31 July '11 (J. A. C.).

Nabis limbatus Dahlbom.

ME.— Bowlin Pond, 31 July '10 (J. A. C.); Ft. Kent, 19 Aug. '10 (C. W. J.); Machias, 26 July '06 (C. W. J.); Princeton, 12 July '09 (C. W. J.); Township 2, Range 7, Penobscot Co., 2 Aug. '10 (J. A. C.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Crawfords, 28 Oct. '16 (H. M. P.); Mt. Washington, Tuckerman's Ravine, 6 Sept. '95 (A. P. M.).

MASS.— Mt. Greylock, 3500 ft., 17 Aug. '94 (A. P. M.).

Nabis flavomarginatus Scholz.

ME.— Eastport, 15 July '09 (C. W. J.); Machias, 17 July '09 (C. W. J.).

Nabis forus (Linné).

ME.— Bowlin Pond, 31 July '10 (J. A. C.); Ft. Kent, 19 Aug. '10 (C. W. J.); Naples, 1 July '13 (C. W. J.); Orono, 17 April '12 (H. M. P.).

VT.— Mt. Ascutney, 23 July '12 (C. W. J.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Glen House, 20 July '15 (C. W. J.); Hanover, 8 July '08 (C. W. J.); Mt. Washington, summit (*fide Slosson*).

MASS.— Amherst; Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Forest Hills, 12 May '16 (H. M. P.); Provincetown, 8 Sept. '90 (A. P. M.); Tisbury, 6 Aug. '11 (J. A. C.); Tuckernuck Id., 5 Aug. '13 (J. A. C.); Winchendon, 1 July '92 (A. P. M.); Woods Hole, July (T. H. M.). R. I.— Block Id., 28 Aug. '91 (A. P. M.); Kingston, 30 April '05, 17 July '05 (J. B.); Providence, 30 March (C. A. D.).

CONN.— Cheshire, 8 July '04 (H. L. V.); Hartford, 7 May '14 (W. M.), 19 Oct. '04 (W. E. B.); Lyme, 4 Oct. '10 (A. B. C.); New Haven, 31 Oct. '03 (E. J. S. M.); N. Windham, 14 July '94 (A. P. M.); Windsor, 18 July '04 (B. H. W.).

Nabis roseipennis Reuter.

ME.— Orono, 7 May '14, 5 Oct. '13 (H. M. P.).

N. H.— Jackson, 22 Sept. '07; Mt. Washington, summit (fide Slosson).

MASS.— Amherst, 28 May '92; Beach Bluff, 31 Aug. '14 (H. M. P.); Blue Hills, 22 May '15 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Chester, 27 May '12 (C. W. J.); Forest Hills, 10 April '16 (A. M. W.); N. Adams, 18 June '06 (C. W. J.); Peru, 29 Aug. '04 (J. B.); Winchendon, 2 July '92 (A. P. M.).

R. I.— Kingston, 30 April '05, 17 July '05 (J. B.); Providence, 30 March (C. A. D.).

CONN.— Danbury, 15 June '09 (C. W. J.); Hartford, 17 July '05 (H. W. W.); Litchfield, 9 March '13 (L. B. W.); S. Meriden, 6 May '15 (H. L. J.); Winnipauk, 16 June '09 (C. W. J.).

Nabis rufusculus Reuter.

ME.— Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Liberty, 13 Sept. '13 (J. A. C.); Orono, 19 April '14 (H. M. P.); Unity (W. C. W.).

N. H.— Bretton Woods, 26 June '13 (C. W. J.); Fabyans (W. F. F.); Hanover, 8 July '08 (C. W. J.); Jackson, 22 Sept. '07 (C. W. J.); Mt. Washington, 3000 ft., 4 July '13 (C. W. J.); N. Conway, 18 April '15.

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Gorham (J. H. E.); Manchester, 8 June '10 (C. W. J.); Montpelier, 25 June '06 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

MASS.— Beverly, 24 April '92 (A. P. M.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Forest Hills, 1 June '15 (H. M. P.); Franklin, 26 May '16 (H. M. P.); Peru, 26 Aug. '04 (J. B.); Provincetown, 8 Sept. '90 (A. P. M.); Winchendon, 1 July '92 (A. P. M.); Woods Hole, 12 Sept. '15 (W. S. A.).

CONN.— Danbury, 15 June '09 (C. W. J.); Litchfield, 7 May '15 (L. B. W.); S. Kent, 20 Aug. '94 (A. P. M.).

Nabis brevis Scholz.

CONN.— Cromwell, 13 Dec. '10, on nursery stock imported from England (A. B. C.).

Metatropiphorus belfragei Reuter.

MASS.— Manomet, 5 Aug. '12 (W. S. B.); Tyngsboro, 17 July '92 (F. B.).

CIMICIDAE.

CIMICINAE.

Cimex lectularius Linné.

ME.— Orono.

MASS.— Amherst, 12 March '98; Beach Bluff, 22 June '13 (*H. M. P.*); Framingham, 26 June '15 (*C. A. F.*); Woods Hole, July (*T. H. M.*).

R. I.- Block Id., 25 July '10; Kingston, Aug. '08 (J. B.).

CONN.— North Haven, 16 Oct. '08 (B. H. W.); Hartford, 13 Aug. '91 (A. P. M.).

Cimex pilosellus Horváth.

MASS.— East Wareham, 14 June '15 (O. Bangs).

Oeciacus vicarius Horváth.

ME.— Franklin, 18 June '16.

MASS.— East Douglas, 7 Aug. '96.

CONN.— Mt. Carmel, 29 May '03 (L. L. D.).

ANTHOCORIDAE.

LYCTOCORINAE.

Xylocoris cursitans (Fallén).¹

N. H.- North Conway, 18 April '15.

MASS.— Forest Hills, 23 Feb. '15, 26 Oct. '15 (H. M. P.); Lynn, 18 Aug. '15 (H. M. P.).

CONN. -- New Haven, 24 Nov. '10 (A. B. C.).

ANTHOCORINAE.

Macrotracheliella nigra Parshley.

Ent. News, 1917, vol. 28, p. 37.

Mass.— Chilmark, 14 Aug. '11 (J. A. C.). R. I.— Tiverton, 13 Aug. '15 (N. S. E.).

Anthocoris borealis Dallas (? = A. musculus Say).

ME.— Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Holden, 28 June '00 (F. A. E.); Mt. Desert (H. T. F.); Orono, 30 April '12 (H. M. P.); Paris, 15 July '14 (C. A. F.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Mt. Lafayette, summit, 22 Sept. '95 (F. B.).

MASS.— Peru, 28 Aug. '04 (J. B.).

R. I.— Kingston, 7 July '10 (J. B.).

Triphleps insidiosa (Say).

ME.— Newbury Neck, near Surrey, 22 June '03 (F. A. E.); Orono, 30 Sept. '82 (H. T. F.); Pownal (O. O. S.).

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Crawfords, 3 Oct. '16 (H. M. P.); Intervale, 12 Aug. (G. M. A.); Mt. Washington, summit (fide Slosson).

VT.— St. Johnsbury, 23 July '91 (A. P. M.); Woodstock, 11 Aug. '98 (A. P. M.).

¹ Sometimes determined as X. galactinus (Fieber) or X. sordidus (Reuter).



MASS.— Beverly, 22 Aug.; Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Forest Hills, 8 Oct. '14 (H. M. P.); Manomet, 13 Aug. '12 (W. S. B.); Nantucket, 17 Aug. '11 (H. T. F.); Westfield, 7 Aug. '11 (C. W. J.); Woods Hole (fide T. H. M.).

R. I.— Kingston, 17 July '05 (J. B.).

CONN.— Branford, 27 June '04 (H. L. V.); Brookfield, 27 July '10 (E. L. D.); Glastonbury, 13 July '13 (L. B. R.); New Haven, 16 Oct. '03 (H. L. V.); Rowayton, 5 Aug. '09 (C. W. J.).

TERMATOPHYLIDAE.

Hesperophylum heidemanni Reuter and Poppius. N. H.— Mt. Washington (fide Reuter and Poppius).

MIRIDAE.

MIRINAE.

Tribe MIRINI.

Collaria meilleuri Provancher.

ME.— Ft. Kent, 17 Aug. '10 (C. W. J.); Machias, 26 July '06 (C. W. J.); Monmouth, 16 July '14 (C. A. F.); Orono, 10 Aug. '06; Township 2, Range 7, Penobscot Co., 2 Aug. '10 (J. A. C.); S. Harpswell, 27 July '08 (J. A. C.).

N. H.— Hanover, 8 July '08 (C. W. J.); Holderness, 2 Aug. '99 (A. P. M.); N. Conway, 30 July '91 (A. P. M.); Squam Lake, 7 Aug. '07 (C. W. J.).

VT.— Mt. Mansfield, 21 July '91 (A. P. M.); Newport, 12 July '91 (A. P. M.).

Mass.— Brookline, 26 June '77 (S. H.); Wellesley, 1 Aug. '94 (A. P. M.); Tyngsboro (F. B.); Woods Hole (fide T. H. M.).

CONN.— Colebrook, 21 July '05 (H. L. V.); S. Meriden, 16 July '15 (H. L. J.).

Collaria oculata (Reuter).

ME.— Durham (0. 0. S.).

N. H.- Holderness, 5 Aug. '99 (A. P. M.).

MASS.— Amherst, 30 July '97; Dedham, 17 June '92 (A. P. M.); Provincetown, 28 July '91 (A. P. M.); Winchendon, 1 July '92 (A. P. M.); Woods Hole, July (T. H. M.).

CONN.— Cheshire, 8 July '04 (H. L. V.); New Haven, 1 June '11 (B. H. W.).

Miris dolabratus (Linné).

ME.— Eastport, 15 July '09 (C. W. J.); Orono, 22 May '14 (H. M. P.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Durham (C. M. W. & W. F. F.); Glen House, 15 July '15 (C. W. J.); Hanover, 8 July '08 (C. W. J.); Mt. Washington, base, 7 July '14 (C. W. J.); Alpine Garden, 4 July '14 (C. W. J.); summit (fide Slosson).

VT.— Bennington, 18 June '15 (C. W. J.); St. Albans, 19 June '13 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Amherst; Edgartown, 28 June '12 (C. W. J.); Forest Hills, 17 June '14 (H. M. P.); Nantucket, 4 July '05 (J. A. C.); N. Adams, 18 June '06 (C. W. J.); Provincetown, 29 June '91 (A. P. M.); Woods Hole, 2 July '05 (J. A. C.).

R. I.— Block Id., 25 July '10; Buttonwoods, 15 June '12 (C. W. J.); Kingston, 17 June '05 (J. B.).

CONN.— Brookvale, 30 May '02 (W. E. B.); Farmington, 14 June '14 (W. M.); Greenwich, 9 July '07 (J. A. C.); S. Meriden, 6 July '14 (H. L. J.).

Stenodema trispinosum Reuter.

ME.— Bowlin Pond, 31 July '10 (J. A. C.); Ft. Kent, 19 Aug. '10 (C. W. J.); Orono, 22 May '14 (H. M. P.); The Forks, 16 June (O. O. S.); Wales, 16 July '15 (C. A. F.).

MASS.— Auburndale, 22 May (C. W. J.); Blue Hills, 15 Sept. '14 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Hyde Park, 21 Oct. '15 (H. M. P.); Tisbury, 25 July '11 (J. A. C.); Woods Hole, July (T. H. M.).

R. I.— Buttonwoods, 25 July '11 (C. W. J.); Cumberland, 3 July '10 (J. B.); Kingston, 17 June '05 (J. B.).

CONN.— Darien, 10 June '12 (C. W. J.); New Haven, 10 May '11 (A. B. C.), 31 Oct. '03 (H. L. V.); Putnam, 12 July '05 (H. L. V.); S. Meriden, 18 May '15 (H. L. J.).

Stenodema vicinum (Provancher).

ME. — Capens, 11 July '07 (C. W. J.); Ft. Kent, 17 July '05 (C. W. J.); Ironbound Id., 10 Aug. '08 (J. A. C.); Orono, 11 May '12 (H. M. P.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Crawfords, 28 Oct. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Holderness, 2 Aug. '90 (A. P. M.); Mt. Washington, Glen to Halfway House, 8 July '91 (A. P. M.); summit (fide Slosson). VT.— Jay Peak, summit, 14 July '91 (A. P. M.).

MASS.— Amherst, 7 Aug. '91; Chester, 8 Aug. '12 (C. W. J.); Fall River, 22 July '05 (J. A. C.); Forest Hills, 20 May '15 (S. L. M.); Hyde Park, 21 Oct. '15 (H. M. P.); Mt. Greylock (C. W. J.); Peru, 26 Aug. '04 (J. B.); Springfield, 13 July '05 (C. W. J.).

CONN.— Branford, 28 July '05 (H. L. V.); Brookfield, 27 July '10 (E. L. D.); Canterbüry, 14 Aug. '05 (B. H. W.); New Haven, 6 July '04 (H. L. V.); Winnipauk, 4 Aug. '08 (C. W. J.).

Mesomiris curtulus Reuter.

MASS.— Chilmark, 14 Aug. '11 (J. A. C.); Edgartown, 22 Aug. '12 (C. W. J.); Martha's Vineyard, 11 Sept. '15 (W. S. A.).

Trigonotylus ruficornis (Fallén).

ME.— Bowlin Pond, 31 July '10 (J. A. C.); Capens, 12 July '07 (C. W. J.); Eastport, 15 July '09 (C. W. J.); Orono (H. T. F.).

N. H.— Fabyans (W. F. F.); Glen House, 24 July '15 (C. W. J.); Hanover, 26 June '91; Mt. Washington, 3000 ft., 28 July '15 (C. W. J.); summit (*fide Slosson*).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Middlebury, July '12.

MASS.— Beach Bluff, 27 Aug. '14 (H. M. P.); Cohasset, 21 Sept. '14 (H. M. P.); Edgartown, 29 June '12 (C. W. J.); Framingham, 28 July '14 (C. A. F.); Nantucket, 4 July '04 (J. A. C.); Woods Hole (*fide T. H. M.*).

CONN.— Branford, 21 June '04 (H. L. V.); Colebrook, 20 July '05 (W. E. B.).

Trigonotylus brevipes Jakovlev.

CONN.— East River, 30 July '10 (C. R. E.).

Trigonotylus tarsalis (Reuter).

MASS.— Beach Bluff, 22 June '14 (H. M. P.); Chelsea; Nantasket, 8 Aug. '06.

CONN.— Colebrook, 20 July '05 (W. E. B.).

Trigonotylus uhleri (Reuter).

N. H.— Durham (C. M. W. & W. F. F.).

MASS.— Cohasset, 21 Sept. '14 (H. M. P.); Edgartown, 29 June '12 (C. W. J.); Nantucket, 19 Aug. '09 (J. A. C.).

CONN.--- Stratford, 29 June '08 (W. E. B.); Woodmont, 9 July '04 (P. L. B.).

Teratocoris discolor Uhler.

MASS.— Beach Bluff, 21 June '15, 8 Sept. '15 (H. M. P.).

Tribe HORISTINI.

Platytylellus insitivus (Say).

ME.— Paris, 7 July '15 (C. A. F.).

N. H.— Durham (C. M. W. & W. F. F.); Mt. Washington, summit (fide Slosson).

VT.— Ascutney Mt., 23 July '12 (C. W. J.).

MASS.— Amherst; Milton, July '26 (Harris Coll.); Tisbury, 21 July '11 (J. A. C.).

R. I.— Kingston, 8 Aug. '07 (J. B.); Newport Co., 16 July '12 (N. S. E.).

CONN.— Lyme, 20 Aug. '10 (B. H. W.).

Platytylellus confraternus (Uhler).

MASS.— Amherst, 8 July '11; Milton, 15 Sept. '27 (Harris Coll.); Saugus, 21 June '14 (F. W. D.).

HEMIPTERA-HETEROPTERA.

CONN.— Portland, 14 July '14 (M. P. Z.); S. Meriden, 9 July '15 (H. L. J.).

Platytylellus nigricollis (Reuter).

ME.--- W. Brooksville, 30 Aug. '99 (F. A. E.).

MASS.— Beach Bluff, 15 Aug. '14 (H. M. P.); Framingham, 22 Aug. '14 (C. A. F.).

Platytylellus insignis (Say).

ME.— Mt. Kineo (fide Stover); Orono, 15 July '13; Paris. N. H.— Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Mt. Washington, summit (fide Slosson); Webster (W. F. F.).

VT.— Newport, 12 July '91 (A. P. M.); Norwich (C. M. W.).
MASS.— Danvers, 3 Aug. '15 (H. M. P.); West Chop, 4 July '93 (A. P. M.); Winchendon, 1 July '92 (A. P. M.).

R. I.— Cumberland, 3 July '10 (J. B.); Kingston (J. B.).

CONN.— Cheshire, 8 July '04 (H. L. V.); Colebrook, 21 July '05 (H. L. V.).

Tribe CAPSINI.

Division Myrmecoraria.

Pithanus maerkeli (Herrich-Schaeffer).

ME.— Eastport, 14 July '09 (C. W. J.); Mistake Id., 9 Aug. '07 (J. A. C.); Roque Bluff, 15 Aug. '07 (J. A. C.).

Division Phytocoraria.

Neurocolpus nubilus (Say).

ME.— Orono.

N. H.— Durham (C. M. W. & W. F. F.); Hanover, 3 July '15 (C. W. J.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.).

MASS.— Amherst; Chester, 8 Aug. '12 (C. W. J.); Cohasset, 8 Sept. (O. B.); Forest Hills, 17 June '14, 4 Oct. '15 (H. M. P.); Mt. Tom, 14 July '05 (C. W. J.); Rockport, 15 July '04 (C. W. J.); Williamsburg, 7 Aug. '11 (C. W. J.); Woods Hole, 5 Sept. '15 (W. S. A.). R. I.— Kingston, 10 Aug. '07 (J. B.); Providence, 30 June (C. A. D.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Litchfield, 21 Aug. '15 (L. B. W.); New Haven, 6 July '04 (H. L. V.); Portland, 14 Aug. '13 (B. H. W.); S. Meriden, 13 July '15 (H. L. J.); Woodbury, 14 July '13 (W. E. B.).

Phytocoris lasiomerus Reuter.

ME.— Orono, 30 July; Monmouth, 16 July '14 (C. A. F.); Staceyville, Aug. '02 (H. G. B.).

N. H.— Hanover, 6 July '08 (C. W. J.); Holderness, 1 Aug. '99 (A. P. M.).

VT.— Amsden, 10 July '08 (C. W. J.).

Mass.— Peru, 29 Aug. '04 (J. B.).

Phytocoris pallidicornis Reuter.

ME.— Orono, 12 Sept. '13 (H. M. P.); Liberty, 6 Sept. '13 (J. A. C.).

N. H.- Crawfords, 28 Sept. '16 (H. M. P.).

MASS.— Beach Bluff, 8 Sept. '15 (H. M. P.); Forest Hills, 17 Sept. '14 (H. M. P.); Nantucket, 9 Aug. '09 (J. A. C.).

Phytocoris minutulus Reuter.

MASS.— Forest Hills, 16 Sept. '14 (H. M. P.).

Phytocoris antennalis Reuter.

MASS. — Ipswich, July '09 (E. P. V. D.) (fide Van Duzee).

Phytocoris annulicornis (Reuter).

MASS.— Beach Bluff, 27 Aug. '14 (H. M. P.); Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.).

Phytocoris fenestratus Reuter.

CONN.— Salisbury, 27 Aug. '04 (W. E. B.).

Phytocoris inops Uhler.

MASS.— Blue Hills, 15 Sept. '14 (H. M. P.).

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Phytocoris eximius Reuter.

ME.— Ft. Kent, 17 Aug. '10 (C. W. J.); Orono, 30 June; Waldoboro.

N. H.— Durham (C. M. W. & W. F. F.); Hanover (C. M. W.). MASS.— Saugus, 7 Sept. '14 (H. M. P.); West Chop, 5 Aug. '93 (A. P. M.).

R. I.- Kingston, 31 Aug. '07 (J. B.).

CONN.— Branford, 15 July '04 (H. W. W.); East River, 3 Aug. '10 (C. R. E.); Hartford, 12 Sept. '07 (W. E. B.); Litchfield, 27 June '14 (L. B. W.); New Haven, 27 June '04 (W. E. B.); Portland, 14 Aug. '13 (B. H. W.).

Phytocoris infuscatus Reuter.

MASS.— Fall River, 9 July '05 (J. A. C.). CONN.— East River, July '10 (C. R. E.).

Phytocoris puella Reuter.

MASS.— Auburndale, 9 Aug. (C. W. J.); Saugus, 7 Sept. '14 (H. M. P.).

R. I.— Kingston, 26 Aug. '07; Sept. '07 (J. B.).

CONN.— East River, Aug. '10 (C. R. E.).

Phytocoris puella confluens Reuter.

CONN. — East River, Aug. '10 (C. R. E.); New Haven, 9 July '12.

Phytocoris tibialis Reuter.

VT.— Brattleboro, 13 June '08 (C. W. J.).

MASS.— Beach Bluff, 31 Aug. '14 (H. M. P.); Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Chester, 15 June '12 (C. W. J.); Williamsburg, 2 Aug. '11 (C. W. J.).

R. I.— Kingston, 10 Aug. '07 (J. B.).

CONN.— Branford, 20 July '05 (H. W. W.); East River, Aug. '10 (C. R. E.).

Adelphocoris rapidus (Say).

ME.— Ft. Kent, 10 Aug. '10 (C. W. J.); Orono, 25 Sept. '13 (H. M. P.); Pownal (O. O. S.).

N. H.— Claremont (R. P. D.) (fide Torre Bueno); Crawfords, 28 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Glen House, 7 July '14 (C. W. J.); Hanover, 8 July '08 (C. W. J.); Mt. Washington, summit (fide Slosson).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Bennington, 22 June '15 (C. W. J.).

MASS.— Amherst; Beach Bluff, 27 June '15 (H. M. P.); Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Martha's Vineyard, 11 Sept. '15 (W. S. A.); Peru, 26 Aug. '04 (J. B.); Woods Hole, 5 Sept. (W. S. A.).

R. I.— Cumberland, 5 July '10 (J. B.); Kingston, 15 July '05 (J. B.).

CONN.— Chapinville, 27 Aug. '04 (W. E. B.); Farmington, 14 June '14 (W. M.); New Haven, 24 June '02 (E. J. S. M.); Rowayton, 5 Aug. '08 (C. W. J.); Scotland, 27 July '04 (B. H. W.); Stafford, 24 Aug. '05 (W. E. B.); Yalesville, 19 Oct. '03 (H. L. V.).

Stenotus binotatus (Fabricius).

MASS.— Amherst; Beach Bluff, 22 June '14 (H. M. P.); Forest Hills, 17 June '14 (H. M. P.); Newton, 16 June '14 (J. R. T. B.).

Garganus fusiformis (Say).

MASS.— Amherst, 1 Sept. '99. CONN.— Branford, 29 July '05 (W. E. B.).

Division Dichrooscytaria.

Paracalocoris scrupeus (Say) McAtee.

Ann. Ent. Soc. Amer., 1916, vol. 9, p. 370.

MASS.— Auburndale, 4 July '07 (C. W. J.).

CONN.— New Canaan, 24 June '15 (M. P. Z.); Unionville, 11 June '14 (W. M.).

Paracalocoris scrupeus triops McAtee.

Ann. Ent. Soc. Amer., 1916, vol. 9, p. 371.

VT.— Bennington, 21 June '15 (C. W. J.). MASS.— Fall River, 27 June '15 (N. S. E.).

Paracalocoris scrupeus par McAtee.

Ann. Ent. Soc. Amer., 1916, vol. 9, p. 373.

VT.— Bennington, 24 June '15 (C. W. J.).

Paracalocoris scrupeus bidens McAtee.

Ann. Ent. Soc. Amer., 1916, vol. 9, p. 374.

VT.— Bennington, 19–24 June '15 (C. W. J.).

MASS.— Auburndale, 4 July '07 (C. W. J.); Forest Hills, 17 June '14 (H. M. P.).

R. I.— Tiverton, 12 July '16 (C. W. J.).

CONN.— Farmington, 19 June '14 (W. M.); Wallingford, 14 June '11 (J. K. L.).

Paracalocoris scrupeus nubilus McAtee.

Ann. Ent. Soc. Amer., 1916, vol. 9, p. 375.

VT.— Bennington, 22 June '15 (C. W. J.) (atypical).

Paracalocoris limbus McAtee.

Ann. Ent. Soc. Amer., 1916, vol. 9, p. 380.

MASS.— Brookline, 4 July (C. W. J.); Mt. Tom, 14 July '05 (C. W. J.).

Paracalocoris colon amiculus McAtee.

Ann. Ent. Soc. Amer., 1916, vol. 9, p. 384.

MASS.— Boston (vicinity).

Calocoris norvegicus (Gmelin).

ME.— Eastport, 15 July '09 (C. W. J.); Orono, 25 July '82 (H. T. F.); Orr's Id., 15 July '09 (C. W. J.).

MASS.— Beverly (E. B.); Cohasset, 25 June (O. B.); Eastham, 27 June '09 (C. W. J.); Forest Hills, 17 June '14 (H. M. P.); Hyannisport, 4 July '04 (J. A. C.); Nantucket, 4 July '04 (J. A. C.); Rockport, 15 July '04 (C. W. J.).

Poeciloscytus unifasciatus (Fabricius).

ME.— Capens, 11 July '07 (C. W. J.). ? VT.— (fide Banks).

Poeciloscytus basalis Reuter.

ME.— Orono, 15 Aug. '05; Westbrook, 13 Oct.

N. H.- Hanover, 5 July '92 (A. P. M.).

VT.— Middlebury, 12 July.

MASS.— Beach Bluff, 24 Aug. '15 (H. M. P.); Edgartown, 22 Aug. '12 (C. W. J.); Fall River, 14 June '06 (N. S. E.); Forest Hills, 7 Sept. '14 (H. M. P.); Nantucket, 4 July '05 (J. A. C.); Provincetown, 27 June '91 (A. P. M.); Squantum, 3 Oct. '14 (H. M. P.); Woods Hole, July (T. H. M.).

R. I.— Buttonwoods, 25 July '11 (C. W. J.).

CONN.— Bantam, 19 June '14 (W. E. B.); East River, Sept. '10 (C. R. E.); New Haven, 17 June '02.

Poeciloscytus venaticus Uhler.

ME.— Machias, 22 July '09 (C. W. J.); Monmouth, 15 July '14 (C. A. F.); Staceyville, 15 Aug. '02 (H. G. B.).

N. H.— Glen House, 15 July '15 (C. W. J.); Hanover, 8 July '08 (C. W. J.).

VT.— Newport, 13 July '91 (A. P. M.); Norwich, 8 July '08 (C. W. J.).

MASS.— Amherst, 31 July '00; Auburndale, 28 June (C. W. J.); Framingham, 27 June '14 (C. A. F.); Newton, 16 June '14 (J. R. T. B.); Swampscott, 1 Aug. '14 (H. M. P.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Colebrook, 20 July '05 (W. E. B.); Darien, 10 June '12 (C. W. J.); Greens Farms, 24 June (W. E. B.); Greenwich, 9 July '07 (J. A. C.); Hartford, 25 June '15 (W. M.); West Haven, 27 June '05 (H. L. V.).

Dichrooscytus suspectus Reuter.

ME.- Mt. Katahdin, 3000 ft., Aug. '02 (H. G. B.).

MASS.— Lowell (fide Reuter).

R. I.— Kingston, Sept. '07 (J. B.).

CONN.— Stonington, 15 July '14 (I. W. D.).

Horcias dislocatus (Say).

N. H.— Durham (C. M. W. & W. F. F.).

CONN.— Branford, 28 July '05 (H. L. V.); Darien, 10 June '12

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(C. W. J.); New Haven, 1 June '11 (B. H. W.); S. Meriden, 1 June '15 (H. L. J.); Wallingford, '11 (D. J. C.); Winnipauk, 16 June '09 (C. W. J.).

Horcias dislocatus coccineus (Emmons) (= H. d. scutellatus Van Duzee).

N. H.— Durham (C. M. W. & W. F. F.).

MASS.— Forest Hills, 17 June '14 (H. M. P.).

CONN.— Branford, 5 July '05 (H. W. W.); S. Meriden, June '15 (H. L. J.).

Horcias dislocatus goniphorus (Say).

ME.— Liberty, 17 July '12 (J. A. C.); Monmouth, 15 July '14 (C. A. F.); Orono, 15 Aug.

N. H.— Durham (C. M. W. & W. F. F.); Hanover, 3 July '15 (C. W. J.); Mt. Washington, summit (fide Slosson).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Bennington, 19 June '15 (C. W. J.); Burlington, 23 June '06 (C. W. J.); St. Albans, 29 June '13 (C. W. J.).

MASS.— Amherst; Boston, 2 July '03 (H. M. P.); N. Adams, 20 June '06 (C. W. J.).

CONN.— Branford, 29 June '05 (H. W. W.); Litchfield, 28 June '03 (L. B. W.); New Haven, 1 June '11 (B. H. W.); S. Meriden, 10 June '14 (H. L. J.); Winnipauk, 16 June '09 (C. W. J.).

Horcias dislocatus limbatellus (Walker).

N. H.— Durham (C. M. W. & W. F. F.).

VT.— Bennington, 19 June '15 (C. W. J.); St. Albans, 29 June '13 (C. W. J.).

MASS.— Amherst, 16 June '05.

CONN.— Branford, 5 July '05 (H. W. W.); New Haven, 1 June '11 (B. H. W.); S. Meriden, June '15 (H. L. J.); Winnipauk, 12 June '15 (C. W. J.).

Horcias dislocatus marginalis (Reuter).

ME.— Ft. Kent, 17 Aug. '10 (C. W. J.).

VT.-- Burlington, 22 June '06 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

CONN.— Branford, 1 June '06 (H. W. W.); S. Meriden, June '15 (H. L. J.).

Horcias dislocatus nigrita Reuter.

ME.— Ft. Kent, 19 Aug. '10 (C. W. J.); Paris, 10 July '14 (C. A. F.).

N. H.— Durham (C. M. W. & W. F. F.).

Vr.— Burlington, 22 June '06 (C. W. J.); Jay, 17 July '91 (A. P. M.); Montpelier, 25 June '06 (C. W. J.); Norwich, 8 July '08 (C. W. J.); St. Albans, 29 June '13 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Auburndale, 25 June '05 (C. W. J.); Boston, 2 July '03 (H. M. P.).

CONN.— Branford, 27 June '04 (H. L. V.); Darien, 10 June '12 (C. W. J.); New Haven, 6 June '04 (H. L. V.); S. Meriden, 13 July '15 (H. L. J.); Winnipauk, 12 June '15 (C. W. J.).

Horcias dislocatus pallipes Van Duzee.

ME.— Ft. Kent, 17 Aug. '10 (C. W. J.).

N. H.— Hanover, 8 July '08 (C. W. J.).

VT.-- Burlington, 22 June '06 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

CONN.— S. Meriden, June '15 (H. L. J.).

Poecilocapsus lineatus (Fabricius).

ME.— Capens, 12 July '07 (C. W. J.); Eastport, 16 July '09 (C. W. J.); Ft. Kent, 17 Aug. '10 (C. W. J.); Orono; Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Glen House, 15 July '14 (C. W. J.); Mt. Washington, summit (fide Slosson).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Burlington, 22 June '06 (C. W. J.); Newport, 13 July '91 (A. P. M.); Stratton, 8 July '13 (P. W. W.).

MASS.— Amherst, 15 July '01; Eastham, 27 June '04 (C. W. J.); Forest Hills, 17 June '14 (H. M. P.); Springfield, 13 July '05

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(C. W. J.); Rockport, 15 July '04 (C. W. J.); Woods Hole, 25 July '05 (J. A. C.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Providence, 6 July (C. A. D.).

CONN.— Danbury, 15 June '09 (C. W. J.); Greenwich, 9 July '07 (J. A. C.); Hartford, 26 June '14 (W. M.); New Haven, 12 June '96 (W. E. B.); S. Meriden, 6 July '14 (H. L. J.); Stonington, 5 July '06 (J. A. H.).

Division Capsaria.

Capsus ater (Linné).

ME.— Orono, 19 June '05.

N. H.— Bretton Woods, 24 June '13 (C. W. J.); Claremont (R. P. D.) (fide Torre Bueno); Durham (C. M. W. & W. F. F.); Glen House, 15 July '15 (C. W. J.); Hampton; Mt. Washington, summit (fide Slosson).

VT.— Ascutney Mt., 23 June '06 (C. W. J.); Newport, 12 July '91 (A. P. M.); St. Albans, 21 June '13 (C. W. J.).

MASS.— Beach Bluff, 21 June '14 (*H. M. P.*); Cheshire, 20 June '06 (*C. W. J.*); Cohasset, 6 June (*O. B.*); Forest Hills, 1 June '15 (*H. M. P.*); Peru, June '04 (*J. B.*); West Springfield, 4 June '15 (*H. E. S.*); Winchendon, 1 July '92 (*A. P. M.*); Woods Hole, 1 July '05 (*J. A. C.*).

R. I.— Kingston, 17 June '05, 4 Aug. '05 (J. B.).

CONN.— Danbury, 15 June '09 (C. W. J.); Middlebury, 16 June '10 (B. H. W.); Mt. Carmel, 22 June '08 (W. E. B.); New Haven, 20 May '04 (B. H. W.); Southington, 5 July '05 (B. H. W.); Windsor, 27 June '05 (B. H. W.).

Capsus ater tyrannus (Fabricius).

ME.— Capens, 18 July (C. W. J.); Paris, 8 July '14 (C. A. F.).

N. H.-Glen House, 15 July '15 (C. W. J.).

VT.— Burlington, 23 June '06 (C. W. J.); St. Albans, 21 June '13 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Amherst, 10 June '03; Beach Bluff, 21 June '14 (H. M. P.); Boston, 14 June '03 (H. M. P.); Woods Hole, 1 July '05 (J. A. C.).

Capsus ater semiflavus (Linné).

ME.— Eastport, 15 July '09 (C. W. J.); Holden, 18 June '04 (F. A. E.); Monmouth, 20 June '09 (C. A. F.).

N. H.-Jackson, 3 July '91 (A. P. M.).

MASS.— Amherst, 11 June '92; Beach Bluff, 21 June '15 (H. M. P.); Forest Hills, 17 June '14 (H. M. P.); Framingham, 24 Sept. '05 (C. A. F.); Sherborn, 10 June '94 (A. P. M.).

CONN.— New Haven, 22 June '04 (B. H. W.); Westville, 2 June '08 (B. H.W.).

Coccobaphes sanguinareus Uhler.

ME.— Manchester, 3 Aug. (0. 0. S.); Monmouth, 27 June '06 (C. A. F.).

N. H.— Glen House, 25 July '14 (C. W. J.).

VT.— Ascutney Mt., 2000 ft., 11 July '08 (C. W. J.); Montpelier, 25 June '06 (C. W. J.); Stratton, 1 July '13 (P. W. W.).

MASS.— Amherst, 4 Aug. '04; Mt. Greylock, 8 Aug. '07 (C. W. J.); Mt. Tom, July '14 (C. W. J.); Natick, 20 June '14 (C. A. F.); Sharon, 28 June '16 (C. W. J.).

CONN.— Hartford, 26 June (W. M.); Litchfield, 20 June '08 (L. B. W.); New Haven, 12 June '02 (W. E. B.); S. Meriden, 27 June '14 (H. L. J.).

Lygidea rubecula (Uhler).

ME.— Capens, 18 July '07 (C. W. J.); Machias, 19 July (C. W. J.).

N. H.— Fabyans (W. F. F.); Glen House, 15 July '15 (C. W. J.); Hanover, 3 July '15 (C. W. J.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.).

Lygidea mendax Reuter.

ME.— Orono, 30 June.

CONN.— New Haven, 15 June '14, 1 July '14 (*M. P. Z.*); Wallingford, 5 July '11 (*D. J. C.*).

Lygus pratensis punctatus (Zetterstedt).

ME.— Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10

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HEMIPTERA-HETEROPTERA.

(C. W. J.); Ironbound Id., 10 Aug. '08 (J. A. C.); Orono, 7 May '14 (H. M. P.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Jackson, 22 Sept. '07 (O. B.); Lebanon, 4 Sept. '15 (H. E. S.); Mt. Washington, 3000 ft., 4 July '13 (C. W. J.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Brattleboro, 15 June '08 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

Mass.— Chester, 8 Aug. '12 (C. W. J.); Forest Hills, 7 May '15 (S. L. M.); Hyde Park, 21 Oct. '15 (H. M. P.); Mt. Greylock, 15 June '06 (C. W. J.); Tisbury, 25 July '11 (J. A. C.); Tuckernuck Id., 5 Aug. '13 (J. A. C.); Nantucket, 19 Aug. '09 (J. A. C.); W. Springfield, 21 Oct. '15 (H. E. S.).

R. I.— Block Id., 28 Aug. '91 (A. P. M.); Buttonwoods, 25 July '11 (C. W. J.).

CONN.— Colebrook, 21 July '05 (H. L. V.); Greenwich, 9 July '07 (C. W. J.); Litchfield, 9 March '13 (L. B. W.); Mt. Carmel, 27 April '15 (Q. S. L.); Yalesville, 19 Oct. '03 (H. L. V.).

Lygus pratensis rubidus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

ME.— Capens, 12 July '07 (C. W. J.); Eastport, 15 July '09 (C. W. J.); Machias, 22 July '09 (C. W. J.); Orono, 5 June '13 (H. M. P.); Paris, 4 July '15 (C. A. F.).

N. H.— Bretton Woods, 27 June '13 (C. W. J.); Fabyans (W. F. F.); Glen House, 3 July '14 (C. W. J.); Mt. Washington, 3000 ft., 4 July '13 (C. W. J.).

VT.-- Stratton, 8 July '13 (P. W. W.).

MASS.— Chester, 8 Aug. '12 (C. W. J.); Mt. Greylock, 15 June '06 (C. W. J.).

Lygus vanduzeei Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

ME.— Belfast, 21 July '12 (J. A. C.); Eastport, 15 July '09 (C. W. J.); Ft. Kent, 17 Aug. '10 (C. W. J.); Liberty, 17 July '12 (J. A. C.); Monmouth, 23 June '07 (C. A. F.); Northeast Harbor, 27 Sept. '07 (C. S. M.); Orono, 7 Sept. '06; Township 2, Range 7, Penobscot Co., 2 Aug. '10 (J. A. C.).

N. H.— Bretton Woods, 26 June '13 (C. W. J.); Crawfords, 28 Oct. '16 (H. M. P.); Glen House, 15 July '15 (C. W. J.); Hanover, 3 July '15 (C. W. J.); Jackson, 22 Sept. '07 (O. B.); Mt. Washington, 3000 ft., 4 July '13 (C. W. J.); Wonalancet, 13 Sept. '12 (J. A. C.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Burlington, 22 June '06; Dummerston, 14 July '08 (C. W. J.); Manchester, 8 June '10 (C. W. J.); Montpelier, 25 June '06 (C. W. J.).

MASS.— Amherst, 23 June '04; Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Chester, 3 Aug. '11 (C. W. J.); E. Gloucester, 30 Aug. '12 (C. W. J.); Forest Hills, 24 Sept. '15 (H. M. P.); Mt. Greylock, 15 June '06 (C. W. J.); Mt. Tom, 14 July '05 (C. W. J.); N. Adams, 18 June '06 (C. W. J.); Southbridge, 8 July '13 (C. W. J.); Springfield, 13 July '05 (C. W. J.).

CONN.— Brookfield, 27 July '10 (E. L. D.); S. Meriden, 7 July '15 (H. L. J.).

Lygus vanduzeei rubroclarus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

ME.— Capens, 11 July '07 (C. W. J.); Machias, 26 July '06 (C. W. J.); Orono, 5 June '13 (H. M. P.).

N. H.— Bretton Woods, 30 June (E. P. V. D.); Fabyans (W. F. F.); Glen House, 3 July '14 (C. W. J.); Mt. Washington, 3000 ft., 8 July '14 (C. W. J.).

VT.— Mt. Mansfield, 29 June (G. P. E.); Stratton, 8 July '13 (P. W. W.).

MASS.— Mt. Greylock, 15 June '06 (C. W. J.).

Lygus plagiatus Uhler.

ME.— (fide Uhler).

MASS.— Forest Hills, 30 Sept. '15 (H. M. P.); Pigeon Cove, 30 July '16 (C. E. O.); Swampscott, 19 Aug. '14 (H. M. P.).

R. I.— Kingston, 26 April '04 (J. B.).

Lygus rubicundus (Fallén).

ME.— Paris, 10 July '14 (C. A. F.). MASS.— (fide Uhler).

Lygus campestris (Linné).

ME.— Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Orono, 2 May '13 (H. M. P.); Orr's Id., 25 July '09 (C. W. J.).

N. H.— Hanover, 3 July '13 (C. W. J.); Mt. Washington, summit (fide Slosson).

VT.— Ascutney Mt., 23 July '12 (C. W. J.); Brattleboro, 15 June '08 (C. W. J.); Newport, 12 July '91 (A. P. M.); St. Albans, 21 June '13 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Mt. Tom, 14 July '05 (C. W. J.); Plymouth, 28 July '05 (C. W. J.).

CONN.— Branford, 28 July '05 (H. H. W.); Colebrook, 21 July '05 (H. L. V.); West Haven, 3 April '05 (W. E. B.); Westville, 2 June '08 (B. H. W.); Winnipauk, 16 June '09 (C. W. J.).

Lygus pabulinus signifer Reuter.

ME.— Capens, 12 July '07 (C. W. J.); Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Mt. Katahdin (H. G. B.); Naples, 1 July '13 (C. W. J.); Orono, 17 Aug. '05; Traveller Mt., 27 July '12 (J. A. C.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Glen House, 20 July '15 (C. W. J.); Hanover, 6 July '08 (C. W. J.); Mt. Washington, 3000 ft., 28 July '15 (C. W. J.); summit (fide Slosson).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Killington Peak, 11 Aug. '93 (A. P. M.); Mt. Mansfield, 4000 ft., 21 July '91 (A. P. M.); Norwich, 8 July '08 (C. W. J.).

MASS.— Beach Bluff, 25 June '15 (H. M. P.); Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.); Chester, 8 Aug. '12 (C. W. J.); Manomet, 27 July (W. S. B.); Mt. Greylock, 15 June '06 (C. W. J.); Woods Hole (C. T. B.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Kingston, 17 July '05 (J. B.).

CONN.— Cheshire, 8 July '04 (H. L. V.); Darien, 10 June '12 (C. W. J.); Middletown, 17 June '09 (C. W. J.); New Haven, 10 June '10 (B. H. W.); Stafford, 28 Aug. '05 (W. E. B.).

Lygus approximatus (Stal).

Mr.-- Mt. Katahdin, 3000 ft., Aug. '02 (H. G. B.).

N. H.— Mt. Washington, 2500 ft., 24 Sept. '07 (O. B.); Randolph, 18 Sept. (W. T. D.).

Lygus olivaceus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

Mass.— Manomet, 8 Aug. '12 (W. S. B.); Tisbury, 6 Aug. '11 (J. A. C.).

CONN. --- East River, 7 Sept. '10 (C. R. E.).

Lygus olivaceus viridiusculus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

MASS.— Tisbury, 5 Aug. '11 (J. A. C.).

Lygus apicalis Fieber.

ME.— Liberty, 6 Sept. '13 (J. A. C.).

Lygus fagi Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

N. H.- Glen House, 15 July '15 (C. W. J.).

VT.— Dummerston, 14 July '08 (C. W. J.); Norwich, 8 July '08 (C. W. J.).

MASS.— Chester, 8 Aug. '12 (C. W. J.); Mt. Greylock, 8 Aug. '12 (C. W. J.).

Lygus invitus (Say) Knight.

Can. Ent., 1917, vol. 48, p. 346.

VT.— Burlington, 22 June '06 (C. W. J.); Norwich, 8 July (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— North Adams, 20 June (C. W. J.); Swampscott, 9 July '14 (H. M. P.).



HEMIPTERA-HETEROPTERA.

CONN.— Danbury, 5 June '09 (C. W. J.); S. Meriden, June '15 (H. L. J.); Winnipauk, 16 June '09 (C. W. J.).

Lygus atritylus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

VT.— Stowe, 29 June (G. P. E.). N. H.— Franconia (A. T. S.).

Lygus confusus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

ME.— Machias, 22 July '09 (C. W. J.). N. H.— Mt. Washington, 16 July.

Lygus alni Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

N. H.— Franconia (A. T. S.).

Lygus geneseensis Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

MASS.— Pigeon Cove, 28 July '16 (C. E. O.).

Lygus viburni Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

VT.— Bennington, 22 June '15 (C. W. J.). CONN.— New Haven, 11 June '14 (B. H. W.).

Lygus parshleyi Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

ME.— Eastport, 14 July '09 (C. W. J.).

N. H.— Bretton Woods, 26 June '13 (C. W. J.); Glen House, 23 July '15 (C. W. J.).

Lygus tiliae Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

VT.— Middlebury, July '12.



MASS.— Springfield, 13 July '05 (C. W. J.).

CONN.— Middletown, 17 June '09 (C. W. J.); Poquonock, 27 June '05 (H. L. V.).

Lygus caryae Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

VT.— Bennington, 22 June '15 (C. W. J.).

MASS.— Amherst; Forest Hills, 17 June '14 (H. M. P.).

CONN.— New Haven, 24 June '05 (B. H. W.); Portland, 5 June

'14 (B. H. W.); Yalesville, 27 June '07 (B. H. W.).

Lygus caryae subfuscus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

MASS.— Forest Hills, 11 June '14 (H. M. P.). CONN.— Portland, 5 June '14 (B. H. W.).

Lygus vitticollis Reuter.

ME.— Orono, 12 July '05.

N. H.— Bretton Woods, 28 June '13 (C. W. J.); Mt. Washington, 2500 ft., 24 July '15 (C. W. J.).

VT.— Amsden, 10 July '08 (C. W. J.).

Mass.— Auburndale, 25 June '05 (C. W. J.); Blue Hills, 6 June (C. W. J.); Framingham, 11 June '11 (C. A. F.); Groton, 8 July '05 (C. W. J.); Pocasset, 6 Aug. '12 (J. A. C.); Rutland, 31 July '16 (C. W. J.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.).

CONN.— Danbury, 15 June '09 (C. W. J.); East River, Aug. '10 (C. R. E.); Litchfield, 20 June '08 (L. B. W.); New Haven, 9 June '05 (B. H. W.).

Lygus neglectus Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

MASS.— Manomet, 26 July; Tisbury, 25 July '11 (J. A. C.).

Lygus communis Knight.

Can. Ent., 1916, vol. 48, p. 346.

ME.— Capens, 12 July (C. W. J.); Eastport, 15 July '03 (C.

W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Orono; Paris, 10 July '14 (C. A. F.).

N. H.— Bretton Woods, 20 June (E. P. V. D.); Glen House, 24 July '15 (C. W. J.); Mt. Washington, 3000 ft., 4 July '13 (C. W. J.); summit (fide Slosson).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Bennington, 22 June '15 (C. W. J.); Burlington, 22 June '06 (C. W. J.); Norwich, 8 July '08 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Beach Bluff, 21 June '14 (H. M. P.); Cheshire, 20 June '06 (C. W. J.); N. Adams, 20 June '06 (C. W. J.).

CONN.— Middletown, 17 June '09 (C. W. J.); S. Meriden, June '15 (H. L. J.).

Lygus quercialbae Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

MASS.— Forest Hills, 11 June '14 (H. M. P.); Springfield, 13 July.

Lygus omnivagus Knight.

ME.— Naples, 1 July '13 (C. W. J.).

N. H.— Durham (C. M. W. & W. F. F.); Glen House, 24 July '15 (C. W. J.); Hanover, 3 July '15 (C. W. J.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Burlington, 22 June '06 (C. W. J.); Dummerston, 14 July '08 (C. W. J.).

MASS.— Auburndale, 9 Aug. (C. W. J.); Beach Bluff, 4 July '15 (H. M. P.); Chilmark, 14 Aug. '14 (J. A. C.); Gloucester, 20 July (W. L. M.); Mt. Tom, 14 July '05 (C. W. J.); Pigeon Cove, 29 July (C. E. O.); Woods Hole, July (T. H. M.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.); Kingston, 31 Aug. '07 (J. B.).

CONN.— Branford, 28 July '05 (H. L. V.); Danbury, 15 June '09 (C. W. J.); Darien, 10 June '12 (C. W. J.); Double Beach, 5 June (H. L. V.); Litchfield, 8 Aug. '12 (L. B. W.); Middletown, 17 June '09 (C. W. J.); New Haven, 8 June '04 (B. H. W.).

Lygus johnsoni Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

VT.— St. Johnsbury, 28 June '06 (C. W. J.). CONN.— Middletown, 17 June '09 (C. W. J.).

Lygus belfragei Reuter.

ME.— Calais, 17 July '07 (C. W. J.); Capens, 17 July '07 (C. W. J.); Machias, 22 July '09 (C. W. J.); Princeton, 12 July '09 (C. W. J.).

N. H.— Glen House, 20 July '15 (C. W. J.); Hanover (C. M. W.); Mt. Washington, 3000 ft., 4 July '13 (C. W. J.).

Vr.— Ascutney Mt., 11 July '08 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Norwich, 8 July '08 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Chester, 8 July '12 (C. W. J.); E. Gloucester, 30 Aug. '12 (C. W. J.); Forest Hills, 17 June '14 (H. M. P.); Manomet, 4 July '05 (C. W. J.); Mt. Greylock, 8 Aug. '07 (C. W. J.); Swampscott, 9 July '14 (H. M. P.).

R. I.— Kingston, 27 Aug. '07 (J. B.).

Lygus clavigenitalis Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.

ME.- Portland, 9 July (E. P. V. D.).

Lygus hirticulus Van Duzee (= L. tenellus Van Duzee).

ME.— Naples, 1 July '13 (C. W. J.); Orono, 25 July '05; Paris, 4 July '16 (C. A. F.).

N. H.— Glen House, 24 July '15 (C. W. J.); Hanover, 8 July '08 (C. W. J.); Mt. Washington, 3000 ft., 28 July '15 (C. W. J.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Norwich, 8 July '08 (C. W. J.).

MASS.— Beach Bluff, 5 July '14 (H. M. P.); Mt. Greylock, 8 Aug. '07 (C. W. J.); Mt. Tom, 14 July '05 (C. W. J.); N. Adams, 18 June '06 (C. W. J.); Peru, 26 Aug. '04 (J. B.); Sherborn, 26 July '15 (C. A. F.).

Lygus ostryae Knight.

Bull. Cornell Agr. Exp. Sta., 1917, no. 391.



HEMIPTERA-HETEROPTERA.

VT.— Norwich, 8 July '08 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

Mass.— Brookline, 4 July (C. W. J.); N. Adams, 20 June '06 (C. W. J.).

Tropidosteptes cardinalis Uhler.

N. H.— Durham (C. M. W. & W. F. F.). VT.— Bennington, 19 June '15 (C. W. J.). MASS.— Amherst, 16 June '05; Andover (F. G. S.) (fide Uhler); Groton, 8 July '05 (C. W. J.); N. Adams, 18 June '06 (C. W. J.).

CONN.- Darien, 10 June '12 (C. W. J.); Hamden, 28 May '11

(B. H. W.); Meriden, 3 June '10 (W. E. B.); New Haven, 3 June

'08 (B. H. W.); Rowayton, 16 June '09 (C. W. J.).

Neoborus amoenus (Reuter).

ME.— Orono, 10 Sept. '85 (H. T. F.). VT.— St. Albans, 19 June '13 (C. W. J.). MASS.— N. Adams, 20 June '08 (C. W. J.). CONN.— New Haven, 28 Sept. '05 (B. H. W.).

Neoborus amoenus palmeri (Reuter).

CONN. -- Washington, 24 June '14 (G. H. V.).

Neoborus amoenus scutellaris (Reuter).

N. H.— Hanover, 8 July '08 (C. W. J.). VT.— Ascutney Mt., 11 July '08 (C. W. J.). MASS.— Chester, 8 Aug. '12 (C. W. J.); Waltham. R. I.— Kingston, 8 Aug. '07 (J. B.).

Neoborus geminus (Say). MASS.— Mt. Greylock.

Neoborus tricolor (Van Duzee).

MASS.— Cohasset, 6 June (O. B.); N. Adams, 18 June '06 (C. W. J.).

Neoborus pettiti (Reuter).

CONN.-- New Haven, 28 April '05 (B. H. W.).

Neoborus canadensis (Van Duzee).

MASS.— Forest Hills, 11 June 1914 (H. M. P.).

Division Deraeocoraria.

Cimatlan catulum (Uhler). CONN.— Wallingford, 20 July '10 (D. J. C.).

Cimatlan grossum (Uhler).

MASS.— Tyngsboro (fide Knight).

Camptobrochis nebulosus Uhler.

ME.— Ashland Jct., 16 Aug. '10 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.).

N. H.— Durham (C. M. W. & W. F. F.); Mt. Washington, summit (fide Slosson).

MASS.— Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Forest Hills, 15 Jan. '15 (S. M. D.); Lynn, 18 Aug. '15 (H. M. P.); Melrose, Nov. '15 (F. A. S.); Wellesley, 14 May '16 (H. M. P.).

R. I.— Buttonwoods, 25 July '11 (C. W. J.).

CONN.— New Haven, 18 March '11 (A. B. C.); S. Meriden, 21 Feb. '15 (H. L. J.); Westville, 2 Dec. '05 (W. E. B.).

Camptobrochis validus cunealis Reuter.

Mass.— Chester, 7 Aug. '12 (C. W. J.); Forest Hills, 6 April '15 (S. L. M.).

CONN.— New Haven, 15 July (A. B. C.); Orange, 21 June '11 (A. B. C.).

Camptobrochis grandis Uhler.

ME.— Machias, 26 July '06 (C. W. J.); Orono, 1 July '05 (E. M. P.).

N. H.— Mt. Washington, summit (fide Slosson).

VT.— Ascutney Mt., 11 July '08 (C. W. J.).

MASS.— Beach Bluff, 18 July '15 (H. M. P.); Chester, 8 Aug. '12 (C. W. J.); Danvers, 3 July '14; Natick, 20 June '14 (C. A. F.).



R. I.— Providence, 1 July '09 (J. B.).

CONN.— New Haven, 15 Aug. '05 (W. E. B.); S. Meriden, 4 July '14 (H. L. J.); Wallingford, 19 June '12 (D. J. C.).

Camptobrochis grandis nitens Reuter.

ME.— Mt. Katahdin, 3000 ft., Aug. '02 (H. G. B.); Orono, 11 July, 15 Aug. '05.

MASS.— Beach Bluff, 18 July '15 (H. M. P.); Blue Hills, 15 Sept. '14 (H. M. P.); Forest Hills, 17 Sept. '14 (H. M. P.); Saugus, 7 Sept. '14 (H. M. P.); Woods Hole, 5 Sept. '15 (W. S. A.).

CONN.— East River, 3 Aug. '10 (C. R. E.); New Haven, 14 Aug. '12 (L. B. R.); S. Meriden, 6 July '14 (H. L. J.); Wallingford, 19 June '12 (D. J. C.).

Deraeocoris ruber¹ (Linné).

MASS.— Beach Bluff, 12 July '14, 16 Aug. '15 (H. M. P.); Marblehead, 24 July '14 (H. M. P.).

CONN.— Hartford, 26 June '14 (W. M.); New Haven, 21 June '14 (B. H. W.), 21 July '14 (M. P. Z.).

BRYOCORINAE.

Tribe BRYOCORINI.

Sixeonotus insignis Reuter.

MASS.— Needham, 3 Sept. '11 (C. W. J.). CONN.— Colebrook, 21 July '05 (H. L. V.).

Monalocoris filicis (Linné).

ME.— Ft. Kent, 17 Aug. '10 (C. W. J.); Machias, 22 July '09 (C. W. J.); Naples, 1 July '13 (C. W. J.); Orono, 31 May '14 (H. M. P.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Cornish, 3 July '08; Glen House, 24 July '15 (C. W. J.); Mt. Washington, 4000 ft., 28 July '15 (C. W. J.); summit (fide Slosson).

¹ Including several forms very similar to the named varieties of Europe.

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Vr.— Ascutney Mt., 11 July '08 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Jay Peak, 4018 ft., 14 July '91 (A. P. M.); Montpelier, 25 June '06 (C. W. J.); Mt. Mansfield, 4000 ft., 21 July '91 (A. P. M.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Blue Hills, 22 May '15 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Chester, 8 Aug. '12 (C. W. J.); Forest Hills, 20 May '15 (H. M. P.); Mt. Tom, 14 July '05 (C. W. J.). CONN.— Brookfield, 27 July '10 (E. L. D.); Lyme, 20 Aug. '10 (B. H. W.); Putnam, 12 July '15 (H. L. V.).

CYLAPINAE.

Tribe CYLAPINI.

Cylapus tenuicornis Say.

R. I.— Kingston, 19 Aug. '07 (J. B.). CONN.— Winnipauk, 21 July '08 (C. W. J.).

Tribe FULVIINI.

Fulvius brunneus (Provancher).

ME.— Orono (H. T. F.).

N. H.— Mt. Vernon, 6 Sept. '97 (F. B.).

MASS.— Fall River, 6 Aug. '10 (N. S. E.); Milton, 20 June '31 (*Harris Coll.*); Sherborn, 6 Sept. '14 (C. A. F.); Tyngsboro (F. B.); Wellesley, 15 Aug. '01 (A. P. M.).

R. I.— Kingston, 18 Aug. '07 (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); New Haven, 28 Aug. '10 (B. H. W.).

DICYPHINAE.

Tribe HALLODAPINI.

Orectoderus obliguus Uhler.

ME.— Machias, 22 July '09 (C. W. J.).

MASS.— Auburndale, 15 June '05 (C. W. J.); Berlin, 13 June '15 (C. A. F.); Lowell (fide Kirkaldy); Manomet, 16 June '12 (W. S.



B.); Provincetown, 24 June '04 (C. W. J.); Wachusett, 22 June

'78; Woods Hole, 2 July '05 (J. A. C.).
R. I.— Kingston, 23 June '06 (J. B.).
CONN.— (fide Uhler).

Coquillettia mimetica Osborn.

MASS.— Dover, 7 July '94 (A. P. M.); Edgartown, 28 June '10 (C. W. J.); Framingham, 20 July '12 (C. A. F.); Woods Hole, July (T. H. M.).

Tribe DICYPHINI.

Hyaliodes vitripennis (Say).

ME.— Ashland Jct., 16 Aug. '10 (C. W. J.); Ft. Kent, 17 Aug. '10 (C. W. J.).

N. H.— Crawfords (W. F. F.); Hanover (C. M. W.).

VT.— Norwich, 8 July '08 (C. W. J.).

Mass.— Chester, 8 Aug. '12 (C. W. J.); Fall River, 22 July '05 (N. S. E.); Forest Hills, 14 Sept. '14 (H. M. P.); Williamsburg, 7 Aug. '11 (C. W. J.); Woods Hole, July (T. H. M.).

R. I.— Kingston, 10 Aug. '07 (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Mt. Carmel, 24 July '04 (W. E. B.); New Canaan, 14 Sept. '05 (W. E. B.); Pine Orchard, 26 July '04 (W. E. B.); Portland, 10 Aug. '13 (B. H. W.); Rowayton, 5 Aug. (C. W. J.).

Dicyphus agilis (Uhler).

ME.— Capens, 12 July '07 (C. W. J.); Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Pownal (O. O. S.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Fabyans (W. F. F.); Glen House, 24 July '15 (C. W. J.); Hanover, 8 July '08 (C. W. J.); Mt. Washington, 4000 ft., 28 July '15 (C. W. J.); summit (fide Slosson).

VT.— Ascutney Mt., 23 July '12 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Norwich, 8 July '08 (C. W. J.); St. Johnsbury, 28 June '06 (C. W. J.).

MASS.— Brookline, 4 July (C. W. J.); Chester, 8 Aug. '12 (C. W. J.); Waltham.

CONN.— Colebrook, 21 July '05 (H. L. V.); Hamden, 25 June '11 (B. H. W.); New Haven, 15 June '04 (W. E. B.); Poquonock, 27 June '05 (H. L. V.).

Dicyphus famelicus (Uhler).

ME.— Liberty, 13 Sept. '13 (J. A. C.).

N. H.— Hanover, 6 July '08 (C. W. J.); Mt. Washington, 8 July '14 (C. W. J.); summit (fide Slosson).

Vr.— Ascutney Mt., 11 July '08 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Montpelier, 25 June '06 (C. W. J.); St. Albans, 19 June '13 (C. W. J.).

MASS.— Amherst, 1 Aug. '00; Blue Hills, 15 Sept. '14 (H. M. P.); Boston, Chestnut Hill, 13 Oct. '15 (H. M. P.); Chester, 26 May '12 (C. W. J.); Forest Hills, 19 Sept. '14 (H. M. P.); Lynn, 18 Aug. '15 (H. M. P.); Saugus, 7 Sept. '14 (H. M. P.).

Macrolophus separatus (Uhler).

MASS.— Brookline, 25 Sept. '13 (C. W. J.); Lynn, 2 Sept. '14 (H. M. P.); Saugus, Aug. '06.

ORTHOTYLINAE.

Tribe ORTHOTYLINI.

Division Laboparia.

Labops hesperius Uhler.

ME.— Monmouth, 16 June (C. A. F.); Paris, 4 July '15 (C. A. F.); Skowhegan, 19 June '00 (O. O. S.).

N. H.— Bretton Woods, 24 June '13 (C. W. J.); Concord, 4 June '15 (H. E. S.); Durham (C. M. W. & W. F. F.); Hanover (C. M. W.); Jackson, 3 July '91 (A. P. M.); Mt. Washington, below Halfway House, 8 July '91 (A. P. M.); summit (fide Slosson).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Mt. Mansfield, 21 July '91 (A. P. M.); Stratton, 10 July '13 (P. W. W.).

MASS.— Winchendon, 1 July '92 (A. P. M.).

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Division Halticaria.

Halticus apterus (Linné).

ME.— Patten, 2 Sept. '03 (0. 0. S.).

Halticus intermedius Uhler.

ME.— Orono (H. T. F.); Township 4, Range 7, Penobscot Co., 1 Aug. '10 (J. A. C.).

MASS.— Boston, Chestnut Hill, 24 Sept. '14 (H. M. P.).

CONN.— Branford, 28 July '05 (H. L. V.); S. Meriden, 13 July '15 (H. L. J.).

Halticus citri Ashmead.

ME.— Pownal (0. 0. S.).

Mass.— Amherst, 29 Sept. '96; Beverly, 4 Oct. '71 (E. B.).

CONN.— Kent, 31 Aug. '04 (W. E. B.); New Haven, 16 Oct. '03 (H. L. V.); Southport, 9 Sept. '04 (W. E. B.).

Strongylocoris stygicus (Say).

ME.— Bowlin Pond, 31 July '10 (J. A. C.); Eastport, 15 July '09 (C. W. J.); Ft. Kent, 17 Aug. '10 (C. W. J.); Machias, 22 July '09 (C. W. J.); Paris, 4 July '15 (C. A. F.).

N. H.— Fitzwilliam, July '07 (J. H. E.); Glen House, 20 July '15 (C. W. J.); Hanover, 3 July '15 (C. W. J.); Mt. Washington, 4000 ft., 28 July '15 (C. W. J.); summit, 4 July '14 (C. A. F.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Bennington, 22 June '15 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Manchester, 8 June '10 (C. W. J.); Norwich, 8 July '08 (C. W. J.); St. Albans, 21 June '13 (C. W. J.).

MASS.— Amherst, 31 July '00; Beach Bluff, 14 July '14 (H. M. P.); Fall River, 17 June '05 (J. A. C.); Peru, 29 Aug. '04 (J. B.); Springfield, 13 July '05 (C. W. J.); Williamsburg, 7 Aug. '11 (C. W. J.).

R. I.- Kingston, 5 July '07 (J. B.).

CONN.— Danbury, 15 June '09 (C. W. J.); Darien, 10 June '12 (C. W. J.); Greenwich, 9 July '09 (J. A. C.); New Haven, 26 June '05 (B. H. W.); S. Meriden, 13 July '15 (H. L. J.); Winnipauk, 16 June '09 (C. W. J.).



Division Pilophoraria.

Heterocordylus malinus Reuter.

N. H.— Durham (C. M. W. & W. F. F.); Mt. Washington, 4 July '14 (C. A. F.).

Pilophorus amoenus Uhler.

ME.— Paris, 15 July '14 (C. A. F.).

N. H.— Mt. Washington, summit (fide Slosson).

MASS.— Cambridge; Marblehead, 24 July '14 (H. M. P.); Saugus, 7 Sept. '14 (H. M. P.).

Sericophanes noctuans Knight.

Ent. News, 1917, vol. 28, p. 4.

MASS.— Woods Hole, July (T. H. M.). CONN.— New Haven, 30 May '11 (B. H. W.).

Division Ceratocapsaria.

Ceratocapsus modestus (Uhler).

VT.-- Woodstock, 22 July '09 (A. P. M.).

MASS.— Amherst, 23 July '97; Beach Bluff, 13 Aug. '14 (H. M. P.).

CONN.— East River, 5 Aug. '10 (C. R. E.); New Haven, 8 July '09 (B. H. W.); S. Meriden, 6 July '14 (H. L. J.); Stonington, 7 July '14 (I. W. D.).

Ceratocapsus pumilus (Uhler).

ME.— Orono, July, 10 Aug. '13.

MASS.— Chester, 8 Aug. '12 (C. W. J.); E. Gloucester, 30 Aug. '12 (C. W. J.); Mt. Tom, 14 July '05 (C. W. J.); Natick; Saugus, 22 Aug. '14 (H. M. P.); Sherborn, 30 July '16 (C. A. F.).

Ceratocapsus fasciatus (Uhler).

MASS.— Pigeon Cove, 28 July '16 (C. E. O.). CONN.— Brookfield, 27 July '10 (E. L. D.).



Division Lopidearia.

Lopidea caesar (Reuter).

MASS.— Fall River, 7 Aug. '08 (N. S. E.); Rutland, 31 July '16 (C. W. J.).

CONN.— Portland, 14 July '14 (M. P. Z.); 10 Aug. '13 (B. H. W.).

Lopidea instabilis (Reuter).

N. H.— Durham (C. M. W. & W. F. F.); Holderness, 1 Aug. '99 (A. P. M.); Webster (W. F. F.).

VT.— Brattleboro, 15 June '08 (C. W. J.).

MASS.— Auburndale, 6 Aug. '05 (C. W. J.); Fall River, 22 July '05 (J. A. C.); Springfield, 13 July '05 (C. W. J.).

R. I.— Kingston, 10 Aug. '07 (J. B.).

CONN.— Meriden, 15 July '09 (A. I. B.); New Haven, 6 July '04 (H. L. V.), 14 Aug. '06 (W. E. B.).

Lopidea instabilis marginalis (Reuter).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.). MASS.— Auburndale, 6 Aug. '05 (C. W. J.).

Lopidea media (Say).

ME.— Ashland Jct., 16 Aug. '10 (C. W. J.); Belfast, 21 July '12 (J. A. C.); Ft. Kent, 19 Aug. '10 (C. W. J.); Mistake Id., 9 Aug. '07 (J. A. C.); Paris, 10 July '14 (C. A. F.); Princeton, 12 July '09 (C. W. J.); Township 4, Range 7, Penobscot Co., 1 Aug. '10 (J. A. C.).

N. H.— Crawfords, 28 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Fabyans (W. F. F.); Glen House, 15 July '15 (C. W. J.); Hanover (C. M. W.).

VT.— Amsden, 10 July '08 (C. W. J.); Ascutney Mt., 11 July '08 (C. W. J.); Bennington, 19 June '15 (C. W. J.).

MASS.— Beach Bluff, 9 July '14 (H. M. P.); Fall River, 22 July '05 (J. A. C.); Forest Hills, 28 June '79 (S. H.); Mt. Tom, 14 July '05 (C. W. J.); Peru, Sept. '08 (J. B.); Southbridge, 16 July '14 (C. W. J.).

R. I.— Kingston, 17 July '05 (J. B.).

CONN.— New Haven, 9 June '05 (B. H. W.); Portland, 14 July '14 (M. P. Z.); Rainbow, 30 June '14 (B. H. W.); S. Meriden, 6 July '14 (H. L. J.); Woodbury, 14 July '13 (W. E. B.).

Lopidea confluens (Say).

N. H.— Mt. Washington, summit (fide Slosson).

MASS.— Chester, 3 Aug. '11 (C. W. J.); Williamsburg, 7 Aug. '11 (C. W. J.).

Lopidea robiniae (Uhler).

N. H.- Lee (C. M. W. & W. F. F.).

VT.— Middlebury, July '12.

MASS.— Beach Bluff, 22 Aug. '14 (H. M. P.); Beverly, 22 Aug. '04; Fall River, 20 July '09 (N. S. E.); Springfield, 13 July '05 (C. W. J.); Woods Hole, July (T. H. M.).

R. I.— Kingston, 26 Aug. '07 (J. B.).

CONN.— Branford, 29 July '05 (H. W. W.); New Haven, 3 Aug. '05 (H. L. V.); Westville, 27 July '05 (W. E. B.).

Division Orthotylaria.

Pseudoxenetus scutellatus (Uhler).

MASS.— Amherst, 9 June '99; Brookline, 21 June '77 (S. H.); Forest Hills, 17 June '14 (H. M. P.); Newton, 16 June '14 (J. R. T. B.).

R. I.— Providence, 11 June '09.

CONN. - Branford, 8 June '12 (B. H. W.); Danbury, 15 June '09 (C. W. J.); Darien, 10 June '12 (C. W. J.); Litchfield, 30 June '16 (L. B. W.); New Haven, 12 June '10 (A. B. C.); S. Meriden, 14 June '15 (H. L. J.).

Diaphnidia debilis Uhler.

MASS.— Chester, 8 Aug. '12 (C. W. J.).

Diaphnidia pellucida Uhler.

ME.— Orono, 22 July.

VT.— Ascutney Mt., 11 July '08 (C, W. J.).



HEMIPTERA-HETEROPTERA.

MASS.— Chester, 8 Aug. '12 (C. W. J.); Framingham, 7 Sept. '14 (C. A. F.).

Diaphnidia provancheri Burque.

MASS.— Beach Bluff, 25 June '14 (H. M. P.).

Orthotylus flavosparsus (Sahlberg).

ME.- Orono, 22 July '07; Pownal, 28 Sept. '01 (0. 0. S.).

MASS.— Amherst, 31 July '00; Beach Bluff, 24 July '14 (*H. M. P.*); Cohasset, 8 Sept. (*O. B.*); Framingham, 15 Sept. '15 (*C. A. F.*).

CONN.— New Canaan, 29 Sept. '09 (W. E. B.); New Haven, 26 June '05 (H. L. V.); S. Meriden, 16 July '15 (H. L. J.); Stratford, 21 July '08 (W. E. B.).

Orthotylus chlorionis (Say).

MASS.— Beach Bluff, 9 July '15 (H. M. P.); Forest Hills, 17 June '14 (H. M. P.).

CONN.— New Haven, 22 June '05 (H. L. V.); Noroton, 21 June '13 (A. H. R.).

Orthotylus catulus Van Duzee.

ME.— Bowlin Pond, 31 July '10 (J. A. C.); Traveller Mt., 29 July '10 (J. A. C.).

Orthotylus dorsalis (Provancher).

ME.— Calais, 10 July '09 (C. W. J.); Machias, 17 July '09 (C. W. J.).

N. H.— Hanover, 8 July '08 (C. W. J.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.).

MASS.— Winchendon, 1 July '92 (A. P. M.); Woods Hole (fide T. H. M.).

R. I.— Kingston, 23 June '06 (J. B.).

Orthotylus marginatus (Uhler).

ME.— Eastport, 15 July '09 (C. W. J.); Moosehead, 18 July '07 (C. W. J.).

MASS.— Winchendon, 1 July '92 (A. P. M.).

Orthotylus cruciatus Van Duzee.

ME.— Portland, 9 July '10 (E. P. V. D.).

VT.-- Stowe, 4 July (G. P. E.) (fide E. P. V. D.).

MASS.— Amherst, 23 June '96; Danvers, 3 July '14; Marsh-field, Aug.; Sherborn, 24 June '14 (C. A. F.); Swampscott, 13 July '15 (H. M. P.).

CONN.— Hartford, 25 June '14 (W. M.); New Haven, 23 June '11 (A. B. C.).

Orthotylus candidatus Van Duzee.

N. H.— Mt. Washington (A. T. S.).

Orthotylus necopinus Van Duzee.

N. H.— Bretton Woods, 30 June '09 (E. P. V. D.); Mt. Washington, Alpine Garden, 4 July '14 (C. W. J.).

Ilnacora malina (Uhler).

ME.— Holden, 9 July '96 (F. A. E.); Machias, 26 July '09 (C. W. J.); Monmouth, 29 June '05 (C. A. F.); Paris, 9 July '15 (C. A. F.).

N. H.— Fabyans (W. F. F.); Glen House, 24 July '15 (C. W. J.). VT.— Amsden, 10 July '08 (C. W. J.); Ascutney Mt., 11 July '08 (C. W. J.); Norwich, 8 July '08 (C. W. J.); Stratton, 8 July '13 (P. W. W.).

MASS.— Newton, 16 June '14 (J. R. T. B.); Springfield, 13 July '05 (C. W. J.); Winchendon, 1 July '92 (A. P. M.).

CONN.— S. Meriden, 7 July '15 (H. L. J.).

Mecomma ambulans (Fallén).

ME.— Eastport, 15 July '09 (C. W. J.); Ft. Kent, 19 Aug. '10 (C. W. J.); Machias, 22 July '09 (C. W. J.); Mt. Katahdin, 3000 ft., Aug. '02 (H. G. B.).

N. H.— Fabyans (W. F. F.); Glen House, 24 July '15 (C. W. J.); Mt. Washington, 2500 ft., 18 July '15; 4000 ft., 28 July '15 (C. W. J.).

VT.— Ascutney Mt., 11 July '08 (C. W. J.). MASS.— Chester, 8 Aug. '12 (C. W. J.).



Orthocephalus mutabilis (Fallén).

ME.— Orono, 2 July '15 (Knight has compared the specimen recorded with European examples sent by Reuter to the U. S. National Museum).

Parthenicus vaccinii Van Duzee.

Mass.— Ipswich, 22 July '09 (E. P. V. D.).

Phylinae.

Tribe PHYLINI.

Division Oncotylaria.

Macrotylus sexguttatus (Provancher).

N. H.— Glen House, 20 July '15 (C. W. J.).

Macrotylus amoenus Reuter.

MASS.— Mt. Tom, 14 July '05 (C. W. J.). CONN.— Westville, 4 July '04 (W. E. B.).

Onychumenus decolor (Fallén).

ME.— Ft. Kent, 19 Aug. '10 (C. W. J.); Ironbound Id., 10 Aug. '08 (J. A. C.); Machias, 22 July '09 (C. W. J.); Mistake Id., 9 Aug. '07 (J. A. C.); Monmouth, 16 July '14 (C. A. F.); Traveller Mt., 29 July '10 (J. A. C.).

N. H.— Dublin, 1 Aug.

VT.— Ascutney Mt., 11 July '08 (C. W. J.); Dummerston, 14 July '08 (C. W. J.); Middlebury, 12 July.

MASS.— Beach Bluff, 14 July '14 (H. M. P.); Mt. Greylock, 8 Aug. '07 (C. W. J.); Tisbury, 25 July '11 (J. A. C.); Woods Hole, July (T. H. M.).

R. I.- Kingston, 17 July '05 (J. B.).

CONN.— Brookfield, 27 July '10 (E. L. D.); Colebrook, 21 July '05 (H. L. V.); Danbury, 15 June '09 (C. W. J.); New Haven, 11 July '04 (P. L. B.); West Thompson, 12 July '05 (H. L. V.); Woodbury, 16 July '13 (W. E. B.).

Division Phylaria.

Reuteroscopus ornatus (Reuter).

CONN.- New Haven, 26 June '12, 28 Aug. '10 (B. H. W.).

? Psallus juniperi Heidemann.

ME.— Paris, 10 July '14 (C. A. F.).

MASS.— Beach Bluff, 28 June '15 (H. M. P.); Swampscott, 11 Aug. '15 (H. M. P.).

Microphylellus modestus Reuter.

ME.— Machias, 26 July '09 (C. W. J.). CONN.— New Haven, 27 June '13 (L. B. R.).

Rhinocapsus vanduzeii Uhler.

ME.— Liberty, 17 July '12 (J. A. C.); Machias, 22 July '09 (C. W. J.).

N. H.— Glen House, 24 July '15 (C. W. J.); Hanover, 8 July '08 (C. W. J.); Mt. Washington, summit (fide Slosson).

Vr.— Ascutney Mt., 11 July '08 (C. W. J.); Brattleboro, 15 June '08 (C. W. J.).

Mass.— Fall River, 11 July '13 (N. S. E.); Pocasset, 6 Aug. '12 (J. A. C.); Rockport, July (C. W. J.); Southbridge, 16 July '14 (C. W. J.).

CONN.— Brookfield, 27 July '10 (E. L. D.).

Plagiognathus¹ obscurus Uhler.

ME.— Calais, 10 July '09 (C. W. J.); Ft. Kent, 17 Aug. '10 (C. W. J.); Monmouth, 15 July '14 (C. A. F.); Orono, 16 July '07.

N. H.— Glen House, 24 July '15 (C. W. J.); Mt. Washington, summit (*fide Slosson*).

VT.— Dummerston, 14 July '08 (C. W. J.); Jay, 17 July '91 (A. P. M.); Mt. Mansfield, 21 July '91 (A. P. M.); Norwich, 8 July '08 (C. W. J.).

MASS.— Beach Bluff, 9 July '14 (H. M. P.); Cohasset, 21

 1 A number of forms of Plaglognathus and allied genera are at hand which are not recorded here on account of uncertainty in determination.

Sept. '14 (H. M. P.); Forest Hills, 4 Oct. '15 (H. M. P.); Southbridge, 16 July '14 (C. W. J.).

R. I.- Cumberland; Kingston, 11 July '10 (J. B.).

CONN.— East River, Aug. '10 (C. R. E.); New Haven, 19 July '05 (B. H. W.).

Apocremnus politus (Uhler).

ME.- Machias, 22 July '09 (C. W. J.); Orono, 14 July.

MASS.— Agawam, 16 Aug. '15 (*H. E. S.*); Beach Bluff, 22 June '14 (*H. M. P.*); Boston, Chestnut Hill, 13 Oct. '15 (*H. M. P.*); Peru, 29 Aug. '04 (*J. B.*).

R. I.— Kingston, 15 July '05 (J. B.); Providence, 7 July (C. A. D.).

CONN.— Cheshire, 8 July '04 (H. L. V.); Litchfield, 13 July '01 (L. B. W.); Mt. Carmel, 24 Aug. '06 (B. H. W.); New Haven, 23 June '04 (H. L. V.); W. Thompson, 12 July '05 (H. L. V.).

Chlamydatus associatus (Uhler).

MASS.— Beach Bluff, 13 Aug. '14 (*H. M. P.*); Boston, 16 May (*C. W. J.*); Forest Hills, 19 Sept. '14 (*H. M. P.*); Nantucket, 22 Aug. '11 (*H. T. F.*); Wellesley, 9 Oct. '90 (*A. P. M.*); Wollaston, 5 Sept. (*C. W. J.*).

CONN.— New Haven, 12 Sept. '04 (B. H. W.).

Campylomma verbasci (Meyer-Dür).

ME.— Pownal, 26 Aug. '00 (0. 0. S.).

MASS.— Beach Bluff, 22 June '14, 2 Sept. '14 (H. M. P.).

CONN.— Hamden, 14 June '11 (W. E. B.); New Haven, 21 June '09 (B. H. W.); Westville, 6 Aug. '05 (W. E. B.).

HYDROMETRIDAE.

3

Hydrometra martini Kirkaldy.

ME.— Monmouth, 11 July (C. A. F.); Orono, 6 May '14 (H. M. P.).

N. H.— Durham (W. F. F.).

MASS.— Brookline, 15 May '77 (S. H.); Cohasset, June '05 (O. B.); Forest Hills, 9 May '16 (H. M. P.); Framingham, 25 May '15 (C. A. F.); Provincetown, 1 Sept. '14; Somerset, 2 July '06 (C. W. J.); Woods Hole (fide T. H. M.).

R. I.— Kingston, 19 May '13, 11 July '10 (J. B.).

GERRIDAE.

Gerrinae.

Gerris remigis Say.

ME.— Auburn (E. D. M.); Bethel (A. M. E.); Orono, 20 April, 17 May '13 (H. M. P.).

N. H.— Crawfords, 2 Oct. '16 (H. M. P.); Durham, 14 April '99, Dec. '08 (W. F. F.); Mt. Washington, summit (fide Slosson).

VT.-- Woodstock, 18 Aug. '98 (A. P. M.).

MASS.— Brookline, 30 March '78 (S. H.); Danvers, 18 May '14; Forest Hills, 23 Feb. '15, 16 Sept. '14 (H. M. P.); Wellesley, 20 April '99 (A. P. M.).

R. I.- Kingston, 15 April '10 (J. B.).

CONN.— Farmington, 24 May '14 (W. M.); New Haven, 18 March '11 (B. H. W.); Torrington, 7 July '05 (W. E. B.); Winnipauk, 4 Aug. '08 (C. W. J.).

Gerris conformis (Uhler).

ME.— Orono, Sept.

N. H.— Durham (C. M. W. & W. F. F.).

MASS.— Amherst, 11 June '92; Chicopee (R. H. W.); Milton, 20 Sept. '21 (Harris Coll.); Natick; Wellesley, 28 April '99 (A. P. M.).

CONN.— Hamden, 1 April '11 (B. H. W.); Hartford, 14 May '14 (W. M.); Orange, 21 May '11 (B. H. W.).

Gerris marginatus Say.

ME.— Durham; Norway, 19 July (0. 0. S.); Orono, 6 May '14 (H. M. P.); Westbrook.

N. H.- Crawfords, 2 Oct. '16 (H. M. P.); Durham, 20 Sept. '01.

MASS.— Amherst; Beach Bluff, 18 July '15 (H. M. P.); Forest Hills, 8 April '15 (F. G. C.), 1 Oct. '15 (H. M. P.); Lynn, 18 Aug. '15 (H. M. P.); Woods Hole (C. T. B.).

R. I.— Kingston, 13 April '10 (J. B.); Providence, 5 May (C. A. D.).

CONN.— Cheshire, 6 May '11 (B. H. W.); Lyme, 14 May '11 (A. B. C.); New Haven, 4 May '11 (B. H. W.); Putnam, 12 July '05 (H. L. V.); S. Meriden, 26 April '14 (H. L. J.).

Gerris argenticollis Parshley.

Ent. News, 1916, vol. 27, p. 103.

Mass.— 19 April '16, 20 May '15 (H. M. P.).

Gerris buenoi Kirkaldy.

ME.— Orono, 19 April '14, 15 Sept. '13 (H. M. P.).

N. H.- Crawfords, 23 Sept. '16 (H. M. P.); Durham (C. M. W.

- & W. F. F.); Mt. Washington, Alpine Garden, 4 July '14 (C. W. J.). VT.- Norwich, 18 May '91 (C. M. W.).
- MASS.— Cambridge, 4 May '68 (E. B.); Forest Hills, 8 April '15 (F. G. C.), 1 Oct. '15 (H. M. P.); Woods Hole, July (T. H. M.). R. I.— Kingston, 29 April '10, Sept. '07 (J. B.).

CONN.— Cheshire, 6 May '11 (B. H. W.); Litchfield, 26 July '01 (L. B. W.); Milford, 10 Aug. '05 (W. E. B.); New Haven, 14 April '11 (B. H. W.).

Gerris canaliculatus Say.

Mass.— Beverly, 23 May '78 (E. B.); Cambridge; Forest Hills, 9 May '16, 1 Oct. '15 (H. M. P.); Milton, 23 April '16 (E. W. T.). R. I.— Kingston, 15 April '10, 3 May '08 (J. B.).

CONN.— Hamden, 24 Oct. '10 (B. H. W.); New Haven, 4 May '11 (B. H. W.).

Limnoporus rufoscutellatus (Latreille).

ME.— Brunswick; Norway (S. J. S.); Orono, 6 May '14 (H. M. P.), 19 July '05.

N. H.— Crawfords, 2 Oct. '16 (H. M. P.); Mt. Washington, Lake of the Clouds, 1 July (C. A. F.); summit, 9 July '91 (A. P. M.). MASS.— Beverly, 9 Oct. '75 (E. B.); Forest Hills, 9 May '16 (H. M. P.); Brookline, 21 June '78 (S. H.); Sherborn, 14 April '99 (A. P. M.); Wellesley, 10 Sept. '04 (A. P. M.).

R. I.— Kingston, 26 April '04 (J. B.); Providence, 20 June (C. A. D.).

CONN.- New Haven, 28 April '11 (B. H. W.).

HALOBATINAE.

Metrobates hesperius Uhler.

ME.— Orono, 22 Sept. '09.

MASS.— Cambridge; Dover, 23 Aug. '01 (A. P. M.); Sherborn,

5 Aug. '96 (A. P. M.); Wellesley, 6 Aug. '00 (A. P. M.).

R. I.— Kingston, 18 Oct. '05 (J. B.).

Trepobates pictus (Herrich-Schaeffer).

ME.— Mistake Id., 9 Aug. '07 (J. A. C.); Orono, 15 Sept. '13 (H. M. P.); Roque Bluff, 15 Aug. '07 (J. A. C.).

N. H.— Durham, 15 Aug. '00 (W. F. F.).

MASS.— Cambridge; Wellesley, 15 Aug. '07 (A. P. M.); Winchester, 12 Sept. '07 (A. P. M.).

R. I.— Kingston, 12 July '10 (J. B.).

VELIIDAE.

Microvelia borealis Torre Bueno.

Bull. Brooklyn Ent. Soc., 1916, vol. 11, p. 59.

ME.— Orono, 3 May '14 (H. M. P.).

MASS.— Forest Hills, 20 Oct. '14 (H. M. P.); Saugus, 22 Aug. '14 (H. M. P.).

Microvelia fontinalis Torre Bueno.

Bull. Brooklyn Ent. Soc., 1916, vol. 11, p. 58.

Mass.— Danvers, 3 Aug. '15 (H. M. P.).



Microvelia albonotata Champion.

Mass.— Danvers, 3 Aug. '15 (H. M. P.).

Microvelia americana (Uhler).

ME.— Orono, 17 May '13, 19 Sept. '13 (H. M. P.); Paris, 10 July '14 (C. A. F.); Pownal (O. O. S.).

N. H.- Crawfords, 2 Oct. '16 (H. M. P.).

VT.— Dummerston, 14 July '08 (C. W. J.).

MASS.— Dover, 16 Aug. '00 (A. P. M.); Fall River, 1 April '05 (N. S. E.); Forest Hills, 24 March '15, 16 Sept. '14 (H. M. P.).

R. I.— Kingston, 29 April '10 (J. B.).

CONN.— Cheshire, 6 May '11 (B. H. W.); Hamden, 25 May '11 (B. H. W.).

Rhagovelia obesa Uhler.

ME.— Paris, 15 July '14 (C. A. F.).

VT.--- Norwich, 8 July '08 (C. W. J.).

Mass.— Dover, 23 Aug. '01 (A. P. M.); Milton, 30 Sept. (*Harris Coll.*); Waltham (P. R. U.); Wellesley, 6 Aug. '00 (A. P. M.).

SALDIDAE.

SALDINAE.

Pentacora signoreti (Guérin).

MASS.— Woods Hole, 22 July '99.

Pentacora ligata (Say).

ME.— Magalloway River (0. 0. S.); Norway (0. 0. S.).

N. H.— Glen House, 20 July '15 (C. W. J.); Hanover, 6 July '08 (C. W. J.).

VT.- Middlebury, July '12.

MASS.— Mt. Everett, 28 June '12 (C. W. J.); Waltham.

Salda coriacea Uhler.

ME.— Holden, 4 July '13 (F. A. E.); Monmouth, 15 July '14 (C. A. F.); Wales, 12 June '09 (C. A. F.).

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MASS.— Andover (F. G. S.) (fide Uhler); Beach Bluff, 21 June '15 (H. M. P.); Cambridge, 20 June '24 (Harris Coll.); Sherborn, 19 June '15 (C. A. F.).

CONN.— Orange, 4 June '10 (B. H. W.).

Saldula major (Provancher).

ME.— Monmouth, 29 June '07 (C. A. F.); Orono, 4 Sept. '85 (H. T. F.).

N. H.- Mt. Washington, 5000 ft., 26 June '91 (A. P. M.).

MASS.— Beach Bluff, 11 Aug. '16 (H. M. P.); Brighton, 13 July '64 (P. R. U.); Provincetown, 25 June '04; Wellesley, 27 May '91 (A. P. M.).

Saldula confluens (Say).

CONN.— S. Meriden, 11 July '14 (H. L. J.).

Saldula orbiculata (Uhler).

MASS.— Cambridge; Cohasset, 12 Sept. (O. B.); Wellesley, 17 April '91 (A. P. M.).

Saldula interstitialis (Say).

ME.— Ft. Kent, 19 Aug. '10 (C. W. J.); Orono, 4 Sept. '85 (H. T. F.); Paris, 10 July '14 (C. A. F.).

N. H.— Hanover, 6 July '08 (C. W. J.); Mt. Washington, summit, 30 June '13 (C. W. J.).

VT.- St. Albans, 21 June '13 (C. W. J.).

MASS.— Andover (fide Uhler); Beach Bluff, 18 Aug. '14 (H. M. P.); Cohasset, 15 Sept. (O. B.); Forest Hills, 1 June '15 (H. M. P.); Lynn, 7 Aug. '14 (H. M. P.); Nantucket, 20 July '10 (J. A. C.); Sherborn, 19 April '09 (C. A. F.); Wellesley, 10 Nov. '90 (A. P. M.).

R. I.— Buttonwoods, 18 June '12 (C. W. J.).

CONN.— E. Hartford, 13 Aug. '06 (B. H. W.); S. Meriden, 24 March '15 (H. L. J.); W. Stratford, 16 Aug. '04 (H. L. V.).

Saldula separata (Uhler).

VT.— Montgomery, 18 July '91 (A. P. M.).

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Saldula reporta (Uhler).

N. H.— Mt. Washington, summit (fide Slosson). MASS.— Cambridge; Winchendon, 1 July '92 (A. P. M.).

Saldula xanthochila limbosa (Horváth).

CONN.— Branford, 11 Aug. '04 (H. L. V.).

Saldula pallipes (Fabricius).

ME.— Eastport, 15 July '09 (C. W. J.); Paris, 4 July '15 (C. A. F.).

N. H.- Mt. Washington, summit, 30 June '12 (C. W. J.).

VT.-- St. Albans, 21 June '13 (C. W. J.).

MASS.— Beach Bluff, 18 July '15 (H. M. P.); Manomet, 13 Aug. '12 (W. S. B.); Wellesley, 24 June '92 (A. P. M.).

R. I.— Tiverton, 31 July '10 (N. S. E.).

CONN.- W. Stratford, 16 Aug. '04 (H. L. V.).

Saldula sphacelata (Uhler).

ME.— Machias, 17 July '09 (C. W. J.).

MASS.— Beach Bluff, 21 June '15 (H. M. P.); Chatham, 30 June '04 (C. W. J.); Chelsea; Cohasset, 8 Sept. (O. B.); Edgartown, 29 June '12 (C. W. J.); Provincetown, 27 June '91 (A. P. M.). R. I.— Buttonwoods, 25 July '11 (C. W. J.).

?Saldula opacula (Zetterstedt).

ME.— Orono, 4 May '14 (H. M. P.). MASS.— Beach Bluff, 18 July '15 (H. M. P.).

Saldula peilita (Uhler).

Mass.— Chelsea, 9 July; Newtonville.

?Saldula saltatoria (Linné).

MASS.— Agawam, 21 April '16 (H. E. S.); Forest Hills, 11 April '15 (F. X. W.); Lexington, 19 April '74 (E. B.); W. Springfield, 7 April '16 (H. E. S.).

R. I.— Providence, 1 Feb. (C. A. D.).

Conn.— Lyme, 30 April '11 (A. B. C.).

Micracanthia humilis (Say).

N. H.- Mt. Washington, summit (fide Slosson).

VT.-- Norwich, 8 July '08 (C. W. J.).

MASS.— Beach Bluff, 18 July '15 (H. M. P.); Forest Hills, 1 June '15, 30 Sept. '15 (H. M. P.); Manomet, 27 July '05; W. Cambridge.

NOTONECTIDAE.

NOTONECTINAE.

Notonecta irrorata Uhler.

ME.— Machias; Norway (S. J. S.); Orono, 22 May '14, 19 Sept. '13 (H. M. P.).

N. H.— Crawfords, 23 Sept. '16 (H. M. P.); Durham, 15 Aug. '00 (W. F. F.), 18 Sept. '01.

VT.— Winooski, 30 Aug. '01 (C. A. D.).

MASS.— Amherst; Brookline, 17 Nov. '79 (S. H.); Forest Hills, 29 April '16 (H. M. P.); Peru, 27 Aug. '04 (J. B.); Saugus (F. W. D.).

R. I.— (Davis Coll.).

CONN.— Hamden, 24 April '11 (B. H. W.); New Haven, 24 Nov. '10 (A. B. C.); Windsor, 26 July '05 (W. E. B.).

Notonecta uhleri Kirkaldy.

MASS.— Wellesley, 12 Sept. '98, 22 Oct. '02 (A. P. M.).

Notonecta variabilis Fieber.

N. H.— Crawfords, 23 Sept. '16 (H. M. P.); Durham (C. M. W. & W. F. F.); Holderness, 3 Aug. '99 (A. P. M.).

VT.-- Woodstock, 13 Aug. '10 (A. P. M.).

MASS.— Forest Hills, 29 April '15, 8 Oct. '14 (H. M. P.); Saugus (F. W. D.); Sherborn, 14 April '99 (A. P. M.); Woods Hole, July (T. H. M.).

R. I.— Kingston, 5 May '08, 11 Nov. (J. B.).

CONN.— Hamden, 24 Oct. '10 (B. H. W.); Hartford, 13 Aug. '04 (H. L. V.); New Haven, 22 Aug. '04 (P. L. B.); S. Meriden, 27 March '14 (H. L. J.).

Notonecta undulata 1 Say.

ME.- Orono, 20 April '12, 19 Sept. '13 (H. M. P.).

N. H.— Crawfords, 23 Sept. '16 (*H. M. P.*); Durham, 4 Oct. '01; Mt. Washington, Lake of the Clouds, 5000 ft., 1 July (*C. A. F.*); N. Chatham, 17 Sept. '06.

VT.-- Winooski, 30 Aug. '04 (C. A. D.).

MASS.— Amherst, 26 Aug. '04; Forest Hills, 23 Feb. '15, 15 Oct. '14 (H. M. P.); Peru, 27 Aug. '04 (J. B.); Woods Hole, July (T. H. M.).

R. I.— Kingston, Sept. '07 (J. B.).

CONN.— Hamden, 24 Oct. '10 (B. H. W.); Southington, 21 April '10 (B. H. W.); S. Meriden, 5 April '14 (H. L. J.).

Notonecta insulata Kirby.

ME.— Orono, 27 April '13 (H. M. P.).

N. H.— Mt. Washington, Lake of the Clouds, 5000 ft., 1 July (C. A. F.).

MASS.— Amherst; Blue Hills, 11 April '14; Forest Hills, 29 April '15 (H. M. P.); Orleans, 13 Apr. '91 (F. B.); Peru, 27 Aug. '04 (J. B.); Saugus, 3 May '14 (F. W. D.); Wellesley, 1 Nov. '04 (C. A. F.).

R. I.— Kingston, 11 Nov. '09 (J. B.). CONN.— Litchfield, 30 May '13 (L. B. W.).

Buenoa margaritacea Torre Bueno.

VT.— Woodstock, Aug. '09 (A. P. M.). MASS.— Amherst; Forest Hills, 17 June, 15 Oct. '14 (H. M. P.).

Buenoa elegans (Fieber).

MASS.— Cambridge; Forest Hills, 30 Sept. '14 (H. M. P.); Wellesley, 4 Nov. '01 (A. P. M.).

¹ Including the varieties, undulata Say, maculata Fieber, charon Kirkaldy, and intergrading forms.

PLEINAE.

Plea striola Fieber.

MASS.— Cambridge, 11 April '08 (J. A. C.); Fall River, 17 May '06 (N. S. E.); Wayland, 14 May '02 (A. P. M.); Wellesley, 6 May '03 (A. P. M.).

NAUCORIDAE.

NAUCORINAE.

Pelocoris femoratus (Palisot de Beauvois).

MASS.— Forest Hills, 10 Oct. '14 (H. M. P.); Groton, 11 Oct. '00 (F. B.); Quincy, 21 Oct. '05; Sandwich, 19 June '08 (C. W. J.); Wellesley, 7 Oct. '02 (A. P. M.); Woods Hole, July (T. H. M.).

R. I.- Providence, May '07 (C. A. D.); Warwick.

CONN.— Cheshire, 6 May '11 (B. H. W.); S. Meriden, 20 March '14 (H. L. J.).

NEPIDAE.

Nepa apiculata Uhler.

N. H.- Durham, 20 Oct. '01.

MASS.— Amherst, 5 Sept. '05; Boston (A. P. M.); Danvers, 30 May; Framingham, 21 May '07 (C. A. F.); Milton, 15 May '26 (Harris Coll.); Nantucket, '59 (S. H.); Newton, 30 Dec. '01 (C. A. F.); Salem.

R. I.— Kingston (J. B.); Providence, 15 July '94 (C. A. D.). CONN.— New Haven, 11 Aug. '08, nymph (B. H. W.).

Ranatra kirkaldyi Torre Bueno.

MASS.— Cambridge; Dover, 23 Oct. '01 (A. P. M.); Framingham, 2 May '15 (C. A. F.).

Banatra americana Montandon.

ME.— Orono, 4 Oct. (H. M. P.).

N. H.— Hanover (C. M. W.).

Mass.— Amherst, 26 Aug. '04; Forest Hills, 23 April, 15 Oct. '15 (H. M. P.); Wellesley, 20 April '91 (A. P. M.).

Ranatra protensa Montandon.

MASS.— Chebacco Lake, 13 Sept. '12 (W. S. B.); Framingham, 2 May '15 (C. A. F.); Taunton, 23 May '27 (Harris Coll.).

BELOSTOMATIDAE.

Benacus griseus (Say).

 M_{ASS} .— (fide Uhler).

R. I.— Peacedale, Aug. '06; Providence, July '07 (C. A. D.). CONN.— New Haven, 22 May '11 (A. B. C.).

Lethocerus americanus (Leidy).

ME.— Auburn, 18 June (0. 0. S.); Orono, 12 Sept.; Oldtown, 8 May.

N. H.— Raymond, 27 June '14 (W. R.).

MASS.— Amherst; Cohasset, 26 April '07 (O. B.); Fall River, 20 Sept. '06 (N. S. E.); Forest Hills, 10 Oct. '15 (H. M. P.); Wellesley, 24 Oct. '04 (A. P. M.).

R. I.— Kingston, 23 May '08 (J. B.); Providence, 2 June (C. A. D.).

CONN.— Lyme, 4 Sept. '09 (C. H. D.); New Haven, 27 March '05 (P. L. B.).

Lethocerus obscurus (Dufour).

MASS.— Amherst; Cambridge, Sept. (Harris Coll.); Lowell (F. B.) (fide Montandon).

CONN.— Torrington (R. H.).

Belostoma flumineum Say.

ME.— Auburn (E. D. M.); Orono, 20 June, 17 Oct.; Wales, 10 July '13 (C. A. F.).

N. H.— Durham, 25 Oct. '01; Hanover (C. M. W.).

VT.— Winooski, 30 Aug. '01 (C. A. D.).

MASS.— Amherst, 26 Aug. '04; Boston, 29 March '03 (H. M. P.); Forest Hills, 1 Nov. '15 (H. M. P.); Saugus, 10 May '14 (F. W. D.); Wellesley, 16 May '99 (A. P. M.).

R. I.— Kingston, Sept. (J. B.); Providence, 2 June (C. A. D.). CONN.— New Haven, 22 Aug. '13 (B. H. W.); S. Meriden, 3 April '14 (H. L. J.).

Belostoma lutarium (Stål).

MASS.— Boston, 22 March '03, nymph (H. M. P.); Dover, 23 Aug. '01, nymph (A. P. M.); Falmouth (fide T. H. M.); Melrose, 11 July, nymph (F. W. D.); Tyngsboro, 16 Aug. '90 (F. B.); Wellesley (A. P. M.).

R. I.— (fide Kirkaldy and Torre Bueno).

OCHTERIDAE.

Ochterus americanus (Uhler).

MASS. - ? Amherst; Dedham, April (F. G. S.) (fide Uhler).

CORIXIDAE.1

Arctocorisa interrupta (Say).

ME.— Orono, 21 April '00 (0. 0. S.); 8 May '12 (H. M. P.).

N. H.— Durham, 1 Oct. '01 (W. F. F. & C. M. W.).

VT.-- Winooski, 30 Aug. '01 (C. A. D.).

Mass.— Amherst, 30 Aug. '04; Forest Hills, 16 Mar. '15, 1 Nov. '15 (*H. M. P.*); Marblehead, 8 Aug. '14; Nonamesset Id., 7 July '11 (*J. F. A.*); Peru, 21 Aug. '04 (*J. B.*).

R. I.— Kingston, 11 Nov. '09 (J. B.); Providence, 18 June (C. A. D.).

CONN.— Fairfield, 15 July '04 (H. L. V.); Hamden, 24 Oct. '10 (B. H. W.); Southington, 21 May '10 (B. H. W.); South Meriden, 19 Mar. '13 (H. L.J.).

¹ Prof. J. F. Abbott, who is engaged on a monograph of the Corixidae, has gone over all my material in the family, generously putting at my disposal the results of considerable labor.

Arctocorisa nitida (Fieber).

ME.— Orono, 24 April '13 (H. M. P.). N. H.— Durham, 20 Sept. '01. MASS.— Forest Hills, 4 May '15 (H. M. P.). R. I.— Providence, 13 Sept. (C. A. D.). CONN.— New Haven, 22 June '12 (A. B. C.).

Arctocorisa kennicotti (Uhler).

ME.— Orono, 21 April '00 (0. 0. S.). N. H.— Durham (W. F. F.). R. I.— Kingston, 8 May '08 (J. B.). CONN.— Hamden, 1 June '11 (B. H. W.); S. Meriden, 27 Mar. '14 (H. L. J.).

Arctocorisa lucida Abbott.

Ent. News, 1916, vol. 27, p. 341.

N. H.— Durham, 4 Oct. '14. MASS.— Forest Hills, 4 May '15 (H. M. P.). CONN.— Cheshire, 6 May '11 (B. H. W.); Hamden, 1 June '11 (B. H. W.); New Haven, 22 Aug. '13 (B. H. W.).

Arctocorisa ornata Abbott.

Ent. News, 1916, vol. 27, p. 341.

ME.— Orono, 19 April '14 (H. M. P.). CONN.— Cheshire, 20 June '11 (B. H. W.).

Arctocorisa decorata Abbott.

Ent. News, 1916, vol. 27, p. 341.

MASS.— Amherst, 26 Aug. '04.

Arctocorisa dubia Abbott.

Ent. News, 1916, vol. 27, p. 342.

ME.— Orono, 20 July '05. MASS.— Peru, 27 Aug. '04 (J. B.).



Arctocorisa alternata (Say).

ME.— Orono, 19 April '14 (H. M. P.); Pownal, 13 Oct. '00 (0. 0. S.).

N. H.— Durham, 13 Aug. '00 (W. F. F.).

Mass.— Amherst, 7 May '04; Forest Hills, 1 Nov. '15 (H. M. P.).

R. I.- Kingston, 11 Nov. '09 (J. B.).

CONN.— Hamden, 24 April '11 (B. H. W.); New Haven, 22 June '10 (A. B. C.).

Arctocorisa parshleyi Abbott.

Ent. News, 1916, vol. 27, p. 342.

ME.— Orono, Sept.; Mercer.

Mass.— Lynn, 1 July '01 (C. A. D.).

R. I.— Providence, 18 June (C. A. D.).

?Arctocorisa trilineata (Provancher).

ME.— Orono, 10 May '13 (H. M. P.); Paris, 7 April '15 (C. A. F.).

N. H.— Durham, 20 Sept. '01.

MASS.— Saugus, 22 Oct. '14 (H. M. P.).

R. I.— Kingston, 3 May '08 (J. B.).

Arctocorisa compressa Abbott.

ME.— Orono, 19 April '12 (H. M. P.). MASS.— Forest Hills, 29 April '15 (H. M. P.). CONN.— Hamden, 1 June '11 (B. H. W.).

Arctocorisa seriata Abbott.

Ent. News, 1916, vol. 27, p. 342.

ME.— Orono, 19 April '14; Pownal, 13 Oct. '00 (0. 0. S.); Paris, 7 April '15 (C. A. F.).

N. H.- Durham, 20 Sept. '01 (C. M. W. & W. F. F.).

Mass.— Peru, 27 Oct. '04 (J. B.).

R. I.— Kingston, 2 May '04 (J. B.).

CONN.— Cheshire, 20 Mar. '11 (B. H. W.); Hamden, 21 Oct. '10 (B. H. W.); New Haven, 6 May '04 (H. L. V.).

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Arctocorisa scabra Abbott.

ME.— Orono, 28 April '12 (H. M. P.). N. H.— Durham, 20 Oct. '01. MASS.— Lynn, July '01 (C. A. D.). R. I.— Providence, 18 June (C. A. D.). CONN.— Cheshire, 20 Mar. '11 (B. H. W.); New Haven, 18 Mar. '11 (B. H. W.).

Corixa verticalis Fieber.

MASS.— Beach Bluff, 19 July '15 (H. M. P.).

R. I.-Kingston (J. B.).

CONN.— Branford, 28 Aug. '05 (H. M. W.); East River, 2 Aug. '00 (C. R. E.).

Callicoriza praeusta (Fieber).

ME.— Orono, 17 May '13 (H. M. P.).

Palmacorixa buenoi Abbott.

MASS.— Hadley (C. A. F.).

Addendum.

TINGIDAE.

Corythucha salicis Osborn and Drake. Ohio Journ. Sci., 1917, vol. 17, p. 298.

MASS.-Middlesex Fells.



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OF THE

Boston Society of Natural History.

VII.

FAUNA OF NEW ENGLAND.

15.

LIST OF THE DIPTERA OR TWO-WINGED FLIES.

By CHARLES W. JOHNSON.

BOSTON: PRINTED FOR THE SOCIETY FROM THE GURDON SALTONSTALL FUND. FEBRUARY, 1925

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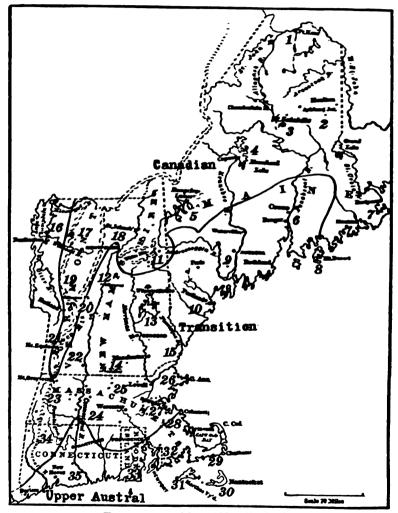
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INTRODUCTION.

As the work on the insect fauna of a given region progresses, it becomes essential not only for the further advancement of the work, but also for the encouragement of others to take up the study, to have in condensed form an index of our present knowledge of the various orders. Furthermore, we hope that the data here presented will in the future serve to show more clearly to what extent the changes in the natural conditions of the country are affecting the insect fauna. We are all aware of a marked change in the insect life in the vicinity of Boston, due in a great measure to the spraying to destroy the gipsy and browntail moths, to the electric lights, to the clearing of woodland, draining, stream pollution and other factors unavoidable in the growth of large cities. Insufficient data, however, relative to the former abundance and habitat of the various species, make it difficult at present to arrive at any definite conclusion bearing on the subject.

In connection with other museum work and the building-up of a general collection of New England insects, the writer has during the past twenty seasons' collecting, specialized on the Diptera and the results are in part represented in this list. Since New England is a meeting ground of the boreal and the austral species, it seems important to show the full distribution of each species, so that the northern range of a common southern species, and the southern range of an equally common northern species may be readily seen. To avoid unnecessary printing and yet show this distribution, a system of 35 named areas has been adopted, beginning with northern Maine and ending with Connecticut. In making a faunal survey of New England the writer has endeavored to collect chiefly in sections having marked physical conditions governing distribution, viz., the coast, lakes, river valleys and mountains. Intensive collecting has been done in several of the more favorably situated areas where the "overlapping" of northern and southern species is apparently most pronounced. Thus, at Mt. Desert, Maine, the effect of the ocean in modifying temperature is most clearly shown; at Mt. Washington, New Hampshire, the effect of altitude on distribution is best illustrated; and in the Berkshires, Massachusetts, both elevations and river valleys are factors influencing distribution.

On the accompanying map (Text-fig. 1) are shown the numbers corresponding to those given under the descriptions of areas. Under each area are given the localities where collecting has been done, the name of the collector and date of collecting. The lines across the map mark the southern limit of the Canadian and northern limit of the Upper Austral life-zones. When a species has been taken less than five times all data are given in full under each State. In other cases the area-numbers are used with the earliest and latest dates of capture. Figures and localities in italics indicate the type localities of the species.



TEXT-FIG. 1. — Map of New England. The numbers refer to the areas defined in the Introduction.

Twenty years have passed since the publication of the "Catalogue of North American Diptera" by J. M. Aldrich. The

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work that has been done on Diptera during the two decades has far exceeded that of any previous corresponding period. It therefore seems necessary to add a bibliography bearing on New England dipterology published since the Aldrich Catalogue. The double-number system—year and page—has been adopted in referring to each publication.

The many problems in nomenclature that arise in attempting to follow the works of the various authors, present a task that greatly lessens the joy of recording the species of a given region. A faunal list should contain all published names bearing on the subject except (for brevity) those that have previously been placed in the synonymy. In other words such a list is not the place in which to make a synonym deliberately without proving that it really is such. However, as a friend remarked, you cannot conscientiously recognize a genus or species that you know should be in the synonymy even if you have not the time to thoroughly discuss the question. The appalling number of genera that have been made in some families, upon slight and often sexual characters, form a great hindrance to a more logical and consistent study of a family.

It is still quite difficult to estimate the number of Diptera actually occurring in New England, but it is safe to state that the number recorded in this list is probably less than threefourths of the number that will eventually be found. The following is a summary of the families and number of species.

List of Families and the Number of Species and Varieties Recorded.

•	-	•	
Tanyderidae	1	Dolichopodidae	246
Ptychopteridae	3	Empididae	180
Anisopodidae		Lonchopteridae	2
Tipulidae	264	Phoridae	56
	204		26
Dixidae		Platypezidae	
Culicidae	48	Pipunculidae	35
Psychodidae	12	Syrphidae	239
Chironomidae	120	Conopidae	23
Cecidomyiidae	232	Pyrgotidae	3
Mycetophilidae	176	Oestridae	6
Sciaridae	34	Phasidae	20
Bibionidae	16	Tachinidae	228
Scatopsidae	6	Megaprosopidae	2
Simulidae	ğ	Dexiidae	28
Blepharoceridae	ĭ	Sarcophagidae	57
Xylophagidae	12	Calliphoridae	19
Coenomyiidae	2	Muscidae	248
Stratiomylidae	43	Scatophagidae	50
Tehenidee	40 75		20
Tabanidae	•••	Helomyzidae	
Rhagionidae	20	Clusiidae	19
Cyrtidae	15	Borboridae	18
Bombyliidae	45	Phycodromidae	2
Therevidae	16	Sciomyzidae	49
Scenopinidae	2	Sapromyzidae	36
Mydaidae	1	Lonchaeidae	10
Asilidae	86	Pallopteridae	3
	00	* michaelenee	

Ortalidae	47 6 19 8 22 1 47	Chloripidae Drosophilidae Asteidae Geomyzidae Milichiidae Ochthiphilidae Agromyzidae Hippoboscidae	2 17 13 9 47
T -4-1			201

Of this number the Society's collection contains about 2,200 species (including some 350 types and paratypes), represented by about 15,000 specimens.

DESCRIPTION OF THE AREAS DESIGNATED ON THE MAP.

MAINE.

1. The Upper Aroostook County area.—This includes the most northern portion of Maine,—the upper St. John River valley. From August 17 to 19, 1910, the writer worked at Fort Kent, collecting on the hills south of the village and west along the St. John River. While botanizing, in 1907, Dr. J. A. Cushman made a small but interesting collection at Little Black River Rapids near the mouth of the Allegash River, September 10, and at Limestone, September 18; Mr. Olof O. Nylander made a collection of the species found on snow at Woodland, near Caribou, December, 1917, and January, 1918.

2. The Lower Aroostook County area.—This area includes that portion of the County south of a line drawn west from Mars Hill. On August 16, 1910, I collected along the stream south of Ashland Junction (Oakfield), and Dr. C. P. Alexander collected at Houlton, August 24, 1913.

3. The Mount Katahdin area.—This area embraces the mountainous region of central Maine. In 1910 a botanical trip was made to Traveler Mountain by Dr. Cushman and Rev. C. B. Ames. A collection of insects was made on the mountain July 27 to 29; also at Bowlin Pond, July 31, Penobscot County (Sect. 2, Range 7, and Sec. 4, Range 7), August 1 and 2. On August 21, 1913, Dr. Alexander collected on Mt. Katahdin. From July 13 to August 31, 1923, Mr. Irving H. Shaw collected from Basin Pond (2400 feet) to the summit of Mt. Katahdin.

4. The Moosehead Lake area.—This area covers the lake region of northern central Maine. From July 11 to 21, 1907, the writer made a large and interesting collection at Capen's on Deer Island, in Moosehead Lake; on July 17 a collection was made on the nearby Sugar Island and on the 18th at the "Outlet," Moosehead. On September 3, 1907, Dr. Cushman made a small collection at Kineo, which was augmented by a collection made by Dr. Alex-

DIPTERA.

ander, July 17, 1913. From August 17 to 20, 1905, Mr. Frank M. Jones collected a number of interesting species at Katahdin Iron Works. On September 7, 1907, Dr. Cushman made a collection at Chamberlain Lake.

5. The Rangeley Lakes area.—This area includes Franklin and the northern portion of Oxford Counties. From July 1 to 4, 1922, I collected at Oquossoc, along the stream flowing out of Rangeley Lake. On July 6, 1916, Mr. C. A. Frost collected at Parmachene Lake. From July 18 to 20, 1916, Dr. C. L. Metcalf collected on Saddleback Mt. In June, 1922, Mr. H. C. Dunham collected at Upper Dam, and on August 24, 1922, Mr. S. N. F. Sanford made a small collection at Rangeley.

6. The Lower Penobscot area.—This area embraces the lower part of the Penobscot River valley. Orono is the center of entomological activity in Maine. Dr. Edith M. Patch, Entomologist of the Maine Agricultural Experiment Station, has built up a valuable collection, which I have been privileged to examine. Dr. A. O. Johannsen while at Orono wrote "The Fungus Gnats of North America," and Dr. C. L. Metcalf the "Syrphidae of Maine." Dr. C. P. Alexander has worked on the Tipulidae, describing many new species from the State. Mr. E. F. Hitchings, has a large collection which I have studied. Dr. H. M. Parshley and Mr. A. P. Morse have also collected Diptera at Orono. Dr. G. de N. Hough collected at Eddington, June 25 to July 5, and the writer at Hampden, July 10, 1907.

7. The Washington County area.—This includes the entire County. From July 10 to 27, 1909, the writer collected at the following places: Calais (above Milltown) July 10; Princeton, on the Indian Reservation, July 12; Eastport, west of the town and in the vicinity of Shackford's Head, July 14 to 16; Machias, along the Machias River both above and below the town, July 17 to 27. Dr. Cushman while botanizing on Mistake Island, August 9, and at Roque Bluff, August 10 and 11, 1907, collected some interesting flies. Mr. A. P. Morse also collected at the latter place, August 13, 1913.

8. The Mount Desert area.—This area is restricted to Mount Desert Island. The work of making a faunal list of the insects of Mount Desert has resulted in recording over 1000 species of Diptera from the island. Work was begun in 1918, and from July 10 to 18 the writer collected at Southwest Harbor from Echo Lake and Great Pond to Manset. In 1919, the work was confined to Bar Harbor and vicinity (including Mt. Cadillac) from July 16 to 30. In 1920, collecting was done at both ends of the island, and on the salt marshes at the "Narrows" from August 10 to 24; this was repeated in 1921, from June 7 to 22, and again in 1922, from June 16 to 28 and from September 6 to 14. In 1923, collections were made at Bar Harbor, Salisbury Cove, "Narrows" and Southwest Harbor, from July 10 to 21, though most of the work was done at Salisbury Cove. During the summers of 1909 and 1912 Dr. Charles S. Minot made a large and interesting collection at Northeast Harbor. In July, 1914, Professor Edward S. Morse captured the rare robber-fly, *Pogonosoma ridingsi*, at Seal Harbor. In July and August, 1921, Mr. S. N. F. Sanford collected insects at various localities, but chiefly at Salisbury Cove.

9. The Lower Kennebec area.—This area includes the Kennebec River valley south from Waterville. The principal collector of this region is Mr. C. A. Frost, who has collected for a number of seasons at Monmouth and the near-by town of Wales. Mr. E. F. Hitchings has collected at Waterville. There are in the Harris Collection a number of flies taken by J. W. Randall at Hallowell about 1835.

10. The Southwestern Maine area.—This covers practically the Counties of Cumberland and York. The writer collected at Orr's Island from July 24 to 26, 1907, and at Naples, July 1, 1913. Mr. Arthur H. Norton has collected a number of flies near Portland. Dr. Cushman collected at Harpswell in July, 1908, and July, 1913; Dr. G. M. Allen on Bailey's Island, August, 1915; Miss M. L. Martin at Bridgeton in 1911, and Mr. A. B. Fuller at Kennebunk in 1922.

NEW HAMPSHIRE.

11. The "White Mountains" area.—Although most of the collecting has been done on or near Mt. Washington, I am including in this area all of Coös County, and the northern portions of Carroll and Grafton Counties as far south as Chocorua. The limits of what the older authors called the "White Mts." are somewhat vague, but usually refer to the Presidential Range.

Mt. Washington has always been a favorite collecting ground for entomologists. In the "List of insects taken on the alpine region of Mt. Washington" by Mrs. Annie T. Slosson,¹ about 500 species of Diptera are recorded. Baron Osten Sacken collected in the "White Mountains." H. K. Morrison's collection is all marked "White Mts.," although we know that most of his specimens were taken on Mt. Washington. Collections have also been made by Messrs. S. E. Cassino, George Dimmock, F. W. Dodge, S. Henshaw, A. P. Morse, F. Sherriff, L. W. Swett and others. Mrs. Slosson has also collected a number of species at Franconia.

From June 24 to 29 the writer collected at Bretton Woods and along the Ammonoosuc River toward Base Station, going to the summit of Mt. Washington on the 30th. From July 3 to 9, 1914, was spent at the Glen House, collecting on the Alpine



¹Entomological News, vols. 5, 6, 7, 8, 9, 11, 13, 14 and 17.

Garden on the 4th, at Halfway House on the 6th, and Tuckerman's Ravine on the 8th. July 15 to 29, 1915, was also spent at the Glen House, collecting at the Halfway House on the 16th, Alpine Garden on the 21st, and Tuckerman's Ravine on the 21st and 28th. June 10 to 18, 1916, was again spent at the Glen House, collecting on the 13th at the Halfway House. August 15, 1916, I collected at Base Station, on the 16th at the Alpine Garden and on the 17th at the Glen House. On September 25, 1907, Mr. Owen Bryant collected at Jackson. On several occasions Dr. G. M. Allen has collected a number of interesting species at Intervale. On September 12 and 13, Dr. J. A. Cushman collected at Passaconaway and Wonalancet. During the summer of 1920 Mr. Walter Deane made a collection at Shelburne. In 1922, Dr. Cushman collected at the Pinkham Notch (July 21) and at the Dixville Notch (July 22). On July 19, 1921, Mr. A. B. Fuller collected at Connecticut Lake.

12. The Hanover area.—This section was selected as a collecting ground to show the distribution of species in the Connecticut River valley. The area might be limited by Wells River on the north and White River on the south. July 4 to 6, 1908, was spent at Hanover where most of the collecting was done in the woods along Mink Brook; July 7 and 8 were spent in Norwich on the Vermont side of the river, collecting chiefly along Bloody Brook.

13. Lake Winnepesaukee area.—This embraces the lake region of central New Hampshire and the upper Merrimack River valley. During the summer of 1907, Dr. G. M. Allen made an interesting collection of insects at Squam Lake. From September 9 to 12, 1914, the writer collected at Center Harbor and Wolfeboro. Mr. A. P. Morse has collected at Holderness and Mr. Carl Hoessler at Andover, Franklin and Belmont.

14. The Mount Monadnock area.—This area might include Cheshire and Hillsboro Counties but work has been confined mostly to the more elevated portions. On and around Mt. Monadnock is a rich collecting ground. My work there has all been done in the month of June, on the Jaffrey side and along the "Red Cross Trail" to the summit of the mountain. In 1917, I collected from June 15 to 28; in 1920, from June 3 to 13; and in 1923, from June 13 to 23. All specimens collected near the "Inn" and "Ark" at an elevation of about 1,200 feet are labeled "Jaffrey." In March, 1917, Mrs. Johnson made a collection of the snow insects. Miss Nina G. Spaulding, of Jaffrey, has for a number of years collected insects and captured many interesting species. Miss Rebecca Kite has collected a number of insects at the "Mountain House." In the Harris Collection are many species from Dublin collected by Rev. L. W. Leonard from 1828 to 1835. Milford is the home of Mr. C. P. Whitney who has described a number of new Tabanidae from there. On June 23, 1914, I spent an enjoyable day, collecting with him. Alden F. Megrew has collected a number of species at Wilton.

15. The Hampton area.—This area was made primarily to cover the coastal area of the State but might include the lower part of Strafford and Rockingham Counties. I have called it Hampton, the home of my friend, Mr. S. Albert Shaw, an allround entomologist of the old school, who has been making a local collection of all orders for years and has secured many new and interesting species. Most of the records from this area are therefore his. The collection of the College of Agriculture at Durham contains many Diptera which I had the privilege of studying several years ago. Dr. Allen has taken a few interesting species at Rye Beach; Dr. George Dimmock at Canobie Lake; and Mr. P. R. Lowry at Durham and Hill.

VERMONT.

16. The Lake Champlain area.—This applies to that section adjacent to the lake, having an elevation of less than 500 feet. In 1906, the writer collected at Burlington, on June 22 at "Queen City Park" south of the city, and on the 23d and 24th at Ethan Allen Park north of the city. From June 19 to 21, 1913, I collected at St. Albans, chiefly in the woods and meadows north of the city. Dr. Cushman made a small collection at North Hero, June 18, 1907, and at Shoreham, July 15, 1910, and Professor John Barlow at Middlebury, July, 1912.

17. The Northern "Green Mountains" area.—This covers the northern portion of the Green Mountains from the southwestern end of Washington County, northward. The largest collection from this region was that made by Mr. Owen Bryant on Bolton Mountain, between the town of Bolton and Mt. Mansfield, from July 16 to September 19, 1922. Mr. A. P. Morse collected on Jay Peak, July 15; Mt. Mansfield, July 21; and at Stowe, July 22, 1891. Dr. J. A. Cushman made a small collection at Coventry and Newport, June 23 and 24, 1907. On June 25, 1906, I made a small collection at Montpelier. Philip S. Sprague (70-88) published a list of the insects collected on Camel's Hump.

18. The Upper Connecticut River Valley area.—This area should include Caledonia and Essex Counties, but comparatively little collecting has been done. The writer collected at St. Johnsbury from June 26 to 28, 1906, chiefly along the Passumpsic River. Dr. A. L. Melander has collected at Lyndon.

19. The Middle "Green Mountains" area.—This includes the southeastern end of Addison and the eastern half of Rutland Counties. Mr. A. P. Morse collected on Killington Peak, August 28, 1898. The writer collected on the road up Killington Peak and around the base, August 26 and 28, 1919. Dr. J.



Bequaert collected a number of Diptera around Chittenden, August 1-15, 1916.

20. The Mount Ascutney area.—This represents a combination of an isolated peak and portion of the Connecticut River valley, from White River to the Windham County line. On July 11, 1908, Mrs. Johnson and myself collected along the trail to the summit of Mt. Ascutney. Mr. W. S. Brooks also collected there, July 20 to 23, 1912. On July 10, 1908, I collected at Amsden, near Donner's Hotel and on July 13 at Windsor and at Cornish on the New Hampshire side of the river. A number of interesting species have been taken by Mr. A. P. Morse at Woodstock.

21. The Lower "Green Mountains" area.—This includes all of Bennington and the western half of Windham Counties. In June, 1910 (4th to 9th) the Society sent a collecting party to Mt. Equinox. Dr. Allen collected small mammals, Dr. Cushman botanized, and the writer collected insects, many new and interesting species being obtained. The material collected around the base of the mountain is labeled "Manchester." From June 18 to 24, 1915, I collected at Bennington, both east and west of the town.

22. The Brattleboro area.—A Connecticut River valley area comprising the eastern half of Windham County. On July 14, 1908, I collected at Dummerston, or more strictly speaking, West Dummerston, along the West River near Black Mountain; on July 15, at Brattleboro, west of the city.

MASSACHUSETTS.

23. The Berkshire area.—This area is not restricted to Berkshire County, but includes the Berkshire Hills as far east as Shelburne Falls and Huntington. From June 14 to 19, 1906, the writer collected in the vicinity of North Adams, chiefly near the "Cascade" and Briggsville. The 15th was spent on the summit of Mt. Greylock and the 20th at Cheshire. In May, 1907, Dr. J. A. Cushman collected a few insects while botanizing at Sheffield. In 1917, I again visited Mt. Greylock, going up the trail from Cheshire Harbor, July 25. In August, 1907, Mr. Owen Bryant collected at North Adams and on Mt. Greylock. To note the changes between spring and late summer, some intensive collecting was done by the writer at Chester (chiefly along Austin's Brook) on the following dates: August 3 to 6, 1911; May 26 to 29 and August 7 to 9, 1912; July 24 and 25, 1913; and August 5 and 6, 1914. Mr. Bryant also collected there August 6, 1922. On August 8, 1912, I collected at Washington, the highest point on the Boston and Albany railroad. In 1912, Dr. Cushman and myself made a botanical and entomological trip to the southwestern corner of the State, collecting in the vicinity of Bashbish Falls and on Mt. Everett from June 26 to 28. From June 14 to 16, 1915, the writer collected at Great Barrington, in the valley south and on the mountain east of the town. On July 24, 1917, I collected near the New Lenox and along the road leading to the top of October Mt. Mr. J. W. Beecroft has collected at Cheshire and Great Barrington, Mr. C. A. Frost has collected at Monterey and Professor John Barlow at Peru.

24. The Connecticut River Valley area.—The part of the Connecticut valley within the confines of Massachusetts is especially interesting, for its diversified condition presents local environments favorable to both northern and southern species. A great Springfield has deal of entomological work has been done here. for years been the home and collecting ground of Dr. George Dimmock. In July, 1905 (13 to 15), I had the pleasure of collecting with him near his home and on Mt. Tom. Amherst, the seat of the State Agricultural College, with its large collection and corps of workers is a "beehive" of entomological activities. To Dr. H. T. Fernald I am indebted for the privilege of studying the college collection and for other assistance. Dr. C. P. Alexander has made a special study of the Tipulidae of the valley. In company with Drs. Crampton and Alexander, I collected at Sunderland and Whately Glen, May 29 and 30, 1923. Mr. Stanley W. Bromley has also collected many Diptera in this Mr. Owen Bryant collected at Westfield, July 10, 1905. area. Mr. H. E. Smith collected a number of interesting species at West Springfield; Mr. F. E. Zeissig has collected at Ware and the writer at Williamsburg (August 7, 1911). Miss Fannie A. Stebbins, in her work on the "Insect Galls of Springfield and Vientity" gives more than the first of the formation of the first sector. Vicinity," gives many records for the Cecidomyiidae.

25. The Worcester County area.—This area should really be confined to the more elevated portions of the County, but it is difficult to draw the line. The late Dr. F. W. Russell collected a number of species at Winchendon. Mr. R. T. Webber collected at Lunenburg, Miss Susan Minns at Princeton and Mrs. Ella L. Horr at Worcester. The writer collected on Mt. Wachusett, May 30, 1914, and at Rutland, June 5 and July 9, 1915; May 31, July 31 and September 20, 1916. Mr. Stanley W. Bromley has collected many interesting species at Southbridge. The writer has also collected there July 8 and 16, August 27 and September 3, 1912–15. Dr. L. H. Taylor has collected at Petersham, August, 1920. The late Millet T. Thompson's collection of insect galls is now the Society's, most of the material having been obtained in the vicinity of Worcester.

26. The Essex County area.—In this area I am including the valley of the Merrimack as far as Tyngsboro, where Mr. H. C. Fall has captured a number of interesting flies. Beverly was the home of Edward Burgess, who was interested in Diptera. A number of species have been recorded from his collection, which



is in the U. S. National Museum. Mr. A. P. Morse has collected at Salem, Danvers, Haggett's Pond, Plum Island and other places. Mr. F. H. Walker has collected at Salem and Marblehead. Mr. A. B. Fuller has collected at Essex and Mr. W. S. Brooks at Beverly Farms. The writer has collected on the Ipswich River above and below North Reading, June 10; at Rockport, July 15, 1904, and August 28, 1913; East Gloucester and Briar Neck (labeled Gloucester), August 30, 1912, August 28, 1913, May 22, 1915, July 5 to 8, 1918, and May 30, 1919. A small collection was also made at Coffin's Beach, May 30, 1916. Miss Cora H. Clarke has collected many species of gall insects at Magnolia.

27. The Boston area.—This comprises Suffolk, the southern portion of Middlesex and the greater part of Norfolk Counties, covering largely the valleys of the Charles and Neponset Rivers. It might be bounded by a line drawn from Stoneham to Concord and from there south to Framingham, through Holliston and Sharon to the Plymouth County line. The places where collecting has been done are so numerous that only the more important ones can be mentioned, except in the case of rare species, then the exact locality will be given under the species. Although this has been a collecting ground for entomologists since the days of Harris, no one has really specialized on the Diptera, hence older records are comparatively meager. Boston includes all of Suffolk County; Roxbury, Dorchester, Jamaica Plain and Forest Hills are all within the County. The label, "Brookline," includes also the Chestnut Hill section around Hammond's Pond; Auburndale includes the western part of Newton. A label, "Riverside," was first used for the portion adjacent to the Charles River, but was later discarded because there were found to be three other Riversides in the State. Both Brookline and Auburndale have been favorite collecting grounds for the writer, especially during the years 1903 to 1911. Wellesley is the home of Mr. A. P. Morse, who has collected there and in the immediate vicinity. At Sherborn, Mr. E. J. Smith has taken a number of species. Framingham is the home of Mr. C. A. Frost. He has collected a number of new and interesting species during the past twenty years. Holliston, where Mr. Nathan Banks has recently moved, is yielding many desirable species. The writer has collected at Dedham, September 4, 1908, June 3, 1909, and May 20, 1912; at Purgatory Swamp, near Ellis, May 24, 1912, April 21, 1913, May 11, 1914, and May 3, 1918; also at Walpole, May 26, 1908. Sharon has been a favorite collecting ground, and with Dr. Cushman I have spent a number of days there and obtained many new and interesting species. Another place frequently visited by the writer and others is the Blue Hill in Milton. It was at Milton that Harris lived before going to Cambridge and most of the local species in

his collection are from these two places. Mr. Owen Bryant while in Cambridge collected a number of species at Fresh Pond.

The work conducted by the Gipsy Moth Laboratory at Melrose Highlands has greatly added to our knowledge of the Diptera of this region, especially of the parasitic species, and I am greatly indebted to those connected with the laboratory for many courtesies. To those connected with the Corn-borer Laboratory at Arlington, I am also indebted for many favors. Messrs. C. L. Anderson and G. W. Barber have collected a number of interesting flies in the vicinity of Arlington and Lexington. Mr. L. W. Swett has collected at Bedford and Dr. R. H. Howe, Jr., and the writer at Concord.

28. The Plymouth area.—This includes all of Plymouth County and the town of Cohasset, which is a part of Norfolk County. The work in this area has been largely confined to the coastal portion from Cohasset to Manomet. Cohasset was for several years the home and collecting ground of Mr. Owen Bryant and his intensive collecting at all seasons of the year resulted in adding many new and rare species. The writer collected at Plymouth and Manomet, July 25 to 28, 1905, and at Scituate, May 15, 1915. Dr. J. A. Cushman has collected at Bridgewater and Manomet. Mr. W. S. Brooks has also on several occasions collected at Manomet and Mr. S. N. F. Sanford at Marshfield.

29. The Cape Cod area.—This includes all of the land east of Buzzards Bay and the Cape Cod Canal. Being the most northeastern portion of the Upper Austral it presents many interesting features bearing on distribution. In 1904 the writer collected at Provincetown, June 24–26; Eastham, June 27–28; Chatham, June 30 and July 1; Hyannisport, July 3 and 4; and Barnstable, July 5. Mr. A. P. Morse collected at Provincetown September 6, 1890, and June 29 and September 4, 1891. The Marine Biological Laboratory has brought to Woods Hole many persons interested in entomology. Messrs. J. A. Cushman, C. T. Brues, A. L. Melander, R. C. Osborn, A. H. Sturtevant, W. M. Wheeler and the writer have all collected Diptera there. Dr. Cushman has also collected at Pocasset; Mr. E. F. Hitchings at Sandwich, June 19, 1908; Mr. O. Bryant at Waquoit, September 21, 1910; and Mr. G. W. Barber at Yarmouth. Through the kindness of Mr. L. D. Baker the writer made an interesting collection at Wellfleet, August 13–18, 1919.

30. The Nantucket area.—This includes the islands of Nantucket, Tuckernuck and Muskeget. The insect fauna of the islands has not been studied thoroughly, but many interesting species of Diptera have been obtained by several collectors. Doctors G. M. Allen, J. A. Cushman and H. T. Fernald have collected on Nantucket at various times. Mr. A. P. Morse collected there September 9–11, 1913; Mr. S. N. F. Sanford.



August 27, 1921; and the writer August 8, 1918. Dr. Allen also collected on Tuckernuck, July 21, 1910; and Dr. Cushman, August 6, 1909. Mr. W. S. Brooks collected a number of Diptera on Muskeget, July 7, 1916 and July, 1924.

31. The Martha's Vineyard area.—This should comprise all of Duke's County but work has been confined to Martha's Vineyard, although an exhaustive study of the insect fauna is yet to be made. Dr. J. A. Cushman, while collecting fossils at Gay Head in 1904 and botanizing in 1911, collected a number of insects at North Tisbury, July 20–21, and at Chilmark, August 14–17. The writer collected at Edgartown, June 28 and 29, 1910, August 22 and 23, 1912, and at Oak Bluff, June 13, 1917. Mr. A. P. Morse has collected at West Chop, July 4 and August 5, 1893.

32. The Bristol County area.—This includes the entire County, but collecting has been mostly confined to the southern half, which yields many austral species. Dr. Gary de N. Hough made a most interesting collection of Diptera at New Bedford and Horse Neck Beach between 1894 and 1900, and published a number of valuable papers. Mr. N. S. Easton has collected a number of species in the vicinity of Fall River. In company with Mr. Easton the writer has collected at Horse Neck Beach, July 30; Westport Factory, July 31, 1913; and near Fall River, July 12, 1916. Dr. J. A. Cushman and Mr. S. N. F. Sanford have also collected at Fall River and Mr. H. M. Holt at Gooseberry Neck.

RHODE ISLAND.

33. The Rhode Island area.—For convenience it seems best to include the entire State, although east of the Sakonnet River would more naturally belong to the Bristol County area. I have studied the large collection made by Professor John Barlow at Kingston. The writer has collected at Buttonwoods, July 25, 1911, and June 12–22, 1912; Washington, June 19, and Apponaug, June 21, 1912; Tiverton, July 31, 1913, and July 12, 1916; Newport, June 5; and Wickford, June 9, 1914. Newport is the type locality for several species collected by Baron Osten Sacken. Through the kindness of Mr. Howard L. Clark I had an opportunity of collecting at Bristol, June 20, 21, 1918.

CONNECTICUT.

34. The Litchfield area.—This area includes the upper portion of Litchfield County, northward of the towns of Litchfield and Kent, having a general elevation of over a thousand feet. Dr. W. M. Wheeler has collected a large number of interesting species at Colebrook. Mr. K. F. Chamberlain has collected some Diptera at Cornwall, Mr. L. B. Woodruff at Litchfield and Mr. A. P. Morse a few at Kent. Some species have also been received for determination from Dr. W. E. Britton, collected at Salisbury and Chapinville. The area is interesting as being the southern limit of distribution of many boreal species.

35. The Connecticut area.—This includes all of the State except the area above described. Through the kindness of Dr. W. E. Britton I have studied the collection of the Connecticut Agricultural Experiment Station, made by members of the staff and others in various parts of the State. The writer has collected at Darien and Rowayton, August 4-5, 1908; June 16-17, 1909; June 10-11, 1912; May 27, 1913; and June 12, 1915; also at Winnipauk, June 12 and August 4; Danbury, June 15, 1909; Middletown, June 17, 1909; and New Haven and Mt. Carmel, June 11, 1914. Dr. Geo. Dimmock has collected at Suffield, Dr. W. Marchand at Farmington, and Mr. A. P. Morse at Stamford.

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DIPTERA.

NEMATOCERA.

TANYDERIDAE.

Protoplasa Osten Sacken.

P. fitchii Osten Sacken.

N. H.-Mt. Washington carriage-road, 3000 ft. (L. W. Swett).

PTYCHOPTERIDAE.

Ptychoptera Meigen.

P. rufocincta Osten Sacken.

ME.---6, 8, 10. N. H.---11, 14, 15. June 12-July 21. MASS.-23, 24, 27. R. I.-33. CONN.-35. May 20-Aug. 8.

Bittacomorpha Westwood. "Phantom Crane-flies."

B. clavipes (Fabricius).

ME.-1, 5, 6, 8. N. H.-11, 14, 15. VT.-17, 18. June 10-Aug. 25. MASS.-23, 24, 27. R. I.-33. CONN.-35. May 13-Sept. 6.

Bittacomorphella Alexander, 16-545.

B. jonesi (Johnson), 05-75.

ME.---6, 7, 8. N. H.---11, 13. VT.---17, 18. June 27-Aug. 25. MASS.-23, 24, 25, 27. R. I.-33. May 30-Aug. 3.

ANISOPODIDAE.

TRICHOCERINAE.

Trichocera Meigen.

T. bimacula Walker.

ME.—.

MASS.-27, 28, 32. CONN.-.. Oct. 15-Nov. 14.

T. brumalis Fitch.

ME.-1 (Woodland, Dec. 17, Nylander). N. H.-Jaffrey, Mar. 9.

MASS.—Forest Hills, Nov. 11; Arlington, Feb. 17; Tyngsboro, Oct. 26 (Fall). CONN.-New Haven, Nov. 20 (Viereck).

T. gracilis Walker.

N. H.—Mt. Washington (Mrs. Slosson), det. by Coquillett.

T. regelationis (Linné).

ME.---6, 7. June 1-July 15. MASS.---27, 28, 32. Mar. 30-Dec. 8.

This species was determined by Coquillett from specimens bred from spoiled potatoes, June 1, 1907 (Edith M. Patch).



ANISOPODINAE.

Anisopus Meigen, 1803 (Rhyphus Latreille, 1804).

A. alternatus (Say).

ME.--4, 6, 9. N. H.-11, 14, 15. May 8-Aug. 29. MASS.-25, 27, 28, 32. R. I.-33. CONN.-35. Apr. 14-Aug. 2.

A. fenestralis (Scopoli).

ME.--9, 6. N. H.-11, 15. June 15.

MASS.-25, 27, 31, 32. R. I.-33. CONN.-35. Mar. 3-Oct. 2.

A. punctatus (Fabricius).

ME.-2, 6. N. H.-11, 15. VT.-17, 19. July 8-Sept. 10. MASS.-24, 27, 28, 32. R. I.-33. CONN.-34, 35. May 7-Oct. 5.

AXTHYUNAE.

Axymyia McAtee, 21-49.

A. furcata McAtee, 21–49 (Eupertenus ater Coquillett (09–106), not Macquart).

MASS.-Mt. Toby, May 17, 1924 (Alexander, 24-115).

MYCETOBIINAE.

Mycetobia Meigen.

M. divergens Walker.

ME.—Gardiner. N. H.—Hanover, July 6, 1908. MASS.—Cambridge, July 28. CONN.—Hartford.

TIPULIDAE. The Crane-flies.

Geranomyia Haliday.

G. canadensis (Westwood). N. H.—Glen House, June 18. MASS.—Cohasset, July 15-Aug. 20 (Bryant). CONN.—.

G. distincta Doane.

MASS.—New Bedford. CONN.—.

G. rostrata (Say).

ME.-1, 2. N. H.-11. VT.-17. Aug. 15-25. MASS.-25, 24, 26, 27, 28. R. I.-33. CONN.-35. May 17-Sept. 21.

G. diversa Osten Sacken.

ME.—Orono, Sept. 7, 1913 (Alexander).

MASS.—Whately Glen, May 23, 1923 (Alexander).

Discobola Osten Sacken.

D. argus (Say).

ME.-1, 2, 4, 6, 8. N. H.-11, 15. VT.-16, 17. June 21-Aug. 30.

MASS.-24, 27, 28. R. I.-33. CONN.-.. June 6-Sept. 27.



Rhipidia Meigen.

R. bryanti Johnson, 09–123. ME.—Orono, June 30 (Alexander). MASS.—Cohasset, June 30–July 20 (Bryant).

R. maculata Meigen. ME.-1, 2, 5, 6, 7, 8. N. H.-11, 15. VT.-16, 17, 18. June 21-Oct. 22. MASS.-23, 24, 27, 28. R. I.-33. CONN.-.. July 12-Oct. 8. R. domestica Osten Sacken. CONN.—East River, Aug. 20, 1912 (Ely, Dietz Coll.). R. fidelis Osten Sacken. VT.—Norwich, July 8; Amsden, July 10. MASS.—Cohasset, June 20 (Bryant). CONN.—Rowayton, June 16. Dicranomyia Stephen, **D. badia** (Walker). ME.—Orono, June 10 (Alexander). VT.—Dummerston, July 4. MASS.-Whately Glen, May 6, Oct. 1 (Alexander). R. I.-Tiverton, July 31. CONN.—(Osten Sacken). D. brunnea Doane. MASS.—Nantucket; Tuckernuck Isl. July 31. D. brevivena Osten Sacken. MASS.—Leverett, Oct. 8; Goshen, Sept. 21 (Alexander). **D. gladiator** Osten Sacken. ME.—Capens, July 21; Mt. Desert, July 24. MASS.—Cohasset, June 19 (Bryant); Eastham, June 27. D. globithorax Osten Sacken. ME.-Mt. Katahdin, Aug. 22 (Alexander). N. H.-White Mts.; Hampton, Sept. 10 (Shaw). MASS.-Cohasset, June 19; Whately Glen, May 22; Goshen, Sept. 21 (Alexander). D. haeretica Osten Sacken. ME.--6, 8. N. H.-11. VT.-16. June 8-July 27. Mass.-24, 27, 28, 29. R. I.-33. Conn.-35. June 1-Oct. 31. **D. halterata** Osten Sacken. ME.—Orono, Sept. 17 (Alexander). N. H.—Franconia (Mrs. Slosson). MASS .---. D. immodesta Osten Sacken. ME.-6, 4, 7, 8. N. H.-11, 15. VT.-17, 18, 22. July 8-Sept. 16. MASS.-23, 24, 27, 28. CONN.-.. May 29-Oct. 1.

D. liberta Osten Sacken.

ME.-6. 8. N. H.-12, 14, 15. VT.-17, 18. June 1-July 12. MASS.-23, 24, 27, 28. CONN.-35. May 14-Sept. 21.

D. longipennis (Schummel). ME.-1, 6, 8. N. H.-11, 12. VT.-16. June 16-Aug. 17. MASS.-24, 28. R. I.-33. CONN.-.. June 14-Sept. 5.

D. moniliformis Doane. MASS.---Nantucket.

D. morioides Osten Sacken. ME.—Bar Harbor, June 13; Orono, June 10-July 8 (Alexander). MASS.—Sunderland, May 29 (Alexander).

D. pubipennis Osten Sacken.

ME.—Mt. Desert, July 30; Orono, July 8 (Alexander). N. H.— Jaffrey, June 14.

MASS.-East Walpole, May 26; Mt. Toby, July 10; Goshen. June 4.

D. pudica Osten Sacken.

ME.—Orono, June 8 (Alexander). N. H.—Mt. Washington; Hampton, June 6 (Shaw). MASS.—Auburndale, July 22.

D. rostrifera Osten Sacken. ME.-Ft. Kent, Aug. 28, 1913 (Herbert Osborn).

D. simulans (Walker). ME.—. N. H.—11. VT.—16, 17. Aug. 25-Sept. 14. MASS.-23, 24. R. I.-33. CONN.-35. May 6-Oct. 1.

D. stulta Osten Sacken.

N. H.-Franconia (Mrs. Slosson). MASS.—Mt. Toby, July 10, 1923 (Alexander)

Limonia Meigen, 1803 (Limnobia Meigen, 1818).

L. cinctipes (Say). ME.-4, 5, 6, 10. N. H.-14. VT.-17. May 10-Sept. 10. MASS.-23. Aug. 9.

L. immatura (Osten Sacken). ME.-.. N. H.--11, 13, 15. VT.--16, 17. May 25-Sept. 19. MASS.-24, 27, 28. CONN.-35. May 18-Oct. 22.

L. indigena (Osten Sacken). ME.---1, 4, 8. N. H.---11, 12, 15. VT.---17, 20, 21. June 2---July 26. MASS.-23, 24, 27, 28. CONN.-35. May 23-Sept. 29.

L. maculacosta (Coquillett), 05–57. VT.—Bolton Mt., July 27, 1922 (Bryant).



L. hudsonica (Osten Sacken). ME.---7, 8, 9, 10. VT.---16, 20. June 20-Aug. 13. Mass.-27. Aug. 8-16. L. parietina (Osten Sacken). ME.-10. N. H.-11, 14, 15. VT.-17. Aug. 26-Sept. 15. Mass.-24. Sept. 16. L. solitaria (Osten Sacken). ME.-1, 2, 4, 6, 7, 8, 9. N. H.-11, 12, 14. VT.-16, 17, 18, 21. June 8-Aug. 25. MASS.-23, 24, 27. May 29-Sept. 11. L. triocellata (Osten Sacken). ME.-1, 2, 5, 6, 7, 8, 9. N. H.-11. VT.-17, 19. July 12-Aug. 27. MASS.-23, 24, 26, 27, 28, 32. CONN.-35. July 15-Sept. 16. The larva lives in fungus, see Psyche, vol. 13, p. 2, 1906. L. tristigma (Osten Sacken). ME.-1, 6, 8. N. H.-11. VT.-22. July 14-Aug. 19.

Rhamphidia Meigen.

R. flavipes Macquart. N. H.—11. VT.—16. June 23–July 14. MASS.—23, 24, 27. R. I.—33. CONN.—35. May 23–Aug. 23.

R. mainensis Alexander, 16–498. ME.—Orono, June 12 (*Alexander*).

MASS.-23, 28. July 27-Aug. 8.

Elephantomyia Osten Sacken.

E. westwoodi Osten Sacken. ME.—1, 4, 7, 8. N. H.—11, 12. VT.—16, 21. June 5–July 17. MASS.—23, 24, 27. CONN.—35. June 16–Aug. 16.

Toxorhina Loew.

T. muliebris (Osten Sacken).
ME.—6, 8, 9. VT.—20, 22. July 9-Aug. 5.
MASS.—23, 24, 26, 27, 28. R. I.—33. CONN.—35. July 9-July 14.

Atarba Osten Sacken.

A. picticornis (Osten Sacken).
N. H.—Hampton (Shaw).
MASS.—Sandwich, June 19 (Hitchings); Mt. Toby, July 10 (Alexander). CONN.—East River, July 13 (Ely).

Antocha Osten Sacken.

A. opalizans Osten Sacken.

ME.---1, 4, 5, 6, 10. N. H.---11, 12. VT.---16, 17, 20, 21. June 4-Aug. 25.

MASS.-23, 24, 27. CONN.-35. May 17-Sept. 6.

A. saxicola Osten Sacken.

VT.—Manchester, June 5–10.

MASS.—Conway, Sept. 16, 1922 (Alexander).

Dicranoptycha Osten Sacken.

D. germana Osten Sacken.

N. H.—Bretton Woods, June 27; Franconia (Mrs. Slosson). Vr.—Dummerston, July 14.

MASS.-Mt. Greylock, Aug. 8 (Bryant); Bashbish Falls, June 28.

Teucholabis Osten Sacken.

T. complexa Osten Sacken.

CONN.—East River, July 9, 1910 (Ely).

Chionea Dalman.

C. valga Harris. The Wingless Snow-midge.

ME.—Woodland, Dec.-Jan. (Nylander). N. H.—Mt. Monadnock, 3000 ft., Jan. 16 (Emerton); Jaffrey, Feb. 22-Mar. 14 (Mrs. C. W. Johnson); Jackson, Feb. 20 (Emerton).

MASS.—Malden (Henshaw); Framingham, Jan. 19 (Frost); Phillipston, Dec. 29 (H. H. Shepard).

Cladura Osten Sacken.

C. flavoferruginea Osten Sacken.

ME.—1. N. H.—11, 15. VT.—19. Aug. 26-Oct. 5. MASS.—23, 24. Sept. 11-Oct. 1.

C. delicatula Alexander, 14-589.

N. H.—White Mts. (Morrison). VT.—Bolton Mt., Aug. 25 (Bryant); Killington Peak, Aug. 27.

Rhabdomastix Skuse.

R. (Sacandaga) flava Alexander, 11–351 and 19–904. Vr.—Dummerston, July 14, 1908.

Gonomyia Meigen.

G. blanda Osten Sacken.

N. H.—Hampton, July 10–15 (Shaw). Vr.—Burlington, June 23. CONN.—East River, July 16–20 (Ely).

G. cognatella Osten Sacken.

CONN.—East River, July 5, 1910 (Ely).

G. florens Alexander, 16-317.

ME.—Orono, July 12 (Alexander).



G. mainensis Alexander, 19–163.

ME.—Ft. Kent, Aug. 29, 1913 (Alexander).

G. manca Osten Sacken.

MASS.—Conway, Sept. 16, 1922 (Alexander).

G. subcinerea Osten Sacken. ME.-1, 3, 6, 8. N. H.-11. VT.-22. June 8-Sept. 7.

Mass.—23, 24, 27. Conn.—35. June 17-Aug. 13.

G. sulphurella Osten Sacken.

ME.-9. N. H.-11, 12. VT.-20. July 8-Sept. 5. MASS.-24. R. I.-33. CONN.-35. May 29-Sept. 23.

Cryptolabris Osten Sacken.

C. paradoxa Osten Sacken. ME.--3, 4. N. H.--11, 12. VT.--20. July 6-Aug. 22. MASS.--27. July 7.

Helobia St. Fargeau et Serville.

H. hybrida (Meigen).
ME.—1, 6, 8. N. H.—11, 15. VT.—16, 17, 18. May 11-Aug. 17.
MASS.—24, 26, 27, 28. R. I.—33. CONN.—35. May 3-Aug. 30.

Molophilus Curtis.

M. comatus Doane. ME.—.

M. cramptoni Alexander, 24–61. Mass.—Amherst, June 5, 1924 (Alexander).

M. forcipula Osten Sacken. ME.-4, 7, 8, 10. N. H.-11. July 12-26. MASS.-27.

M. hirtipennis Osten Sacken. ME.—1, 6, 8. N. H.—11, 15. Apr. 29–Aug. 19. MASS.—24, 27, 28. CONN.—35. May 26–July 20.

M. pubipennis Osten Sacken. ME.—4, 8. N. H.—11. VT.—17, 22. July 14-Aug. 31. MASS.—23, 24, 27, 29. R. I.—33. June 5-Aug. 9.

M. ursinus Osten Sacken. ME.—Mt. Desert, July 22. N. H.—Hampton, April 27 (Shaw).

Erioptera Meigen.

Subgenus Erioptera Meigen.

E. chlorophylla Osten Sacken. ME.—5, 6, 7, 8. N. H.—11. June 26-Aug. 5. MASS.—23, 26, 27, 29. R. I.—33. CONN.—35. June 15-Aug. 10. E. chrysocoma Osten Sacken.
 ME.-4, 6, 7, 8. N. H.-11, 14. VT.-17, 22. June 19-July 29.
 MASS.-23, 27. June 6-Aug. 9.

E. septentrionis Osten Sacken. ME.—6. N. H.—11. June 10–Aug. 5. MASS.—24, 27, 28. R. I.—33. CONN.—35. Apr. 19–Sept. 5.

E. straminea Osten Sacken. ME.—7. N. H.—11. July 14–22. MASS.—23, 27. R. I.—33. CONN.—35. May 30-June 20.

E. vespertina Osten Sacken.
ME.—Orono, June 10; Capens, July 18. N. H.—Glen House, June 15. VT.—Burlington, June 24.
MASS.—Amherst, May 17 (Alexander). CONN.—.

Subgenus Acyphona Osten Sacken.

E. armillaris Osten Sacken. ME.—6, 8. N. H.—11. VT.—18, 20, 22. June 30-Aug. 17. MASS.—23, 24, 27. CONN.—. June 19-Aug. 9.

E. venusta Osten Sacken. N. H.—12. VT.—16, 17, 18, 21, 22. June 6–July 1. MASS.—23, 27. CONN.—35. June 6–Sept. 20.

Subgenus Hoplolabis Osten Sacken.

E. armata Osten Sacken. ME.—6. N. H.—11, 12. VT.—17, 19. June 6–Aug. 28. MASS.—23; 24. CONN.—35. May 17–29.

Subgenus Mesocyphona Osten Sacken.

E. caloptera Say.
ME.—6, 7. N. H.—11, 12, 14, 15. VT.—17, 22. June 5-July 20.
MASS.—24, 27, 28, 29. R. I.—33. CONN.—35. May 25-Sept. 5.

E. needhami Alexander, 18–383. ME.—6, 7. N. H.—12. VT.—16, 21. June 6–July 22. MASS.—23, 24. CONN.—35. June 20–July 10.

E. parva Osten Sacken. Conn.—.

Subgenus Empeda Osten Sacken.

E. nyctops Alexander, 16-503. ME.—Mt. Desert, June 10. N. H.—Glen House, June 15.

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E. stigmatica Osten Sacken.

ME.—Orono, June 6-12 (Alexander). N. H.—Franconia (Mrs. Slosson).

Mass.—Auburndale, Aug. 9; Brookline, May 25; Amherst, May 17 (Alexander).

Gnophomyia Osten Sacken.

G. tristissima Osten Sacken. ME.—6, 8, 9. N. H.—11. VT.—20. July 10-Aug. 5. MASS.—27. R. I.—33. Apr. 24-Aug. 20.

Trimicra Osten Sacken.

T. anomala Osten Sacken.

MASS.—Cohasset, Sept. 15 (Bryant); Nantucket, July 20; Rockport, Aug. 28. R. I.—Newport, June 5, Aug. and Sept. (Osten Sacken); Buttonwoods, June 17.

Ormosia Rondani.

O. adirondacensis Alexander, 19-145. MASS.—Whately Glen, June 10, 1924 (Alexander).

O. arcuata (Doane), 08–201. ME.—Orono, May 10-July 5 (Alexander). MASS.—Amherst, Apr. 30-May 14 (Alexander).

O. deviata Dietz, 16–143.

ME.—Orono, June 5-8, 1913 (Alexander).

MASS.—Amherst, June 5; Lake May, Berkshire Co., Aug. 24 (Alexander).

O. dentifera Alexander, 19-144. ME.—Orono, June 5–10, 1913 (Alexander).

O. fernaldi Alexander, 24-116. MASS.—North Amherst, May 5, 1924 (Alexander).

O. innocens (Osten Sacken). N. H.—Franconia (Mrs. Slosson). MASS.—Amherst, May 2–14 (Alexander).

O. luteola Dietz, 16–138. ME.—Orono, July 29; Houlton, Aug. 24 (Alexander). CONN.—East River, Aug. 19, 1911 (Ely).

O. meigenii Osten Sacken. Me.—6. N. H.—11, 15. VT.--21. May 21-June 17. Mass.-23, 24. May 20-29.

O. monticola Osten Sacken. ME.---3, 8. N. H.---11, 15. Aug. 14-Sept. 26. MASS.-23, 24. CONN.-35. Aug. 24-Sept. 5.

O. nigripila Osten Sacken.

ME.—Orono and Fryeburg, Sept. 5-7 (Alexander). N. H.— Franconia (Mrs. Slosson).

MASS.—Tyngsboro, June 1 (Fall); Sunderland; Mt. Toby and Leverett, May 27-Sept. 10 (Alexander).

O. nimbipennis Alexander, 17-24.

ME.-Mt. Desert, Aug. 21 (Alexander).

MASS.—Lake May, Berkshire Co., Aug. 24; Mt. Toby, Sept. (Alexander).

O. notmanni Alexander, 20-225.

MASS.—North Amherst, May 3-24; Mt. Toby, May 20 (Alexander).

O. nubila (Osten Sacken). ME.—1, 2. N. H.—11. Aug. 17–21. MASS.—23, 24, 27, 28, 32. May 1–Sept. 6.

O. pygmaea (Alexander), 12–166 and 19–911 (*O. pilosa* Diets). ME.—1, 2, 6, 7, 8. N. H.—11. June 8–Aug. 31. CONN.—35. May 24.

O. rubella (Osten Sacken). ME.—6. N. H.—11. VT.—21. June 5–8. MASS.—23, 24, 27. Aug. 24–Sept. 25.

Ula Haliday.

U. elegans Osten Sacken.

ME.—Ft. Kent, Aug. 17. N. H.—Mt. Washington, July; Franconia (*Mrs. Slosson*). VT.—Manchester, June 8.
 MASS.—Brookline, Aug. 23; Essex, May 16 (*Fuller*).

U. paupera Osten Sacken. ME.—Orono, June 8, and Ft. Kent, Aug. 25 (*Alexander*). MASS.—Whately Glen, May 6–29 (*Alexander*).

Ulomorpha Osten Sacken.

U. pilosella Osten Sacken. ME.—Orono, June 12 (*Alexander*); Ellsworth, July 26 (*Stanwood*). MASS.—Sunderland, May 27 (*Alexander*).

Adelphomyia Bergroth.

A. americana Alexander, 12–829. ME.—Houlton, Aug. 24 (*Alexander*). MASS.—Mt. Toby; Leverett and Conway, Sept. 5–16 (*Alexander*).

A. cayuga Alexander, 12–831.

ME.—Orono, Sept. 7 (Alexander).

MASS.—Lake May; Mt. Toby and Leverett, Aug. 24-Sept. 11 (Alexander). A. minuta Alexander, 11–287.

ME.—Orono, June 14 (Alexander). N. H.—Jaffrey, June 21. MASS.—Amherst and Sunderland, May 23-30 (Alexander).

Epiphragma Osten Sacken.

E. fascipennis (Say).

ME.-4, 5, 6, 7, 8. N. H.-11, 12, 14, 15. VT.-18, 21. June 4-July 14. MASS.-23, 24, 27. R. I.-33. CONN.-35. May 26-June 16.

Limnophila Macquart.

Subgenus Lasiomastix Osten Sacken.

L. macrocera (Say).

ME.--4, 6, 7, 8, 9. N. H.-11, 14, 15. VT.-17, 20. June 12-Aug. 25.

MASS.-23, 24, 27, 28. R. I.-33. CONN.-.. May 29-Aug. 16.

L. tenuicornis Osten Sacken.

ME.—Orono, June 10 (Alexander). N. H.—White Mts., July.

MASS.—North Adams, June 18; Amherst and Sunderland, May 23–27 (Alexander).

Subgenus Idioptera Macquart.

L. fasciolata Osten Sacken. ME.—Orono, June 12 (*Alexander*). N. H.—Jaffrey, June 15, 1923. MASS.—.

Subgenus Limnophila Macquart.

L. adusta Osten Sacken.
ME.—6, 7, 8. N. H.—11, 14, 15. June 7–July 12.
MASS.—23, 24, 26, 27, 28, 31, 32. R. I.—33. CONN.—35. May 27–Sept. 16.

L. alleni Johnson, 04–126. N. H.—Intervale, June 17, 1904 (G. M. Allen).

L. areolata Osten Sacken. ME.--7, 8. N. H.--11, 14. June 10-July 20. MASS.--23, 24. May 23-June 10.

L. brevifurca Osten Sacken.
 ME.—Orono, June 10 (Alexander). N. H.—Franconia (Mrs. Slosson); Mt. Washington, July 4.
 MASS.—Sunderland and Whately Glen, May 23-29 (Alexander).

L. contempta Osten Sacken. MASS.—26, 27, 28, 31. CONN.—35. June 6–July 10.

L. imbecilla Osten Sacken. Mass.—North Adams, June 18. ÷

L. inornata Osten Sacken. ME.---6, 8. N. H.---11. June 10-20. MASS.-24, 27. R. I.-33. May 25-June 9. L. lenta Osten Sacken. ME.--1, 4, 6, 7, 8. N. H.-11. June 17-Aug. 19. MASS.-24, 27. CONN.-35. June 22-Sept. 4. L. lutea Doane. ME.-7, 8. N. H.-15. May 21-July 12. MASS.-26, 27. May 22-June 1. L. luteipennis Osten Sacken. ME.-6. N. H.-14. VT.-16. June 10-22. MASS.-24, 27, 29. R. I.-33. CONN.-. May 17-Sept. 4. L. marchandi Alexander, 16-118. MASS.—Stoneham (Blackburn). CONN.—Farmington, June 7, 1914 (Dr. R. W. Marchand). L. niveitarsis Osten Sacken. MASS.—Mt. Toby, 600 ft., June 1, 1924 (Alexander). L. nigripleura Alexander and Leonard, 14-592. ME.—Orono, July 29; Mt. Desert, July 21-24. MASS.—Conway, May 27 (Alexander). L. noveboracensis Alexander, 11-196. ME.—Orono, July 29-Aug. 5; Mt. Katahdin, Aug. 22 (Alexander); Ellsworth, Aug. 18; Portland, Aug. 14. CONN.—East River, July 4-Aug. 11 (Ely). L. quadrata Osten Sacken. ME.---6, 7, 8. N. H.---11, 14. June 10-July 21. Mass.-27. June 28. L. recondita Osten Sacken. ME.-6, 8. N. H.-14. VT.-16, 18, 21. June 4-July 21. MASS.-24, 26, 27, 29. CONN.-.. May 30-Aug. 22. L. stanwoodae Alexander, 14-595. ME.—Ellsworth, June 21, July 23. L. sylvia Alexander, 16–534. MASS.—Sunderland, May 27; Amherst, June 5 (Alexander). L. tenuipes (Say). ME.---6, 8. N. H.---14. VT.---16. June 19-July 11. MASS.—24, 27. CONN.—35. May 30-Sept. 14. L. toxoneura Osten Sacken. ME.—Capens, July 11; Eastport, July 14; Mt. Desert, July 12. N. H.—Jaffrey, June 27. MASS.—Lake May, Berkshire Co., July 14 (Alexander).



L. ultima Osten Sacken.

- ME.—Easton, Aug. 26 (Alexander). N. H.—Franconia (Mrs. Slosson).
- MASS.—Amherst, May 7, 1924 (Alexander).

Subgenus Ephelia Schiner.

L. aprilina Osten Sacken.

- N. H.—Franconia. VT.—Brattleboro, July 15; Dummerston, July 14.
- MASS.—North Adams, June 20; Whately Glen and Mt. Toby, May 23, July 10 (*Alexander*). R. I.—Buttonwoods, June 25, 1912.

L. johnsoni Alexander, 14-591.

N. H.-Bretton Woods, June 23, 1913.

Subgenus Dicranophragma Osten Sacken.

L. fuscovaria Osten Sacken.

- ME.--4, 6, 7, 8, 9. N. H.--11, 14, 15. VT.--16, 17, 18, 21. June 6-July 29.
- MASS.-24, 27. R. I.-33. CONN.-35. May 29-Aug. 9.

Subgenus Prionotabis Osten Sacken.

L. munda Osten Sacken.

- ME.—Mt. Desert, July 12. N. H.—Franconia (*Mrs. Slosson*);
 Mt. Washington, 2000–4000 ft., July 6; Bretton Woods, June 28.
- L. rufibasis Osten Sacken.
- ME.-4, 6, 7, 8. N. H.-11, 14. VT.-16, 21. June 4-July 16. MASS.-23, 24, 26, 27. R. I.-33. CONN.-35. Apr. 6-June 15.
- L. poetica Osten Sacken.
- MASS.—Milton, May 18; Brookline, May 23; Beverly, May 23 (Burgess).

L. unica Osten Sacken.

ME.—Waterville, June 20; Orono, larva, May 4 (Alexander). N. H.—White Mts.

MASS.—Conway, May 27 (Alexander).

L. novaeangliae Alexander, 14-594.

ME.—Ellsworth, July 9-Aug. 10 (Stanwood).

L. osborni Alexander, 14–596.

ME.—Phair, Aug. 26; Bangor Bog, near Orono, Aug. 30.

L. montana Osten Sacken.

ME.--7, 8. N. H.--11, 14. VT.--17. June 12-July 15. MASS.--24, 27, 28. CONN.--35. May 3-29.

L. consimilis Dietz, 21–255.

CONN.—East River, June, 1911 (Ely).

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L. subcostata (Alexander), 11–288 and 19–919. N. H.—Jaffrey, June 21; Mt. Washington, 2500 ft., June 18. Mass.—Sunderland, May 27–30; Claremont, June 4 (*Alexander*).

Hexatoma Latreille.

H. megacera Osten Sacken.

MASS.—Conway, May 27 (Alexander). CONN.—Chapinville, May 26, 1904 (Britton).

Penthoptera Schiner.

P. albitarsis Osten Sacken.

VT.—Brattleboro, July 15.

MASS.—Plymouth, July 28; Chester, Aug. 5; Mt. Toby, July 10 (Alexander). CONN.—New London.

Eriocera Macquart.

E. brachycera Osten Sacken.
 ME.—Mt. Desert, July 21. N. H.—White Mts.; Bretton Woods, June 26.

MASS.—Chester, Aug. 7.

E. spinosa (Osten Sacken). ME.--3. N. H.--11, 12. VT.--22. June 26-Aug. 1. MASS.--23.

E. longicornis (Walker).

ME.—. N. H.—Bretton Woods, June 24; Jaffrey, June 20. MASS.—. CONN.—Oxford, May 21 (Britton).

E. fuliginosa Osten Sacken.

N. H.—Hampton, July 16 (Shaw).

Pedicia Latreille.

P. albivitta Walker. ME.-3, 4, 6, 7, 8, 10. N. H.-11. VT.-17, 20. July 9-Sept. 4.

MASS.-23, 24, 27. CONN.-34, 35. Aug. 8-Sept. 11.

P. contermina Walker.

ME.—Traveler Mt., July 29 (Cushman). N. H.—Mt. Monadnock (Miss Kite). Vr.—Bolton Mt., July 16-Aug. 27 (Bryant).

MASS.—Sharon, Aug. 3.

Tricyphona Zetterstedt.

T. auripennis (Osten Sacken). N. H.—Mt. Washington (*Mrs. Slosson*); Bretton Woods, June 25. MASS.—.

T. autumnalis Alexander, 17–30. ME.—1, 3, 4, 6, 7, 10. Aug. 3–Sept. 4. MASS.—23, 27, 28. Aug. 24–Oct. 1.



- T. calcar (Osten Sacken).
- ME.--1, 4, 6, 7, 8, 9. N. H.--11, 14, 15. VT.--17, 21. May 20-Sept. 13.
- MASS.-23, 24, 25, 26, 27, 28. May 26-Oct. 1.
- T. hyperborea (Osten Sacken).
- N. H.—Camp of Cambridge Entomological Club, near the Halfway House, Mt. Washington, July 21, 1875 (Dimmock).
- T. inconstans (Osten Sacken).
- ME.--1, 4, 6, 7, 8. N. H.--11, 14, 15. VT.--17, 20, 21. May 26-Aug. 29.
- MASS.—23, 26, 27, 28. R. I.—33. CONN.—35. June 2-Aug. 10.
- T. katahdin Alexander, 14-598.
- ME.—Mt. Katahdin, Aug. 22 (Alexander); Ellsworth, Aug. 26, Sept. 1 (Stanwood).
- T. macateei Alexander, 19-166.
- MASS.—Sharon, May 26; Blue Hill, June 6; North Amherst, Whately Glen and Sunderland, May 5-30 (Alexander).
- T. vernalis (Osten Sacken).
- ME.--7, 8, 9. N. H.--11. June 10-July 25.
- MASS.—23, 24, 27. May 26-June 18.

Dicranota Zetterstedt.

D. eucera Osten Sacken.

- MASS.—Amherst, Apr. 30–May 3, 1924 (Alexander).
- **D. iowa** Alexander, 20-78 (D. noveboracensis Johnson, 22-22, not Alexander, 14-600).
- N. H.-Mt. Washington, 4000 to 5000 ft., July 8-21.
- D. pallida Alexander, 14-599.
- N. H.—White Mts. (Morrison).
- D. rivularis Osten Sacken.

ME.—.

MASS.—Whately Glen, May 6 (Alexander).

Rhaphidolabis Osten Sacken.

R. cayuga Alexander, 16–543.

MASS.—Amherst, May 3-14 (Alexander).

R. confusa Alexander, 24–63. MASS.—Mt. Toby, May 20 (Alexander).

R. flaveola Osten Sacken. ME.—1, 3, 6, 8. N. H.—11, 14. VT.—20. June 10-Aug. 19. MASS.—23, 24. June 5.

R. modesta (Osten Sacken). N. H.—White Mts. R. rubescens Alexander, 16–544. MASS.—Mt. Toby, Sept. 11 (Alexander).

R. tenuipes Osten Sacken. ME.—Mt. Desert, Aug. 31 (*Alexander*).

R. forceps Alexander, 24–63. MASS.—Sunderland, May 30 (*Alexander*).

Triogma Schiner.

T. exculpta Osten Sacken.

N. H.-Hampton, May 20 (Shaw).

MASS.—Framingham, May 26 (Frost); Amherst, May 19 (Alexander).

Phalacrocera Schiner.

P. tipulina Osten Sacken.

ME.-6, 7, 8. N. H.-11, 14, 15. May 9-July 22.

Cylindrotoma Macquart.

 C. americana Osten Sacken.
 ME.—Capens, July 11. N. H.—Mt. Washington, "Tuckerman Ravine," July 28; Bretton Woods, June 28.

Liogma Osten Sacken.

L. nodicornis Osten Sacken. ME.-4, 5, 6, 7, 8. N. H.-11, 12, 14. VT.-16, 17, 21. June 5-July 25. MASS.-23. CONN.-.. June 15-8.

Dolichopeza Curtis.

D. americana Needham, 08–211. ME.—6, 8. N. H.—11, 14. VT.—17. June 13–July 15. MASS.—23, 27. June 11–July 11.

Oropeza Needham, 08-211.

O. sayi Johnson, 09–34.
ME.-4, 8. N. H.-11, 12. VT.-16, 17, 18, 22. June 25-July 17.
MASS.-23, 24, 27, 31. CONN.-35. June 11-July 17.

O. albipes Johnson, 09–121. ME.--8. N. H.--15. VT.--22. July 15–21. MASS.--23, 24, 27, 28. R. I.--33. June 7-Aug. 7.

O. subalbipes Johnson, 09–121. Mass.—Auburndale, June 16.

O. similis Johnson, 09–119. ME.—Mt. Desert, June 13–20. MASS.—Auburndale, June 4.

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O. dorsalis Johnson, 09-119. ME.-Capens, July 14; Machias, July 25; Mt. Desert, June 11-July 17. **O. venosa** Johnson, 09–120. ME.-4, 7. N. H.-11, 12, 14. VT.-18. June 27-July 15. MASS.-23, 24, 25, 27. May 29-June 18. O. obscura Johnson, 09-122. ME.-4, 7, 8, 10. N. H.-11, 12, 13. VT.-17, 22. June 19-Aug. 8. MASS.—23, 27. R. I.—33. June 18-Aug. 10. O. obscura var. polita Johnson, 09-122. N. H.-11, 12. July 5-20. MASS.-23, 25, 27. June 28-Aug. 8. Tanyptera Latreille (Xiphura Brulle). **T. frontalis** (Osten Sacken). N. H.—11, 14. June 9–July 4. MASS.-23, 25, 27. CONN.-35. May 9-June 15. T. topazina (Osten Sacken). ME.-6, 8. N. H.-11, 14. VT.-21. June 5-24. MASS.—23. June 8-14. T. fumipennis (Osten Sacken). N. H.—Hampton (Shaw). MASS.—"The Notch," South Amherst, May 27. CONN.— Hamden, May 25 (Champlain); South Meriden, May 28 (H. L. Johnson). Ctenophora Meigen. C. apicata Osten Sacken. ME.-4, 6, 9, 10. N. H.-11, 15. June 28-July 30. MASS.-24, 27, 32. R. I.-33. CONN.-35. July 12-Aug. 22. C. nubecula (Osten Sacken). MASS.—Wellesley; Dorchester, June. CONN.—Rowayton, June 16. Stygeropis Loew. S. fuscipennis Loew. ME.---8. VT.---16, 20. June 24-Aug. 18. MASS.-26, 27, 29, 30. R. I.---33. June 21-Aug. 23. Longurio Loew. L. testaceus Loew. ME.—Boothbay Harbor, July 26, 1924 (G. M. Allen). N. H.— White Mts. (Morrison), U. S. Nat. Mus. MASS.-Savoy, July 17, 1919 (Dr. W. E. Britton).

Nephrotoma Meigen (Pachyrhina Macquart).

N. eucera (Loew). ME.---1, 6, 8. N. H.----11, 12, 14, 15. June 3-Aug. 17. MASS.-27. R. I.-33. CONN.-35. June 4-15. N. euceroides Alexander. MASS.—South Hadley, June 5, 1923 (J. C. Pearson). N. ferruginea (Fabricius). ME.-4, 6, 7, 8, 10. N. H.-11, 14, 15. VT.-16, 17, 19, 20. June 5-Sept. 11. MASS.-23, 27, 28, 32. R. I.-33. CONN.-35. May 26-Sept. 1. N. incurva (Loew). ME.---8, 9. N. H.---12, 13, 14, 15. VT.---22. June 11-July 15. MASS.-23, 27, 28. CONN.-35. June 1-Aug. 10. N. lugens (Loew). МЕ.—6, 9. N. H.—11, 15. June 9–29. Mass.—23, 27. Сомл.—35. May 24–Sept. 4. N. macrocera (Say). N. H.-11, 15. Vr.-22. June 21-July 21. MASS.-26, 27, 28. CONN.-35. June 1-July 26. N. macrocera virgata (Dietz), 21-260. ME.—Casco Bay, July, 1913 (Dietz). **N. pedunculata** (Loew). ME.--7, 8, 9. N. H.-11. VT.--16. June 21-July 22. MASS.—27. July 19. N. polymera (Loew). N. H.-Hanover, July 5. VT.-Norwalk, July 7; Woodstock, Aug. 26 (Morse). MASS.-Mt. Greylock, Aug. 8 (Bryant). N. penumbra Alexander, 15-467. N. H.-Half-way House, Mt. Washington, July 6, 1914, and 16, 1915. N. punctum (Loew). ME.—. N. H.—11, 15. June 20. MASS.-27, 28. R. I.-33. June 17-July 15. N. sodalis (Loew). N. H.-Franconia (Mrs. Slosson). **N. tenuis** (Loew). ME.--7, 8. N. H.-11, 12, 13, 15. VT.-18, 20, 21, 22. June 27-Aug. 7. MASS.—27, 29. CONN.—35. June 13-Aug. 9.



N. virescens (Loew).

N. H.—15. June 20.

MASS.-26, 27, 28, 29, 31, 32. CONN.-35. July 3-Sept. 5.

N. vittula (Loew).

ME.---1, 4, 7. N. H.----11. July 9-Aug. 19. MASS.---25, 27. Aug. 17--27.

N. xanthostigma (Loew).

ME.--6, 8, 9, 10. N. H.-11. VT.-17, 20, 21. June 8-Aug. 25.

MASS.-23, 24, 26, 27, 28, 31, 32. CONN.-35. June 1-Aug. 9.

Tipula Linné.

Subgenus Cinctotipula Alexander, 15-469.

T. algonquin Alexander, 15–469.

ME.—Northeast Harbor, Aug. 29-Sept. 6 (Dr. C. S. Minot). N. H.—Mt. Monadnock. VT.—Bolton, Aug. 25 (Bryant).

MASS.—Brookline, Aug. 31; Princeton, Aug. 25.

T. unimaculata Loew.

ME.—Bridgton, Aug. 10. VT.—Bolton, Aug. 25 (Bryant).

MASS.-Gloucester, Aug. 30, 1912; Mt. Toby, Sept. 11 (Alexander).

T. unifasciata Loew.

MASS.-Mt. Toby, Sept. 10, and Bear Mt., Holyoke Range, Sept. 14 (Alexander).

Subgenus Trichotipula Alexander, 15-468.

T. oropezoides Johnson, 09–131. ME.—8. N. H.—11. VT.—21. June 8-Aug. 29. MASS.-23, 24, 27. CONN.-35. May 28-Sept.

Subgenus Tipula Linné.

T. abdominalis Say. ME.-7, 8, 9. N. H.-11, 15. VT.-16, 17. June 29-Sept. 16.

MASS.-23, 24, 25, 27, 32. CONN.-35. June 15-Sept. 10.

T. angulata Loew.

ME.-4, 7, 8. N. H.-11. June 11-July 15.

Mass.—23. June 27.

T. angustipennis Loew.

ME.-6, 9. N. H.-13, 15. May 25-July 17.

MASS.-24, 26, 27, 28. R. I.-33. CONN.-35. Apr. 21-May 29.

T. annulicornis Say, σ (*T. jejuna* Johnson, 09–132, φ).

MASS.-Wellesley, July 18 (Morse); Blue Hill, July 16; Sharon, Aug. 3. Conn.—.

T. appendiculata Loew.

N. H.—Franconia (Mrs. Slosson).

T. apicalis (Loew).

ME.-4, 8, 9, 10. N. H.-13, 14, 15. June 21-July 25. MASS.-23, 26, 28, 29. CONN.-35. May 29-Aug. 8.

- T. balioptera Loew.
- ME.-Southwest Harbor, June 21, 1921; Northeast Harbor, June 26, 1909 (Dr. C. S. Minot).
- **T. bella** Loew. ME.--7, 8, 9. N. H.--15. May 20-July 21.
- MASS.-24, 25, 27, 28. R. I.-33. CONN.-34, 35. May 9-Sept. 12.
- T. bicornis Forbes.
- N. H.-Bretton Woods, June 27. ME.—Mt. Desert, June 21. VT.—Manchester, June 5.
- MASS.-Mt. Greylock, June 15; Danvers, June 8 (Winkley); Dorchester, June 7.
- T. caloptera Loew.
- ME.--6, 8. N. H.--11, 14. VT.--16. June 16-July 10.
- MASS.-23, 24, 25, 27. CONN.-35. June 15-Aug. 28.
- T. centralis Loew.
- N. H.-White Mts.
- T. collaris Say.
- MASS.—Ellis Station, May 3; Mt. Toby and Whately Glen, Apr. 22-May 23 (Alexander). R. I.—Kingston, May (Barlow).

T. cayuga Alexander, 15–485.

- VT.—14. June 7-July 6. ME.--6, 8. N. H.--11, 14.
- Mass.—24, 25, 27. May 29-June 11.
- T. cunctans Sav.
- ME.-Waterville, Sept. 22 (Hitchings).
- MASS.—Auburndale, Oct. 1; Wellesley, Oct. 6. CONN.—New Haven, Oct. 16.
- T. dejecta Walker.
- N. H.-15. May 20.
- MASS.-24, 26, 27. R. I.-33. CONN.-35. May 6-26.
- T. eluta Loew.
- N.H.-Franconia (Mrs. Slosson). VT.-Woodstock, July (Morse).
- MASS.—Amherst, May 17; Essex Co., July 28. CONN.—Winnipauk, June 16.
- **T. fragilis** Loew (T. suspecta Loew).
- ME.-8. N. H.-11, 15. VT.-17. June 26-Sept. 29. MASS.-23, 24. Sept. 16-Oct. 1.
- T. frigida Walker.
- N. H.-Mt. Washington (Mrs. Slosson).



T. fuliginosa (Say, ♀) (*T. speciosa* Loew, ♂). N. H.—15. VT.—21. June 6–21. MASS.-23, 27, 28. R. I.-33. CONN.-35. June 5-22. T. georgiana Alexander, 15–134. MASS.—Cambridge; Wellesley, May 28, 1908 (Morse). R. I.-Buttonwoods, June 20. T. grata Loew. ME.-7, 8. N. H.-11. VT.-17, 21. June 9-Aug. 16. MASS.-23, 26. June 29-Aug. 8. T. hebes Loew. ME.-4, 8, 9. N. H.-11, 15. VT.-20, 21. June 4-Aug. 17. MASS.-23, 24, 27, 28. July 20-Sept. 10. T. hermannia Alexander, 15–480 (T. fasciata Loew, not Linné). ME.-4, 8, 10. N. H.-14. VT.-17, 21. June 8-Aug. 25. MASS.-23, 24, 27. CONN.-35. June 5-Aug. 24. T. hirsuta Doane. VT.—Bennington, June 24; Manchester, June 24 (Morse). MASS.—Cohasset, June 25. R. I.—Newport, June 5. T. ignobilis Loew. ME.—Mt. Desert, Aug. 4. N. H.—Franconia; White Mts. Vr.—Manchester, June 4. MASS.—North Adams, Aug. 8 (Bryant). CONN.—Colebrook, Aug. 10 (Wheeler). T. insignifica Alexander, 24–117. N. H.-Mt. Washington, "Alpine Garden," Sept. 21, 1919. T. ignota Alexander, 15–128 (T. discolor Loew, not Gmelin). MASS.--. T. iroquois Alexander, 15-128 (T. cincta Loew, not Gmelin). ME.—Bar Harbor, June 13. N. H.—Mt. Washington (Mrs. Slosson); Jaffrey, June 24. MASS.—Chester, May 26-28; Mt. Toby, May 20-29 (Alexander). T. johnsoniana Alexander, 15–505. VT.—Dummerston, July 14, 1908. MASS.-Mt. Greylock, Aug. 8 (Bryant). T. latipennis Loew. ME.-4, 7, 8. N. H.-11, 12, 15. VT.-18, 19, 20, 22. July 12-Aug. 16. MASS.—23. Aug. 8. T. longiventris Loew. ME.---8. N. H.---15. June 7--21. MASS.-23, 24, 26, 27, 28, 29. R. I.-33. CONN.-35. May 29-July 1.

T. macrolabris Loew.

ME.—Capens, July 19. N. H.—White Mts.; Glen House, July 23. VT.—Bennington, June 19.

MASS.—Mt. Greylock, Aug. 8 (Bryant).

T. mingwe Alexander, 15-492.

N. H.—Jaffrey, Aug. 28. VT.—Mt. Bolton, Aug. 25 (Bryant). MASS.—Chester, July 25-Aug. 3; Lake May, Aug., and Mt. Toby, Sept. 11 (Alexander).

- T. magaura Doane.
- VT.---Norwich, July 8, 1908.

T. mainensis Alexander, 15–475.

ME.-Mt. Desert, Aug. 31; Ft. Kent, Aug. 19; Ashland Junction, Aug. 16.

MASS.—Mt. Greylock, Aug. 8 (Bryant).

T. monticola Alexander, 15–490.

ME.--8. N. H.-14. VT.-21. June 6-28.

Mass.-23, 24, 27. R. I.-33. June 5-29.

T. morrisoni Alexander, 15–507.

MASS.-Winchendon, July 1 (Morse); Blue Hill, May 30. R. I.—Kingston, June 30 (Barlow).

T. nobilis (Loew).

ME.--7, 8. N. H.--11, 14. June 7-July 14.

Mass.—23, 25, 26, 27. June 4–19.

T. noveboracensis Alexander, 19-167.

N. H.-Glen House, June 6; Bretton Woods, June 24. VT.-Bennington, June 18.

MASS.—Amherst, May 29 (Alexander); Great Barrington, June 16; Chester, May 28.

T. pachyrhinoides Alexander, 15-471.

N. H.—Mt. Washington (Mrs. Slosson).

T. parshleyi Alexander, 15-510.

ME.-4, 6, 7. N. H.-11. June 23-July 19. MASS.-27.

T. phoroctenia Alexander, 19–170.

ME.—Orono, Oct. 3, 16, 1913 (Parshley).

T. penobscot Alexander, 15-472.

ME.—Orono, June 14.

T. perlongipes Johnson, 09–131. MASS.-27, 28, 29. R. I.-33. CONN.-35. June 11-Aug. 1.

T. sayi Alexander, 11-194 (T. costalis Say, 1823, not Swederus, 1787).

ME.-1, 6. N. H.-11, 15. VT.-17. July 12-Aug. 29. MASS.-23, 24, 27, 28, 30, 31, 32. R. I.-33. CONN.-35. Aug. 20-Sept. 23.



T. senega Alexander, 15-128 (T. pallida Loew, not de Villers). ME.-4, 8. N. H.-11, 13, 14, 15. VT.-18, 21. May 25-July 18. MASS.-23, 24, 25, 27, 32. R. I.-33. CONN.-35. May 23-July 5. T. septentrionalis Loew. N. H.-Mt. Washington, "Alpine Garden," July 4. T. serta Loew. ME.-5. N. H.-11, 14, 15. VT.-17, 21. May 25-Sept. 3. MASS.-23, 27, 32. R. I.-33. CONN.-35. May 22-June 19. T. similissima Dietz, 21-293. ME.-4, 7, 8. N. H.-11. VT.-20. June 12-July 19. T. simulata Walker. N. H.-Mt. Washington (Mrs. Slosson). T. strepens Loew. ME.-7, 8. N. H.-11. VT.-21. June 8-July 19. MASS.-23, 27. CONN.-35. May 26-June 25. T. submaculata Loew. ME.--8. N. H.--11, 15. VT.--16, 18. May 31-July 12. MASS.-23, 24, 27, 32. CONN.-35. May 30-July 14. T. sulphurea Doane. ME.—Orono, June 12 (Alexander). MASS.—Amherst, May 14; Leverett, Sept. 5 (Alexander). R. I.-Kingston, Apr. 24 (Barlow). T. suspecta Loew. N. H.-Mt. Washington (Mrs. Slosson). T. taughannock Alexander, 15-476. VT.—*Mt. Equinox*, June 5, 1910. T. tephrocephala Loew. ME.-3, 4, 7, 8. N. H.-11. VT.-21. June 6-July 18. MASS.-23, 24, 26, 27, 29, 32. R. I.-33. CONN.-35. May 30-June 29. T. tricolor Fabricius. MASS.-23, 24, 25, 27, 28, 29, 30. CONN.-35. May 25-Sept. 5. T. trivittata Say. ME.--6, 7, 8, 10. N. H.-11, 12, 14, 15. VT.--. June 5-July 14. MASS.-23, 24, 27, 28. CONN.-35. May 24-June 26. T. ultima Alexander, 15-128 (T. flavicans Fabricius, not de Villers). ME.-1, 6, 8, 9. N. H.-11, 13, 15. VT.-20. Aug. 28-Sept. 24. MASS.-24, 25, 26, 27, 28, 32. R. I.-33. CONN.-34, 35. Aug. 27–Sept. 22.

T. umbrosa var. inermis Doane.

ME.--1, 2, 8. N. H.--11. VT.--17, 19. July 17-Aug. 28. MASS.--. R. I.--33. CONN.--35. June 18-July 8.

T. valida Loew.

ME.--1, 2, 4, 8. N. H.--15. VT.--17, 21. June 6-Aug. 19. MASS.--23, 24, 27, 28. CONN.--35. May 29-July 11.

DIXIDAE.

Dina Meigen.

D. centralis Loew.

ME.—Mt. Desert; Ashland Junction. N. H.—Franconia; Glen House; Intervale. July 15-Sept. 11.

MASS.—Bashbish Falls, June 28.

D. clavata Loew.

ME.—1. N. H.—14, 15. VT.—16. June 8-Aug. 19. MASS.—23. CONN.—35. May 27-Aug. 8.

D. cornuta Johannsen, 23–55. ME.—Orono, June; Ft. Kent, Aug. 17. MASS.—Dedham, Sept. 4.

D. fusca Loew. CONN.—New Haven, Nov. 9, 1903 (Viereck).

D. modesta Johannsen, 23–56. ME.—8. N. H.—11, 14. VT.—22. June 10–July 14. MASS.—23, 26, 27. CONN.—35. May 28–Oct. 22.

D. notata Loew. MASS.—Auburndale, Aug. 2. Conn.—.

D. similis Johannsen, 23–57. ME.—Capens; Princeton; Machias. July 12–26.

R. I.—Providence.

D. terna Loew.

VT.—Burlington, June 24. CONN.—New Haven, May 10 (A. B. Champlain).

CULICIDAE.

CULICINAE.

Wyeomyia Theobald.

W. smithii (Coquillett). The Pitcher-plant Mosquito. ME.--8. N. H.-.. July 30-Aug. 15. MASS.--24, 27, 29. CONN.--35. Apr. 5-June 27.

Culex Linné.

C. pipiens Linné. The Rain-barrel or House Mosquito.
ME.—6. N. H.—15. Apr. 24–July 2.
MASS.—24, 26, 27, 29, 32. R. I.—33. CONN.—35. Apr. 20– Oct. 25.

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C. territans Walker (C. restuans Theobald). ME.---6, 10. N. H.---14. May 16-Dec. 17. MASS.-23, 24. CONN.-35. June 5-Oct. 1.

C. salinarius Coquillett.

MASS.-West Springfield, Aug. (Knab). CONN.-New Haven (Britton).

C. testaceus Van der Wulp.

ME.—Lincolnville, Aug. (Dyar).

MASS.—Westfield, Aug. 25 (Knab); Danvers, Sept. 23. R. I.— Weekapaug, July 5 (Dyar).

C. melanurus Coquillett.

N. H.—Center Harbor, Aug. 19 (Dyar).

MASS.—Westfield, Aug. (Knab).

Theobaldia Neven-Lemaire (Culiseta Felt).

C. dyari (Coquillett) (C. brittoni Felt). N. H.-13, 14. May. MASS.-24, 26. CONN.-35. May-July.

C. impatiens (Walker). ME.—Ft. Kent, Aug. 20; Penobscot Co. (Underwood); Waterville, May 11 (Hitchings); Weld, Aug. (Dyar). N. H.-Monadnock, May 11 (Thayer).

C. inornatus Williston (C. magnipennis Felt). MASS.—Beverly, Sept. 28 (Dimmock).

Taeniorhynchus Lynch Arribálzaga.

(Mansonia Blanchard; Coquillettidia Dyar.)

T. perturbans (Walker) (C. ochropus Dyar and Knab). ME.—6, 8. N. H.—13. VT.—16. June 24–Aug. MASS.—24, 25, 27, 32. R. I.—33. CONN.—35. June 4–July 15.

Psorophora R.-Desvoidy.

P. ciliata (Fabricius). MASS.-23, 24, 26, 27, 32. R. I.-33. CONN.-35. June 6-Sept. 30.

P. sayi Dyar and Knab, 06-181. MASS.—Springfield and Chicopee, July 16 (Knab).

Aĕdes Meigen.

A. trivittatus Coquillett. ME.—Paris, Sept. 3 (W. C. Perham). MASS.-South Amherst, June 10 (Dimmock); Granby, Sept. 12 (Knab). Conn.—.

A. aurifer Coquillett.

ME.—8. N. H.—13, 14. June 25–July 15. Mass.—23, 24, 26, 27, 29. R. I.—33. Conn.—35. June 17– July 22.

A. intrudens Dyar, 19-23.

ME.—8, 9. N. H.—14. May 10-June 28. Mass.—24. Apr. 13.

A. diantaeus Howard, Dvar and Knab, 17-758.

ME.-Mt. Desert, July 7-25. N. H.-Dublin, May, June (Busck).

A. dysanor Dyar, 21-70.

N. H.—Dublin, May (Busck).

A. punctor Kirby (*C. auroides* Felt). ME.---7, 8, 9. N. H.---12, 14. May 10-Aug. 10. MASS.-23, 24, 26, 27. May 22-Aug. 23.

A. hirsuteron Theobald (C. pretans Grossbeck). ME.-8. N. H.-12, 14. June 20-July 8. Mass.—23, 24. Conn.—35. May 20-June 15.

A. lazarensis (Felt and Young). ME.-4, 8, 9. N. H.-11, 14. June 4-July 15. MASS.-23. May 27.

A. dorsalis Meigen (C. curriei Coquillett; C. onondagensis Felt). MASS.-Brookline, July 13; Boston, July 16, 1906; Nahant, June 4, 1908; West Peabody, Aug. 13 (Caudell). CONN.-New Haven (Britton and Viereck).

A. canadensis Theobald.

ME.-2, 3, 6, 8. N. H.-11, 12, 13, 14. VT.-17, 18. June 24-Aug. 17.

MASS.-23, 24. R. I.-33. CONN.-35. May 27-June 27.

A. stimulans Walker (C. subcantans Felt). Woodland-pool Mosquito.

ME.-7, 8. N. H.-14, 15. VT.-16, 19, 22. June 14-Aug. 23. MASS.-24, 25, 26, 27, 29, 31. CONN.-35. May 21-Aug. 28.

A. cantator Coquillett. The Brown Salt-marsh Mosquito.

ME.--7, 8, 10. N. H.-15. June 9-Sept. 5.

MASS.-26, 27, 28, 29, 31, 32. R. I.-33. CONN.-35. May 19-Aug. 18.

A. fitchii Felt and Young. ME.---6, 7, 8. N. H.---12, 14. June 9-Aug. 23. MASS.-23, 24, 27. CONN.-.. Apr. 16-July 28.

A. cinereoborealis Felt and Young.

ME.--6, 9. N. H.-14, 15. VT.-16, 21. May 10-June 21. Mass.-24. Apr. 23-May 17.

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A. atropalpus Coquillett.

ME.---6, 8 (Isleboro). N. H.---11, 13, 14. VT.---12. June 25-Aug. 28.

MASS.-23, 24, 26. CONN.-35. June 15-Sept. 8.

A. excrucians Walker (C. abfitchii Felt). N. H.—14. Aug. 3. MASS.-24, 27. Apr. 16-July.

A. taeniorhynchus (Wiedemann).

MASS.-Magnolia, Aug. 18 (Cora H. Clarke); Fairhaven (Proctor). R. I.—Providence. CONN.—East River, July 27 (Ely); South Norwalk, Aug. 4.

A. sollicitans (Walker). The White-marked Salt-marsh Mosquito.

МЕ.—8, 10. N. H.—15. June 26-Aug. 13. Mass.—26, 27, 28, 29, 30, 31, 32. R. I.—33. Сомм.—35. June 10-Sept. 12.

A. triseriatus (Say).

ME.-4. N. H.-11, 12, 13, 15. July 8-14.

MASS.-23, 24, 27. R. I.-33. CONN.-35. July 24-Sept. 12.

A. vexans Meigen (A. sylvestris Theobald). Inland Swamp Mosquito.

ME.--8. N. H.--11, 13. VT.--16. June 24-July 14.

MASS.-23, 24, 26, 27, 30. CONN.-35. May 30-Oct. 14.

A. cinereus Meigen (C. fuscus Osten Sacken). ME.-4, 6. N. H.-13, 14. July 14-Aug. 3. MASS.-24, 27. CONN.-35. July 1-Aug. 15.

A. impiger Walker (A. deticus Howard, Dyar and Knab). N. H.-Franconia; White Mts. MASS.-West Springfield, Apr. 13, and Long Meadow, Apr. 16

(Dyar and Knab).

Uranotaenia Lynch Arribálsaga.

U. sapphirinus Osten Sacken.

N. H.—Center Harbor, July 27, 1902, and Dublin, Aug. (Dyar). MASS.—Wellesley, Aug. 23, 1907 (Morse); Sherborn, Oct. 1 (C. A. Frost).

Anopheles Meigen.

A. punctipennis Say. ME.-6. N. H.-11, 13, 14, 15. VT.-16. Feb. 1-Oct. 1. MASS.-24, 26, 27. R. I.-33. CONN.-35. Apr. 20-Oct. 28.

A. quadrimaculatus Say. The Malaria Mosquito. ME.---6, 10. N. H.---11, 13, 14, 15. Aug. 1-Sept. 20. MASS.-24, 26, 27. R. I.-33. CONN.-35. May 22-Oct. 23. A. maculipennis Meigen (A. occidentalis Dyar and Knab).

ME.—Weld, July 25, 1910 (Dyar); Norcross, July, 1914 (Z. P. Dyar); Mt. Desert, June 20; Oquossoc, June 30; South Poland, May (Shannon).

MASS.—Leverett, Oct. 8 (S. B. Freeborn).

A. walkeri Theobald.

MASS.—Westfield, Aug. 23, 1903 (Knab); Auburndale, Sept. 11, 1907.

Corethrinae.

Corethra Meigen.

C. cinctipes Coquillett.

N. H.—Franconia (Mrs. Slosson); Hampton, June 13 (Shaw).

MASS.—Auburndale, May 28, 1905; Brookline, Aug. 23. CONN.— Montonese, June.

C. culiciformis (De Geer) (C. karnerensis Felt, 04-347; see Dyar and Shannon, 24-206).

N. H.—Franconia (Mrs. Slosson); Dublin (Busck).

MASS.—Brookline, June 11-Aug. 23. CONN.—Darien, May 27.

C. fuliginosus Felt.

MASS.—Mt. Tom, May 14; Springfield, July 18 (Knab).

Chaoborus Lichtenstein (Sayomyia Coquillett).

C. albipes (Johannsen).

N. H.—Hampton, June 27 (Shaw).

MASS.—Auburndale, May 28; Forest Hills, Aug. 12; Brookline, Aug. 28; Topsfield.

C. crystallina (De Geer); see Dyar and Shannon, 24-210 (Corethra plumicornis var. americana Johannsen).

ME.—Southwest Harbor, July 13. N. H.—Mt. Washington (Mrs. Slosson).

MASS.—Arlington, May 4, 1920 (Anderson).

C. albatus Johnson, 21–11.

MASS.—Brookline, June 18; Mt. Tom, July 14. CONN.—New Haven, June 17.

C. punctipennis Say.

N. H.—11, 13.

- MASS.-25, 26, 27, 28, 29. R. I.-33. CONN.-35. June 17-Sept. 23.
- C. trivittatus Loew.
- ME.—Bar Harbor, Sept. 11. N. H.—Center Harbor; Hampton, Apr. 19-21 (Shaw).

MASS.—Worcester, Apr. 21–24 (Thompson); Framingham, Apr. 25 (Frost).

DIPTERA.

Eucorethra Underwood (Pelorempis Johannsen).

E. underwoodi Underwood (P. americana Johannsen). ME.—Penobscot Co. (Underwood); Ft. Kent, Aug. 18 (bred from pupa); Mt. Desert, July 10, 21; Machias, July (larvae).
 N. H.—Dublin, May 15 (Busck); Crawford's (Mrs. Slosson).

PSYCHODIDAE. The Moth-flies.

Pericoma Walker.

P. ocellaris var. americana Kincaid.

ME.—(Dr. Hough).

Psychoda Latreille.

P. albitarsis Banks. VT.—Dummerston, July 14.

MASS.—Sunderland, May 29; Chester, Aug. 6.

P. alternata Say.

N. H.--11.

MASS.-27, 28. R. I.-33. CONN.-35. Aug. 13-Oct. 21.

P. apicalis Banks.

VT.—Manchester, June 7. MASS.—Blue Hill, Milton, May 30–June 6.

P. cinerea Banks.

ME.—Southwest Harbor, June 18.

MASS.-Boston, July 17-Dec. 1; Worcester, May; Wellesley, Nov. 19 (Morse). R. I.-Kingston, Oct. 14. CONN.-New Haven, March 1.

P. marginalis Banks.

N. H.—Franconia; Jaffrey, June 2.

MASS.—Chester, Aug. 6. CONN.—Stonington, June 10.

P. minuta Banks.

N. H.-White Mts.

MASS.-Boston; Brookline; Auburndale, June 18; North Amherst, May 29. R. I.—Kingston, July (Barlow). CONN.—.

P. nigra Banks.

ME.—Wales, June 8 (C. A. Frost).

MASS.-Brookline, Oct. 21, 1918; Boston, May 25.

P. slossoni Williston.

ME.-Mt. Desert, May 27-Aug. 10. N. H.-Bretton Woods, June 28; Mt. Washington; Conway, Sept. 14; Jaffrey, June 22. MASS.—Sunderland, May 29.

P. opposita Banks.

Mass.—Boston, July 14, 1906.

P. signata Banks.

ME.—Ft. Kent, Aug. 19.

MASS.—Chester, Aug. 6; Sunderland, May 30. CONN.—Oxford, May 21.

P. superba Banks.

MASS.-Cohasset, May 25, 1908 (Bryant).

CHIRONOMIDAE. Midges.

Culicoides Latreille. The Biting Midges.

C. crepuscularis Malloch, 15-303.

Mass.—Boston, July 9, 1920.

C. sanguisuga (Coquillett).

ME.-4, 5, 8. N. H.-11. June 15-July 16. MASS.-23, 27, 29. May 26-Oct. 12.

C. variipennis (Coquillett).

N. H.-Franconia.

MASS.—"Cascade," North Adams, June 14, 1906.

Neoceratopogon Malloch, 15-310.

N. splendidus (Winnertz) (Ceratopogon bellus Coquillett). Mass.—North Reading, June 10.

Ceratopogon Meigen.

C. fusculus Coquillett.

ME.--9. N. H.--11, 15. June 1-July 15. Mass.--28, 29. CONN.--35. May 14-July 24.

C. hollensis Melander and Brues. MASS.-Woods Hole.

C. levis Coquillett.

ME.-Machias, July 21.

MASS.-Tyngsboro, Sept. 14 (Fall). R. I.-Bristol, July 15, 1919, common in the trap-light (Howard L. Clark). CONN.-New Haven, Oct. 16 (Viereck).

?C. articus Coquillett.

N. H.—Mt. Washington (Mrs. Slosson), det. by Coquillett.

C. eriophonis Williston?

N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett.

C. transiens Walker?

N. H.—Mt. Washington (Mrs. Slosson), det. by Coquillett.

C. piceus Winnertz?

CONN .---.

Pseudoculicoides Malloch, 15-309.

P. mutabilis (Coquillett). ME.-Mt. Desert, July 30 (McAtee). N. H.-Franconia.

Forcipomyia Meigen.

F. squamipes (Coquillett). ME.-Mt. Desert, July 31 (McAtee). MASS.—Cohasset, Aug. 30 (Bryant).

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F. cilipes (Coquillett).

ME.—Capens, July 21.

MASS.—Boston, Aug. 7; Arlington, May 29 (Barber); Petersham, July 19 (G. C. Wheeler).

F. specularis (Coquillett).

ME.—Orono, Aug. 11, 1915 (Johannsen). N. H.—Mt. Washington (Mrs. Slosson).

Palpomyia Meigen.

P. longipennis (Loew). VT.—St. Albans, June 19. Mass.—Provincetown, June 25, and Eastham, June 27, 1904; Mt. Tom, July 14, 1905; Fall River, June 3 (Easton). P. nebulosa Malloch, 15-322. ME.---8. N. H---12, 14. June 20-July 22. MASS.-25, 27, 29. CONN.-35. June 16-July 24. P. slossonae (Coquillett), 05-61. N. H.-Mt. Washington (Mrs. Slosson). P. tibialis Meigen. VT.—Middlebury, July 12. Johannsenomyia Malloch, 15-332. J. albaria (Coquillett). ME.—Princeton, July 12. MASS.—Tyngsboro, Aug. 12 (Fall). J. argentata (Loew). ME.—Waterville, Aug. 8 (Hitchings). N. H.—Hanover, July 8, 1908. J. bimaculata (Loew). ME.-8. N. H.-12. VT.-22. July 7-Aug. 10. MASS.-27, 29. June 1-July 24. J. caudelli Coquillett, 05-63. ME.—Orono (Johannsen). J. polita (Coquillett). MASS.—Cambridge, Apr. 2. Stilobezzia Kieffer, 1911 (Hartomyia Malloch, 15-338). S. nebulosa (Coquillett). MASS.—Woods Hole, July 24, 1903. S. pallidiventris (Malloch), 15–344. ME.-Ft. Kent, Aug. 19. VT.-Montpelier, June 25; Dummerston, July 14. Heteromyia Say. H. fasciata Say. MASS.—Woods Hole, July 4-24; Provincetown, June 24.

H. festiva (Loew). ME.—Princeton, July 12, 1909. MASS.—Woods Hole, July 24, 1903.

H. flavipes Meigen. ME.—8. VT.—22. June 11-July 14. MASS.—26, 27. June 6-10.

H. plebia (Loew).

ME.-8. N. H.-12. VT.-22. July 8-Aug. 18. MASS.-27, 29, 32. July 11-Aug. 13.

H. prattii Coquillett.

MASS.—Auburndale, June 25-July 15, 1906; Hyannisport, July 4, 1904. R. I.-Kingston (Barlow).

H. rufa (Loew).

ME.—8. N. H.—12, 14. June 13-July 8.

MASS.-27. R. I.-33. CONN.-35. June 9-July 4.

H. trivialis (Loew).

ME.-8. N. H.-11, 12, 14. June 16-July 7. MASS.—29. July 24.

Serromyia Meigen.

S. femorata Meigen. ME.-Southwest Harbor, July 13, 1918.

Bezzia Kieffer.

B. pulveria Coquillett.

VT.—Burlington, June 23.

MASS.—Auburndale, May 7; Eastham, June 27; Hyannisport, July 4.

B. setulosa Loew.

MASS.—Ipswich, June 10 (Fuller); North Reading, June 10.

Probezzia Kieffer, 06-57.

P. xanthogaster Kieffer (*P. elegans* Coquillett, preoccupied). ME.-Moosehead, July 18; Mt. Desert, June 10.

Tanypus Meigen.

T. carnea (Fabricius). ME.—8. N. H.—11, 13, 15. May 11-Sept. 29. Mass.—23, 27. Conn.—35. May 1—Sept. 14.

T. bifasciatus Coquillett. MASS.—Boston.

T. discolor Coquillett. N. H.—Franconia (Mrs. Slosson).

T. dyari Coquillett.

N. H.—15. VT.—21. Apr. 30–June 19.

MASS.-27, 28, 32. CONN.-35. Apr. 13-Aug. 28.

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T. flavifrons Johannsen. ME.-Orono. T. hirtipennis Loew. ME.—Bar Harbor, Sept. 13, 1922. N. H.—Franconia (Mrs. Slosson). T. johnsoni Coquillett. MASS.—Arlington, May 26 (Barber); Auburndale, June 16. CONN.-New Haven, Oct. 31. T. melanops Meigen. ME.---8, 9. N. H.---14. VT.---18, 21. June 2-July 19. MASS.---26, 27, 32. CONN.---35. May 22-Sept. 13. **T. monilis** (Linné) (*T. annulatus* Say). ME.--6, 8. N. H.--11, 14. VT.--16. June 19-July 21. MASS.--26, 27, 29. R. I.--33. CONN.--35. May 22-Sept. 14. T. nigropunctus Staeger. MASS.—Auburndale, Aug. 9. T. pictipennis Zetterstedt (?T. decedens Walker). N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett. T. sinuosa Coquillett, 05–65. N. H.—Franconia (Mrs. Slosson); Center Harbor, Aug. 3 (Dyar). T. tenebrosus Coquillett, 05-66. N. H.—Franconia (Mrs. Slosson). **T. concinnus** Coquillett? N. H.-Mt. Washington (Mrs. Slosson); this may be Proclodius bellus Loew. Protenthes Johannsen, 07-400. P. culiciformis (Linné). VT.-Middlebury, July, 1912 (Barlow). MASS.—Boston, Apr. 19-July 2; Framingham, May 28; East-ham, June 27. CONN.—New Haven, June 26. Anatopynia Johannsen, 05-135. A. heteropus (Coquillett), 05-66. N. H.—Mt. Washington (Mrs. Slosson). Procladius Skuse. P. bellus Loew.

 ME.—Orono (Johannsen).
 MASS.—Tyngsboro, July 22 (Fall); Provincetown, June 25; Edgartown, June 28. R. I.—Newport, June 5.

Clinotanypus Kieffer.

C. scapularis Loew. Conn.—. C. thoracicus Loew.

MASS.—Provincetown, June 24. CONN.—Middletown, June 17.

Psilotanypus Kieffer, 06-318.

P. turpis Zetterstedt.

N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett.

Corynoneura Winnerts.

C. celeripes Winnertz.

ME.—Orono, Oct. (Johannsen).

Chironomus Meigen.

C. albimanus Meigen.

MASS.—Auburndale, Aug. 9; Sunderland, May 30; Tyngsboro, June 5 (Fall). CONN.—Rowayton, May 27.

C. annularis DeGeer.

ME.—Bar Harbor, June 18.

MASS.—Lynn, Apr. 19; Wellesley, Apr. 28 (Morse); Boston, Apr. 30.

C. attenuatus Walker.

N. H.—Mt. Washington (Mrs. Slosson).

C. barbipes Staeger.

MASS.—Hyannisport, July 4.

C. brachialis Coquillett.

ME.—Mt. Desert, Aug. 10. N. H.—Hanover, July 6.

MASS.—Brookline, Aug. 23-Sept. 6; Auburndale, May 26; Lexington, July 2. R. I.—Wickford, June 9.

C. braseniae Luthers, 22–30.

MASS.—Forest Hills, Boston (R. H. Pettit). The larvae burrow in the floating leaves of the water-shield (Brasenia schreberi) and water-lilies.

C. cayugae Johannsen, 13-308.

ME.—Orrington.

MASS.—Woods Hole.

C. cristatus Fabricius.

ME.-4. N. H.-11, 12, 15. VT.-16. June 19-July 21. MASS.-26, 27, 32. CONN.-35. May 3-Aug. 9.

C. decorus Johannsen, 05–239.

ME.—7. N. H.—12, 15. VT.—16, 19, 21. June 5-Aug. 28. MASS.—26, 27. R. I.—33. June 8-Aug. 9.

C. dorsalis Meigen.

Conn.—.

C. divinctus Say.

ME.-Mt. Desert, July 12. VT.-St. Albans, June 19.

C. dispar Meigen?

ME.-5, 7, 8. N. H.-14. VT.-22. June 13-July 19.

MASS.-27. CONN.-35. May 28-Aug. 9.

C. dux Johannsen, 05–231.

ME.—Machias, July 22. N. H.—Bretton Woods, June 28. Vr.—Manchester, June 8.

MASS.—Brookline, Aug. 23; Auburndale, May 28-June 24; Wellesley, Oct. 4 (Morse).

C. fallax Johannsen, 05–210.

ME.—Machias, July 21; Mt. Desert, June 13; Oquossoc, July 1.

C. fascipennis Zetterstedt.

ME.—Machias, July 19; Mt. Desert, July 17. N. H.—Jaffrey, June 15.

MASS.—Sharon, Aug. 22.

C. ferrugineovittatus Zetterstedt.

MASS.—Boston and Brookline, Aug. 23-Sept. 13, 1911; Wellesley, Oct. 10 (Morse). R. I.—Providence, Aug. 23.

C. festivus Say.

N. H.-Mt. Washington (Mrs. Slosson).

R. I.—Newport, June 5. CONN.—Hartford, Aug. 2 (Walden).

C. flavicingulus Walker.

N. H.—Franconia (Mrs. Slosson); Bretton Woods, June 26.

MASS.—Auburndale, May 26; Chicopee, Apr. 15; Amherst, May 30.

C. lineatus Say.

ME.—Orono (Johannsen).

C. lobiferus Say.

ME.—Capens, July 21. VT.—St. Albans, June 19.

MASS.—Arlington, Sept. 17 (Barber). R. I.—Newport, June 5.

C. maturus Johannsen, 08–279.

ME.—Orono (Johannsen).

C. modestus Say.

ME.-1, 8. N. H.-11. VT.-16, 17, 21. June 5-Sept. 11.

MASS.—27, 29, 30. R. I.—33. CONN.—35. June 17-Sept. 24.

C. needhami Johannsen, 07-278 (C. scalaenus of authors, not Schrank).

N. H.—Mt. Washington (Mrs. Slosson). VT.—Montpelier, June 25, 1906.

C. nigricans Johannsen, 05–219.

ME-6, 7, 8, 9. N. H.-12. July 12-Sept. 11.

Mass.-26, 27. June 10-Sept. 6.

C. perpulcher Mitchell, 08–13. ME.—Orono, June (Johannsen). C. pulchripennis Coquillett.

ME.-7, 8. N. H.-11, 14. VT.-16, 17, 18, 22. June 19-July 14.

MASS.-23, 27. R. I.-33. CONN.-35. June 17-July 10.

C. plumosus Linné.

MASS.-27, 29, 30. R. I.-33. CONN.-35. May 20-Sept. 13.

C. quadripunctatus Malloch, 15-437.

ME.—Bar Harbor, July 10. VT.—Woodstock, Aug. 20, 1898 (Morse).

MASS.—Eastham, June 27.

C. riparius Meigen.

ME.-5. N. H.-11. VT.-16, 18. June 21-July 1. MASS.-26, 27, 29, 31. R. I.-33. Apr. 30-Sept. 6.

C. taeniapennis Coquillett.

ME.---6, 7, 8. N. H.---12. VT.---16. June 8-July 21.

Mass.-27, 28. R. I.-33. Conn.-35. May 28-Aug. 18.

C. utahensis Malloch, 15-438.

MASS.—"Blue Hill Reservation," Milton, Apr. 30 (G. C. Wheeler).

C. varipennis Coquillett.

ME.—Seal Cove, Mt. Desert, Sept. 8, 1922.

MASS.—Sharon, Sept. 4, 1918. CONN.—New Haven, July 4, 1915 (Viereck).

C. viridicollis Van der Wulp.

ME.—Bar Harbor, June 13.

MASS.—Springfield, July 13; Sharon, July 7; Nantucket, July 20. R. I.-Newport and Wickford, June 5-9. CONN.-Winnipauk, June 12.

C. viridis Macquart?

N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett.

C. zonopterus Mitchell, 08–12.

ME.--7, 8. VT.-16, 21. June 19-July 19.

MASS.-25, 27, 28. R. I.-33. CONN.-35. June 6-July 28.

?C. halophilus Verrill, Invertebrate Animals of Vineyard Sound, p. 415, 1873 (no description).

MASS.—The larva was dredged in five fathoms.

?C. brunneus Walker.

N. H.—Mt. Washington (Mrs. Slosson), det. by Coquillett.

Tanytarsus Van der Wulp.

T. dissimilis Johannsen, 05–292.

ME.—Orono (Johannsen).

T. dives Johannsen, 05–288.

N. H.—Hampton, Apr. 13, 1919 (Shaw).

MASS.—Fall River, Apr. 2, 1909 (Easton).



T. flavellus (Zetterstedt). ME.—Orono (Johannsen).

T. obediens Johannsen, 05–286. ME.—Orono, June (Johannsen).

T. tenuis Meigen. ME.—Orono, June (Johannsen).

Eurycnemus Van der Wulp.

E. scitulus Coquillett. ME.--4, 5, 8, 9. N. H.--11, 15. June 7-July 16. MASS.--23, 26, 27. CONN.--35. May 26-June 16.

Metriocnemus Van der Wulp.

M. atratulus Zetterstedt. ME.—Orono (Johannsen).

M. flavifrons Johannsen, 05–301. ME.—Orono (Johannsen).

M. knabi Coquillett, 04-11.

MASS.—Westfield; Śpringfield; Wilbraham. The larva lives in pitcher-plant (Sarracenia purpurea), Knab, 05-69.

M. lundbecki Johannsen, 05–302. ME.—Orono (Johannsen).

M. aterrimus Meigen? N. H.—Mt. Washington (Mrs. Slosson), det. by Coquillett.

Brillia Kieffer.

B. par (Johannsen) (*Metriocnemus par* Johannsen, 05–301). ME.—Orono (*Johannsen*).

Chasmatonotus Loew.

C. bimaculatus Osten Sacken. ME.—8. N. H.—11, 14. VT.—20. June 4–July 12. MASS.—26, 27, 29, 31, 32. CONN.—35. May 19–June 28.

C. unimaculatus Loew. ME.—7, 8. N. H.—11, 13, 14. VT.—17. June 15–July 13. MASS.—27. CONN.—35. May 31–June 17.

Eutanypus Coquillett.

E. borealis Coquillett. N. H.—Mt. Washington (Mrs. Slosson).

Cricotopus Van der Wulp.

C. bicinctus (Meigen).

MASS.—Cohasset, June 20 (Bryant); Sherborn, Sept. 5; Ellis, May 3. C. slossonae Malloch, 15–506.

N. H.-Mt. Washington (Mrs. Slosson).

C. sylvestris (Fabricius).

MASS.—24, 27, 31, 32. CONN.—35. May 16-Oct. 31. The larva mines the floating leaves of water-lilies.

C. trifasciatus (Panzer).

Vт.—16. June 17.

MASS.-23, 26, 27, 29, 30. June 27-Aug. 8.

C. varipes Coquillett.

N. H.—Jaffrey, June 8. VT.—Burlington, June 23.

MASS.—Auburndale, Aug. 9; North Reading, June 10.

Camptocladius Van der Wulp.

C. byssinus (Schrank).

N. H.—Mt. Washington (Mrs. Slosson). VT.—Middlebury, July (Barlow).

MASS.—Medford, Apr. 12 (Barber). CONN.—New Haven, June 26, Nov. 4.

C. minimus (Meigen).

N. H.—Mt. Washington (Mrs. Slosson).

Orthocladius Van der Wulp.

O. nivoriundus (Fitch).

N. H.-Mt. Washington (Mrs. Slosson).

Mass.—Forest Hills, Boston, Apr. 14, 1910; Auburndale, Apr. 16; Wellesley, Mar. 20 (Morse).

O. sordidellus (Zetterstedt) (O. variabilis (Staeger). N. H.—Mt. Washington (Mrs. Slosson).

?O. oceanicus (Packard).

MASS.—Salem Harbor, larvae living in salt water (Packard).

CECIDOMYIIDAE (Itonididae). Gall Midges.

Catocha Haladay.

C. americana Felt, 08-309 and 13-130.

N. H.-Franconia (Mrs. Slosson).

C. slossonae Felt, 08-309, and 13-132.

N. H.-Franconia (Mrs. Slosson).

Lestremia Macquart.

L. franconiae Felt, 08-311 and 13-141.

N. H.—Franconia (Mrs. Slosson).

L. leucophaea Meigen.

N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett.

DIPTERA.

Monardia Kieffer.

M. articulosa (Felt), 08-315 and 13-192. N. H.-White Mts. (Morrison), U. S. Nat. Mus.

M. barlowi (Felt), 08-316 and 13-190. R. I.—Kingston, May 2, 1904 (Barlow).

M. lateralis Felt, 14-102.

MASS.—Boston, May 10 (Bryant).

M. modesta Felt, 13-142.

CONN.—New Haven, Nov. 4 (Viereck).

M. multiarticulata Felt, 14-109.

N. H.-Franconia (Mrs. Slosson).

M. rugosa Felt, 14–110. N. H.—Hanover, July 5, 1908.

Prionellus Kieffer.

P. dilatatus (Felt), 07–149 and 13–178. MASS.—Worcester (Thompson).

Miastor Meinert.

M. americana Felt, 07-5 and 13-205. CONN.—Colebrook, June 8, 1911 (Wheeler).

The larva of this species is frequently pedogenetic (Felt, 11-82).

Johnsonomyia Felt, 08-417.

J. rubra Felt, 08-417 and 13-212.

N. H.—Jaffrey, June 14. VT.—Montpelier, June 26, 1906. MASS.—Great Barrington, June 16, 1915; Sunderland, May 30, flying about very old decayed logs, in shady places.

Didactylomyia Felt, 11-39.

D. capitata Felt, 13–174.

MASS.—North Adams, Aug. 1907 (Bryant).

D. longimana Felt, 08-416 and 15-142. MASS.—Auburndale, Aug. 16, 1906.

Colpodia Winnertz.

C. cornuta Felt, 15–153. MASS.—Arnold Arboretum, Jamaica Plain, Boston, Oct. 31 (Cora H. Clarke).

Porricondyla Rondani.

P. hamata Felt, 07-146 and 15-177.

MASS.—Brookline, Aug. 23.

P. johnsoni Felt, 19–282.

MASS.—Brookline, Aug. 23.

P. novaeangliae Felt, 14–110.

N. H.—Franconia (Mrs. Slosson).

P. papillata Felt, 14–111.

N. H.-Mt. Washington (Mrs. Slosson).

Dirhiza Loew.

D. montana Felt, 08-420 and 15-186. N. H.—White Mts. (Morrison).

Asynapta Loew.

A. frosti Felt, 13–143. MASS.—Framingham, June 1, 1910 (Frost).

A. nobilis Felt, 13-142. ME.—Bridgton, Aug. 23.

Rhabdophaga Westwood.

R. batatas (Walsh). The Willow Potato-gall.

ME.—Mt. Desert, Aug. 5.

MASS.—Springfield (Stebbins); Worcester (Thompson). R. I.-Providence.

Irregular ovoid galls on the willow twigs (Felt, 15–105).

R. brassicoides (Walsh). The Willow Cabbage-gall.

ME.—Mt. Desert, Aug. 5.

MASS.—Springfield (Stebbins).

Large rosette galls on willows (Felt, 15–113).

R. gnaphaloides (Walsh).

MASS.—Springfield, Apr. (Stebbins). An ovate terminal bud-gall on willow.

R. nodula (Walsh). Nodule Willow-gall. MASS.—Worcester, May-June (Thompson). Nodular gall at the base of twigs (Felt, 15-91).

R. salicifolia Felt, 07-12 and 15-106. Spiraea Pod-gall.

ME.—Mt. Desert. N. H.—. MASS.—Magnolia (Cora H. Clarke); Springfield (Stebbins). R. I.—Providence.

R. strobiloides (Walsh). The Cone Willow-gall.

ME.---8, 9, 10. N. H.---11, 14, 15. VT.---21. Apr. 16--May 18. MASS.---23, 24, 25, 27, 32. R. I.---33. CONN.---35. Apr. 20-May 30.

The midges emerge in April (Felt, 13-112).

R. triticoides (Walsh). The Wheat-ear Willow-gall. ME.-Mt. Desert. N. H.-Hanover. MASS.—Worcester (Thompson); Auburndale; Concord.

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Dasyneura Rondani.

- **D. americana** Felt, 20–136 and 15–168 (*D. galli* Felt, 08–348, not Loew).
- MASS.—Magnolia, Aug. 14 (Cora H. Clarke). Flower bud-gall on bed-straw (Galium asprellum).
- D. aromaticae Felt, 09-289 and 15-183.

MASS.—Barre, reared Aug. 23, 1908 (Cora H. Clarke). The spearmint bud-gall (Felt, 18–184).

D. clematidis Felt, 08-344 and 15-147.

MASS.—Springfield (Stebbins).

Forms an irregular subglobular bud-gall on Clematis virginiana.

D. corticis Felt, 09-289 and 15-168.

MASS.—Arnold Arboretum, Boston, May 15—midge emerged May 21 (Cora H. Clarke).

In willow twigs, larvae in subcortical cells, no swelling (Felt, 18-34).

- **D. cyanococci** Felt, 08–292 and 15–145. The Blueberry Bud-gall. MASS.—Stowe.
- **D. communis** Felt, 11–478 and 15–181. Gouty Vein-gall. MASS.—. CONN.—.

Pouch-like vein-galls on the red maple (Felt, 18–161).

D. gaylussacii Felt, 18–176 (*Cecidomyia vaccinii* Osten Sacken, not Smith). Blueberry Leaf-gall.

ME.—Mt. Desert.

MASS.—Springfield, Sept.; South Hadley (Stebbins).

Cockscomb-shaped gall on under side of leaf on the mid-rib.

D. gleditschiae (Osten Sacken). Honey Locust Midge. Vr.—Bennington, June 23.

MASS.—Brookline, June; Worcester, Aug. (Thompson). R. I.— Newport, Aug. (Osten Sacken). CONN.—New Haven, June 20 (Walden).

On the honey locust (*Gleditschia triacanthus*). The young leaves are transformed into pod-like swellings (Felt, 15–163 and 18–152).

D. lysimachiae (Beutenmueller), 07–305.

MASS.—Magnolia, Aug. 18 (Cora H. Clarke); Worcester, June (Thompson).

An apical bud-gall on loosestrife (Lysimachia quadrifolia) (Felt, 15-182 and 18-178).

D. maritima Felt, 09–288 and 15–149.

MASS.-Magnolia, Apr. 21, 1909 (Cora H. Clarke).

Rolls the leaflets of the beach pea, Lathyrus maritimus (Felt, 18-155).

D. parthenocissi (Stebbins), 09–44. Woodbine Vein-gall. MASS.—Springfield (*Stebbins*).

Tumid irregular mid-rib galls on woodbine, Parthenocissus quinquefolia (Felt, 15-161 and 18-165).

D. purpurea Felt, 08-349. Joe-pye-weed Midge.

MASS.—Worcester, Sept. (Thompson); Martha's Vineyard, Aug. 25.

An oval blossom bud-gall on Joe-pye-weed, Eupatorium purpureum (Felt, 15-181 and 18-190).

D. radifolii Felt, 09-289.

MASS.—Magnolia, Apr. 16–12, 1909 (Cora H. Clarke).

Oval irregular greenish gall composed of clusters of root-leaves on Solidago puberula (Felt, 15–178 and 18–193).

D. rhodophaga (Coquillett). Rose-bud Midge.

MASS.—Boston (1894). R. I.—A heavy infestation in 1911. The larva inhabits the rose buds and developing leaves (Felt, 15–130 and 18–140).

D. rosarum Hardy. Rose-leaf Midge.

MASS.—Worcester, July (*Thompson*); Magnolia (*Cora H. Clarke*). Curls or folds the terminal leaves (Felt, 15-166 and 18-148).

D. salicifolia Felt, 07-12 and 15-169. Willow-pod Midge.

MASS.-Magnolia, June 1 (Cora H. Clarke).

A fusiform pod or curled leaves (Felt, 18-32).

D. semenivora (Beutenmueller), 07–390. Violet-seed Midge. Mass.—Springfield (*Stebbins*).

Forming irregular deformed fruit of the violets (Felt, 15–166 and 18–172).

D. serrulatae (Osten Sacken). Alder-bud Gall.

MASS.—Auburndale; Worcester (Thompson); Springfield, Apr. (Stebbins).

Subconical bud-gall on Alnus rugosa (Felt, 15-186 and 18-50).

D. smilacifolia Felt, 11-480 and 15-147. Smilax-leaf Midge.

MASS.—Magnolia, Aug. and Sept. (Cora H. Clarke).

Young leaves are rolled longitudinally (Felt, 18-28).

D. toweri Felt, 09–289 and 15–187.

MASS.—Magnolia, Sept.–Oct. (Cora H. Clarke).

Axillary bud-galls on St. John's-wort, Hypericum mutilum (Felt, 18–171).

D. trifolii (Loew). Clover-leaf Midge.

MASS.—Stow; Boston.

Folds and discolors the leaves of white clover (Felt, 15-143 and 18-154).



D. tumidosae Felt, 08-346 and 15-155.

MASS.—Worcester, May (Thompson).

Reared from tumid galls on leaves of ash (Felt, 18-179).

D. ulmea Felt, 08-349 and 15-171.

MASS.—Jamaica Plain, Boston (J. G. Jack).

Aborted or blasted buds on elm (Felt, 18-120).

D. vaccinii (Smith) (*Cecidomyia vaccinii* Smith, 1890, not Osten Sacken, 1869; *C. oxycoccana* Johnson; Osten Sacken's name was based on the gall only). The Cranberry Midge.

MASS.—East Wareham, State Cranberry Station (Franklin).

Bud-gall or leaf-fold on cranberry (Felt, 15-150 and 18-177).

Diarthronomyia Felt, 08-339.

D. hypogaea (Loew). Chrysanthemum Midge. ME.—.

MASS.—Swampscott; Fitchburg. R. I.—Kingston, Feb. 3, 1920 (Barlow). CONN.—Hartford; Cromwell; New Haven; Bridgeport.

Introduced; forming swollen stems or deformed buds (Felt, 16-51 and 18-208).

Cystiphora Kieffer.

C. viburnifolia Felt, 11-480.

MASS.—Magnolia, May 5 (Cora H. Clarke).

Minute blister-gall on under side of the leaf of Viburnum lentago? (Felt, 15-201 and 18-187).

Lasioptera Meigen.

L. clarkei Felt, 09-287 and 18-164.

MASS.—Magnolia, Oct. 12, 1908 (Clarke). Forming blister-galls on the leaves of Aster macrophylla.

L. clavula (Beutenmueller), 18-121.

MASS.—Springfield, May and June; Sharon, May.

Forming clavate galls on the apical twigs of the flowering dogwood (*Cornus florida*).

L. convolvuli Felt, 07-149 and 18-143.

MASS.—Springfield.

Forming galls on the stems of the bindweed (Convolvulus sepium).

L. corni Felt, 07-107 and 18-119.

MASS.—Wilbraham. CONN.—.

Forming ocellate galls on the leaves of Cornus paniculata and C. candidissima.

L. cylindrigallae Felt, 07–150 and 18–157. MASS.—Mt. Tom, July 22; Worcester (*Thompson*).

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L. excavata Felt, 07-6 and 18-169.

MASS.—Worcester, July.

Forming blister-like galls on Crataegus.

L. farinosa (Beutenmueller), 07-397 and Felt, 18-137.

MASS.—Springfield (Stebbins); Worcester (Thompson).

Forming primrose leaf-galls on blackberry (Rubus nigrobuccus).

L. fraxinifolia Felt, 08-327 and 18-166.

MASS.—Auburndale; Springfield, June.

From galls on ash leaves, described as *Cecidomyia pellax* by Osten Sacken.

L. fructuaria Felt, 16–268. ME.—Orono, reared from blueberries, June (W. C. Wood).

L. galeopsidis Felt, 09-287 and 18-151.

MASS.—Boston, May 21 (Clarke).

Forming irregular stem-galls on common hemp nettle (Galeopsis tetrahit).

L. impatientifolia Felt, 07–105 and 18–122.

MASS.—Springfield; Worcester.

Forming galls on jewel-weed (Impatiens fulva).

L. luctucae Felt, 07–151 and 18–149. N. H.—Holderness, Apr. 18.

MASS.—Worcester (Thompson).

L. lycopi Felt, 07–152 and 18–145.

MASS.—Worcester, Oct.

Forming oval stem-galls on bugleweed (Lycopus communis).

L. nodulosa Beutenmueller, 07–397; Felt, 18–137.

MASS.—Springfield, May and June; Worcester (Thompson). R. I.—Providence.

Forming irregular stem-galls on blackberry.

L. querciperda Felt, 08–125.

MASS.—Worcester. R. I.—Providence. CONN.—New Haven (Champlain).

The gall consist of swellings on white-oak twigs.

L. solidaginis Osten Sacken (Cecidomyia tumifica Beutenmueller). N. H.—Boscawen.

MASS.—Worcester (Thompson); Springfield (Stebbins); Forest Hills, Boston, Apr. 20 (Cora H. Clarke).

A gall on the stem of one of the goldenrods, Solidago rugosa.

L. spiraeafolia Felt, 09-287.

ME.—Bar Harbor.

MASS.—Magnolia, July 16 (Clarke); Auburndale.

Forming galls on meadow-sweet (Spiraea salicifolia).

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L. vitis Osten Sacken.

MASS.—Springfield, June, on wild grape (Stebbins). CONN.—. Forming galls on the leaves and tendrils of the grape.

L. virginica Felt, 09-287 and 18-154.

MASS.—Magnolia, Oct. 10 (Clarke).

A stem-gall on the marsh St. John's-wort (Hypericum virginicum).

Neolasioptera Felt.

N. cornicola (Beutenmueller), 07–394. R. I.—Providence.

Irregular stem-gall on Cornus stolonifera.

N. erigerontis (Felt), 07–163. Horseweed-stem Midge. MASS.—.

Fusiform stem-gall on horseweed (Erigeron canadensis).

N. perfoliata (Felt), 07-156 and 18-189. Boneset-stem Midge.

MASS.—Worcester; Springfield. CONN.—.

Oval stem-galls on boneset (Eupatorium perfoliatum).

N. ramuscula (Beutenmueller), 07-392; Felt, 18-197 (Cecidomyia strombiligemma Stebbins).

MASS.—Worcester; Springfield. CONN.—. Fusiform stem-galls on several species of asters.

N. sambuci (Felt), 06-131 and 18-183. Elder-stem Midge.

MASS.—Worcester; Springfield, May and June (Stebbins).

R. I.—. CONN.—.

An irregular gall on the stems of elder.

N. vitinea (Felt), 07–153 and 18–178.

MASS.—Worcester (Thompson).

A conical petiole-gall on grape.

Asteromyia Felt, 10-348.

A. agrostis (Osten Sacken).

N. H.—Milford (Whitney).

MASS.—Worcester (Thompson); Cheshire.

Forms a flattened cone-shaped gall on grass (Muhlenbergia).

A. asterifolia (Beutenmueller), 07–395; Felt, 18–223.

MASS.—Mt. Tom, Oct. 17 (Stebbins).

Circular yellowish-white dark-margined galls on Aster laterifolius.

A. carbonifera Felt, 18–202.

ME.—Mt. Desert.

MASS.—Springfield (Stebbins); Auburndale, Aug. 7; Worcester (Thompson).

Oval black ocellate blister-galls on the leaves of Solidago graminifolia. The gall was named Cecidomyia carbonifera by Osten Sacken. A. divaricata Felt, 08-330.

N. H.-Jaffrey, June 14. CONN.-..

"Large oval pinkish blotches on Aster divaricatus" (Felt).

A. dumosae (Felt), 09-286 and 18-221.

MASS.—Annisquam, July 30, 1908 (Cora H. Clarke). A small blister-gall on Aster dumosus.

A. flavolunata (Felt), 08-329 and 13-228.

MASS.—Springfield, June (Stebbins).

"Semi-oval marginal yellowish gall on the leaves of Solidago canadensis."

A. laeviana (Felt), 07–108.

Mass.-.. Conn.-..

Oval greenish-yellow gall on Aster laevis.

A. nigrina Felt, 11-481.

MASS.—Magnolia, gall, Oct., 1906; midges emerged May, 1907 (Cora H. Clarke).

Greenish blister-leaf galls on witch-hazel (Hamamelis).

A. petiolicola (Felt), 08-228 and 18-217. Grape-petiole Gall.

R. I.—Providence, Sept.

Ovate swellings on the basal portion of the petiole of the wild grape.

A. reducta Felt, 11–481.

MASS.—Magnolia, July 26–28, 1910 (Cora H. Clarke). CONN.—. Oval blackish galls on Aster undulata.

A. rubra Felt, 07-203 and 18-229.

N. H.—.

MASS.—Worcester, June–July. R. I.—Providence. Conn.—. A variegated blister-gall on the leaves of Solidago rugosa.

A. sylvestris Felt.

Conn.—.

Circular yellowish or brownish galls on Aster cordifolius.

A. vesiculosa (Felt), 09-286 and 18-213.

MASS.—Magnolia, Sept. 24, 1908 (Mrs. H. M. Tower). CONN.—. Oval green swellings on Aster.

Clinorrhyncha Loew.

C. eupatoriflorae (Felt), 07-6.

MASS.—Springfield, Sept. CONN.—Suffield.

In florets of thoroughwort, Eupatorium perfoliatum and E. ageratoides (Felt, 18-236).

C. filicis Felt, 07–108.

MASS.—Magnolia (Miss Clarke).

Apparently reared from willow, bearing the gall of *Hormomyia* vertuca Walsh (Felt, 18-234).

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Camptoneuromyia Felt, 08-334.

C. rubifolia Felt, 08-334.

MASS.—Magnolia, July 30 (Cora H. Clarke). CONN.—.

A corrugated marginal leaf-roll on blackberry (Felt, 18-243).

Phytophaga Rondani.

P. destructor (Say) (Mayetiola destructor of authors). The Hessian Fly.

This has been recorded from most of the New England States, when wheat was more generally grown. Packard says that it was first noticed at New Haven, Conn., in 1833, and was destructive in Aroostook Co., Me., in 1854.

P. fraxini Felt. 15-206. Ash-petiole Midge. MASS.—.

Reared from base of leaf-petioles of white ash (Felt, 18-179).

P. rididae (Osten Sacken). Beaked Willow-gall.

ME.-Mt. Desert. June.

MASS.-Woburn, April 24; Wellesley, Mar. 13 (Morse); Worcester (Thompson); Springfield (Stebbins). CONN.-New Haven, Feb. 14 (Walden).

An apical fusiform beaked gall (Felt, 15-213 and 18-36).

P. ulmi (Beutenmueller), 07–387.

MASS.—Worcester, June, July (Thompson). The gall is formed by the growing together of inactive leaves (Felt, 15-202 and 18-120).

P. violicola (Coquillett). Violet-leaf Midge.

Mass.—. Conn.—.

Rolls and discolors the leaves of Viola odorata (Felt, 15-204 and 18-172).

Janetiella Kieffer.

J. asplenifolia (Felt), 07-157. Sweet-fern Midge.

MASS.—Worcester (Thompson); Magnolia, July (Cora H. Clarke). A leaf-folding gall, near the mid-vein on Myrica aspenifolia (Felt, 15-221 and 18-40).

Rhopalomyia Rübsaamen.

R. anthophila (Osten Sacken). Downy Flower-gall (Felt, 18-191).

MASS.—Springfield, Sept. (Stebbins); Worcester (Thompson). Conn.—.

Green pubescent, cylindrical galls in flower of Solidago canadensis.

R. astericaulis Felt, 07–159 and 15–251.

MASS.—Worcester; Woods Hole, July 13. Conn.—.

Oval twig-gall on Aster novae-angliae (Felt, 18-201).

R. bulbula Felt, 08-365 and 15-260.

MASS.—Worcester (Thompson).

Cylindrical apical bud-gall in rootstalk (Felt, 18-197).

R. capitata Felt, 08-363 and 15-245.

Goldenrod rosette midge on Solidago canadensis and S. serotina (Felt, 18-193).

R. castanae Felt, 09-291 and 15-278. Chestnut-bud Gall. MASS.-Stow.

Petiole or terminal-bud gall (Felt, 18-50 and 53).

R. clarkei Felt. 07-18 and 15-239.

N. H.—Tamworth (Cora H. Clarke). MASS.—Magnolia. CONN.—East Haven, June 30 (Walden).

Gall fusiform, sessile, green, marked with red, on leaves of Solidago rugosa (Felt, 18-193).

R. lateriflori Felt, 07-159 and 15-257 (Cecidomyia? gemmaria Stebbins, 09-53 and 126, gall only).

MASS.-Springfield, Aug. and Sept. (Dimmock); abundant on Aster ericoides (Stebbins); Annisquam.

Axillary bud-gall on Aster lateriflorus (Felt, 18–199).

R. hirtipes (Osten Sacken). Rootstalk-bud Midge (Felt, 18-192).

MASS.—Magnolia (Clarke); Worcester (Thompson); Springfield (Stebbins); Petersham, Sept. 2 (G. C. Wheeler). A globose apical stem-gall on rootstalks of Solidago juncea.

R. pedicellata Felt, 08-365 and 15-262 (Cecidomyia? euthemiae Stebbins, 09-53, gall only). Goldenrod Stem Gall.

ME.—Southport.

MASS.—Springfield, Aug.-Sept. (Stebbins).

A fusiform gall, green, marked with red on Solidago graminifolia (Felt, 18–193).

R. racemicola (Osten Sacken). Beaked Goldenrod Gall.

N. H.-.. MASS.-Springfield, Sept. (Stebbins); Auburndale. A subglobular bud-like gall on the flowers of Solidago canadensis (Felt, 18–19).

R. solidaginis (Loew). Goldenrod Bunch-gall (Felt, 18–192).

N. H.—. MASS.—Springfield (Stebbins); Auburndale.

The gall is terminal, consisting of a bunch of many small leaves on Solidago canadensis.

R.? strobiligemma (Stebbins), 10-53.

MASS.—Springfield, Sept. (Stebbins). An ovate gall.

R.? thomi Felt, 15-50.

MASS.—Worcester, Aug. (Thompson).

An ovoid gall on the end of the stems of aster.

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R. thompsoni Felt, 07-159 and 15-257.

MASS.—Worcester (Thompson).

An ovoid rootstalk gall on Solidago. R. hirtipes, Felt, 18–197.

R. truncata (Felt), 07-160 (*Hormomyia truncata* Felt, 07-160; *Rhopalomyia uniformis* Felt, 15-244 n. nov. for *truncata* 1907, not 1908).¹

MASS.—Boston (J. G. Jack).

Oligothrophus Latreille.

O. betulae Winnertz. Birch-seed Midge.

MASS.—Boston (Cora H. Clarke). CONN.—New Haven. Deforms the white-birch catkins, changing the alate seeds to a globose gall (Felt, 15-227 and 18-49).

Sackenomyia Felt, 08-361.

S. packardi Felt, 09-290.

Mass.—Canton, Apr. 15 (Winthrop Packard); Boston, May 19 (Cora H. Clarke).

Slightly enlarged twigs on the long-leaved willow, Salix longifolia (Felt, 15-282 and 18-33).

S. viburnifolia Felt, 09–290.

MASS.—Magnolia, Apr. 23-May 8 (Cora H. Clarke).

Purplish swellings on the lateral veins of Viburnum dentatum (Felt, 15-280).

Lasiopteryx Westwood.

L. coryli (Felt), 07–11.

MASS.—Worcester, June (Thompson).

Fuzzy wrinkled-fold galls at the base of leaves, Corylus americanus (Felt, 15-193).

L. crispata Felt, 14–111.

MASS.—Magnolia, Aug. 22, 1912 (Cora H. Clarke). Reared from a vellowish blister-leaf gall on Oakesia sessilifolia.

Asphondylia Loew.

A. antennariae (Wheeler). Everlasting-bud Gall.

ME.—Bar Harbor, Aug. 15.

Corm-shaped bud-gall on everlasting (Atennaria plantaginifolia) (Felt, 16-133 and 18-204).

A. conspicua (Osten Sacken). Cone-flower Gall.

MASS.—Springfield (Stebbins). CONN.—Westfield, Sept. 19 (Britton).

Irregular subglobular apical-bud gall on cone-flower (Rudbeckia laciniata); (Felt, 16-146 and 18-206).

¹ The rules of nomenclature say that when a name is preoccupied the last name should be changed. For *R. truncata* Felt, 08-365, I therefore propose **R. felti.**

A. diervillae Felt, 07-165 and 16-140 (Cecidomyia inaequalis Stebbins, 10-48). Bush-honeysuckle Midge.

MASS.—Mt. Holyoke (Stebbins).

The galls consist of enlarged buds and fruit of Diervilla (Felt, 18-187).

A. monacha Osten Sacken. Nun Midge.

ME.—Oquossoc, July 1. N. H.—Jaffrey, June 14. MASS.—Magnolia, Sept. 1 (Clarke); Worcester (Thompson); Springfield (Stebbins). R. I.—Buttonwoods, June 15.

An apical, subglobular, rather firm gall on goldenrod (Felt, 16-127 and 18-193).

A. thalictri Felt, 11-547. Meadowrue-seed Midge.

N. H.—Shelburne.

MASS.-Magnolia, Aug. 8-18 (Cora H. Clarke); Brookline, June 2.

Irregular swollen seed-capsules on Thalictrum (Felt, 16-137 and 18-128).

Schizomyia Kieffer.

S. coryloides (Walsh and Riley). Grape Filbert Gall.

MASS .- Springfield, on stems of frost grape, Vitis cordifolia (Stebbins); Worcester (Thompson).

Irregular, fusiform pubescent galls, in clusters (Felt, 16-108 and 18-166).

S. petiolicola Felt, 08-379. Grape-petiole Gall.

MASS.—An oval gall on the stem or tendril (Felt, 18–167).

S. pomum (Walsh and Riley). Grape Apple Gall.

MASS.—Springfield, on northern fox grape, Vitis labrusca (Stebbins).

An irregular nut-like gall (Felt, 16–109 and 18–166).

S. speciosa Felt, 14–112.

N. H.—Franconia (Mrs. Slosson).

Cincticornia Felt.

C. caryae Felt, 08-380 and 16-155. MASS.—Worcester (Thompson).

C. connecta Felt, 08-381 and 16-170. CONN.—Westville, May 8, 1903 (Dr. W. E. Britton).

C. globosa Felt, 09-291 and 16-160.

MASS.—Magnolia, Apr. 26, 1909 (Cora H. Clarke).

Hemispherical gall on the under side of the leaves of black oak (Felt, 18–92).

C. majalis (Osten Sacken). Oak-vein Gall. ME.—Mt. Desert.

MASS.—Springfield (Stebbins). CONN.—.

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- C. pilulae (Walsh). Oak-pill Gall.
- ME.—Mt. Desert.
- MASS.—Auburndale; Worcester (Thompson); Springfield (Stebbins).

Globose irregular wrinkled leaf-galls (Felt, 16-164 and 18-90).

- C. podagrae Felt, 09-291 and 16-159.
- MASS.—Magnolia, Oct., 1908 (Cora H. Clarke).

Narrow purplish galls on the under side of the veins (Felt, 18-82).

C. pustulata Felt, 09-291 and 16-156. Oak-blister Midge.

MASS.—Magnolia, Apr. 26 (Cora H. Clarke). CONN.—.

Pustulate swellings on leaves of the black oak (Felt, 18-86).

C. pustuloides (Beutenmueller), 07-390.

MASS.—Worcester (Thompson); Springfield (Stebbins).

Blister-like gall on the leaves of the scarlet and black oaks (Felt, 16-171).

C. serrata Felt, 08-380 and 16-154.

MASS.—Near Boston, June, 1908 (Cora H. Clarke). Circular blister leaf-galls on scarlet oak (Felt, 18-86).

- C. simpla Felt, 09-291 and 16-157.
- MASS.—Magnolia (Cora H. Clarke).

Oval pustulate swellings on leaf of black oak (Felt, 18-86).

C. sobrina (Felt), 07-158 and 16-168.

MASS.—Worcester (Thompson).

Irregular pustulate leaf-swellings on black oak (Felt, 18-86).

Contarinia Rondani.

C. canadensis Felt, 08–394. Ash-midrib Gall.

ME.—Mt. Desert.

MASS.—Auburndale; Springfield (Stebbins). CONN.—.

Large tumid midrib gall on white ash (Felt, 18-179).

- C. clematidis Felt, 08–393. Clematis-bud Gall.
- MASS.—Worcester (Thompson); Springfield (Stebbins).

Irregular subglobular bud-galls (Felt, 18–129 and 18–105).

C. pyrivora (Riley). Pear Midge.

CONN.-Meriden; Watertown; Mystic.

Introduced; deforms young pears (Felt, 08-393, 13-97 and 18-134).

C. setigera Lintner. Melon-tip Midge.

MASS.—Lowell, Aug.–Sept. 1888.

Curls and slightly enlarges the tips (Felt, 08-394 and 18-189).

C. spiraeina Felt, 11-547. Spiraea Cabbage Gall.

MASS.—Magnolia, galls collected June 2, 1910, adults emerged Apr. 6, 1911 (Cora H. Clarke).

A terminal cabbage-like bud-gall (Felt, 18-133 and 18-104).

C. virginianae (Felt), 06-130. Chokecherry Midge.

ME.-Harpswell. N. H.-Jaffrey. VT.-Bennington.

MASS.—Stow; Worcester (Thompson); Springfield (Stebbins). CONN.—.

Swollen deformed fruit of the chokecherry (Felt, 18-150 and 18-101).

Lobopteromyia Felt, 08-389.

L. venae Felt, 14-21 (Cecidomyia? venae Stebbins, 10-39). Thorn Vein-gall.

MASS.—Springfield, June (Stebbins).

Pouch-like vein-galls on leaves of Crataegus (Felt, 18-91 and 18-136).

Thecodiplosis Kieffer.

T. dulichii Felt, 12–241. Sedge-fruit Midge.

MASS.—Magnolia, adult, June 3 and 4, 1912 (Cora H. Clarke).

Reared from fruit of a sedge, Dulichium arundinaceum (Felt, 18-27).

T. liriodendri (Osten Sacken). Tulip-tree Spot-gall.

MASS.—Boston (J. G. Jack); Worcester (Thompson); Springfield (Stebbins). CONN.—.

Ocellate spots on the leaves (Felt, 18-126 and 18-129).

Dicrodiplosis Kieffer.

D. antennata Felt, 12-243.

ME.—Orono, July 10, 1912 (Johannsen).

Reared from larvae preying on the false maple scale, *Phenacoccus acericola* King (see Felt, 18–156).

D. fulva Felt, 18–153.

MASS.—Arnold Arboretum, Jamaica Plain, Boston (Cora H. Clarke). Reared from leaf-galls on white oak, May 9.

D. helena Felt, 12–245.

MASS.—Magnolia (Cora H. Clarke).

Reared from subglobular galls on under side of aspen leaves (Populus tremuloides).

D. populi Felt, 08–394.

MASS.—From galls similar to those of *D. helena;* thus there is some uncertainty as to real gall-maker (Felt, 18–38).

Youngomyia Felt.

Y. umbellicola (Osten Sacken). Elder-flower Midge.

MASS.—Rutland; Worcester (Thompson); Springfield (Stebbins). R. I.—Bristol. CONN.—.

The galls are swollen unopened florets (Felt, 18-188 and 18-149).

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Aphidoletes Kieffer.

A. cummeris (Lintner). Melon-aphid Midge. MASS.—Lowell, Aug., 1888 (Lintner).

Reared from aphids infesting melon tips (Felt, 18-188 and 18-138).

A. recurvata Felt, 08-397 and 18-136. MASS.—Brookline, Aug., 1905.

Lobodiplosis Felt, 08-397.

L. acerina Felt, 07–129 and 18–162. Mass.—Brookline, Aug. 17.

L. quercina (Felt), 07–130 and 18–164. MASS.—North Adams, Aug., 1907 (Bryant).

L. speciosa Felt, 13–143. Mass.—North Adams, Aug., 1907 (Bryant).

L. triangularis Felt, 18–163. Mass.—Mt. Greylock, March 7 (Bryant).

Coquillettomyia Felt, 08-398.

C. bryanti Felt, 13–144. Mass.—North Adams, Aug., 1907 (Bryant).

C. dentata Felt, 08–398 and 18–169. MASS.—North Adams, Aug., 1907 (Bryant).

Clinodiplosis Kieffer.

C. caulicola (Coquillett).
N. H.—Portsmouth, July, 1893 (Mrs. Celia Thaxter).
Reared from the basal portion of the stems of Iceland poppies, Papaver nudicaule (Felt, 18-178).

C. florida Felt. Conn.—.

Karschomyia Felt, 08-398.

K. viburni (Felt), 07–130 and 18–174. MASS.—North Adams, Aug., 1907 (Bryant).

Caryomyia Felt, 09-292.

C. arcuaria (Felt), 08-338 and 21-104. MASS.—Worcester (Thompson).

C. caryae (Osten Sacken). Hickory-leaf Gall.

MASS.—Worcester, July (Thompson); Springfield (Stebbins). CONN.—.

A thin-walled, globose, slightly nippled gall (Felt, 18-46 and 21-97).

C. caryaecola Felt, 21-114.

MASS.—Auburndale; Worcester (Thompson); Springfield (Stebbins).

The gall is subglobular, with a long slender apical process.

C. consobrina Felt, 09-292.

MASS.—Barre, May 1. CONN.—.

Small, depressed globular leaf-gall on hickory (Felt, 18-46 and 21-103).

C. holotricha (Osten Sacken). Hickory Onion-gall.

MASS.—Beverly, Apr. 29; Worcester (Thompson); Springfield, Oct. (Stebbins).

A globular fuzzy leaf-gall (Felt, 18-47 and 21-101).

C. inanis Felt, 09–292.

MASS.—Worcester (Thompson).

An irregular subglobose gall with false chamber at the tip (Felt, 18-47 and 21-111).

C. persicoides (Beutenmueller). Hickory Peach-gall.

MASS.—Springfield (Stebbins). CONN.—.

Globular hairy galls, usually clustered along the midrib (Felt, 18-46 and 21-113).

C. sanguinolenta (Osten Sacken). Hickory Cone-gall.

MASS.—Worcester, July (Thompson); Springfield (Stebbins). CONN .---.

Narrowly conical leaf-galls (Felt, 18-43 and 21-105).

C. thompsoni (Felt), 08-388 and 21-106.

MASS.—Worcester, July (Thompson). CONN.—. A melon-shaped long-haired gall on the leaves of hickory (Felt, 18–47).

C. tubicola (Osten Sacken). Hickory Tube-gall.

MASS.—Auburndale; Worcester, July (Thompson); Springfield (Stebbins).

Cylindrical tube-like galls, 4-5 mm. long (Felt, 18-42 and [•]21–108).

Monarthropalpus Rübsaamen.

M. buxi (Laboulbene). Box-leaf Midge.

R. I.-Newport, May 29; Kingston.

An irregular oval swelling on the leaves of box, Buxus sempervirens (Felt, 21-236).

Hormomyia Loew.

H. cincta Felt, 21-216.

N. H.-Hampton, May 21, 1906 (Shaw).

H. pudica Felt, 13–146.

N. H.—Hampton, June 13, 1907 (Shaw).

Trishormomyia Kieffer.

T. canadensis (Felt), 08-388 and 21-288. June-berry Lipped Gall.

ME.—Bar Harbor, June.

MASS.—Magnolia, Apr. (Clarke); Worcester (Thompson); Springfield (Stebbins).

A truncated red-lipped gall on the leaves of the shad-bush, Amelanchier canadensis (Felt, 18-134).

T. clarkei (Felt), 08-388 and 21-230.

MASS.—Magnolia, Apr. 7 (Cora H. Clarke); Worcester (Thomp-80N).

A globular terminal bud-gall on meadow-sweet, Spiraea latifolia (Felt, 18–133).

- T. crataegifolia (Felt), 07-160 and 21-224. Thorn Cockscomb Gall.
- MASS.—Worcester (Thompson).

A cockscomb leaf-gall on the white thorn, Crataegus crusgallae (Felt, 18–136).

T. johnsoni (Felt), 07–18 and 21–224.

- Mass.—Auburndale, May 28, 1906.
- T. modesta (Felt), 13-145 and 21-229.
- MASS.—Auburndale, May 22. CONN.—New Haven, June 30 (Walden).
- **T. proteana** Felt, 14-113 and 21-228.

MASS.—Auburndale, May 28.

T. shawi (Felt), 13-145 and 21-223.

N. H.-Hampton, Aug. 20, 1909 (Shaw).

T. verruca (Walsh). Willow Lipped Gall. MASS.—Magnolia, May 8 (Clarke); Worcester (Thompson); Springfield (Stebbins).

A subconical, truncate, lipped gall on willow leaves (Felt, 18-33 and 21-230).

Hyperdiplosis Kieffer.

H. bryanti Felt, 13–146 and 21–125. MASS.—North Adams, Aug., 1907 (Bryant).

Lestodiplosis Kieffer.

L. crataegifolia Felt, 08-408.

MASS.—Worcester, July (Thompson).

Reared from a rather spiny gall on leaf of Crataegus (Felt, 21-134).

Obolodiplosis Felt. 08-410.

O. robiniae (Haldeman). Locust-leaf Midge.

ME.-Salisbury Cove, Mt. Desert, July 14.

MASS.—Auburndale, Sept. 3-20; Manchester, Aug. 25 (Clarke). R. I.—Buttonwoods, June 20. CONN.—New Haven, June 30 (Walden).

Forming rolled leaf-margins on locust, Robinia pseudo-acacia (Felt, 18-155 and 21-152).

Parallelodiplosis Rübsaamen.

P. caryae (Felt), 07–141 and 21–168.

MASS.—Worcester (Thompson).

Reared from globular long-haired hickory leaf-gall resembling Caryomyia persicoides, probably inquiline (Felt, 18-47).

P. cattleyae (Molliard). Orchid Root-gall. MASS.—South Natick, May 20, 1890 (A. P. Morse).

Reared from the roots of Cattleya gigas (Felt, 18-29 and 18-172).

P. cinctipes Felt, 14–113.

MASS.—Framingham, May, 1908 (C. A. Frost).

Reared from dead twigs of poison ivy, Rhus vernix (Felt, 21-172).

P. clarkeae Felt, 11–553.

MASS.—Magnolia, Sept. 19, 1910 (Cora H. Clarke).

A narrow apical bud-gall on Spiraea salicifolia (Felt, 18-133 and 21-175).

P. spiraeae (Felt), 09-293. Spiraea Leaf-roll. MASS.—Magnolia, June 26, 1909 (Cora H. Clarke).

The gall is an irregular marginal roll of half-grown leaves of Spiraea salicifolia (Felt, 18-134 and 21-166).

Retinodiplosis Kieffer.

R. inopis (Osten Sacken).

MASS.—Obscure subcortical swellings on smaller branches of scrub pine (Felt, 18-15 and 21-159).

R. resinicola Osten Sacken. The Pitch Midge.

MASS.-Woods Hole. CONN.-Norwalk, June 9.

Reared from extruded resin masses on Pinus rigida (Felt, 18-16 and 21-156).

Mycodiplosis Rübsaamen.

M. cerasifolia Felt, 07-21. Leaf-folding Cherry Gall.

MASS.—Worcester (Thompson).

Thickened folded leaves of the chokecherry (Felt, 08-401 and 18-185).



M. holotricha Felt, 08–401 and 18–188.

MASS.—Worcester (Thompson).

Probably inquiline in the galls of Caryomyia holotricha (Felt, 18-47).

M. populifolia Felt, 08-400.

ME.—Bar Harbor, Aug. N. H.—Aug. (Thompson).

Bullet-like swellings at the base of aspen-poplar leaves (Felt, 18 - 186).

Cecidomyia Meigen, 1803 (Itonida Meigen, 1800).

C. canadensis (Felt), 11–558.

MASS.—Magnolia, Aug. 5, 1908 (Cora H. Clarke). Oval woolly leaf-galls on lateral veins of shad-bush, Amelanchier canadensis (Felt, 21–182).

C. foliora Russell and Hooker, 08-350 (?C. erubescens Osten Sacken, gall only).

MASS.—Amherst, marginal rolls on the leaves of black oak; Springfield (Stebbins); Worcester (Thompson). CONN.-..

C. reflexa (Felt), 13-146.

N. H.—Hampton (Shaw).

C. spiraeina (Felt), 11-551 (C. luppa Stebbins, 10-35, gall only). MASS.—Magnolia (Cora H. Clarke); Springfield (Stebbins).

Enlarged terminal buds on Spiraea salicifolia (Felt, 21–189).

C. triticicola Kieffer, 13-220 (C. tritici Felt, 12-289, not Kirby). The Wheat Midge.

Packard records this species from all of the New England States and it may have been common when wheat was more generally cultivated.

DIPTEROCECIDIA.

The following names are based on the galls only, the midge which causes the gall being unknown. They are provisionally placed under the generic name of Cecidomyia until the gallmaker is reared and described. The specific names also are subject to change, unless the person who describes the midge chooses to adopt the same name. The form of the galls is, as a rule, so characteristic of the species that it seems detrimental to a study of the family to omit them.

Cecidomyia.

C. balsamicola Lintner. Balsam Gall.

ME.—Moosehead Lake, July. N. H.—(Thompson).

Subglobular basal swellings of the leaves of the fir balsam (Felt, 18–19).

C. bedeguar Welsh. Tufted Thorn Gall.

MASS.—Springfield (Stebbins).

Subglobose vein-gall, opening surrounded by dense tufts on leaves of Crataegus.

C. bifolia Stebbins, 10-49.

MASS.—Springfield (Stebbins).

A small gall binding together two leaves of the goldenrod.

C. castaneae Stebbins, 10-17.

Mass.—Springfield.

An ellipsoidal gall found singly or in small groups near the base of the leaves of chestnut, Castanea dentata.

C. celastri Stebbins, 10–41. Bittersweet Root-gall. MASS.—Springfield (Stebbins).

Irregular enlargement of roots of bittersweet, Celastrus scandens.

C. citricola Osten Sacken.

MASS.—Worcester.

Infests the base of the leaves of linden.

C. citrina Osten Sacken.

MASS.—Springfield, July and Aug. (Stebbins). Irregular fleshy galls on the terminal buds of linden.

C. crotalariae Stebbins, 10-40. Rattle-box Stem-gall.

MASS.—Springfield, Sept. (Stebbins).

A fusiform swelling of the winged stem of the rattle-box, Crotalaria sagittalis.

C. cynipsea Osten Sacken.

MASS,-Worcester.

Subglobose woody swellings on hickory.

C. deserta Patton.

Conn.—.

C. impatientis Osten Sacken. Touch-me-not Gall.

MASS.—Auburndale; Worcester (Thompson); Springfield (Stebbins).

Globose juicy flower-bud galls on jewel-weed, Impatiens biflora.

C. irregularis Stebbins, 10-9.

MASS.—Springfield (Stebbins).

Irregular blister-galls between the leaf-veins of the largetoothed aspen, *Populus grandidentata*.

C. muscosa Stebbins, 10-35.

MASS.—Springfield, Aug. (Stebbins).

Mossy leaf-gall of blackberry, Rubus nigrobaccus.

C. niveipila Osten Sacken. Woolly Fold-gall. ME.—.

MASS.—Worcester (Thompson); Springfield (Stebbins).

A large midrib fold with thick white pubescence on oaks.

DIPTERA.

C. ocellaris Osten Sacken. Maple Leaf-spot. ME.-Mt. Desert. N. H.-Jaffrey, June. VT.-Bennington, June.

MASS.-Auburndale; Worcester; Springfield. R. I.-Bristol. CONN.-

Ocellate, yellow, red-margined blisters on the red maple.

C. pinirigidae Packard (C. resinicola Aldrich, not Osten Sacken; Displosis rigidae Stebbins, 10-7). Pine-needle Gall. MASS.—Springfield (Stebbins). R. I.—.

Aborted needle-clusters, base globose, on Pinus rigida.

C. potentillaecaulis Stebbins, 10-37.

MASS.—Springfield, Sept. (Stebbins).

An enlarged internodal stem-gall on Potentilla canadensis.

C. pudibunda Osten Sacken.

N. H.—Hanover, July.

MASS.—Worcester, June (Thompson); Springfield (Stebbins). Folds between the larger veins of the hornbeam, Carpinus caroliniana.

C. racemi Stebbins, 10-39.

MASS.—Springfield, July (Stebbins).

An elliptical swelling of the axis of the raceme of chokecherry.

C. reniformis Stebbins, 10-36.

MASS.—Springfield (Stebbins).

A reniform gall at the base of the petiole of the wild strawberry.

C. serotinae Osten Sacken. Wild-cherry Bud-gall.

MASS.—Springfield (Stebbins); Worcester. R. I.—Providence (Thompson).

Club-shaped enlargement of terminal bud of Prunus serotina.

C. squamulicola Stebbins, 10-16. Hazel-catkin Gall. MASS.—Springfield (Stebbins).

A gall which deforms the sterile catkin, causing it to be twice or thrice its normal size.

C. tuba Stebbins, 10-46.

MASS.—Springfield (Stebbins).

A hemispherical gall on the leaves of Cornus amomum.

C. verrucicola Osten Sacken. Basswood Wart-gall.

MASS.—Cohasset; Worcester (Thompson); Springfield (Stebbins). CONN.---.

Rounded wart-like gall on the leaves of the linden, Tilia americana.

C. viticola Osten Sacken. Grape Tube-gall. MASS.—Worcester, Aug. (*Thompson*).

Elongated conical reddish leaf-galls on grape (Felt, 18-168).

Note:—The so-called "oak spangle" referred to in literature as Cecidomyia poculum O. S., although Osten Sacken suspected they were due to a cynipid, are really produced by a cynipid wasp, described by Weld as Xystoteras poculum (Proc. U. S. Nat. Mus., vol. 61, p. 7, 1922).

> MYCETOPHILIDAE. The Fungus Gnats. Bolitophila Meigen.

B. disjuncta Loew. ME.--4, 8. N. H.--11. VT.--21. June 5-July 24.

B. cinerea Meigen.

ME.---1, 4, 6, 7. N. H.---11, 14, 15. June 10-Oct. 30. MASS.---23. May 26.

B. hybrida Meigen.

ME.—1, 4, 8. N. H.—11, 13, 14. VT.—21. June 4–Sept. 10. MASS.—23. June 13–Aug. 7.

B. montana Coquillett. ME.—Mt. Desert, June 7. N. H.—Mt. Washington.

Hesperinus Walker.

H. brevifrons Walker. N. H.—Mt. Washington, 4000 ft., July 6. MASS.—Mt. Greylock, June 15.

Palaeoplatyura Meunier.

P. johnsoni Johannsen, 09–226. Vr.—Burlington, June 24. Mass.—Great Barrington, June 15.

Ditomyia Winnerts.

D. euzona Loew. N. H.—Franconia.

Symmerus Walker.

S. tristis (Loew). ME.—Mt. Desert, Aug. 10. Mass.—.

S. annulatus (Meigen). ME.-4. N. H.-11. VT.-18, 20, 22. June 26-July 26. MASS.-23. July 24-Aug. 5.

S. lauta (Loew).

ME.—Capens, July 15; Eastport, July 16. N. H.—Mt. Washington, 2500 ft., July 24–28.

Diadocidia Ruthe.

D. ferruginosa (Meigen). N. H.—White Mts. MASS.—Auburndale, July 10, Aug. 16; Chester, Aug. 7. D. borealis Coquillett.

N. H.—Bretton Woods, June 24.

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Asindulum Winnerts.

A. coxale Loew. ME.-Mt. Desert, Aug. 10. N. H.-Hampton, July 18 (Shaw). A. flavum Winnertz. N. H.--.

A. montanum Roeder. ME.-3, 8. N. H.-11. VT.-19. Aug. 2-25. MASS.-23, 25. July 31-Aug. 12.

Ceroplatus Bosc.

C. clausus Coquillett. ME.-Mt. Desert, Sept. 13. N. H.-Franconia. R. I.-Kingston, Aug. 21.

C. militaris Johannsen, 09-237.

ME.—Mt. Desert, Sept. 13. N. H.—Intervale, Aug. 23 (Allen); Hampton, June 30 (Shaw).

Cerotelion Rondani.

C. bellulus (Williston). MASS.—Brookline, July 21. R. I.—Buttonwoods, July 22.

Apemon Johannsen, 09-20.

A. maudae (Coquillett). N. H.-Franconia (Mrs. Slosson); Bretton Woods, June 28; Mt. Washington, 3000 ft., July 28.

Platyura Meigen.

P. inops Coquillett. VT.—Brattleboro, July 15.

P. elegans Coquillett.

N. H.—12, 15. July 6-Aug. 11. MASS.—24, 27, 28, 29. July 14-Aug. 16.

P. mimula Johannsen, 09-255.

N. H.—Hampton, June 4 (Shaw).

P. melasoma Loew.

N. H.-Bretton Woods, June 29; Hampton, July 14 (Shaw). MASS.—Auburndale, June 26.

P. fascipennis Say.

N. H.-Franconia.

P. fascipennis var. sagax Johannsen, 09-258. ME.—Capens, July 11; Eastport, July 16. P. mendosa Loew. ME.-4, 7, 8. N. H.-11. VT.-12. June 26-Aug. 10. P. mendica Loew. ME.-4. N. H.-15. VT.-12. July 7-Sept. 30. MASS.-27. July 16. P. subterminalis Sav. ME.—Capens, July 19; Mt. Katahdin, July 16 (Blake). MASS.—North Adams, June 18. P. diluta Loew. ME.-7. N. H.-11. VT.-12, 22. July 7-15. Mass.-27. June 28. P. genualis Johannsen, 09–262. ME.--4, 7, 8. N. H.-11, 15. VT.-16, 20. June 23-July 26. MASS.-27. June 7-15. Macrocera Meigen. M. inconcinna Loew. ME.-4, 7, 8. N. H.-11. VT.-16, 17. June 21-July 26. MASS.-23, 27. CONN.-35. May 27-Sept. 4. M. nebulosa Coquillett. ME.-7, 8. N. H.-11. July 12-25. Mass.—23, 29. R. I.—33. June 22-Aug. 5. M. hirsuta Loew. ME.-4, 7, 8. N. H.-11. June 24-July 26. MASS.-23, 24, 27. CONN.-35. June 17-Sept. 4. M. formosa Loew. ME.--4, 8. VT.-20. July 11-21. MASS.-23, 27. CONN.-35. June 17-Sept. 21. M. clara Loew. ME.-8. N. H.-11, 13. VT.-16. June 24-Sept. 10. MASS.-23, 25, 27. R. I.-33. CONN.-35. June 17-Sept. 3. M. nobilis Johnson, 22–21, N. H.—Mt. Washington, 2000 ft., July 24; Mt. Monadnock, June 22. MASS.—Chester, Aug. 8, 1922 (Bryant). Monoclona Mik. M. elegantula Johannsen, 10-128. ME.—Mt. Desert, Aug. 10.

M. furcata Johannsen, 10–187. ME.—Orono, May 26, 1910 (Johannsen).



DIPTERA.

Eudicrana Loew.

E. obumbrata Loew. ME.--4, 7, 8. N. H.--11. June 14-July 17. MASS.--23. June 24.

Tetragoneura Winnerts.

T. bicolor Coquillett. N. H.—Franconia (*Mrs. Slosson*). MASS.—Blue Hill, Milton, June 4; North Adams, June 20. Sciophils Meigen.

S. quadratula (Loew). ME.—. N. H.—Franconia.

S. glabana Johannsen, 10–136. ME.—Mt. Desert, July 20. VT.—Burlington, June 22. R. I.—Buttonwoods, June 20.

S. glabana var. germana Johannsen, 10–137. MASS.—Bashbish Falls, June 28.

S. glabana var. socia Johannsen, 10–137. Vr.—Burlington, June 28. MASS.—Boston.

S. incallida Johannsen, 10–139. N. H.—Bretton Woods, June 28. Mass.—Arlington, May 26. Conn.—New Haven, June 26.

S. hebes Johannsen. R. I.—Kingston, May (Barlow).

S. pallipes Say.

ME.—Örono, Sept. 9; Mt. Desert, Aug. 11 (Dr. C. S. Minot). N. H.—Mt. Washington.

S. fasciata Say.

VT.—St. Johnsbury, June 28.

Paratinia Mik.

P. recurva Johannsen, 10–144. VT.—St. Albans, June 21.

Polylepta Winnertz.

P. fragilis Loew. MASS.—"Massachusetts" (Loew).

P. leptogaster Winnertz.

N. H.-White Mts.

P. obediens Johannsen.

N. H.—Hampton, May 16 (Shaw); Mt. Washington, 4000 ft., July 4-6.

Mass.—Bedford; Chester, May 27.

?P. grisea (Walker).

N. H.—White Mts.

Empalia Winnerts.

E. tibialis (Coquillett).

N. H.-White Mts.

Dziedzickia Johannsen.

D. n.sp. (Johannsen), 10–152.

N. H.—.

Diomonus Walker.

 D. bifasciatus (Say).
 ME.—Bridgton, July; Enfield, July 8 (*Hitchings*). N. H.— White Mts. VT.—Killington Peak, Aug. 26.

MASS.—Chester, Aug. 5.

D. magnificus Johannsen, 10–155.

N. H.-Mt. Washington, 2000 ft., July 28.

MASS.—Mt. Greylock, Aug. 8 (Bryant); Washington, Aug. 8; October Mt., July 24.

D. subcaeruleus (Coquillett).

N. H.—Franconia (*Mrs. Slosson*). VT.—Bolton Mt., Sept. 10 (*Bryant*).

D. pulcher (Johannsen), 10–156.

ME.—Enfield, July 8 (*Hitchings*). N. H.—Hampton, July 28, 1903 (*Shaw*).

MASS.—Mt. Greylock, Aug. 8, 1907 (Bryant). R. I.—Kingston, July 24 (Barlow).

Necempheria Osten Sacken.

N. macularis Johannsen, 10–159.

ME.—Capens, July 15; Princeton, July 12; Machias, July 22. Vr.—Brattleboro, July 15.

N. didyma (Loew). ME.-4, 7. N. H.-11, 13. VT.-.. July 3-26. Mass.-23, 25. June 5.

N. impatiens Johannsen, 10–161. Mass.—23, 24, 27. R. I.—33. June 22–Sept. 4.

N. balioptera Loew.

VT.—18. June 28.

MASS.-27. R. I.-33. CONN.-35. May 30-June 12.

N. nepticula Loew.

MASS.—Auburndale, Aug. 18; Blue Hill, July 16; Plymouth, July 28; Manomet, July 27.

N. indulgens Johannsen, 10–162. Vr.—St. Albans, June 20; St. Johnsbury, June 28. Mass.—Chester, Aug. 5. N. illustris Johannsen, 10–163.

MASS.—Auburndale, Aug. 13; Plymouth, July 28; Blue Hill, July 16; Southbridge, Sept. 3. R. I.—Buttonwoods, June 21; Kingston, July 26.

Mycomya Rondani.

M. littoralis (Say). ME.--8. N. H.-11. VT.-21. July 9-13. MASS.-23, 27. CONN.-.. May 28-July 16. M. sequax Johannsen, 10-172. ME.—Princeton, July 12; Mt. Desert, June 13. M. obliqua (Say). ME.---8. N. H.---11. July 22-30. MASS.-27, 28, 29, 31, 32. R. I.-33. June 28-Aug. 31. M. tantilla (Loew). ME.-Machias, July 26; Mt. Desert, July 30 (McAtee). M. imitans Johannsen, 10-177. ME.-Mt. Desert, July 15. MASS.—Washington, Aug. 8. R. I.—Kingston (Barlow). M. maxima Johannsen, 10-179. ME.--4, 6, 7, 8. N. H.--11. VT.--16, 18. June 21-July 21. MASS.--23. June 27. Type locality, Nain, Labrador, not "Maine." **M. biseriata** (Loew). ME.—Capens, July 14. VT.—St. Albans, June 21. **M. hirticollis** (Say). N. H.-White Mts. M. flavohirta (Coquillett). N. H.-Franconia (Mrs. Slosson). M. mendax Johannsen (?). N. H.—Bretton Woods, June 24. Vr.—St. Johnsbury, June 27. ?M. onusta (Loew). ME.-Mt. Desert, June 30 (Dr. Minot); Kineo, Aug. 17 (Alexander). MASS.—October Mt., July 24. M. incompta Johannsen, 10–186. ME.—Capens, July 21. Gnoriste Meigen. G. megarrhina Osten Sacken. ME.-7. N. H.-11. VT.-21. June 5-July 14. Mass.-23. May 28-June 20. G. macra Johannsen, 11-257.

N. H.—Glen House, June 11.

Acnemia Winnertz.

A. flaveola Coquillett.

Mass.—Mt. Tom, July 14; Cohasset, July 5, 1920 (Bryant). R. I.—.

Azana Walker.

A. sp. Johannsen, 11–260. ME.—.

Rondaniella Johannsen, 09-66.

R. abbreviata (Loew).

ME.-6. N. H.-11, 13. July 24-Sept. 10. MASS.-23, 27, 32. May 25-Oct. 20.

R. sororcula (Loew).

ME.-1. N. H.-11, 13. VT.-18. June 26-Oct. 10. MASS.-23, 27, 32. June 18-Sept. 12.

, **62. Cure to Sept. 12.**

Neuratelia Rondani.

N. scitula Johannsen, 11-263.
ME.—Mt. Desert, June 15; Mt. Katahdin, Aug. 18 (Blake).
N. H.—Bretton Woods, June 29; Glen House, July 3. VT.— Brattleboro, July 15.

R. I.—Buttonwoods, June 21.

N. desidiosa Johannsen, 11–263. Mass.—North Adams, June.

Leptomorphus Carter.

L. hyalinus Coquillett. N. H.—White Mts.

Allocotocera Mik.

A. parvula (Coquillett). ME.—Mt. Desert, Aug. 17. MASS.—Chester, Aug. 17.

Boletina Staeger.

B. obscura Johannsen, 11-270.

N. H.—Hampton, Apr., May (Shaw).

MASS.—Brookline, May 24; New Bedford; Swansea, Oct. 10; Dighton, Oct. 17 (Easton).

B. cincta Johannsen, 11–270.

N. H.—Hampton, July 17 (Shaw). VT.—Mt. Ascutney, July 11.

B. notescens Johannsen, 11-272.

ME.—Princeton, July 12. N. H.—Bretton Woods, June 26. MASS.—Mt. Greylock, June 15; Chester, May 28.

B. groenlandica Staeger.

N. H.—Mt. Washington, 2500 to 4000 ft., June 13–July 8; Glen House, June 11.



DIPTERA.

B. tricincta Loew. ME.--4, 7, 8. N. H.--11, 15. VT.--21. June 6-Aug. 17. MASS.—23, 24, 27, 29, 31. June 28-Aug. 16. B. sciarina Staeger. ME.—. N. H.—Bretton Woods, June 24. **B. hopkinsii** Coquillett? N. H.—Hampton (Shaw). Leia Meigen. L. melaena Loew. ME.-Mt. Desert, Aug. 18. N. H.-Center Harbor, Sept. 10. MASS.—Chester, Aug. 5; Washington, Aug. 8. R. I.—Kingston (Barlow). L. ventralis Say. ME.-3, 8. N. H.-11. VT.-21. July-Aug. 13. MASS.-23, 27. July 24-Sept. 4. L. winthemii Lehmann. ME.-4, 6, 8. N. H.-11, 15. VT.-18. May 30-Aug. 27. Mass.—24. June 28. L. oblectabilis Loew. ME.—Mt. Desert, July 24-Aug. 11. N. H.—Hampton (Shaw). L. opima (Loew). ME.---8, 9. N. H.---11, 13, 15. VT.---18, 20. June 28-Sept. 10. MASS.---24, 27, 29. R. I.---33. CONN.---35. June 22-Sept. 4. L. sublunata (Loew). ME.---8. N. H.---11. July 21. MASS.-24. R. I.-33. CONN.-35. June 12-July 14. L. bivittata Say. N. H.-White Mts.; Hampton, June 21 (Shaw). CONN.-New Haven, July 4; Rowayton, Aug. 25. Phthinia Winnertz. P. tanypus Loew. N. H.-Franconia. VT.-Montpelier, June 24; Killington Peak, Aug. 25. MASS.—Chester, Aug. 3. Syntemna Winnertz. S. rejecta Johannsen, 11-296. MASS.—Blue Hill, Milton, July 16. S. longicornis (Coquillett). N. H.—White Mts. MASS.—Brookline, Aug. S. vittata (Coquillett).

ME.—Machias, July 25. N. H.—Franconia (Mrs. Slosson).

S. vittata var. fasciata Johannsen, 11-297.

ME.—Eastport, July 15. N. H.—Mt. Washington, 3000 ft., July 28.

S. separata Johannsen, 11–297. VT.—St. Johnsbury, June.

S. polyzona Loew.

ME.-Mt. Desert, July 21.

R. I.-Buttonwoods, June 21: Apponaug, June 22.

Docosia Winnertz.

D. dichroa Loew.

ME.-Kittery, June 4. VT.-Mt. Equinox, June 5.

MASS.—Ellis Station, May 11; Milton, May 17. R. I.—Kingston, May 23.

D. obscura Coquillett. N. H.—White Mts.

Trichonta Winnerts.

T. perspicua Van der Wulp. ME.—4, 8. VT.—17, 18. June 11-July 21.

T. cincta Johannsen, 11–303. ME.—Eastport.

T. bellula Johannsen, 11–304. N. H.—Bretton Woods, June 28. VT.—Mt. Ascutney, July.

T. diffissa Johannsen, 11–305. Mass.—Brookline, Aug.

Cordyia Meigen.

C. volucris Johannsen, 09–101. ME.—Eastport, July 15.

Brachypeza Winnerts.

B. bisignata var. divergens Johannsen, 11-309. ME.-4, 6, 8. N. H.-12. VT.-18. June 11-Nov. 2. MASS.-23. Aug. 7.

Rhymosia Winnertz.

R. filipes Loew. N. H.—"White Mts." Conn.—.

R. akeleyi Johannsen, 11–312. N. H.—Cornish, July 13.

R. captiosa Johannsen, 11–313. N. H.—11, 12. VT.—22. June 25–July 15. MASS.—23. July 18–Aug. 7.



Allodia Winnertz.

A. crassicornis Stannius. ME.—. N. H.—11, 14. VT.—16, 20. June 14–July 25. MASS.—23. Aug. 9.

A. bulbosa Johannsen, 11-316. N. H.—(Weed).

A. actuaria Johannsen, 11–317. Mass.—Woods Hole.

A. elata Johannsen, 11–318. ME.—8. N. H.—15. VT.—18. Apr. 22–July 25. MASS.—27, 32. May 1–July 16.

Phronia Winnerts.

P. insulsa Johannsen, 12–60. R. I.—.

Macrobrachius Dziedzicki.

M. producta (Johannsen), 13–228. Mass.—Brookline, Aug. 23, 1904.

Telmaphilus Becker.

T. nebulosa Johannsen, 12–64. N. H.—Hampton, Apr. 8 (Shaw).

Exechia Winnerts.

E. perspicua Johannsen, 12–67. ME.—Orono, Oct.

E. cincinnata Johannsen, 12-69.

ME.—Orono, Oct., reared from Boletus granulatus. N. H.— Hampton, Oct. 22. VT.—Burlington, June 24.

MASS.—Auburndale, Sept. 12; Boston, Apr. 30; Cohasset, Dec. 29.

E. nugatoria Johannsen, 12-70.

R. I.—Kingston (Barlow).

E. nativa Johannsen, 12–70. ME.—Orono, Oct. VT.—Montpelier, June 24.

E. bellula Johannsen, 12–71. ME.—Orono, Nov. 3.

E. captiva Johannsen, 12–72. N. H.—(*Weed*). VT.—Burlington, June 22. MASS.—Boston.

E. absoluta Johannsen, 12–72. CONN.—New Haven, Oct. 21 (Viereck).

E. capillata Johannsen, 12-73.

R. I.—Kingston, May (Barlow).



E. attrita Johannsen, 12-73.

ME.—Orono, Nov. N. H.—Hampton, Nov. 11 (Shaw). R. I.—.

E. repanda Johannsen, 12–73. Mass.—Boston, Sept. 28.

E. absurda Johannsen, 12–74. ME.—Orono, Nov.

E. nexa Johannsen, 12–68. Mass.—Brookline.

Dynatosoma Winnerts.

D. nigrina Johannsen, 12–75.

N. H.-Mt. Washington, 2500 to 5000 ft., July 4-28.

MASS.—Chester, July 24; Bashbish Falls, June 28; Sharon, Aug. 3.

D. fulvida Coquillett.

ME.—Capens, July 19; Machias, July 26. N. H.—Franconia. MASS.—Sharon, Aug. 3.

D. thoracica Coquillett.

N. H.-Mt. Washington; Franconia (Mrs. Slosson).

D. placida Johannsen, 12–76.

N. H.—Bretton Woods, June 25.

Epicypta Winnerts.

E. pulicoria Loew.

N. H.—Hampton, May 7.

MASS.—Fall River, Nov. 1; Mt. Tom, July 14.

E. punctum (Stannius).

MASS.—Auburndale.

E. trinotata (Staeger). MASS.—North Adams, June 20.

Mycothera Winnerts.

M. paula Loew. N. H.—Mt. Monadnock, June 26. Mass.—Chester, Aug. 7.

M. impellans Johannsen, 12–83. ME.—8. N. H.—11. VT.—18. July 27-Aug. 16. MASS.—23, 25. June 18-Sept. 3.

Mycetophila Meigen.

M. exstincta Loew.
MASS.—North Adams, June; Auburndale, Aug.
M. punctata Meigen.
ME.—8. N. H.—15. VT.—18, 22. Apr. 9–July 20.
MASS.—23, 27, 28, 32. R. I.—33. March 27–July 28.

DIPTERA.

M. mutica Loew. ME.---8. N. H.---11. VT.---16, 21. June 5-July 30. Mass.-23, 27. May 28-Sept. 19. M. lenis Johannsen, 12-94. ME.-Eastport, July. M. bipunctata Loew. ME.-Orono, Nov. N. H.-White Mts. M. inculta Loew. R. I.—Kingston (Barlow). M. scalaris Loew. ME.-7, 8. N. H.-11, 12. VT.-16, 17, 18. June 15-July 6. MASS.-27, 28, 29. CONN.-35. July 27-Sept. 10. M. pinguis Loew. ME.—. N. H.—White Mts. M. foecunda Johannsen, 12-99. ME.—Orono. M. imitator Johannsen, 12-99. ME.—Orono, Nov., March 31. M. perlonga Johannsen, 12–100. ME. 8. N. H. 11, 14. June 14-Aug. 17. MASS.-23. Aug. 7. M. fastosa Johannsen, 12-91. ME.-6, 7, 8. N. H.-11, 15. VT.-16. Apr. 9-July 21. MASS.-25, 27. CONN.-35. Mar. 14-Sept. 4. M. lenta Johannsen, 12-102. ME.—Orono, Oct., bred from mushrooms; Capens, July 19. M. anomala Johannsen, 12-96. MASS.—Chester, May 28; Williamsburg, Aug. 7. M. sigmoides Loew. N. H.—White Mts.; Hampton, Apr. 8 (Shaw). M. exusta Johannsen, 12-104. MASS.—. M. edentula Johannsen, 12–105. N. H.—Hampton, Oct. (Shaw). M. trichonota Loew. ME.---8. N. H.---11. VT.---16, 21. June 5-July 21. Mass.—23, 27. Aug. 3-7. M. monochaeta Loew. CONN.-. M. bifasciata Walker. N. H.-Mt. Washington (Mrs. Slosson).

M. biscoidae Say.

VT.-Mt. Ascutney, July 11.

MASS.—Auburndale, Aug. 28; Chester, Aug. 7; Woods Hole, July 24. CONN.—Yalesville, Oct. 19.

M. ichneumon Say.

N. H.—White Mts. (Morrison).

MASS.—Chester, May 26; Mt. Greylock, June 15; North Adams, June 18.

M. obscura Walker.

ME.—Waterville. N. H.—Mt. Washington (Mrs. Slosson); Hampton, Mar. 4, Nov. 4 (Shaw).

MASS.—Cohasset, Dec. 29 (Bryant).

M. socia Johannsen.

ME.-Mt. Desert, July 30 (McAtee).

Pnyxia Johannsen, 12-114.

P. scabiei (Hopkins) (*Epidapus scabiei* Hopkins).

R. I.—Kingston, 1903 (Barlow). Larva causes a form of scab on potatoes (Hopkins).

Sceptonia Winnertz.

S. nigra (Meigen). ME.—Orono, Nov. (Johannsen); Mt. Desert, July 30 (McAtee). MASS.—Brookline, June 28.

Zygomyia Winnerts.

Z. ornata Loew.

MASS.—Southbridge, Aug. 27.

Z. varia Staeger. ME.—Capens, July 19.

SCIARIDAE.

Eugnoriste Coquillett.

E. occidentalis Coquillett.

N. H.—Intervale, Aug. 23.

Trichosia Winnerts.

T. sp.

N. H.-Franconia (Mrs. Slosson).

Zygoneura Meigen.

Z. flavicoza Johannsen, 12-116.

ME.—Mt. Desert.

MASS.—Brookline, Aug. 23.

Sciara Meigen.

S. ochrolabis Loew. N. H.—11, 12, 15. VT.—16. June 24-Sept. 27. Mass.—23, 24, 27, 29. R. I.—33. Conn.—35. June 9-Aug. 25.



S. vicina Johannsen, 12-124. ME.-Machias, July 19. S. habilis Johannsen, 12–126. ME.--4, 8. VT.--16, 21. June 4-July 14. MASS.--27, 29. May 23-July 4. S. sciophila Loew. ME.---8. N. H.---15. May 23-Aug. 16. MASS.-26, 27, 32. R. I.-33. CONN.-35. July 6-Sept. 13. S. psittacus Pettey, 18–330. ME.—Orono?, Aug. 21 (C. P. Alexander). Neosciara Pettey, 18-320. N. coprophila (Lintner). . ME.-4, 6. N. H.-15. May 4-Aug. 13. Mass.—27, 29. May 10-Sept. 7. N. abbreviata Walker. N. H.—White Mts. N. actuosa (Johannsen), 12–134. CONN.-New Haven, May 10; Yalesville, Oct. 19. N. atrata (Sav). N. H.-Franconia (Mrs. Slosson). N. ocellaris (Comstock). MASS.—Wellesley, Feb., from flower pots (Morse). N. dux Johannsen, 12–127. R. I.—Buttonwoods, June 21. **N. ericia** Pettey, 18–337. MASS.-Brookline. N. exigua (Say). N. H.-Franconia. **N. falcata** Pettey, 18–331. MASS.—Auburndale, Apr. N. fuliginosa Fitch. N. H.-Franconia. N. fumida (Johannsen), 12–135. ME.-Mt. Desert, July 22. MASS.—Mt. Tom, July 14. N. hastata (Johannsen), 12–130. ME.—Mt. Desert, July 22. MASS.—Woods Hole, July 24. N. inconstans (Fitch). ME.—Orono; South Deer Isle. N. H.—White Mts.

N. johannseni (Enderline) (Sciara nigricans Johannsen, 12–134). R. I.—Kingston (Barlow). N. jucunda (Johannsen), 12-319. N. H.—12, 20. July 5-13. MASS.-27, 32. R. I.-33. CONN.-35. May 5-Aug. 11. N. lugens (Johannsen), 12-132. ME.-Orono. MASS.—Auburndale, May 26. N. mellea (Johannsen), 12–129. N. H.-Mt. Washington, 2000 ft., July 24. MASS.—Brookline, June 20; Auburndale, Aug. 16. CONN.— Darien, May 27; Danbury, June 20. N. nacta (Johannsen), 12–132. Mass.—Auburndale, July 11; Brookline, Aug. 25. N. multiseta (Felt). VT.-Manchester, June 6. N. parilis (Johannsen), 12–132. N. H.-Intervale, Aug. 18. N. pauciseta (Felt). N. H.-15. May 5. MASS.-27, 29, 32. CONN.-35. Apr. 26-Oct. 19. N. prolifica (Felt). Ме.—9. N. H.—12, 15. Apr. 16-July 7. Mass.—25, 29. R. I.—33. Сомл.—35. Feb.-June 30. N. quadrispinosa Pettey, 18–332. MASS.—North Adams, March 20. N. sylvestris Kieffer. ME.—Echo Lake, Mt. Desert, July 22, 1918. N. varians Johannsen, 12-135. ME.—Northeast Harbor, Aug. 11 (Dr. C. S. Minot). **N. vulgaris** (Fitch). N. H.—White Mts. BIBIONIDAE. Plecia Wiedemann. **P. heteroptera** Say. ME.-5, 6, 8, 9. N. H.-11, 14, 15. VT.-17, 21. Aug. 29-Oct. 14. Mass.—26, 27. Sept. 29-Oct. 18. Bibio Geoffroy.

B. abbreviatus Loew. ME.—9. N. H.—11, 15. May 10-June 12. MASS.—26, 27, 28. R. I.—33. Conn.—. May 9-Oct. 27.



B. albipennis Say.

ME.---6, 9. N. H.---11, 15. VT.---21. May 31-June 11.

MASS.-25, 27, 28, 32. R. I.-33. CONN.-35. May 17-June 3. B. basilis Loew.

ME.-Mt. Desert, June 11-24. N. H.-Glen House, June 13-16.

B. femoratus Wiedemann.

ME.--9. N. H.-11, 15. May 11-June 13.

MASS.-23, 24, 27. R. I.-33. CONN.-35. Apr. 28-June 15.

B. fraternus Loew.

ME.--6 (Orono). MASS.-24, 26, 27. R. I.-33. CONN.-35. May 13-June 27.

B. fumipennis Walker.

N. H.-Mt. Washington (Mrs. Slosson). VT.-Bolton Mt., Aug. 30 (Bryant); Killington Peak, Aug. 23, 1898 (Morse).

B. longipes Loew.

ME.-6, 8. N. H.-11, 15. VT.-19. Aug. 28-Oct. 14.

MASS.-24, 26, 27, 32. R. I.-33. CONN.-35. Sept. 20-Oct. 27.

B. slossonae Cockerell, 09-174 (B. gracilis Walker, 1848, not Unger, 1841). ME.—. N. H.—Passaconaway, Sept. 12, 1912 (Cushman).

Mass.-Mt. Greylock, 3000 ft., Oct. 9, 1920 (G. C. Wheeler); Cheshire, Oct. 2 (Beecroft).

B. variabilis Loew.

ME.---5, 6, 8, 9. N. H.---11. VT.---21. June 5-July 7. MASS.—23 (summit Mt. Greylock, June 15, 1906).

B. xanthopus Wiedemann.

ME.—6, 9. N. H.—11, 14, 15. VT.—19. May 17-June 19. MASS.—25, 27. May 12-June 1.

B. vestitus Walker.

N. H.-Mt. Washington (Mrs. Slosson).

Dilophus Meigen.

D. breviceps Loew.

N. H.-Glen House, June 18; Mt. Washington (Dimmock). VT.-Manchester, June 6; Bennington, June 22.

MASS.-Mt. Greylock, 3000 ft., June 15; North Adams, June 20. D. sectus McAtee, 21–22.

ME.-Ft. Kent, Aug. 17; Monmouth, June 16 (Frost). N. H.-Franconia (Mrs. Slosson); Bretton Woods, June 27.

D. spinipes Say (D. dimidiatus Loew). CONN.-West Haven, Oct. 2 (Britton).

D. stigmaterus Say.

ME.—Orono, Sept. 15, 1913 (Parshley). N. H.—Base Mt. Washington, Sept. 19; Hampton, Oct. 1 (Shaw). MASS.—(Harris Coll.).

SCATOPSIDAE.

Scatopse Geoffroy.

S. notata (Linné).

ME.—. N. H.—15. Sept. 16. MASS.—26, 27, 28, 32. R. I.—33. April 4-Nov. 30.

Swammerdamella Enderlein, 12-227.

S. brevicomis (Meigen).

ME.—Southwest Harbor, July 11; Bar Harbor, Aug. 18. N. H.— White Mts.

Reichertella Enderlein, 12-268.

R. femoralis (Meigen) (*Scatopse pulicaria* Loew; Melander, 16–9). ME.—7, 8. N. H.—11. July 14–Aug. 25. MASS.—27, 29. R. I.—33. CONN.—35. June 27–Oct. 18.

Rhegmoclema Enderlein, 12-276.

R. atrata (Say). ME.—Mt. Desert, July 31 (*McAtee*). Conn.—.

Aldrovandiella Enderlein, 12-278.

A. halterata (Meigen). ME.—Mt. Desert, July 30 (McAtee).

Ectaetia Enderlein, 12-279.

E. clavipes Loew. CONN.—South Meriden, Apr. 13, 1915 (H. L. Johnson).

SIMULIIDAE.

Prosimulium Roubaud.

Subgenus Prosimulium Roubaud.

P. hirtipes Fries.

ME.—-3, 5, 8, 9. N. H.—11, 14. Vт.—19. May 13-Sept. 20. Mass.—24, 25, 27, 28, 32. R. I.—33. Conn.—35. Apr. 14-Aug. 27.

P. mutatum Malloch, 14–20. MASS.—Fall River, May 13, 1908 (Easton).

Subgenus Cnephia Enderlein, 21-43.

P. pecuarum Riley

CONN.-Westville, Apr. 25, 1907 (Britton).



Simulium Latreille.

Subgenus Simulium Latreille.

S. venustum Say. "The Black Fly."

ME.---3, 4, 5, 7, 8, 10. N. H.---11, 13, 14. VT.---19. June 7--Aug. 15.

MASS.-25, 26, 27, 28. R. I.-33. June 5-Sept. 28.

S. piscicidium Riley.

ME.-1, 3, 4, 5, 8. N. H.-11, 14. June 7-Aug. 21.

- Mass.—27. May 26.
- S. bracteatum Coquillett.

N. H.—Franconia (Mrs. Slosson).

MASS.-Mt. Tom, Sept. 22; Framingham, Aug. 26, 1915 (Frost).

- S. parnassum Malloch, 14-36.
- N. H.—Red Hill, Moultonburgh, Aug. 5 (Dyar); White Mts. (Morrison); Chatham, Aug. 21 (G. M. Allen); Alstead, Aug. 9 (Morse). VT.—Chittenden, Aug. 1–15 (Bequaert); Killington Peak, Aug. 28, 1919; Bolton Mt., July 16 (Bryant).

S. meridionale Riley.

MASS.—Worcester (Thompson); Wayland and Wellesley, Apr. 19, 1921 (Morse). R. I.—Kingston, Apr. 25 (Barlow).

Subgenus Wilhelmia Enderlein, 21-44.

S. vittata Zetterstedt.

ME.—7. July 12.

MASS.—25, 27. R. I.—33. May 20-July 2.

BLEPHAROCERIDAE.

Blepharocera Macquart.

B. tenuipes (Walker).

ME.---6, 8. N. H.---11, 12. VT.---21, 22. June 13-July 10. MASS.---23. June 18--28.

BRACHYCERA.

XYLOPHAGIDAE.

Rhachicerus (Haliday) Walker.

R. fulvicollis Haliday. Mass.—Beverly (E. Burgess).

R. nitidus Johnson.

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ME.—Bar Harbor, July 29, 1919.

Xylophagus Meigen.

X. abdominalis Loew.
 ME.—Machias, July 27, 1909. N. H.—Durham, May 2.
 MASS.—Auburndale, May 27-June 15; Wellesley (*Morse*); South Sudbury, Apr. 22.

X. nitidus Adams, 04–435. N. H.—Mt. Washington (Mrs. Slosson).

X. longicornis Loew. MASS.—"Massachusetts" (Loew).

X. lugens Loew. N. H.—11. June 12–July 7. Mass.—24, 26, 27. Conn.—35. Apr. 1–May 18.

X. rufipes Loew.

ME.—1, 8. N. H.—11, 14. VT.—21. June 5-July 8. MASS.—23, 24, 26. May 26-June 15.

Solva Walker, 1860 (Xylomyia Rondani, 1861).

S. aterrima Johnson.

N. H.-Franconia.

S. pallipes Loew.

N. H.-11, 14. July 22.

MASS.-23, 27, 28. R. I.-33. CONN.-35. Mar. 20-July 27.

S. tenthredinoides Van der Wulp.

N. H.—Bretton Woods, June 29, 1913.

MASS.—Beverly, July 10. CONN.—Pleasant Valley (Bequaert).

Arthroceras Williston.

A. leptis Osten Sacken.

N. H.-Mt. Washington, July 7 (Sherriff), July 25 (Dimmock); Base Station, July 30 (F. W. Dodge).

Glutops Burgess.

G. singularis Burgess.

 N. H.—Base of Mt. Monadnock about 1800 ft., June 10, 1920.
 MASS.—Springfield (Dimmock); Norwood, Apr. 18, 1909, and Apr. 21, 1912 (W. Reiff), May 3, 1918 (C. W. J.); Whateley, May 6, 1923 (C. P. Alexander). CONN.—South Meriden, Apr. 17, 1915 (H. L. Johnson).

COENOMYIIDAE.

Coenomyia Latreille.

C. ferruginea Scopoli (*C. cinereibarbis* Bigot). ME.—6, 9. N. H.—13, 15. VT.—21. June 9–19. MASS.—24, 25, 27. CONN.—35. June 13–July 20.

Arthropeas Loew.

A. americana Loew.

MASS.—Cheshire, June 30 (I. W. Beecroft). CONN.—New Haven?



STRATIOMYIIDAE. Beris Letreille.

B. annulifera (Bigot).

ME.—Oquossoc, July 2, 1923. N. H.—Bretton Woods, June 24– 26, 1913.

Allognosta Osten Sacken.

A. brevicornis Johnson, 23–71.

ME.---8, 9. N. H.---11, 12, 13, 14. VT.---17. June 18-July 15. MASS.---23. June 15.

A. fuscitarsis (Say).

ME.---8, 9. N. H.---11, 12, 13, 15. VT.---16. June 17-July 12. MASS.---23, 27. R. I.---33. CONN.---35. May 28-July 27.

A. obscuriventris (Loew).

ME.-4, 8, 9. N. H.-11, 14, 15. VT.-12, 21. June 5-July 19. MASS.-23, 26, 27. CONN.-35. May 26-June 15.

Actina Meigen (Allactina Curran, 24-24).

A. viridis (Say).
ME.—6, 8, 9. N. H.—11, 15. VT.—17, 18, 21. Apr. 14-July 16.
MASS.—23, 25, 26, 27, 28. May 26-June 14.

Scoliopelta Williston.

S. luteipes Williston. N. H.—11, 15. VT.—19. Aug. 1–13. MASS.—23, 24. Aug. 5–8.

Ptecticus Loew.

P. sackeni Williston. N. H.—15. July 27. Mass.—25, 27, 28, 32. Conn.—35. July 28-Aug. 27.

P. trivittatus (Say).

CONN.—New Haven; South Meriden, Sept. 22; Branford, July 15 (Winkley); Rowayton, Aug. 4.

Chrysochroma Williston.

C. nigricornis (Loew). MASS.—Chester, July 25, 1913.

Macrosargus Bigot.

(Sargus Fabricus, not Walberg; Geosargus Bezzi.)

M. cuprarius (Linné). ME.—6, 7. N. H.—11, 14, 15. July 2-Aug. 16. MASS.—25, 26, 27, 29, 32. R. I.—33. Солл.—35. June 5-Aug. 13. M. decorus (Say).

ME.-2, 6, 7, 8, 9. N. H.-11, 14. VT.-17, 19. June 2-Aug. 16. MASS.-23, 24, 27. R. I.-33. CONN.-34, 35. June 4-Sept. 4.

M. elegans (Loew).

ME.—9. N. H.—13, 15. July 15-Aug. 4. MASS.—23, 24, 27. R. I.—33. CONN.—34, 35. May 22-Aug. 27.

M. viridis (Say). ME.--6, 7, 9. N. H.--11, 15. June 2-July 14. MASS.--23, 24, 27, 32. CONN.--35. May 13-June 14.

Microchrysa Loew.

M. polita (Linné). ME.—6, 7, 8, 9. N. H.—11, 13, 15. VT.—18. June 4–Aug. 15. MASS.—23, 27, 29. R. I.—33. Conn.—35. May 27–Sept. 20.

Stratiomyia Geoffroy.

S. badia Walker.
ME.-3, 5, 6, 7, 8, 9. N. H.-11, 12, 13, 14, 15. VT.-17, 19. June 15-Sept. 9.
MASS.-23, 24, 25, 26, 27, 32. CONN.-34. July 11-Aug. 15.

S. discalis Loew. ME.—9. N. H.—11, 14, 15. June 15–20. MASS.—23, 24, 26, 27. R. I.—33. Сомм.—35. May 24–June 27.

S. lativentris Loew. N. H.—Jaffrey, June 28, 1917. Mass.—Cheshire.

S. meigenii Wiedemann. N. H.—15. VT.—21. June 18–July 28. MASS.—24, 27, 29. R. I.—33. Сом..—35. May 26–July 18.

S. normula Loew. ME.-Waterville, June 14 and July 27 (Hitchings). VT.-Bur-

lington, June 22. Conn.—.

S. norma Wiedemann. ME.—. VT.—Winooski, Aug. 1901 (C. A. Davis). MASS.—North Adams, Aug. 8, 1907 (Bryant).

S. quaternaria Loew. ME.—. VT.—21. June 5–22. MASS.—23, 25, 27. CONN.—34. May 22-Aug. 18.

Odontomyia Meigen.

O. cincta Olivier. ME.-6, 8, 9. N. H.-11, 15. VT.-16, 21. June 14-24. MASS.-27, 28, 29. R. I.-33. CONN.-34, 35. June 1-July 13. **O. flavicornis** Olivier. ME.—. N. H.—15. Aug. 2. MA88.—24, 25, 27. Conn.-34, 35. May 7. **O. hieroglyphica** Olivier. ME.-Capens, Moosehead Lake, July 11, 1907. MASS.-Milton, July 10, 1828, and Sutton (Harris Coll.). O. hydroleonoides Johnson. ME.—Monmouth, July 12 (Frost). MASS.—Melrose Highlands, July 8 (R. T. Webber). CONN.— South Meriden, June 27 (H. L. Johnson); Colebrook, July 14-22 (Wheeler). **O. vertebrata** Sav. ME.—. VT.—Bennington, June 21, 1915. MASS.—Newtonville (S. Henshaw); Salem, July 17(F. H. Walker). **O. virgo** (Wiedemann). ME.-8, 9. N. H.-11, 12, 14, 15. VT.-16, 21. June 18-July 11. MASS.-23, 24, 27, 28, 29. CONN.-34, 35. June 26-July 29. O. microstoma Loew. ME.---. N. H.---15. July 15-Aug. 6. MASS.-26, 27, 28, 29, 31. R. I.-33. CONN.-35. June 28-July 31. **O. interrupta** Olivier. ME.--9. N. H.-11, 15. May 30-July 16. MASS.-23, 26, 27, 28, 32. CONN.-35. May 17-June 20. **O.** pubescens Day. ME.---6, 8, 9, 10. N. H.---11, 15. June 5-June 13. MASS.-26, 27, 28, 29. CONN.-35. May 24-June 19. O. nigerrima Loew. N. H.—Franconia (Mrs. Slosson). **Euparyphus** Gerstaecker. **E.** bellus Loew. MASS.—"Massachusetts." E. tetraspilus Loew. VT.—Winooski, Aug. (Davis); Bennington, June 22. MASS.—Cambridge, May, 1833 (Harris Coll.); Southboro, June 27, 1914 (Frost). E. greylockensis Johnson, 12-5. MASS.—Mt. Greylock, Aug. 8, 1907 (Bryant).

Nemotelus Geoffroy.

N. carbonarius Loew.

ME.—.

MASS.—Lenox (Osten Sacken).

N. crassus Loew.

VT.—Manchester, June 10. R. I.—"Rhode Island."

N. melanderi Banks, 20-65.

MASS.-26 (Nahant), 28, 29, 30, 31, 32. R. I.-33. CONN.-35. June 17–July 7.

N. unicolor Loew.

VT.—Burlington, June 22; St. Johnsbury, June 27, 1906.

MASS.-Beverly, June 6 (E. Burgess). CONN.-New Haven, May 26.

Oxycera Meigen.

O. maculata Olivier.

ME.—.

MASS.—Cambridge, June 25, 1838 (Harris Coll.); Lexington, July 28; Sherborn, June 8 (Frost); Amherst, June 2. R. I.— Wickford, June 9. CONN.-.

Berkshiria Johnson, 14-158.

(Johnsonomyia Malloch, 15-313, not Felt, 1908.)

B. albistylum Johnson, 14-158.

Mass.—Chester, May 28, 1912.

Pachygaster Meigen.

P. pulcher Loew.

ME.-Monmouth, June 27 (Frost). N. H.-White Mts. (Morrison); Mt. Washington (Mrs. Slosson). MASS.—Beverly (E. Burgess).

Neopachygaster Austen, 01-245.

N. maculicornis Hine.

VT.—Bennington, June 19, 1915. MASS.-Cohasset, June 5 (Bryant).

Zabrachia Coquillett.

Z. polita Coquillett.

Larvae in a wet decaying pine log, March Mass.—Auburndale. 26, 1905; imagos emerged May 12-22 (Johnson, 06-3).

TABANIDAE.

Buplex Austen (Pangonia of authors, not Latreille).

B. rasa (Loew).

ME.--3, 9. N. H.--15. Aug. 2-Sept. 1. MASS.-23, 25, 26, 27. CONN.-34, 35. July 12-Sept. 8. B. tranquilla (Osten Sacken).

ME.---3, 8, 10. N. H.---11, 14, 15. Vt.---19. July 25-Aug. 22. Mass.---23, 25, 26, 27. Conn.---34. July 26-Aug. 8.

Chrysops Meigen. Deer or Moose Flies.

C. celer Osten Sacken.

ME.--6, 7, 9. N. H.-13, 15. VT.-17. June 22-July 14. MASS.-23, 25, 27, 28, 32. R. I.-33. CONN.-34, 35. June 11-July 4.

C. carbonaria Walker (C. fugax Osten Sacken).

- ME.—1, 3, 4, 5, 6, 7, 8, 9. N. H.—11, 13, 14, 15. VT.—16, 17, 21. June 10–July 15.
- MASS.-23, 24, 25, 27, 28, 29. R. I.-33. CONN.-35. May 26-June 19.

C. amazon Daecke, 07-250.

MASS.—North Saugus, July 17, 1906.

C. mitis Osten Sacken. ME.--5, 7, 8. N. H.--11, 14. VT.--21. June 9-July 12. MASS.-27. May 28.

C. cuclux Whitney. ME.-7, 9. N. H.-14. VT.-16, 21. June 9-28. MASS.-23, 26, 27. CONN.-35. June 11-16.

C. niger Macquart.

ME.-1, 3, 6, 8, 9, 10. N. H.-11, 14, 15. VT.-16, 17, 18, 21. June 14–July 14.

MASS.-23, 24, 27. R. I.-33. CONN.-35. May 30-Aug. 2.

- C. nigrobimbo Whitney.
- N. H.—Milford, July 10 (Whitney).
- MASS.—Springfield, July 13; Hyannisport, July 4; Fall River, July 19; Wellesley, May 24 (Morse).

C. sordida Osten Sacken.

ME.-Mt. Katahdin, Basin Pond, 2400 ft., July 13, 1923 (Irving H. Blake). N. H.-Mt. Washington, 2000 to 4000 ft., July 4-16; Bretton Woods, June 28; Franconia (Mrs. Slosson).

C. excitans Walker.

ME.-3, 4, 5, 6, 7, 8, 9, 10. N. H.-11, 14, 15. June 22-Aug. 1. MASS.-23, 25, 26, 27, 29. R. I.-33. CONN.-34. June 3-July 2.

C. fuliginosa Wiedemann (C. plangens Wiedemann).

- ME.--7, 8, 10. N. H.--15. June 17-July 24. MASS.--26, 27, 28, 29, 31, 32. R. I.--33. CONN.--35. May 30-July 4.

This species is confined to the immediate seacoast.

C. moecha Osten Sacken. ME.-Waterville, July 20, 1908 (Hitchings). N. H.-Hampton, Aug. 1, 1917 (Shaw). MASS.—Sharon, July 7 (Cushman). CONN.—. C. lugens var. morosa Osten Sacken. MASS.--. CONN.-South Meriden, June 19, 1912 (H. L. Johnson); East Wallingford, July 6; Litchfield, July 30 (Woodruff). C. obsoleta Wiedemann. ME.---6, 10. N. H.---11, 12, 15. VT.---20. July 6-Aug. 6. MASS.-23, 24, 27, 28, 32. R. I.-33. CONN.-34, 35. July 6-Aug. 23. C. univittata Macquart. ME.-9. N. H.-14, 15. July 5-Sept. 11. MASS.-24, 25, 27, 28, 32. R. I.-33. CONN.-34, 35. June 11-Aug. 9. C. inda Osten Sacken. N. H.-11. VT.-16, 18, 21. June 20-27. MASS.-23. CONN.-34. June 8-16. C. sackeni Hine. Vт.—16. July 9. MASS.-26, 27, 29, 32. R. I.-33. CONN.-35. June 11-July 17. C. dimmocki Hine, 05–393. MASS.—24 (Long Meadows), 29, 32. R. I.—33. CONN.—35. June 15–July 12. C. callida Osten Sacken. ME.--9, 10. N. H.-15. July 3-15. MASS.-23, 26, 27, 29, 32. R. I.-33. CONN.-35. June 11-July 31. C. delicatula Osten Sacken. N. H.—13. Aug. 15. MASS.-29. CONN.-35. June 24-July 4. C. pudica Osten Sacken. MASS.-26, 27, 29, 32. R. I.-33. CONN.-35. June 12-Aug. 4. C. cursim Whitney. N. H.—Milford, July (Whitney). MASS.—West Peabody, July 13, 1911 (Morse). CONN.—. C. flavida Wiedemann. N. H.—15. July 29. Mass.—26, 27, 28, 29, 30, 31, 32. R. I.—33. Conn.—35. June 28-Sept. 4.

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C. frigida Osten Sacken. ME.—7, 8, 9. N. H.—11. June 25–July 12. Mass.—24, 27, 29, 32. R. I.—33. Conn.—35. June 8–Aug. 4. C. fallar Osten Sacken. N. H.-12, 13. VT.-20. July 7. MASS.-23, 24, 25, 27. CONN.-34, 35. June 16-July 31. C. montana Osten Sacken. N. H.-13. VT.-16. June 24-26. MASS.-24, 25, 27, 32. CONN.-34, 35. June 23-Aug. 20. C. hilaris Osten Sacken. ME.--6, 8, 9, 10. N. H.--11, 13, 14, 15. VT.--16, 18, 19. June 24-Aug. 1. MASS.-23, 25, 26. CONN.-34, 35. June 28-July 25. C. striata Osten Sacken. ME.---8, 9, 10. N. H.---13. VT.---16. July 9-Aug. 27. MASS.---24, 26, 27, 28, 29, 32. R. I.---33. Conn.---34, 35. July 7-Sept. 9. C. hinei Daecke. MASS.-West Peabody, July 8; Wellesley, July 30, and Dover, Aug. 11 (Morse); New Bedford, Aug. 30 (Hough). C. vittata Wiedemann. ME.--6, 7, 8, 10. N. H.--11, 12, 15. VT.--16. June 20-Aug. 17. MASS.-23, 24, 25, 26, 27, 28, 29, 31, 32. R. I.-33. CONN.-34, 35. June 26-Aug. 2. Tabanus Linné. Horse Flies. T. recedens Walker. MASS.—Springfield, July 12, 1899 (Dimmock). CONN.—New Haven, June 24; Farmington, July 1; South Meriden, July 16; Lyme, July 16. T. abdominalis Fabricius. MASS.—Sherborn (E. J. Smith). CONN.—New Canaan, Sept. 5; Lyme, Aug. 8. T. trimaculatus Palisot de Beauvois. MASS.-? CONN.-.. T. melanocerus Wiedemann. CONN.-Lyme, Aug. 8, 1915. T. coffeatus Macquart. Mass.-24, 27, 29, 31, 32. July 13-Sept. 6. T. orion Osten Sacken. ME.--9, 10. N. H.--13, 14. July 30-Aug. 9. MASS.-23, 24, 25, 26, 27. CONN.-34, 35. July 30-Aug. 19.

T. actaeon Osten Sacken.

ME.-4, 10. N. H.-14, 15. Aug. 20-Sept.

MASS.-24, 25, 26, 27, 28, 32. R. I.-33. CONN.-35. Aug. 30-Sept. 22.

T. nivosus Osten Sacken.

N. H.-... VT.-22. June 16.

MASS.-27, 32. CONN.-35. May 31-June 29.

T. vivax Osten Sacken.

ME.—Ocean Point, June 28 (G. C. Wheeler). N. H.—Jaffrey; Wiltboro, July 1. VT.-Woodstock, July 31, 1910 (Morse). MASS.—Melrose Highlands, Aug. 5, 1913 (Preston).

T. longus Osten Sacken. N. H.-Pelham, Aug. 6. MASS.—Sherborn, July 31, 1904, Aug. 12, 1915 (E. J. Smith).

T. pumilus Macquart.

ME.—10. N. H.—14, 15. June 23–July 5. MASS.—24, 26, 27, 29. R. I.—33. CONN.—35. June 14– July 20.

T. sparus Whitney.

N. H.-Milford, June 17-July 4 (Whitney).

MASS.-26, 27. CONN.-35. June 11-Aug. 2.

T. lineola Fabricius.

ME.-9, 10. N. H.-14, 15. VT.-16. June 17-Aug. 17. MASS.-23, 24, 25, 27, 28, 29, 30, 31, 32. R. I.-33. CONN.-35. June 24-Sept. 4.

T. nigrovittatus Macquart. ME.—8, 10. N. H.—15. July 27-Aug. 8.

MASS.-26, 27, 28, 29, 30, 31, 32. R. I.-33. CONN.-35. July 5-Aug. 22.

A maritime species popularly known as the "Greenhead."

T. nigrovittatus var. conterminus (Walker); Hine, 06-23. MASS.-27, 28, 29, 30, 31. June 27-July 20.

T. costalis Wiedemann.

N. H.-15. VT.-16. July 15-Aug. 2. MASS.-23, 27, 32. CONN.-34, 35. June 16-July 30.

T. sagar Osten Sacken.

MASS.-Mt. Tom, July 14, 1909; Southbridge, Aug. 5 (Bromley). CONN.—South Meriden, Aug. 27 (H. L. Johnson).

T. nigrescens Palisot de Beauvois. MASS.—Springfield. CONN.—Milford, July 22.

T. atratus Fabricius. ME.---6, 9. N. H.---15. July 10--18. MASS.-25, 26, 27, 29. CONN.-35. June 27-Aug. 14.



T. atratus var. nantuckensis (Hine) 17-271; Johnson, 19-163. N. H.—15. Sept. 8. MASS.-26, 27, 28, 29, 30, 31, 32. R. I.-Block Isl. (Morse). July 4-Aug. 28. T. stygius Say. Me.—9. MASS.-25, 27. CONN.-35. July 10-Aug. 27. T. americanus Forster. N. H.—Dublin (Harris Coll.). MASS.-Cohasset, Aug. 22 (Bryant); Fall River, July 22 (Cushman); Lakeville (Jenkins); Ware (Zeissig). T. giganteus De Geer. MASS.—(Harris Coll.). CONN.—Suffield (Dimmock). T. bicolor Wiedemann. ME.-9. N. H.-11, 15. VT.-16. July 15-Aug. 15. Mass.-26, 29, 30, 31, 32. R. I.-33. Conn.-35. July 5-Aug. 28. T. ohioensis Hine. ME.—Southwest Harbor, July 15; Waterville, 1901 (Hitchings). N. H.—Durham, June 28 (Lowry). MASS.—Wellesley, June 27 (Morse). CONN.—35. T. pemeticus Johnson, 21–11. ME.-Mt. Desert, July 22-Aug. 20. T. reinwardtii Wiedemann. ME.-Monmouth, July 18 (Frost). VT.-Bridgeport; Rutland, Aug. 1. MASS.-Milton, 1830 (Harris Coll.); Monterey, July 5 (Frost). CONN.—Cornwall, Aug. 7 (Chamberlain). T. zonalis Kirby. ME.-6, 8, 9. N. H.-14, 15. June 29-July 1. MASS.-24, 27. May 30-June 5. T. cinctus Fabricius. ME.--6, 9. N. H.--11, 13, 14. June 30-July 28. MASS.-24, 25, 27, 32. CONN.-34, 35. July 2-Aug. 8. T. trispilus var. sodalis Williston. ME.-5, 8, 9. N. H.-11, 13, 14, 15. VT.-19. July 16-Aug. 18. MASS.-23, 24, 25, 26, 27, 32. R. I.-33. CONN.-34. 35. July 12-Aug. 15. T. superjumentarius Whitney. N. H.-Milford, 13, 15. Vr.-22. June 22-July 30. MASS.-25, 27, 32. CONN.-34, 35. July 7-Aug. 8.

T. illotus Osten Sacken.

ME.-Capens, July 14, 1907; Princeton, July 12; Aziscoos Lake, July 8, 1916 (Frost). N. H.-Franconia (Mrs. Slosson); Glen House, June 13.

T. lasiophthalmus Macquart.

- ME.-4, 5, 6, 8, 9, 10. N. H.-11, 13, 14, 15. VT.-18, 21. June 4-July 22.
- MASS.-23, 24, 27, 28, 29, 32. R. I.-33. CONN.-35. May 26-June 15.
- T. affinis Kirby.
- ME.-4, 5, 6, 7, 8. N. H.-11, 14, 15. June 29-Aug. 3. MASS.—25, 26. July.

T. epistates Osten Sacken.

ME.-2, 4, 6, 7, 8, 9, 10. N. H.-13, 14, 15. VT.-16, 18, 20, 21. May 27-Aug. 16. Mass.—23, 24, 25, 26, 27, 28. Conn.—34. May 30-Aug. 9.

T. septentrionalis Loew.

ME.-Machias, July 27; Roque Bluff, Aug. 10 (Cushman): Mt. Desert, July 15-Aug. 23.

MASS.—(Osten Sacken).

T. microcephalus Osten Sacken.

ME.-2, 6, 8. N. H.-11. Aug. 10-16.

MASS.-23, 24, 32. CONN.-34. Aug. 6-18.

T. astutus Osten Sacken.

ME.--3, 5, 6, 9. N. H.-11, 13, 14, 15. June 22-Aug. 16. Mass.-23, 24, 27, 29. R. I.-33. Conn.-35. June 26-July 15.

T. typhus Whitney, 04–206.

N. H.—Milford, July (Whitney).

T. minusculus Hine, 07-226.

ME.—Orono, July, 1899 (Harvey).

MASS.—Springfield, July 13 (Dimmock); Wellesley, Aug. (Morse).

T. carolinensis Macquart. R. I.—Washington, June 19, 1912.

T. triligatus Walker. MASS.—Springfield, July 13, 1909.

T. hinei Johnson, 04–15.

MASS.-26, 27, 28, 29, 32. CONN.-35. June 11-July 25.

Merycomyia Hine, 12-515.

M. whitneyi (Johnson) (Tabanus whitneyi Johnson, 04-15; M. geminata Hine, 12-515).

MASS.-Wellesley (A. P. Morse). R. I.-Providence, Aug. 27 (Davis). CONN.—Lyme (B. W. Walden).

DIPTERA.

RHAGIONIDAE (Leptidae). Dialysis Walker.

D. elongata Say.

ME.-10. N. H.-13. July 17-Aug. 3. MASS.-24, 27, 29. R. I.-33. CONN.-35. July 18-Aug. 18. The record of D. rufithorax Say, by Hood (Psyche, vol. 6, 283) is probably based on the female of D. elongata.

Rhagio Fabricius (Leptis Fabricius).

R. gracilis Johnson, 12–3. ME.-6, 8. N. H.-11. VT.-20. July 10-30. MASS.-23. July 24-Aug. 8.

R. mystacea Macquart.

ME.-4, 6, 7, 8, 9, 10. N. H.-11, 13, 14, 15. VT.-18, 21. May 30–July 16. MASS.-23, 24, 27, 29, 30, 32. R. I.-33. CONN.-35. May

10-June 20.

R. punctipennis Say. ME.—9, 10. N. H.—11, 14, 15. VT.—17, 19. June 3-July 9. MASS.—23, 26, 27, 28, 29, 30, 32. R. I.—33. Conn.—35. May 23-Aug. 8.

R. plumbea Say. VT.—Mt. Equinox, June 5. MASS.—Mt. Greylock, June 15; Cheshire.

R. vertebrata Say.

ME.-4, 9. N. H.-11, 12, 14. VT.-16, 17, 19, 20, 21. June 23–July 20.

MASS.—23. CONN.—34, 35. June 16-Aug. 8.

Chrysopilus Macquart.

C. basilaris Say. N. H.—15. VT.—22. July 14–17. MASS.-27, 28, 29, 32. CONN.-35. July 5-30. C. fasciatus Say. N. H.—11, 14. VT.—22. July 14. MASS.-23, 24, 27, 32. R. I.-33. CONN.-35. June 25-July 27. C. ornatus Say. N. H.—11. MASS.-23, 24, 25. CONN.-34, 35. May 1-July 25. C. thoracicus Fabricius. ME.-?(Hood). N. H.-Mt. Lincoln? (Hood). Both records are very doubtful. MASS.-23, 24. CONN.-34, 35. June 11-July 24.

C. proximus Walker.

ME.--4, 5, 6, 7, 9. N. H.--11, 15. VT.--16, 18. June 22-July 22.

MASS.-23, 27, 28, 29. R. I.-33. CONN.-35. June 8-26.

C. simillimus Walker (C. propinguus Walker).

N. H.-Franconia; Hampton.

R. I.—Buttonwoods, June 22.

C. quadratus Say.

ME.-4, 5, 6, 8, 9, 10. N. H.-11, 12, 15. VT.-18, 22. June 26-Aug. 20.

MASS.—23, 27, 29. R. I.—33. CONN.—35. June 6-Aug. 10. C. rotundipennis Loew.

MASS.—Fall River, July 19 (N. S. Easton). R. I.—Buttonwoods, July 24.

Ptiolina Zetterstedt.

P. edeta (Walker).

N. H.--"Alpine Garden," Mt. Washington, July 4, 1914.

Spania Meigen.

S. nigra var. americana Johnson, 23-70. ME.—"Witch Hole Pond," near Bar Harbor, June 21, 1921.

Atherix Meigen.

A. variegata Walker.

ME.—Orono. N. H.—Jefferson.

MASS.—Amherst. CONN.—Northfield; South Meriden, June 4 (H. L. Johnson).

Symphoromyia Frauenfeld.

S. hirta Johnson (S. pullata Coquillett, in part, see Aldrich, 15-124).

N. H.—11, 14, 15. VT.—21, 22. June 5-July 5.

MASS.-23, 26. R. I.-33. CONN.-35. June 11-24.

S. montana Aldrich, 15–133.

N. H.-Mt. Washington (Mrs. Slosson); Bretton Woods, June 25.

Hilarimorpha Schiner.

H. pusilla Johnson, 23-70.

N. H.-Hanover, July 7. VT.-Norwich, July 8, 1908.

CYRTIDAE. The Small-headed Flies.

Pterodontia Gray.

P. analis Westwood.

MASS.-Woods Hole.

P. flavipes Gray.

ME.---10. N. H.---11, 13, 14, 15. July 14--26. MASS.---24, 25, 26, 27. July 10--20.

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DIPTERA.

Ogcodes Latreille (Oncodes of authors).

O. borealis Cole.

ME.—Monmouth, June 27, 1912 (Frost); Waterville, July 5, 1905 (Hitchings). N. H.—Hampton, June 27 (Shaw). MASS.—Holden, June 27, 1908 (J. H. Emerton).

O. costatus Loew.

ME.—6, 7, 8, 9, 10. N. H.—11, 15. June 22–July 12. MASS.—25, 26, 27, 32. R. I.—33. Conn.—35. June 19– Aug. 8.

O. incultus Osten Sacken.

ME.-4, 6, 9. N. H.-11, 15. VT.-17. June 4-26.

MASS.—26, 27, 28, 32. CONN.—34. June 5-July 28.

O. pallidipennis Loew.

ME.—8, 9. N. H.—15. June 18–July 23.

MASS.-23, 24, 26, 27. CONN.-35. June 26-Aug. 9.

Opsebius Costa.

O. gagatinus Loew.

N. H.—Franconia (Mrs. Slosson).

O. pterodontinus Osten Sacken.

ME.-4, 6, 9. N. H.-11, 13, 15. July 10-Aug. 15. MASS.-24, 32. R. I.-33. July 18-Aug. 8.

Parasitic on the "grass spider" (Agelena naevia).

O. sulphuripes Loew.

Mass.—Chester, Aug. 4; North Attleboro, July 4, 1921; Sherborn, July 3, 1913 (Frost).

Acrocera Meigen.

A. bimaculata Loew.

N. H.—Jaffrey, July 18 (Miss Nina Spaulding). MASS.—Southbridge, June 26 (S. W. Bromley).

A. bulla Westwood.

ME.—West Kennebunk, Aug. 19, 1919 (A. B. Fuller); Bailey's Isl., Aug. 20, 1915 (G. M. Allen).

MASS.—Southbridge, July 3, 1915 (S. W. Bromley).

A. fasciata Wiedemann.

MASS.—Waltham, from a spider, Amaurbius sylvestris (J. H. Emerton); Framingham, June 9, 1915 (Frost).

A. nigrina Westwood.

 ME.—York, Sept. 4; Oquossoc, July 1, 1922. N. H.—Shirley Hill, June 17, 1911 (F. W. Grigg). VT.—Bennington, June 18, 1915.

CONN.—Darien, June 12, 1915.

A. obsoleta Van der Wulp.

ME.—Orono, Aug. 5, 1915 (A. P. Morse).

A. subfasciata Westwood.

N. H.—Pelham, Sept. 8, 1905 (Birdwell).

BOMBYLIIDAE.

Anthrax Scopoli, 1763 (Spogostylum Macquart, 1840).

A. albofasciata (Macquart).

VT.—Rutland, Aug. 1.

MASS.—Provincetown, June 25–27; Sherborn, June 22, 1913 (Frost).

A. anale (Say).

ME.—9. N. H.—11, 14, 15. July 14-Aug. 9.

MASS.-24, 25, 27, 28, 29, 32. R. I.-33. CONN.-34, 35. July 25-Sept. 4.

Parasitic on the larva of tiger beetle (Shelford, 13-213).

A. limatula (Say).

N. H.—Bretton Woods, June 28, 1913. Vr.—St. Albans, June 21, 1913.

A. oedipus (Fabricius).

ME.-2, 8, 9. N. H.-11, 13. VT.-18. July 3-Aug. 25.

MASS.-23, 25. CONN.-35. July 8-30.

Parasitic in the nests of several species of solitary wasps (Odynerus).

A. pauper (Loew).

VT.-Middlebury, July, 1912 (Barlow).

MASS.—Provincetown, June 25, 1904; Manomet, July 17.

A. pluto (Wiedemann).

N. H.-Mt. Washington, July 8 (Morrison); Glen House, July.

A. simson (Fabricius).

N. H.—"A single specimen from western foot hills of the White Mts." (Hood).

R. I.—Bristol, Aug. 28, 1913 (Mrs. A. B. Parker). CONN.—35 (six records), Aug. 10–Sept. 16.

Parasitic in the nests of the carpenter bees (Xylocopa virginica).

Exoprosopa Macquart.

E. capucina (Fabricius).

ME.—Orono; Mt. Desert, July 15, 1918; Isle of Springs, July 15 (C. E. White, Jr.). N. H.—White Mts.

E. fascipennis (Say).

N. H.—11. VT.—20. Aug. 6.

MASS.—27, 29, 30, 31, 32. R. I.—33. Conn.—34, 35. July 14-Aug. 30.

E. fasciata Macquart.

N. H.—"Jefferson; Bemis; Nashua" (Hood).

MASS.-24, 29, 30, 32. CONN.-35. Aug. 2-Sept. 1.

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V. alternata (Say). ME.-2, 8, 9. N. H.-11, 15. VT.-19, 20. July 20-23. MASS.-23, 25, 27, 28, 29, 30, 31, 32. CONN.-35. June 25-Aug. 25. V. hypomelas Macquart. ME.-1, 2, 8, 9. N. H.-11, 15. July 30-Aug. 23. MASS.-23, 27, 29. CONN.-34, 35. June 27-Sept. 4. Bred from one of the cut-worms. V. lateralis (Say). ME.-1, 2, 3, 6, 8, 9. N. H.-11, 13, 15. VT.-17. July 14-Aug. 30. MASS.-23, 25, 26, 27, 28, 29, 30, 31. CONN.-34, 35. June 26-Sept. 6. V. lateralis var. arenicola (Johnson), 08-15. MASS.-Provincetown, June 25; Nantucket, Aug. 12. A sanddune form. V. lateralis var. gracilis (Macquart). ME.-2, 6, 8, 9. N. H.-11, 13, 14. VT.-19. July 13-Aug. 25. MASS.-23, 29. CONN.-34. July 11-Aug. 9. V. shawii Johnson, 08-14. N. H.—Hampton Beach, Aug. 27 (Shaw). MASS.-Westport, Sept. (Kirkland); Provincetown, Sept. 8, and Nantucket, Sept. 10 (Morse). V. fulviana var. nigricauda (Loew). ME.-1, 2, 6, 7, 8, 9. N. H.-11, 13, 15. VT.-19. July 12-Sept. 16. MASS.-23, 25, 26. CONN.-34. July 11-Aug. 30. V. tegminipennis (Say). ME.-4, 6, 8, 9. N. H.-11, 13, 15. VT.-19, 20. July 30-Aug. 25. MASS.-25, 26, 30, 32. R. I.-33. Aug. 10-30. V. fulvohirta (Wiedemann). MASS.—Springfield, Aug. 6. CONN.—New Haven, Aug. 16. V. bigradata Loew. MASS.—Provincetown, June 15 (Webber); Muskeget Isl., June 18; Nantucket, June 11 (Fall). V. webberi Johnson, 19-11 (V. lepidota of authors, in part). VT.-20, 21. June 21-July 11. MASS.-23, 25, 27. CONN.-35. June 3-24. V. morio (Linné). ME.---8, 9. N. H.---11, 14. VT.---16, 20, 21. June 11-July 13. MASS.-23, 25, 27. CONN.-35. May 22-July 1.

V. sinuosa (Wiedemann).

N. H.—13. VT.—21. June 21–July 13. Mass.—23, 27, 28, 29, 31, 32. R. I.—33. Conn.—35. June 10-July 30.

Bombylius Linné.

B. fulvibasis Macquart (B. atriceps Loew).

VT.---16. June 20 and 21.

MASS.-24, 27, 28, 29, 30, 31. CONN.-35. May 21-June 11.

B. fraudulentus Johnson, 07-99.

MASS.-24, 29, 31, 32. CONN.-35. June 26-July 13.

B. incanus Johnson, 07-97.

ME.—.

Mass.-24, 25, 27, 29, 31. June 15-July 8.

B. varius Fabricius.

N. H.—"North Conway" (Hood).

CONN.-New Haven, June 27, 1910 (Champlain); Darien, June 12.

B. major Linné.

ME.—6, 9. N. H.—11, 13, 14, 15. May 5–16. MASS.—23, 24, 25, 27. Сомм.—35. Apr. 19–May 30. A pupa was found in the nest of Andrena sp. along Mead Brook, Mt. Monadnock, April 19, 1919, by Miss Spaulding.

B. pygmaeus Fabricius.

ME.-5, 6, 8, 9. N. H.-11, 13, 14, 15. May 14-June 15. MASS.-23, 24, 25, 27, 43. CONN.-35. May 8-24.

B. pulchellus Loew.

MASS.—24, 27, 32. R. I.—33. Conn.—35. May 8-24.

Anastoechus Osten Sacken.

A. barbatus Osten Sacken (A. nitidulus of authors, not Fabricius). MASS.-Nantucket, Sept. (Scudder), Sept. 9 (Fernald); Truro, Sept. 4, and Provincetown, Sept. 5-8 (Morse).

Systoechus Loew.

S. vulgaris Loew.

MASS.—West Chop, Aug. 5, and Provincetown, Sept. 5 (Morse); Nantucket, Aug. 15 (Fernald); Brewster, July 26, 1921 (R. H. Howe, Jr.); Wellfleet, Aug. 16.

Ogcodocera Macquart.

O. leucoprocta (Wiedemann).

MASS.—West Bedford, June 8 (L. W. Swett).

Phthiria Meigen.

P. borealis Johnson, 10-229.

ME.-Ft. Kent, Aug. 7 (C. W. J.); Little Black River Rapids, Sept. 13 (Cushman).



P. cyanoceps Johnson.

MASS.—Cohasset, Sept. 8; Nantucket, Aug. 12-24 (Fernald). R. I.—Barbour's Heights, Sept. 9 (Barlow).

P. coquilletti Johnson.

MASS.—Nantucket, July 4 (Cushman).

P. sulphurea Loew.

MASS.—Horse Neck Beach, Aug. 9 (Hough); Nantucket. Aug. 6 (Cushman); Tuckernuck, Aug. 5 (Allen).

Sparnopolius Loew.

S. fulvus (Wiedemann).

ME.-9. N. H.-15. Aug. 29-Sept. 7. MASS.-24, 26, 27, 32. R. I.-33. CONN.-34, 35. Aug. 27-Sept. 13.

Eclimus Loew.

E. harrisii (Osten Sacken).

N. H.-Mt. Washington carriage-road, 2600 ft., July 8, 1914, on blackberry flowers; along railway above Base Station, July 6, 1919 (Frost) (see Johnson, 14-123).

E. funestus (Osten Sacken).

N. H.—White Mts. (Morrison); Franconia (Mrs. Slosson); Mt. Washington carriage-road, 2600 ft., July 6 and 8, 1914.

Systropus Wiedemann.

S. macer Loew. N. H.—"Upper Bartlett" (Hood). MASS.-24, 27, 28, 32. CONN.-35. Aug. 3-Sept. 12.

Geron Meigen.

G. calvus Loew. N. H.-Cornish, July 13, 1908. Mass.—Chester, Aug. 5–9.

G. subauratus Loew.

MASS.-Rutland, July 3; Lexington, Aug. R. I.-Kingston, July 8, and Cumberland, July 3 (Barlow). CONN.-Portland, Aug. 12.

G. vitripennis Loew.

MASS.-26, 27, 29, 30, 31, 32. R. I.-33. CONN.-35. June 22-Sept. 8.

Metacosmus Coquillett.

M. mancipennis Coquillett, 10-41. MASS.-Framingham, June 4, 1922 (C. A. Frost); Blue Hill, Milton, July 13, 1919 (J. Bequaert).

THEREVIDAE.

Tabuda Walker.

T. fulvipes Walker.

ME.--9. June 18.

MASS.-24, 27, 28, 32. Conn.-35. Apr. 27-May 28.

Psilocephala Zetterstedt.

P. flavipennis Cole, 23-42.

MASS.-West Chop, Aug. 5, 1923 (Morse); Horse Neck Beach, July 30, 1913.

R. I.—Buttonwoods, July 25. CONN.—New Haven, Sept. 12.

P. frontalis Cole, 23-40.

ME.-... N. H.-15. VT.-19, 20. July 6-Aug. 28. MASS.-24, 26, 27, 29, 30, 31, 32. R. I.-33. CONN.-34, 35. May 30-Aug. 13.

P. haemorrhoidalis (Macquart).

MASS.-27, 29, 32. R. I.-33. CONN.-35. June 14-Aug. 13.

P. munda Loew (P. melanoprocta Loew, J). ME.—Paris, July 12, 1912 (Frost). N. H.—Dublin, June 25, 1828 (Harris Coll.); Franconia (Mrs. Slosson).

P. melampodia Loew.

ME.-10. N. H.-11. VT.-17. July 16-Aug. 7.

MASS.-27. CONN.-34, 35. May 3-June 27.

P. slossoni Coquillett.

N. H.—Franconia (Mrs. Slosson).

Epomyia Cole, 23-26.

E. pictipennis (Wiedemann).

MASS.-25, 26, 27, 28, 29. R. I.-33. CONN.-35. June 22-July 28.

E. rufiventris Loew.

N. H.-15. June 18.

MASS.-26, 28, 29, 30, 32. R. I.-33. June 5-Aug. 12.

Thereva Latreille.

T. albifrons Say.

MASS.—Waltham, June 14; Springfield, May 19 (R. T. Webber).

T. bella Kröber, 14-64.

MASS.—Auburndale ("Riverside"), Aug. 9; Sharon, Aug. 25; North Falmouth, Aug. 8 (Cushman); Stony Brook Res., Aug. 1 (L. H. Taylor). R. I.—Kingston, July 20 (Barlow).

T. bella var. **nigrimana** Kröber, 14–65.

MASS.—Springfield, Aug. 13, 1905.

T. candidata Loew.

N. H.—11, 15. VT.—19. June 26-Aug. 10.

MASS.-23, 24, 25, 26. CONN.-35. May 21-Aug. 25.

T. flavicincta Loew.

ME.--6, 8. N. H.--11, 14. VT.--19. June 28-Sept. 8. MASS.--27. R. I.--33. July 20-Aug. 9.

T. frontalis Say.

ME.-4, 8. N. H.-11, 14, 15. VT.-16, 19, 20. June 17-Aug. 1.

MASS.-23, 24, 25, 26, 27, 28, 29. R. I.-33. Conn.-35. May 23-Aug. 5.

T. strigipes Loew.

ME.-4, 7. N. H.-11. VT.-16, 20. June 24-July 25.

SCENOPINIDAE.

Scenopinus Latreille. The Window-flies.

S. fenestralis (Linné).

ME.--6, 7, 8. N. H.--11, 12, 15. May 5-Aug. 15.

MASS.-27, 29, 32. R. I.-33. CONN.-35. June 4-Aug. 10.

S. glabrifrons Meigen.

N. H.—Glen House, July 18.

MASS.—Boston; Brookline; Cambridge, June4-Aug. 10. CONN.— New Haven, June 5.

MYDAIDAE.

Mydas Fabricius.

M. clavatus Drury. MASS.—Sherborn; Southbridge; Chicopee; Amherst, July 16– Aug. 8. R. I.—Rockville, Aug. 13 (Barlow). CONN.—Lyme; New Haven; Farmington; Brookfield, July 2–Aug. 1.

ASILIDAE. The Robber-flies.

Leptogaster Meigen.

L. badius Loew. ME.---6, 9. N. H.---11, 13, 15. June 27-July 21. MASS.-24, 27, 28, 31. CONN.-34, 35. June 25-July 28. L. testacea Loew. ME.--9, 10. VT.-21. June 19-July 25. MASS.-26, 27, 32. CONN.-35. July 8-Aug. 9. L. flavillaceus Loew. ME.---6, 9. N. H.---11. VT.---21. June 19-July 1.

MASS.-28. CONN.-35. July 4-Aug. 10.

L. flavipes Loew.

ME.-6, 9. N. H.-12, 15. VT.-20, 21. July 14-July 15. MASS.-23, 24, 26, 27, 28. CONN.-35. June 15-July 15.

L. loewi Banks, 14–133. ME.-2, 6. N. H.-12. VT.-21. July 4-Aug. 24.

MASS.-23, 26, 27, 29. CONN.-35. June 16-July 13.

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L. pictipes Loew.

MASS.-West Chop, Aug. 6 (A. P. Morse); Edgartown, June 28; Martha's Vineyard, July 17, 1905.

Ceraturgus Wiedemann.

C. cruciatus (Say).

ME.—9, 10. N. H.—15. July 5-July 15. MASS.-23, 24, 25, 27, 32. CONN.-34, 35. June 15-Aug. 29.

C. similis Johnson, 12-152.

VT.—Mt. Equinox, June 5, 1910. MASS.—Bashbish Falls, June 27, 1912.

Echthodopa Loew.

E. formosa Loew.

MASS.—Cohasset, June 20 (Bryant); Amherst, June 24; Great Barrington, July 1 (W. I. Beecroft).

Dioctria Meigen.

D. albius Walker. ME.-4, 8. N. H.-11. VT.-19. July 19-Aug. 1. MASS.-23, 24, 27. CONN.-34, 35. June 9-Aug. 8.

D. propingua Bromley, 24-124. MASS.—Dorchester, June.

D. brevis Banks, 17–117.

MASS.—Blue Hill, June 14; Sharon, July 7; Mt. Tom, July 14; Rutland, July 31. CONN.—Lyme, June 16; Hamden, June 18; New Haven.

D. sackeni Williston.

- N. H.—Mt. Washington, near summit, July 25, 1875 (Dimmock); near Base Station, July 7 (Sherriff); near Glen House, 2500 ft., July 24, 1915 (C. W. J.).
- D. baumhaueri Meigen.

MASS.-Boston, June 28, 1916; Brookline, July 6, 1917 (Johnson, 18-102); Stoneham, July 13; Arlington, June 20 (Anderson). CONN.-New Haven, May 27-June 23.

Cyrtopogon Loew.

C. alleni Back, 09–261.

ME.—Mt. Desert, Aug. 16–17. N. H.—Mt. Kearsarge, Sept. 28 (G. M. Allen).

MASS.-Mt. Tom, Sept. 22.

C. bimacula Walker.

ME.-Orono, Aug. 1 (Hitchings). N. H.-Mt. Washington, summit (Mrs. Slosson). VT.-Newport.

C. falto Walker (C. chrysopogon Loew).

ME.-4, 5, 6, 7, 8, 9, 10. N. H.-11, 13, 14, 15. VT.-16, 19, 21, 22. June 4-Aug. 1.



- Mass.—23, 24, 25, 26, 27. R. I.—33. Conn.—35. May 24– June 23.
- C. laphriformis Curran, 23-59.
- N. H.—Intervale, June 26, 1909 (S. A. Shaw).
- C. lutatius Walker.
- ME.-4, 8, 9. N. H.-11, 13, 15. June 29-Aug. 7.
- MASS.—27, 29. June 12–July 3.
- C. lyratus Osten Sacken.
- ME.—Oquossoc, July 1. N. H.—White Mts. (Osten Sacken); Mt. Washington, summit (Mrs. Slosson); near Glen House, 2500 ft., July 16. VT.—Rutland, Aug. 1.
- C. marginalis Loew.
- N. H.—14. June 22.
- MASS.—24, 26, 27, 32. R. I.—33. CONN.—35. May 14-June 15.
- C. tenuis Bromley, 24–125.
- ME.—Southwest Harbor, July 20, 1923.

Lasiopogon Loew.

L. opaculus Loew.

ME.-9. N. H.-11. June 16.

MASS.-23, 24, 27. CONN.-35. May 12-June 11.

L. tetragrammus Loew.

- N. H.—Franconia (Mrs. Slosson); Intervale, June 16 (Allen); Bretton Woods, June 28.
- MASS.—Sunderland, June 6 (Bromley). CONN.—Poquonock, May 22 (Walden).

L. terricola Johnson.

MASS.—Natick, May 15 (Frost); Chicopee, May 24, 1896 (Knab); Amherst, June 8 (Bromley). CONN.—Poquonock, May 22 (Walden).

Holcocephala Jaennicke.

H. abdominalis (Say). N. H.—11. VT.—17, 20. July 21–Aug. 6. Mass.—23, 24. Conn.—35. July 14–Aug. 8.

Holopogon Loew.

H. guttula Wiedemann (H. philadelphicus Schiner). MASS.-23, 24, 25, 27, 28. CONN.-35. May 30-Aug. 6.

H. tibialis Curran, 23–207. MASS.—23, 24, 27. CONN.—35. June 14–July 14.

Neopogon Bezzi (Stichopogon of authors, not Loew).

N. argenteus (Say).

Mass.—Sand dunes, Horse Neck Beach, Aug. 3-9, 1896 (Dr. Hough), July 30, 1913 (C. W. J.).

N. trifasciatus (Say).

MASS.-24, 26, 27, 28, 29, 30, 32. R. I.-33. CONN.-35. June 28-Sept. 4.

Deromyia Philippi.

D. discolor (Loew).

CONN.-Stamford, Aug. 13 (A. P. Morse).

D. umbrinus (Loew).

ME.-9. N. H.-13, 14, 15. VT.-19, 20. July 22-Aug. 25. MASS.-23, 24, 25, 27, 32. R. I.-33. CONN.-34, 35. July 21-Sept. 14.

D. winthemi Wiedemann.

MASS.-24, 30, 31, 32. R. I.-33. CONN.-35. July 10-Aug. 30.

Taracticus Loew.

T. octopunctatus (Say).

N. H.—White Mts.; Franconia (*Mrs. Slosson*). MASS.—Cambridge, July 5. CONN.—Poquonock, June 27 (Viereck).

Nicocles Jaennicke.

N. pictus Loew.

MASS.—Mt. Toby, 400 ft., May 18, 1924 (R. G. Cooke).

N. politus (Say).

MASS.-Cambridge (Mt. Auburn), Aug. 1, 1836 (Harris Coll.); Haggett's Station, Sept. 21, 1911 (A. P. Morse); Nantucket, Sept. 9, 1913 (Morse); Sandwich, Sept. 20, 1923 (Barber).

Cerotainia Schiner.

C. macrocera (Say). MASS.—Mt. Tom, July 14. Conn.—.

Atomosia Macquart.

A. glabrata (Say).

MASS.—Cambridge, July 15 (Harris Coll.); Forest Hills; Chicopee, July 27; Amherst, Sept. 5; Williamstown; North Adams, Aug. 8, 1907 (Bryant).

A. puella (Wiedemann).

ME.—9. N. H.—13, 15. VT.-22. June 12-Sept. 2. MASS.-24, 25, 27, 29, 30. CONN.-35. May 30-Aug. 9.

Pogonosoma Rondani.

P. ridingsi Cresson, 20–214 (P. dorsata of authors, not Say). ME.—Seal Harbor, Mt. Desert (E. S. Morse). N. H.—Franconia (Mrs. Slosson); near Fabyans, July 7, 1910 (Sherriff).

P. dorsatum var. melanoptera (Wiedemann); see Cresson, 20-213. MASS.-Woods Hole, July 18 (Wheeler); East Wareham, July 10, 1914 (Franklin).



Nusa Walker.

N. fulvicauda (Say). ME.-Wales, July 5 (Frost). N. H.-Hampton, July 5 (Shaw). MASS.—West Springfield, June 5; Bedford, June 9 (Barber).

Lampria Macquart.

L. bicolor (Wiedemann). CONN.--.

Dasyllis Loew.

D. flavicollis (Say). ME.-5, 6, 8, 9. N. H.-11, 14, 15. VT.-16, 19. May 29-Aug. 1.

MASS.-23, 24, 25, 26, 27, 32. CONN.-35. May 23-July 18.

D. insignis Banks, 17-54.

ME.---4, 5, 6, 7, 8. N. H.---11. June 9-Aug. 22.

D. divisor Banks, 17-54.

CONN.—Cornwall, June 4, 1922 (Chamberlain).

D. posticata (Sav).

ME.-4, 5, 6, 8, 9, 10. N. H.-11, 12, 13, 14, 15. VT.-21. June 23-Aug. 25. Mass.—23, 24, 25, 26, 27, 28, 29, 32. R. I.—33. Conn.—35.

June 5-July 24.

D. posticata var. **virginica** Banks, 17-53.

MASS.-Mt. Tom, June 19, 1895, and July 16, 1898 (Mass. Agr. College Coll.); Hyannisport, July 4, 1904.

D. sacrator (Walker).

- ME.--4, 5, 6, 7. N. H.--11, 14. VT.--19. June 15-Aug. 4. MASS.-23, 25, 26. Aug. 8.
- D. thoracica Fabricius.
- ME.-9. N. H.-15. VT.-16, 21. June 16-30. MASS.-24, 26, 27, 32. R. I.-33. CONN.-34, 35. June 2-Aug. 17.
- D. champlainii Walton, 10-243.
- MASS.—Auburndale, July 12; Fall River, Aug. 9 (Easton); Westport Factory, July 31, 1913. CONN.-..

D. grossa (Fabricius).

ME.—9. N. H.—11, 15. Aug. 11.

MASS.-24, 25, 26, 27, 32. CONN.-.. June 19-July 31.

- **D. cinerea** Back, 04–289
- N. H.—Andover, July 11 (C. Hoessler); Milford, June 8, 1902 (C. P. Whitney).
- MASS.—Lunenburg, June 6, 1914 (R. T. Webber); Dartmouth, July 20 (N. S. Easton).

D. affinis Macquart.

MASS.—East Wareham, Sept. 12, 1922 (D. S. Lacroix).

FAUNA OF NEW ENGLAND.

Laphria Meigen.

L. aeatus Walker (L. index McAtee, 18-164). ME.-8, 9. N. H.-11. June 13-Aug. 8. MASS.-23, 24, 25. May 11-June 16.

L. gilva (Linné). ME.—8, 9. N. H.—11, 14. June 20-Aug. 17. MASS.—24, 26, 27, 28, 32. CONN.—34. June 12-Aug. 9.

L. scorpio McAtee, 18-163.

ME.-4, 8. N. H.-11, 14. VT.-17. July 7-Sept. 1.

L. sericea Say.

MASS.—Great Barrington, June 16; Chester, July 29-Aug. 7; Mt. Tom. CONN.—.

L. sadalis Walker (L. pubescens Williston). ME.-4, 5, 8. N. H.-11. VT.-19. July 3-Aug. 1.

MASS.—25, 26.

L. canis Williston.

ME.--4, 5, 6, 8. N. H.--11, 15. VT.--17, 19, 20. July 1-Aug. 28.

Mass.-23, 24, 25, 27. R. I.-33. Conn.-35. May 30-Aug. 24.

L. altitudinum Bromley, 24–125.

ME.—Bar Harbor, June 7–16. N. H.—Mt. Washington, 2500– 4000 ft. June 15–July 30.

L. janus McAtee, 18–153. ME.-4, 5, 7, 8. N. H.-11, 14. VT.-17. June 15-Aug. 20.

Ommatius Wiedemann.

O. marginellus (Fabricius).

MASS.-24, 25, 27, 29, 32. R. I.-33. CONN.-35. June 16-July 15.

Proctacanthus Macquart.

P. brevipennis (Wiedemann).

MASS.—24, 25, 29, 30, 31. R. I.—33. CONN.—35. June 15-July 23.

P. philadelphicus Macquart.

ME.—9. N. H.—13, 14, 15. VT.—22. Aug. 13-Sept. 1. 'MASS.—24, 25, 26, 27, 28, 29, 30, 31, 32. R. I.—33. Conn.—

34, 35. July 25-Sept. 12.

P. rufus Williston.

ME.—10 (Popham Beach). MASS.—24, 26, 28, 29, 30, 31, 32. CONN.—35. July 2-Sept. 5.

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Erax Scopoli.

E. aestuans (Linné) (E. bastardii Macquart). N. H.-14, 15. July 18-Aug. 16. MASS.-23, 24, 25, 26, 27, 28, 29, 30, 32. R. I.-33. CONN.-34, 35. July 2-Aug. 18. E. barbatus (Fabricius) (E. cinerescens Bellardi), Hine, 19-105. MASS.-28, 29, 30, 32. CONN.-35. July 17-Sept. 4. **E. rufibarbis** Macquart (*E. aestuans* Wiedemann, not Linné). ME.--9. N. H.-15. MASS.-24, 25, 26, 27, 28, 32. CONN.-34, 35. Aug. 17-Sept. 10. Promachus Loew. P. bastardii (Macquart). ME.—9, 10. N. H.—15. July 16. MASS.-24, 25, 27, 28, 29, 30, 32. R. I.-33. Conn.-35. July 1-Aug. 24. P. fitchii Osten Sacken. MASS.-24, 25, 26, 27. R. I.-33. CONN.-35. June 21-July 27. Asilus Linné. A. sericeus Say. ME.—9. N. H.—13, 14, 15. Aug. 1–16. MASS.—23, 24, 25, 26, 27, 29, 31, 32. R. I.—33. Conn.—35. June 24–July 27. A. fuscatus Hine, 09–168 (Philonicus obscurus Hine, 07–117). MASS.—West Springfield, June 15; Chicopee, July 5. R. I.— Providence, June 24: Buttonwoods, July 25. A. lecythus Walker (A. femoralis Macquart). ME.-... N. H.-14. Sept. 13. MASS.-24, 26, 27, 31. R. I.-33. CONN.-35. June 12-Aug. 28. A. orphne Walker (Neoitamus distinctus Williston). ME.-4, 6. N. H.-11, 15. June 25-July 20. MASS.-23, 24, 25, 26, 27. R. I.-33. CONN.-35. May 7– July 20. A. flavofemoratus Hine, 09-153. ME.--6: N. H.--14. MASS.-23, 24, 25, 27, 28, 31, 32. R. I.-33. CONN.-35. June 3-July 15. A. latipennis Hine, 09–152. N. H.—15. MASS.-23, 24, 25, 27. CONN.-35. Aug. 28-Sept. 4.

A. auricomus Hine, 09–148.

ME.—10. N. H.—13, 15. Aug. 11–Sept. 10.

- MASS.--24, 26, 27, 28, 32. R. I.--33. CONN.--35. June 21-Sept. 12.
- **A. piceus** Hine, 09–149.

N. H.-13, 14, 15. Aug. 11-Sept. 13.

MASS.-24, 26, 27, 31, 32. Aug. 9-Sept. 12.

A. notatus Wiedemann.

- ME.--6, 8, 9, 10. N. H.--11, 12, 13, 15. VT.--16, 19, 20, 21, 22. June 12-Aug. 3.
- MASS.—23, 24, 25, 26, 27, 29, 30, 31, 32. R. I.—33. CONN.— 34, 35. June 5-Aug. 25.

A. novae-scotiae Macquart.

- ME.—6, 7, 8, 9, 10. N. H.—11, 12, 13, 15. VT.—18, 20. June 27-Aug. 15.
- Mass.—23, 24, 25, 26, 27, 30, 31. R. I.—33. Conn.—35. June 15–Sept. 5.

A. sadyates Walker.

ME.—6, 8, 10. N. H.—11, 15. June 25-Aug. 17.

MASS.-24, 26, 27, 28, 32. CONN.-35. July 14-Sept. 23.

A. snowii Hine, 09–160.

- ME.--3, 6, 7, 9, 8. N. H.--11, 12, 14, 15. VT.--16, 19, 21. June 21-Aug. 24.
- Mass.—23, 24, 25, 26, 27, 29, 30, 31. R. I.—33. Conn.—35. July 5-Aug. 8.

A. erythrocnemius Hine, 09–163.

Mass.-23, 24, 25, 27, 29, 32. Conn.-35. June 17-Aug. 21.

A. maneei Hine, 09–158.

Mass.—Sherborn, July 26, 1913 (E. J. Smith).

A. paropus Walker.

ME.—6, 8, 9. N. H.—11, 12, 13, 15. VT.—18. June 27-Aug. 18.
 MASS.—23, 24, 27, 29, 30, 31, 32. Conn.—35. June 21-Sept. 10.

DOLICHOPODIDAE.

Sciapus Zeller, 1842.

(Psilopus Meigen, 1824, not Poli, 1795; Agonosoma Aldrich, not Guérin-Ménéville; see Becker, 21–360).

Subgenus Sciapus Zeller.

S. filipes (Loew). Conn.—.

S. pallens (Wiedemann). R. I.—Newport. CONN.—New Haven, May 5 (Britton).



S. scintillans (Loew).

N. H.—Cornish, July 13; Intervale, Aug. 12 (Allen).

S. tener (Loew).

ME.-7, 8. July 14-21.

MASS.-23, 27, 32. R. I.-33. CONN.-35. June 23-Aug. 26.

S. unifasciatus (Say).

R. I.—Buttonwoods, July 25. CONN.—Branford, July 5 (Butrick).

Subgenus Condylostylus Bigot, 1859.

(Psilopodinus Aldrich, not Bigot; see Becker, 21-251.)

S. albicoxa (Walker). MASS.—(Walker).

S. caudatus (Wiedemann).

ME.---6, 8, 10. N. H.---11, 12, 15. July 7-25.

MASS.—24, 26, 27, 28, 29. R. I.—33. CONN.—35. May 30-Aug. 12.

S. flavipes Aldrich, 04-284.

ME.—Mt. Desert, July 14. N. H.—Hampton, July 1–Sept. 27 (Shaw).

MASS.—New Bedford (Hough); Blue Hill, July 16; Wellesley, July 27 (Morse).

S. inermis (Loew).

MASS.—Lexington, July 27; Woburn, July 11; Hyannisport, July 4.

S. patibulatus (Say). VT.—16, 18, 22. June 24–July 14. MASS.—23, 27, 29. R. I.—33. CONN.—35. May 30–July 11.

S. scaber (Loew).

MASS.—Auburndale, Aug. 2. Conn.—.

S. scrobinator (Loew). ME.—6, 7, 8, 10. N. H.—12, 15. VT.—18, 20. July 7-Aug. 19. MASS.—26, 27, 29. R. I.—33. CONN.—35. June 17-Aug. 23.

S. sipho (Say). ME.—9. N. H.—11. VT.—16. July 14-Aug. 23. MASS.—24, 27, 28. R. I.—33. CONN.—35. June 12-Sept. 10.

Mesorhaga Schiner.

M. townsendii Aldrich. Mass.—Ipswich, July 22, 1909.

M. varipes Van Duzee. Mass.—Eastham, June 27, 1904.

Diaphorus Meigen.

D. gibbosus Van Duzee, 15-173. ME.--8, 9. N. H.--11, 14. VT.--18, 21. June 8-July 11. MASS.—26, 27. June 4-July 12.

D. leucostomus Loew. MASS.-New Bedford, July 29 (Hough); Plymouth, July 28. CONN.-Norwalk, Aug. 4.

D. leucostomus var. infuscatus Van Duzee, 15-179. MASS.—Boston, Oct. 6, 1922.

D. mundus Loew. CONN.-New Haven, June 23 (P. L. Buttrick).

D. opacus Loew.

N. H.-Milford, June 23. VT.-St. Albans, June 2; Norwich, Julv 8.

R. I.—Buttonwoods, June 20. Conn.—Middletown, June 17.

D. sodalis Loew.

N. H.—Cornish, July 13. VT.—Dummerston, July 14. CONN.—Westville, July 4 (Britton).

D. spectabilis Loew. CONN.—Middletown, June 17.

D. palpiger Wheeler (Chrysotus spinifer Malloch). MASS.-Wellesley, May 19 and June 2, 1891 (Morse).

Asyndetus Loew.

A. ammophilus Loew. R. I.-Newport (C. Sacken).

A. appendiculatus Loew. R. I.-Newport (Osten Sacken).

A. johnsoni Van Duzee, 16–93. N. H.—Hampton, July 3 (Shaw).

A. syntormoides Wheeler. MASS.-E. Boston (Hood); New Bedford, July

(15, 1896 (Hough).

· Chrysotus Meigen.

C. affinis Loew. ME.-Machias, July 21. CONN.-West Haven, June 27 (Viereck).

C. auratus Loew. CONN.—New Haven, July 4 (Viereck).

C. barbatus (Loew). R. I.—Providence, Sept. 9.



C. discolor Loew. ME.—Capens, July 11. MASS.-Forest Hills. CONN.-West Haven, June 27 (Viereck). C. obliquus Loew. ME.—Ōrono, July 8, 1913 (Alexander). MASS.—New Bedford, Apr. 9 (Hough). CONN.—West Haven, June 27 (Viereck). C. pallipes Loew. CONN.—New Haven, June 23 (Viereck). C. picticornis Loew. MASS.—Barnstable Co., July 14 (N. S. Easton). C. subcostatus Loew. MASS.—Freetown, July 15 (N. S. Easton). C. wisconsinensis Wheeler. VT.—Dummerston, July 14. C. bellus Van Duzee, 24–39. ME.—Kittery, June 4, 1908 (Hitchings); Princeton, July 12. N. H.—Hampton, June 25 (Shaw). MASS.—Saugus, June 10, 1920. CONN.—Winnipauk, June 12, 1915. C. disjunctus Van Duzee, 24-33. MASS.—Auburndale, Aug. 9. C. fulvohirtus Van Duzee, 15-95. MASS.—Winchendon, Apr. 14 (Dr. F. W. Russell). C. johnsoni Van Duzee, 24-21. ME.-Kineo, Aug. 17, 1913 (Alexander). C. choricus Wheeler (C. ciliatus Malloch, 14-236). CONN.-New Haven, May 26 (Viereck); Winnipauk, June 16. C. quadratus Van Duzee, 24-28. MASS.—Edgartown, June 29, 1910. C. vulgaris Van Duzee, 24-15. CONN.—New Haven, June 26 (Viereck). Campsicnemus Haliday. C. hirtipes Loew. ME.—Machias, July 21. N. H.—Hampton, Sept. 18 (Shaw); Mt. Washington (Mrs. Slosson). MASS.—Wellesley, Aug. 20. CONN.—Winnipauk, Aug. 5. C. wheeleri Van Duzee, 23-64. ME.—Machias, July 20; Bar Harbor, Aug. 4. ". americanus Van Duzee. LASS.—Sunderland, May 30, 1923.

Argyra Macquart.

A. albicans Loew. N. H.-14, 15. May 27-June 16. MASS.-24, 27, 28. R. I.-33. CONN.-35. May 10-Aug. 9. A. angustata Van Duzee, 1925. ME.-Echo Lake, Mt. Desert, July 17; Machias, July 22. VT.-Mt. Ascutney, July 30 (Brooks). MASS.—Chester, Aug. 7; Woods Hole, July 27. A. bimaculata Van Duzee, 1925. ME.-Machias, July 22. MASS.—Blue Hill, Milton, May 30; Ipswich. A. calceata Loew. ME.--6, 8, N. H.--11. VT.--20. July 11-Aug. 20. MASS.—23, 26, 27. July 24-Aug. 30. A. calcitrans Loew. N. H.—14. VT.—20, 22. June 23–July 15. Mass.—23, 27. R. I.—33. Conn.—35. June 16–July 7. A. minuta Loew. N. H.—Cornish, July 13. VT.—Norwich, July 7. MASS.—North Adams, June 20. A. obscura Van Duzee, 1925. N. H.-Mt. Washington, about 3000 ft., July 28, 1915. A. robusta Johnson, 06-59. ME.—Bar Harbor, June 11. A. sericata Van Duzee, 1925. ME.—Machias, July 20. MASS.—Brookline, May 23. A. setipes Van Duzee, 1925. VT.—Brattleboro, July 15. MASS.—Chester, July 25. Leucostola Loew. L. cingulata Loew. ME.-4, 8. N. H.-12. VT.-20. July 7-20. MASS.-23, 26, 27. CONN.-35. June 20-Aug. 25. L. aldrichi (Johnson), 04-18. MASS.-Milton, June 23. R. I.-Buttonwoods and Bristol, June 21, 22. CONN.—New Haven, June 8. Rhaphium Meigen (Porphyrops Meigen). R. barbipes (Van Duzee), 23-239. ME.—*Princeton*, July 12; Machias, July 20–22, 1909. **R. fumipennis** (Loew). ME.-6, 8. N. H.-11. VT.-22. June 15-July 16. Mass.—27. July 4.

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R. gracilis Curran, 24-228. MASS.—Beverly, May, June (U. S. Nat. Mus.). R. johnsoni (Van Duzee), 23-240. N. H.—Jaffrey, June 18. R. I.—Kingston, June 17 (Barlow). **R. longipes** (Loew). ME.-8. N. H.-11, 14. June 7-July 12. MASS.-26, 27. CONN.-35. May 24-July 8. R. lugubre (Loew). CONN.—Branford, Apr. 20 (Champlain). R. melampus (Loew). ME.--7, 8. N. H.-14. June 7-July 1. MASS.-23, 27. CONN.-35. May 26-June 30. R. nigricoxa Loew. ME. 6, 8. N. H. 12, 14. VT. 16, 20. June 22–July 13. MASS.-23, 27. CONN.-35. May 22-June 13. R. signifer (Osten Sacken). MASS.—Sharon, July 7 and Aug. 3. R. slossonae (Johnson) (Leucostola slossonae Johnson, 06-59; P. slossonae Van Duzee, 23-239). ME.-Bar Harbor, July 26. N. H.-Mt. Washington (Mrs. Slosson). R. subarmatum Curran, 24-228. N. H.—Franconia. Nematoproctus Loew. N. venustus Melander. ME.—Machias, July 21. VT.—Norwich, July 8. Syntormon Loew. S. cinereiventris Loew. Conn.—. Sympycnus Loew. S. lineatus Loew. ME.-4, 8. N. H.-11, 12. VT.-22. July 8-Sept. 7. MASS.-26, 27. R. I.-33. CONN.-35. June 17-Oct. 16. Nothosympycnus Wheeler. N. fortunatus Wheeler. ME.—Orono, July 29-Aug. 9. N. H.—Cornish, July 13. VT.— Dummerston, July 14. Mass.—Chester, Aug. 7; Sharon, Aug. 3. N. frontalis (Loew). ME.—Orono, Aug. 9. MASS.—Boston, Sept. 28; Chester, Aug. 9.

N. luteipes Van Duzee, 23–63.

ME.—Bar Harbor, July 22, 1919; Orono, July 21, 1913 (Alexander).

Neurigona Rondani.

N. rubella (Loew).

N. H.-Mt. Washington (Mrs. Slosson).

MASS.—Beverly, Sept. 6, 1874 (E. Burgess). CONN.—Winnipauk, June 15.

N. perplexa Van Duzee, 13-29.

ME.—Capens, July 21. N. H.—Mt. Washington, July 24.

N. dimidiata (Loew).

N. H.-Claremont, July 19. VT.-Brattleboro, July 15.

MASS.—Rockport, July 15.

N. carbonifer (Loew).

N. H.-White Mts.; Hanover, July 6.

MASS.—Melrose, June 9; Cohasset, May 29 (Bryant). R. I.— Buttonwoods, June 18. CONN.—Middletown, June 17.

N. nitida Van Duzee, 13-13.

N. H.-Franconia (Mrs. Slosson). VT.-St. Albans, June 21.

N. maculata Van Duzee, 13–36.

N. H.—Mt. Washington (Mrs. Slosson); Hampton, July 10 (Shaw). MASS.—Brookline, June 18; Chester, Aug. 4.

N. floridula Wheeler.

ME.---1, 7, 8. N. H.---11, 12, 15. VT.---20. June 13-Aug. 17. MASS.---23, 27. R. I.---33. June 22-Aug. 9.

N. floridula var. infuscata Van Duzee, 13-39.

N. H.—11. VT.—20. June 28-July 13. Mass.—29. R. I.—33. Conn.—35. June 18-July 24.

N. disjuncta Van Duzee, 13-42. ME.--8. N. H.--12. VT.--20. July 7-11.

MASS. -23, 24, 28. June 14-Aug. 3.

N. viridis Van Duzee, 13–43.

N. H.—White Mts. (U. S. Nat. Mus.).

N. deformis Van Duzee, 13-46. ME.—Mt. Desert, June 21. N. H.—Glen House, July 25.

N. tenuis (Loew). MASS.—Mt. Tom, July 14.

N. aestiva Van Duzee, 13–50. VT.—*Norwich*, July 7; Bennington, June 19. MASS.—Great Barrington, June 15.

N. tarsalis Van Duzee, 13–51. Vr.—St. Johnsbury, June 28. R. I.—Buttonwoods, June 20. CONN.—Danbury, June 15.



N. lateralis (Say). N. H.—11, 15. MASS.-27, 28, 29, 30. R. I.--33. CONN.--35. June 15-Aug. 9.

- N. dorsalis Van Duzee, 14-434. N. H.—Cornish, July 13.

Chrysotimus Loew.

C. delicatus Loew. ME.-Salisbury Cove, Mt. Desert, July 14, 1923.

Xanthochlorus Loew.

X. helvinus Loew. N. H.—White Mts. VT.—Brattleboro, July 15. MASS.—Brookline, July 4; Chester, Aug. 9.

Thinophilus Wahlberg.

T. ochrifacies Van Duzee, 24-101. MASS.—Cohasset, Sept. 8; Chatham, July 1; Eastham, June 27; Edgartown, June 29. CONN.—Rowayton, Aug. 5, 1908.

- T. prasinus Johnson, 21-13.
- N. H.—Hampton, June 27 (Shaw).
- MASS.—Plum Isl., July 17 (Morse); Chatham, June 30, 1904; Edgartown, June 29, 1912.
- T. viridifacies Van Duzee, 24-102.
- MASS.—Edgartown, June 29, 1912; East Gloucester, June 20, 1924.

Diostracus Loew.

D. prasinus Loew. VT.—Bolton Mt., July 15 (Bryant). Mass.—Chester, Aug. 4.

Hypocharassus Mik.

H. pruinosus (Wheeler). MASS.—Cohasset, July 5 (Bryant); Chatham, June 30; Woods Hole; Edgartown, June 29. R. I.—Buttonwoods, July 25.

Medeterus Fischer von Waldheim.

M. maurus Wheeler.

N. H.-Mt. Washington. VT.-Jay Peak, 4018 ft., July 14, 1891 (Morse).

MASS.—Auburndale, June 16.

M. modestus Van Duzee, 14-440. ME.—Bar Harbor, June 11. N. H.—Mt. Washington, July 7. VT.—Burlington, June 24.

MASS.—Auburndale, June 16.

M. nigripes Loew.

N. H.—Mt. Washington; Hampton, June 19 (Shaw). MASS.—Rutland, May 31.

M. obscurus Van Duzee.

N. H.—Hampton, Aug. 11, 1916 (Shaw).

M. princeps Wheeler.

N. H.-Hampton, July 22-Aug. 8 (Shaw).

MASS.—Southbridge (Bromley). R. I.—Newport.

M. veles Loew.

N. H.—11.

MASS.-23, 27, 29. CONN.-35. May 30-Nov. 4.

Thrypticus Gerstaecker.

T. muhlenbergiae Johannsen and Crosby, 13–164. CONN.—Danbury, June 15.

T. willistoni Wheeler. MASS.—Melrose, June 4.

Hydrophorus Fallen.

H. aestuans Loew.

ME.—Mt. Desert, June 17-Sept. 13. MASS.—Haggett's Station, Sept. 21 (A. P. Morse); Essex, July 11 (Fuller). R. I.—Newport (Osten Sacken).

H. chrysologus Walker.

ME.-1, 4, 7, 8. N. H.-11. July 15-Aug. 17. MASS.-26, 27, 29, 32. R. I.-33. Apr. 25-Sept. 23.

H. intentus Aldrich, 11–51.

ME.-7, 8. N. H.-15. July 16-Aug. 13.

MASS.—26, 27, 28, 29, 31, 32. R. I.—33. CONN.—35. June 16-Sept. 8.

H. parvus Loew.

N. H.—11, 15. Apr. 17–May 5. Mass.—25, 32. Apr. 1–Dec. 31.

H. pirata Loew.

ME.---1, 3, 6, 7, 8, 9. N. H.---11, 15. Apr. 20-Oct. 6. MASS.---26, 27, 29. R. I.---33. CONN.---35. Mar. 31-Oct. 16.

NOTE.—H. viridiflos Walker, "Mass." (Osten Sacken) and H. glaber Walker, "Mt. Washington" (Mrs. Slosson), determined by Coquillett, I have been unable to identify from the descriptions.

Scellus Loew.

S. exustus (Walker).

ME.—Orono, June 29–July 28. N. H.—Hampton, June 28, 1911 (Shaw). VT.—Shoreham, July 15, 1910 (Cushman).



DIPTERA.

Orthoceratium Schrank (Liancalus Loew).

O. genualis (Loew). VT.—Bolton Mt., Sept. 25, 1922 (Bryant).

Plagioneurus Loew.

P. univittatus Loew. MASS.—Boston, Aug. 25, 1908, on window.

Dolichopus Latreille.

D. abbreviatus Van Duzee, Cole and Aldrich, 21-144. ME.—Machias. July 21.

D. acuminatus Loew.

MASS.—Natick, June 23 (Morse). R. I.—Buttonwoods, June 15.

D. acutus Van Duzee, Cole and Aldrich, 21-142. MASS.—Springfield (Dimmock).

D. adultus Van Duzee, Cole and Aldrich, 21-98. MASS.-Framingham, May 28 (Frost); Dedham, June 3.

D. agronomus Melander and Brues.

N. H.—Hampton, May 20–June 2 (Shaw). MASS.—New Bedford, June 8 (Hough); Woods Hole, June 19 (Sturtevant).

D. albicilitus Loew. ME.-8. N. H.-11. VT.-21. June 13-July 4. MASS.-23, 26, 27, 29. R. I.-33. June 15-Sept. 8.

D. albicoxa Aldrich.

ME.-9. N. H.-11, 12. VT.-16, 18, 20. June 24-July 10.

MASS.-23, 25, 26, 29. R. I.-33. CONN.-35. June 10-Aug. 4. D. angustatus Aldrich.

ME.-4, 7. N. H.-11, 12, 15. VT.-22. June 24-July 28. Mass.—29. June 15.

D. batillifer Loew.

N. H.-11. VT.-19. June 28-Aug. 10. Mass.—23, 25, 29. June 24-July 1.

D. bifractus Loew. N. H.—11, 12, 15. Vт.—16. July 7-Aug. 21. MASS.-23, 26, 27, 29. R. I.-33. June 15-Aug. 25.

D. brevicauda Van Duzee, Cole and Aldrich, 21-108. N. H.-Mt. Washington, 5000 ft., Aug. 16, 1916.

D. breviamanus Loew.

ME.—Eastport, July 14. N. H.—Franconia (Mrs. Slosson); Hampton, May 31 (Shaw). VT.—Amsden, July 10.

D. calainus Melander and Brues.

ME.—Bar Harbor, July 10, 1923.

D. calcaratus Aldrich.

ME.--7. N. H.--11, 14. VT.--16, 18, 20. June 23-July 12. MASS.-23, 27, 28, 29. CONN.-35. June 13-Aug. 4.

D. canadensis Van Duzee, Cole and Aldrich, 21–141. VT.—Lyndon, June 13.

MASS.—Arlington, June 9 (Barber).

D. chrysostoma Loew.

MASS.—Beverly, July 21, 1869 (Burgess); Mt. Everett, June 28.

D. comatus Loew.

ME.-7, 8. N. H.-11, 15. June 11-Oct. 20.

MASS.-27, 29, 30. R. I.-33. CONN.-35. June 5-Oct. 16. D. cuprinus Wiedemann.

ME.-2, 4, 6, 7, 8. N. H.—11, 12, 15. VT.—16, 18, 22. June 30-Aug. 24.

MASS.-23, 26, 27. CONN.-35. June 22-Aug. 24.

D. dakotensis Aldrich.

VT.—Norwich, July 7, 1908.

D. dasypodus Coquillett, 10-41. ME.-Machias, July 19. N. H.-Mt. Washington (Mrs. Slosson).

D. deflectus Van Duzee, Cole and Aldrich, 21-143.

ME.—Ft. Kent, Aug. 19.

MASS.—Brookline, Aug. 31. CONN.—.

D. detersus Loew.

N. H.-Franconia (Mrs. Slosson); Hampton, Aug. 10 (Shaw).

MASS.—Revere, July 29 (Morse). CONN.—Winnipauk, June 16. **D.** discessus Walker.

MASS.—"Massachusetts" (Walker). (Unrecognizable from description.)

D. discifer Stannin.

ME.--4, 5, 7, 8. N. H.--11. VT.--18, 21. June 24-Aug. 22. MASS.--23, 29. June 16-July 1.

D. discolor Van Duzee, Cole and Aldrich, 21-116.

N. H.-Claremont, June 19. VT.-Chittenden, Aug. 1 (Bequaert).

D. dorycerus Loew.

N. H.-White Mts.; Mt. Washington, 3000 ft., July 11; Bretton Woods and Glen House, June 25-30.

D. eudactylus Loew.

N. H.—13. June 19. MASS.-23, 26, 28, 29. R. I.-33. CONN.-34. June 10-July 24.

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D. flagellitenens Wheeler.

N. H.—White Mts. (Morrison).

DIPTERA.

D. flavicoxa Van Duzee, Cole and Aldrich, 21-188. VT.-Mt. Mansfield, 4000 ft., July 21, 1891 (Morse). D. flavilacertus Van Duzee, Cole and Aldrich, 21-110. MASS.—Fall River, June 8, 1909 (Easton). D. fulvipes Loew. ME.--7, 8. N. H.--11, 14. June 23-July 28. MASS.--27. CONN.--35. May 29-June 28. D. genualis Van Duzee, Cole and Aldrich, 21-119. ME.-Moosehead, July 18; Machias, July 20. D. gratus Loew. N. H.—11, 15. May 21. MASS.-23, 27. CONN.-35. June 10-July 30. 2 **D. harbecki** Van Duzee, Cole and Aldrich, 21-233. ME.—Capens, July 16. N. H.—Mt. Washington, July 21; Franconia (Mrs. Slosson). MASS.—Mt. Greylock, July 25. D. idoneus Van Duzee, Cole and Aldrich, 21-140. VT.—Lyndon, June 13, 1914 (Melander). **D.** incisuralis Loew. N. H.-Franconia (Mrs. Slosson). Conn.—. **D. incongruus** Wheeler. N. H.-Mt. Monadnock, June 12; Jaffrey, July 4. MASS.—Bashbish Falls, June 27. D. indigena Van Duzee, Cole and Aldrich, 21-139. ME.-Mt. Desert, Aug. 18. N. H.-Hampton, Aug. 6 (Shaw). MASS.—New Bedford (Hough). D. johnsoni Aldrich. N. H.—Jaffrey, June 7. **D.** laticornis Loew. ME.--4. N. H.-15. May 16-July 21. MASS.-26, 27, 32. CONN.-35. May 17-June 3. **D. latipes** Loew. N. H.—Franconia (Mrs. Slosson). MASS.—Woods Hole. **D.** latipes var. cognatus Melander and Brues. MASS.—Woods Hole, July 19. D. lobatus Loew. ME.—Princeton, July 12. D. longimanus Loew. ME.-7, 8. N. H.-11, 12, 14. VT.-16, 20. June 24-Sept. 1. MASS.-23.

D. marginatus Aldrich.

ME.-7, 8. N. H.-15. July 27-Aug. 21. MASS.-25, 26, 27, 29, 32. CONN.-35. June 17-Aug. 26.

D. melanocerus Loew.

ME.-4, 6, 7, 8, 9. N. H.-11. July 18-Aug. 17. MASS.-27, 28, 32. CONN.-35. May 27-Aug. 24.

D. nodipennis Van Duzee, Cole and Aldrich, 21-102. MASS.—Dedham, May 20; Framingham, May 28.

D. obsoletus Van Duzee, Cole and Aldrich, 21-121. ME.—Moosehead, July 18. N. H.—Franconia (Mrs. Slosson); Center Harbor, Sept. 10.

D. omnivagus Van Duzee, Cole and Aldrich, 21-216. ME.-Bowlin Pond, Penobscot Co., July 31, 1910 (Cushman).

D. ornatioennis Van Duzee, Cole and Aldrich, 21–132.

ME.-Bar Harbor, Aug. 18.

MASS.—Sharon, Aug. 9; Bridgewater, July 11 (Cushman); Wellesley, Aug. 17 (Morse); Yarmouth, July 17 (Barber). CONN .-New Haven, July 27.

D. ovata Loew.

ME.-Hampden, July 10. VT.-Winooski, Aug. 21 (Davis). MASS.—.

D. pachycnemus Loew.

N. H.-North Conway, June 26.

MASS.—Fall River, June 8 (Easton); Peru, June (Barlow).

D. palaestricus Loew.

ME.-4, 6, 7. N. H.-11, 12, 14. VT.-16, 18, 21. June 6-July 22.

MASS.-23, 27. CONN.-35. June 15-Aug. 3.

D. pantomimus Melander and Brues.

MASS.—New Bedford, May 30 (Hough).

D. penicillatus Van Duzee, Cole and Aldrich, 21-227 (D. ciliatus Aldrich).

ME.—Orono, July 31 (Alexander).

D. plumipes (Scopoli).

ME.—Eastport, June 29–July 14; Mt. Desert, July 15.

D. porphyrops Van Duzee, Cole and Aldrich, 21-169.

ME.-5, 6, 7, 8. N. H.-11, 12, 13. VT.-18, 19, 22. June 13-Aug. 15.

MASS.—25, 26, 29. June 5–July 7.

D. pugil Loew.

N. H.—15. July 11–27. ME.—7, 8.

MASS.-26, 27, 28, 29, 31, 32. R. I.-33. June 17-Sept. 8.



D. quadrilamellatus Loew. N. H.—Franconia (Mrs. Slosson). MASS.—Forest Hills, Boston. CONN.—Winnipauk, June 16. D. ramifer Loew. ME.--8. Julv 13. MASS.-27, 28. R. I.-33. CONN.-35. June 10-Aug. 17. **D.** remipes Wahlberg. ME.—Bar Harbor, July, 1919, "Witchhole" and "Beaver Dam" Ponds, on water-lily pads. D. remus Van Duzee, Cole and Aldrich, 21-96. VT.-Mt. Equinox, June 5. D. renidescens Melander and Brues. ME.—Eastport, July 17, 1909. **D.** scapularis Loew. N. H.—Franconia (Mrs. Slosson). **D. scoparius** Loew. ME.-4, 7, 8. N. H.-11, 14. VT.-19, 21. June 14-Aug. 1. MASS.-23, 25, 26, 27, 28, 29, 31. R. I.-33. May 30-July 27. D. serratus Van Duzee, Cole and Aldrich, 21-155. ME.—Mt. Katahdin, 5215 ft., Aug. 19, 1902. **D.** setifer Loew. ME.-4, 8. N. H.-11, 14. June 18-Aug. 21. MASS.-26, 27, 29, 31. R. I.-33. CONN.-35. May 19-July 27. **D. setosus** Loew. ME.--8. N. H.-15. VT.-21. June 7-July 13. MASS.-26, 28, 29. May 29-July 27. D. sincerus Melander. ME.--4, 7, 8. N. H.-11. July 16-26. MASS.-26, 27, 28. CONN.-35. July 8-Aug. 2. D. sincerus var. subdirectus Van Duzee, Cole and Aldrich, 21-118. ME.---6, 9. N. H.---11. July 8. MASS.-27, 28, 29 (Woods Hole). July 27-Aug. 2. **D. slossonae** Van Duzee, Cole and Aldrich, 21–235. ME.—Eastport, July 15; Mt. Desert, June 17. N. H.—Franconia (Mrs. Slosson). VT.—Mt. Ascutney, July 11. **D. socius** Loew. ME.-7, 8. N. H.-15. VT.-20, 21. June 22-July 17. MASS.—28. June 10.

D. socius var. gladius Van Duzee, Cole and Aldrich, 21-136.

ME.--4, 7, 8. N. H.--11, 15. VT.--16, 20, 21. June 16-July 24.

MASS.—27, 28. CONN.—35. June 10–July 11.

D. sorotes Loew.

MASS.—Middleton, Aug. 27 (Morse).

D. splendidulus Loew.

ME.—Machias, July 21. N. H.—Bretton Woods, June 28; Glen House, July 20. VT.—Dummerston, July 14.

D. splendidus Loew.

N. H.—11, 12. July 8–23.

MASS.—23, 26, 32. June 15-Aug. 3.

D. stenhammari Zetterstedt.

N. H.—White Mts. (Morrison), U. S. Nat. Mus.

D. tonsus Loew.

MASS.-Woods Hole.

D. trisetosus Van Duzee, Cole and Aldrich, 21-122.

ME.—Monmouth, July 4.

MASS.—Beverly, June 4, 1869 (Edw. Burgess); Sherborn, May 30.

D. variabilis Loew.

ME.--4, 6, 7, 8. N. H.--11, 12, 13, 15. VT.--19, 20, 22. July 6-Sept. 19.

MASS.-23, 26, 27, 32. CONN.-34, 35. July 12-Aug. 23.

D. variabilis var. gracilis Aldrich.

ME.---7, 8. July 22-30.

MASS.-23, 26, 27, 28. July 15-Oct. 9.

D. versatus Van Duzee, Cole and Aldrich, 21-253.

MASS.—Woods Hole, Sept. 25 (Hough); Fall River, June 17 (Easton); Manomet, July 27; Hyannisport, July 4.

D. virga Coquillett, 10-41.

ME.—Eastport, June 30.

MASS.—New Bedford, May 20 (Hough); Woods Hole; Provincetown, June 25.

D. virginiensis Van Duzee, Cole and Aldrich, 21-236.

MASS.—Bashbish Falls, June 27.

D. vittatus Loew.

Vт.—17. July 12.

MASS.-23, 26, 27, 28, 31. CONN.-35. June 15-Aug. 23.

D. wheeleri Melander and Brues.

ME.--7, 8. N. H.--11. July 12-22.

MASS.—23, 29 (Woods Hole). July 13-Aug. 8.

D. xanthocnemus Loew.

N.H.—Mt. Washington (Mrs. Slosson); "Alpine Garden," Aug. 16, 1916.



Hercostomus Loew.

Subgenus Gymnopternus Loew.

H. albiceps Loew. ME.-Mt. Desert, June 10, 1921. **H. barbatulus** Loew. N. H.—11, 12, 15. VT.—16. May 26–July 28. MASS.—32. CONN.—35. May 31–June 25. H. chalcochrus Loew. ME.-7, 8. N. H.-14, 15. VT.-21. June 3-July 22. H. coxalis Loew. N. H.—Hampton, May 3–June 13, 1910 (Shaw). H. crassicauda Loew. MASS.—Forest Hills; Auburndale, July 1-Aug. 9; Lexington, Aug. 19. CONN.—Danbury, June 15. H. debilis Loew. N. H.—Hanover, July 6; Hampton, Aug. 7 (Shaw). MASS.—New Bedford, July 30 (Hough). H. despicatus Loew. ME.--7. N. H.-11, 14, 15. June 5-July 21. MASS.—. CONN.—35. May 27. H. difficilis Loew. MASS.-Blue Hill, May 30; Brookline, Aug. 23; Auburndale, Aug. 9; Fall River, June 3 (Easton). H. exilis Loew. N. H.-15. July 31. MASS.-26, 27, 32. CONN.-35. July 3-Aug. 30. H. fimbriatus Loew. VT.—Brattleboro, July 15, 1908. H. flavus Loew. MASS.-25, 27, 29. R. I.-33. CONN.-35. July 8-Aug. 25. H. frequens Loew. ME.-4, 7, 8. N. H.-11, 12, 14. VT.-16, 18, 20, 22. June 8-July 22. MASS.-23, 26, 27, 28, 32. R. I.-33. June 6-Aug. 23. H. humilis Loew. ME.-4, 7. N. H.-11, 15. May 31-July 17. Mass.—23. Aug. 7. H. laevigata Loew. ME.-7. N. H.-11, 15. VT.-22. June 10-July 28. MASS.-23, 26, 27. R. I.-33. CONN.-35. May 10-June 23. H. mirificus Melander. MASS.—(Melander).

H. nigricoxa Van Duzee, 24-103.

MASS.—Winchendon, July 5; Saxonville; Wellesley, July 8 (Morse).

H. obtusicauda Van Duzee, 24–103. ME.—Machias, July 20, 1909.

H. opacus Loew. ME.—10. N. H.—12. July 5-Aug. 6. MASS.—27. R. I.—33. CONN.—35. July 5-Aug. 5.

H. parvicornis Loew. MASS.—Brookline, Aug. 28; Chatham, July 1.

H. phyllophorus Loew. ME.—7, 8. N. H.—11, 15. June 4–July 21. MASS.—27, 28, 29, 32. May 31–Aug. 2.

H. politus Loew. MASS.—Auburndale, Aug. 9; Tyngsboro, July 13 (Fall).

H. scotias Loew.

N. H.—Mt. Washington (Mrs. Slosson); Hampton, June 1 (Shaw). VT.—Jay Peak, July 14 (Morse). MASS.—New Bedford, May 24 (Hough).

H. singularis Van Duzee, 24-102. R. I.—Kingston, July, 1906 (Barlow).

H. spectabilis Loew.
ME.—Mt. Desert, June 27.
MASS.—Blue Hill, Milton, May 30; Sandwich, June 19 (*Hitchings*).

H. subdilatatus Loew. ME.—7, 8. N. H.—13. July 17–Sept. 11. MASS.—23, 26, 27. June 6–Aug. 4.

H. subulatus Loew. ME.—7, 8, 10. N. H.—11, 13, 15. July 14–Sept. 4. Mass.—27. Aug. 5–23.

H. tristis Loew. Vr.—Killington Peak, Aug. 14, 1916 (Bequaert). MASS.—Ipswich, June 10 (Fuller).

H. ventralis Loew. ME.—7. N. H.—12, 15. VT.—22. July 3–21. MASS.—26, 27, 28, 32. CONN.—35. June 15–Aug. 2.

H. vernaculus Van Duzee, 24–104. ME.—Machias, July 22, 1909.

H. violaceus (Van Duzee), 21–123. Mass.—Bridgewater, July 11 (Cushman).

DIPTERA.

Subgenus Hercostomus Loew.

H. unicolor Loew. ME.—Fort Kent, Aug. 19, 1910.

Paraclius Loew.

P. albinotatus Loew. VT.-Norwich, July 7, 1908.

P. claviculatus Loew. MASS.-New Bedford. CONN.-..

P. hybridus Melander.

ME.—Orr's Island, July 25.

MASS.-Woods Hole, July 14-27 (Melander); Chatham, July 1; Edgartown, June 29. CONN.-Woodmont, July 9 (Butrick).

P. propinguus Wheeler. MASS.—Woods Hole, July 14-27 (Melander).

P. vicinus Aldrich, 04-277.

ME.---7, 8, 10. July 17-27. MASS.---31, 32. CONN.---35. June 29-July 27.

Tachytrechus Loew.

T. binodatus Loew. VT.—Bennington, June 24, 1915.

T. moechus Loew. N. H.—Franconia (Mrs. Slosson). MASS.—Southbridge (Bromley).

T. vorax Loew. ME.-6. N. H.-11, 12. VT.-20. July 8. MASS.-23, 27, 29, 31. June 13-Sept. 29.

Pelastoneurus Loew.

P. abbreviatus Loew. N. H.—Hampton, Aug. 8–20 (Shaw). MASS.—Somerville, Aug. 13 (Barber). CONN.—Woodmont, July 9 (Butrick). P. cristatus Van Duzee, 24-105. N. H.—Hampton, Aug. 8, 1923 (Shaw). MASS.—Eastham, June 27, 1904.

P. lamellatus Loew. ME.--7, 8, 10. N. H.-15. June 9-Sept. 12. MASS.-26, 28, 29, 31. CONN.-35. June 20-Sept. 8. P. lugubris Loew. VT.—Woodstock, Aug. 26, 1898 (Morse). MASS.—. P. neglectus Wheeler.

N. H.—Hampton, Aug. 15, 1908 (Shaw).



P. vagans Loew.

ME.—8. N. H.—11, 15. July 15–Sept. 13. MASS.—26, 27. CONN.—35. Aug. 4–Sept. 23.

Empididae.

Stilpon Loew.

S. pectiniger Melander. Mass.—New Bedford.

S. varipes Loew.

MASS.—New Bedford, May 24, 1886 (Hough).

Eudrapetis Melander, 18-187.

E. armata (Melander), 18–197. ME.—Ft. Kent, Aug. 17. MASS.—.

E. gilvipes (Loew).

ME.—Mt. Desert.

MASS.—Dartmouth, Mar. 5, 1910 (Easton). CONN.—New Haven, Nov. 4, 1903 (Viereck).

E. parvicornis (Melander), 18–202.

ME.—Ft. Kent, Aug. 17; Mt. Desert, June 9.

MASS.—Hyannisport, July 4; Barnstable, July 5.

E. spectabilis (Melander).

ME.—9. July 27.

MASS.-26, 28, 29. R. I.-33. July 22-Sept. 8.

Drapetis Meigen.

D. aliternigra Melander, 18-192 (D. nigra Melander, 1902, not Meigen, 1830).

MASS.—Forest Hills, Boston (Melander).

D. pubescens Loew.

MASS.—Petersham (Melander).

Platypalpus Macquart.

P. aequalis Loew.

ME.-1, 6, 8. N. H.-11, 14, 15. VT.-16. June 28-Sept. 1. MASS.-29. CONN.-35. June 17-July 25.

P. apicalis Loew.

N. H.—White Mts.

MASS.—Chester, Aug. 28; Woods Hole (Melander).

P. coquilletti Melander, 24–83 (P. trivialis Melander, not Loew). MASS.—New Bedford, June 12 (Hough).

P. crassifemoris (Fitch).

ME.—8. N. H.—11, 15. VT.—21. July 14–26. MASS.—23. Aug. 7.



DIPTERA. P. cuneipennis Melander, 24-83. VT.—Lyndon, June 13, 1914 (Melander). P. debilis Loew. MASS.—Boston (Melander). P. flammifer Melander, 24-84. N. H.-Hanover. VT.-Hartland, May (P. W. Whiting); Lyndon (Melander). P. flavirostris Loew. ME.--3, 4, 7, 8. N. H.--11. July 14-Aug. 31. MASS.-23. Aug. 7. P. harpiger Melander, 24-84. MASS.—Boston, June, 1914 (Melander). P. hians Melander. ME.—Capens, July 21. P. hians var. fuscohalteratus Melander, 24-85. ME.—Capens, July 21. P. holosericus Melander, 24-85. MASS.—Forest Hills, Boston, July (Brues). P. laetus Loew. N. H.-White Mts. (Osten Sacken). P. lateralis Loew. ME.-Capens, July 21. N. H.-Franconia and Mt. Washington (Mrs. Slosson). MASS.—Blue Hill, Milton, June 6. P. pectinator Melander, 24-85. MASS.—Chester, July 7. P. porrectus Melander, 24-86. ME.—Capens, July 18. P. sutor Melander var., 24-87. MASS.—Chester, May 28. P. trivialis Loew. ME.-Ft. Kent, Aug. 17. N. H.--"White Mts." VT.-Hartland (Melander). MASS.—North Reading, June 10. CONN.—Middletown, June 17. P. versutus Melander, 24-87. VT.-Mt. Equinox, June 4. Trachypeza Meigen (Trachydromia Meigen, in part). T. brachialis Melander. N. H.-Franconia (Mrs. Slosson). T. fenestrata Say. ME.—Capens, July 20. N. H.—Franconia (Mrs. Slosson).

T. rapax Loew.

N. H.-White Mts.; Hampton, May 12 (Shaw). MASS.—.

T. rostrata Loew.

ME.--7, 8. N. H.--11, 14, 15. June 21-Sept. 5.

MASS.-26, 27, 29. R. I.-33. CONN.-35. June 11-Sept. 3.

T. similis Walker. N. H.-White Mts.

T. winthemi Zetterstedt.

N. H.-Mt. Washington, 4000 ft.

Trachydromia Meigen.

T. enecator (Melander).

ME.—Bridgton, July 15 (Miss Martin).

T. maculipennis (Walker) (*T. pusilla* Loew). N. H.—11, 14. VT.—21. June 6–14.

MASS.-24, 27, 32. CONN.-35. May 12-June 4.

T. varipennis Coquillett (T. schwarzii Aldrich, Catl., not Coquillett).

N. H.-Franconia, July (Mrs. Slosson).

Chersodromia Walker (Chrysodromia Melander, 06-370).

C. houghii (Melander).

MASS.—New Bedford, June; Horse Neck Beach, Aug. (Hough); Woods Hole (Melander); Chatham, June 30.

Coloboneura Melander.

C. inusitata Melander.

MASS.—Ipswich Beach; Gloucester; Chatham; Woods Hole. R. I.—Buttonwoods, June 17–Sept. 7.

Chelipoda Macquart (Litanomyia Melander).

C. elongata (Melander).

ME.-1, 8. N. H.-11, 14. June 25-Aug. 19. MASS.-27, 29. CONN.-35. June 23-Aug. 2.

C. albiseta (Zetterstedt).

MASS.—Southbridge, July 8-13.

Hemerodromia Meigen.

H. albipes Walker.

N. H.-Franconia (Mrs. Slosson).

H. deflecta Loew.

MASS.-Hyannisport, July 4. CONN.-New Haven, June 23 (Viereck).

H. capta Coquillett. ME.-Moosehead, July 18, 1907.

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H. empiformis Say. ME.—Ft. Kent, Aug. 17. MASS.-Woods Hole, July 25. CONN.-New Haven, June 23 (Viereck); Middletown, June 17. H. notata Loew. ME.—Mt. Desert, July 16. N. H.—Franconia (Mrs. Slosson); Mt. Washington. 3000 ft., Aug. 16. H. palloris Coquillett. ME.-1, 4, 8. N. H.-11. VT.-16. June 20-Aug. 19. Mass.-23, 27. May 26-Sept. 4. H. rogatoris Coquillett. ME.-Ft. Kent, Aug. 17; Ashland, June, Aug. 16, 1910. H. obsoleta Loew. MASS.—Blue Hill, Milton, June 6; Boston (Melander). H. scapularis Loew. ME.-1, 8. N. H.-11, 12. June 10-Aug. 17. MASS.-23, 26, 27. CONN.-35. June 6-Sept. 12. Ardoptera Macquart. A. irrorata (Fallen). N. H.-Mt. Washington, 3000 ft., July 16, 1915. VT.-Bolton Mt., Aug. 30 (Bryant). **Roederiodes** Coquillett. **R. juncta** Coquillett. N. H.-Glen House, base of Mt. Washington, June 17. Clinocera Meigen. C. conjuncta Loew. ME.-8. N. H.-11, 14. VT.-17. June 17-Aug. 30. MASS.—23. Aug. 12. C. fuscipennis Loew. N. H.—White Mts. (Osten Sacken). C. lineata Loew. ME.—Ft. Kent, Aug. 19. N. H.—Jaffrey, March 24, 1917 (Mrs. C. W. Johnson). CONN.—New Haven, Oct. 21 (Viereck). C. maculata Loew. ME.—Ft. Kent, Aug. 19. VT.—Bolton Mt., Aug. 26 (Bryant). MASS.—Purgatory Swamp, Norwood, Sept. 4; Dedham (Melander). C. taos Melander. N. H.-Franconia (Mrs. Slosson). C. hamifera Melander, Genera Insectorum, in press. ME.—Moosehead, July 18.

C. ctenistes Melander, Genera Insectorum, in press. N. H.—Hanover (Mink Brook), July 6.

Syneches Walker.

S. albonotatus Loew. MASS.—Woods Hole (Melander).

S. rufus Loew. ME.-6. N. H.-15. VT.-16. July 4-Aug. 9. MASS.-24, 25, 27. CONN.-35. June 5-Aug. 31.

S. simplex Walker. ME.-6, 8. N. H.-14, 15. VT.-16. June 22-Aug. 9. MASS.-23, 25, 26, 27, 29, 30. CONN.-35. June 30-Aug. 30.

S. thoracicus Say. ME.—6, 9. N. H.—11. VT.—16, 21, 22. June 24–July 15. MASS.—23, 27. July 23–Aug. 4.

Syndyas Loew.

S. dorsalis Loew.
ME.—Orono, June 5 (Alexander). N. H.—Franconia (Mrs. Slosson).
VT.—Woodstock, July 25 (Morse).
MASS.—Lexington, July 6 (Barber).

S. polita Loew. ME.-8. N. H.-14. July 12. MASS.-27, 29. R. I.-33. CONN.-35. June 21-Sept. 6.

Euhybos Coquillett.

E. electus Melander. MASS.—New Bedford. CONN.—Stony Creek, July 27 (Viereck).

E. subjectus Walker.

MASS.—Woods Hole (*Melander*); Hyannisport, July 4. R. I.— Buttonwoods, June 12.

E. triplex Walker.

ME.-1, 3, 7, 8, 9. N. H.-11, 12, 15. VT.-16, 18, 20, 21. June 5-Aug. 19.

MASS.—26, 27, 28, 32. R. I.—33. Сомм.—35. May 24-June 15.

E. nigripes Melander.

VT.—Lyndon (Melander).

MASS.—New Bedford (Melander); Chester, May 28; Essex Co., June 30 (Morse).

Hybos Meigen.

H. reversus Walker.

ME.—Ft. Kent, Aug. 17. N. H.—White Mts.; Alstead, Aug. 9 (Morse).

MASS.—Woods Hole (Melander).



H. slossonae Coquillett.

ME.-4, 6, 8, 9, 10. N. H.-11, 15. July 8-July 17.

MASS.-23, 27, 29. R. I.-33. CONN.-35. June 28-Sept. 25.

Oedalea Meigen.

Oe. ohioensis Melander. ME.—Mt. Desert, June 17. N. H.—Bretton Woods, June 26. MASS.—Blue Hill, Milton, May 30.

Oe. pruinosa Coquillett. N. H.—Franconia (Mrs. Slosson).

Leptopeza Macquart.

L. compta Coquillett. ME.-7, 8. N. H.-11, 14, 15. VT.-16, 21. June 9-July 22. MASS.-23, 27. CONN.-35. May 30-Aug. 8.

L. flavipes (Meigen). ME.-4, 6, 8, 9. N. H.-11. June 26-July 20. MASS.-23, 27, 29. May 22-26.

Ocydromia Meigen.

O. glabricula (Fallen). ME.-2, 8, 10. N. H.-11. VT.-21. June 4-Aug. 16. MASS.-23, 27. May 27-Sept. 6.

Empis Linné.

E. cormus Walker.

ME.—Orono, May 1 (*Parshley*). N. H.—Mt. Washington, 4000 ft., June 13; Glen House, June 18.

E. distans Loew.

N. H.—Hampton, June 28 (Shaw).

MASS.—Auburndale. R. I.—Buttonwoods, June 18. CONN.— New Haven, June 3 (Britton); Danbury, June 15.

E. laevigata Loew.

N. H.—Franconia (Mrs. Slosson); Mt. Washington, 4000 ft., July 8; Glen House, June 14.

E. longipes Loew.

Vr.-Mt. Equinox and Manchester, June 5-6.

E. nuda Loew.

ME.—Mt. Desert, June 27.

E. obesa Loew.

N. H.—Franconia (Mrs. Slosson); Mt. Washington, 5000 ft., Aug. 16; Passaconaway, Sept. 12 (Cushman). MASS.—.

E. otiosa Coquillett.

ME.-9. N. H.-11, 15. May 20-June 12.

MASS.-23, 26, 27, 28. CONN.-35. May 1-June 10.

E. pallida Loew.

N. H.—Bretton Woods, June 25. Vr.—Burlington, June 23. Mass.—Chester, May 26; North Adams, June 18.

E. poeciloptera Loew.

Vr.—Burlington, June 24; St. Johnsbury, June 28; Manchester, June 6.

MASS.—North Adams, June 18. CONN.—Darien, June 11.

E. rufescens Loew.

ME.-4, 6, 7, 8. N. H.-11, 14, 15. VT.-16, 20. June 14-July 22.

MASS.—23, 24, 26, 27. June 4–27.

E. scoparia Coquillett. N. H.—Franconia (Mrs. Slosson).

E. sordida Loew. N. H.—Franconia (Mrs. Slosson). Conn.—South Meriden, May 31 (H. L. Johnson).

E. spectabilis Loew. CONN.—Lyme, May 1, 1910 (Champlain).

E. stenoptera Loew. N. H.—White Mts. Vr.—Lyndon (*Melander*).

E. tersa Coquillett. MASS.—Auburndale, May 14–28.

E. tridentata Coquillett.

N. H.—Hampton, July 12 (Shaw).

MASS.—Bridgewater; Cohasset; Manomet and Durfee, July 4-27. Conn.—New Haven, June 10.

E. varipes Loew.

N. H.—Franconia and Mt. Washington (*Mrs. Slosson*); Intervale, Aug. 23 (*G. M. Allen*); Glen House, Aug. 27. MASS.—Chester, Aug. 4, 1911.

Hilara Meigen.

H. atra Loew. N. H.—Franconia. MASS.—Woods Hole (*Melander*)

H. aurata Coquillett. ME.—Eastport, July 1, 1870 (Burgess).

H. bella Melander. Mass.—New Bedford.

H. carbonaria Melander. MASS.—New Bedford, June 12.



H. femorata Loew.

ME.-Bar Harbor, June 8, 1915. N. H.-Mt. Washington (Mrs. Slosson). MASS.-Blue Hill, Milton; Chester, May 26. **H.** gracilis Loew. ME.-Mt. Desert, July 30-Aug. 17. N. H.-Mt. Washington (Mrs. Slosson); Glen House, June 11. MASS.—Auburndale, Aug. 16. **H.** leucoptera Loew. ME.-Mt. Desert, June 10, 1920. N. H.-Hampton, June 4 (Shaw). MASS.-Woods Hole (Melander); Provincetown, June 24. CONN.-New Haven, May 25-June 23. H. lutea Loew. MASS.-Blue Hill, Milton, May 30. R. I.-Kingston, June 19 (Barlow). H. macroptera Loew. N. H.-Franconia (Mrs. Slosson). H. mutabilis Loew. N. H.—Jaffrey, June 4. R. I.-Kingston, June 4 (Barlow). CONN.-New Haven, June 23 (Viereck). H. seriata Loew. N. H.-White Mts. H. testacea Loew. N. H.-White Mts. MASS.—Blue Hill, Milton, June 6. R. I.—Kingston, June 5-16 (Barlow). H. tristis Loew. ME.---3, 4, 7, 8. N. H.---11, 15. June 12-Aug. 17. MASS.-23, 27, 32. May 28-June 18. H. trivittata Loew. N. H.-Mt. Washington (Mrs. Slosson). CONN.---. H. umbrosa Loew. N. H.—11, 15. June 11. MASS.-27, 29, 32. R. I.-33. CONN.-34, 35. May 26-July 27. H. unicolor Loew. MASS.—Chester, May 28; Concord, July 14 (Barber). H. velutina Loew. CONN.-New Haven, July 13 (Britton).

Oreogeton Schiner.

O. obscura Loew.

ME.---7, 8. N. H.---11, 14. VT.---21. June 5-July 26. MASS.---23, 24. May 26-June 27.

O. rufa Loew.

ME.—Machias, July 26; Mt. Desert, June 10–July 16. N. H.— Mt. Washington, July 8–14; Mt. Monadnock, June 12. MASS.—Bashbish Falls, June 27.

Iteaphila Zetterstedt.

I. macquartii Zetterstedt. N. H.—Mt. Washington, 4000 ft., June 13, 1916.

MASS.—Winchendon, May 11, 1904 (Russell).

Hormopeza Zetterstedt.

H. brevicornis Loew.

N. H.-Mt. Washington (Mrs. Slosson).

Euthyneura Macquart.

E. bucinator Melander.

N. H.—Bretton Woods, June 28.

Anthalia Zetterstedt.

A. bulbosa Melander.

N. H.—Franconia (Mrs. Slosson).

A. flava Coquillett.

ME.—Monmouth, June 27 (Frost). N. H.—Franconia and Mt. Washington (Mrs. Slosson).

A. gilvihirta (Coquillett).

N. H.—Franconia (Mrs. Slosson).

A. schönherri Zetterstedt.

MASS.—Mt. Greylock, June 15.

Trichina Meigen.

T. flavipes Meigen. ME.—Mt. Desert, July 13–17. N. H.—Milford, June 23. MASS.—Chester, May 28.

T. nura (Melander). ME.—Mt. Katahdin (*Melander*). MASS.—Woods Hole (*Melander*).

Microphorus Macquart.

M. atratus Coquillett.

ME.—Mt. Desert, June 10–July 19. N. H.—Glen House, June 11; Jaffrey, June 20.

M. obscurus Coquillett.

N. H.—Franconia (Mrs. Slosson).



Cyrtoma Meigen.

C. femorata Loew. N. H.—White Mts.; Mt. Washington (*Mrs. Slosson*). MASS.—Boston, Aug. 13; Manomet, July 17.

C. halteralis Loew. N. H.—Franconia (Mrs. Slosson). VT.—Lyndon (Melander). MASS.—Boston (Melander); Auburndale.

C. longipes Loew. N. H.—Mt. Washington (*Mrs. Slosson*); Jaffrey, June 22. MASS.—Woods Hole (*Melander*); Auburndale, July 13. R. I.— Cumberland, July 3.

C. pilipes Loew.

MĒ.—3, 4, 6, 7, 10. N. H.—11, 13. VT.—16, 18. July 8– Sept. 10. MASS.—26, 27, 31. R. I.—33. June 28–July 6.

C. spuria Fallen. MASS.—Woods Hole (*Melander*).

Rhamphomyia Meigen.

R. amplipedis Coquillett. ME.—Mt. Desert, June 13–20. MASS.—New Bedford (*Hough*); Rutland, June 5.

R. angustipennis Loew.

N. H.—Franconia and Mt. Washington (*Mrs. Slosson*). MASS.—Auburndale, May 14. CONN.—Meriden, June 3.

R. americana Wiedemann.

ME.—Southwest Harbor, June 24. N. H.—Hampton, June 8 (Shaw).

R. aperta Loew.

ME.—Waterville, May 11 (*Hitchings*). MASS.—Wellesley, April 13 (*Morse*). CONN.—South Meriden, Apr. 15 (*H. L. Johnson*).

R. arcuata Coquillett.

ME.—Mt. Desert, Sept. 8.

MASS.—.

R. avida Coquillett. Me.—Waterville, May 1. N. H.—Hampton, Apr. 15–29. Mass.—.

R. basalis Loew. ME.—6, 7, 8, 9. N. H.—11, 14. VT.—18. June 8-July 12. MASS.—23. June 27.

R. brevis Loew.

ME.—Waterville, May (*Hitchings*). N. H.—Hampton, May 12 (Shaw).

MASS.—Essex, May 9 (Fuller); Wellesley, Apr. 26 (Morse). CONN.—New Haven, May 7-12 (Viereck).

R. candicans Loew.

ME.--4, 6, 7, 8, 10. N. H.-11, 14, 15. VT.-21. June 5-July 26.

MASS.—23. R. I.—33. CONN.—35. May 26-June 14.

R. ciliata Coquillett.

N. H.—"New Hampshire."

R. clauda Coquillett. N. H.—Mt. Washington (*Mrs. Slosson*).

R. compta Coquillett. N. H.—Hampton, June 8–16. Mass.—New Bedford.

R. debilis Loew.

ME.—Mt. Desert, July 16. N. H.—Franconia (*Mrs. Slosson*); Mt. Washington, 4000 ft., July 4; Glen House, June 12; Hampton (*Shaw*).

R. dimidiata Loew. N. H.—White Mts.; Franconia (Mrs. Slosson). MASS.—.

R. effera Coquillett. MASS.—. R. I.—Kingston, Apr. 29 (Barlow).

R. exigua Loew. Mass.—New Bedford.

R. expulsa Walker. N. H.—Mt. Washington (*Mrs. Slosson*).

R. fumosa Loew. Conn.—.

R. glabra Loew. CONN.—New Haven, June 16 (B. H. Walden).

R. gilvipes Loew. ME.—Mt. Desert, June 15-July 12. N. H.—Mt. Washington (Mrs. Slosson).

CONN.—Poquonock, May 22.

R. gracilis Loew. ME.—1, 2, 8. N. H.—11, 15. July 26-Aug. 19. MASS.—23, 27, 28. Aug. 5-Sept. 6.

R. hirtipes Loew. N. H.—White Mts.



R. impedita Loew. R. I.-Kingston, May 5. R. irregularis Loew. ME.---8. N. H.---11, 15. VT.---21. May 25-June 26. MASS.-23, 27, 32. CONN.-35. May 9-June 15. R. liturata Loew. ME.-Bar Harbor, June 8. N. H.-Glen House, June 11. MASS.—Chester, May 26; Auburndale, May 22. **R. longicauda** Loew. MASS.—Bashbish Falls, June 27. CONN.—Middletown, June 17; South Meriden, June 30. **R. longipennis** Loew. N. H.-Mt. Washington (Mrs. Slosson). R. luctifera Loew. N. H.—Hampton, June 8 (Shaw). R. luteiventris Loew. ME.-Mt. Desert, June 8-27. N. H.-White Mts.; Glen House, June 18 MASS.—Essex Co. (Morse). R. I.—Apponaug, June 22. CONN.— Branford, June 8. R. macilenta Loew. ME.—. N. H.—White Mts.; Franconia (Mrs. Slosson). **R. manca** Coquillett. ME.---7, 8. July 12--21. MASS.-27, 29. R. I.-33. CONN.-35. May 26-July 4. R. minytus Walker. N. H.-Jaffrey, June 4; Glen House, June 11. MASS.-Wellesley, May 18 (Morse); Franklin, May 30 (Barber). R. I.—Kingston, May 16–19 (Barlow). **R. mutabilis** Loew. ME.--7, 8, 9. N. H.-11, 15. June 16-July 15. MASS.—23, 27. CONN.—35. May 26-July 2. R. nana Loew. N. H.—Hampton, May 14 (Shaw). CONN.—Middletown, June 17; New Haven, July 4. **R. nigricans** Loew. ME.—Waterville, May 11 (Hitchings). N. H.—White Mts.; Mt. Washington (Mrs. Slosson). R. parva Coquillett. MASS.—. R. phemius Walker. Mass.—Chester, May 28.

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55 H. Jaffrey June's Hampton, May 12 Show . Manus, New Berlingt, R. L.-Kingston, May 13 Barlor. (Area, New Haven, May 1).

R. sustica Linew.

Mr. Mt. IMart. Aug. 18-21. N. H.-White Mts.; Mt. Washu.gons (Mrs. Sciences).

R. scolopaces Say.

R. I. Cumberland, July 3. Coss.-Stafford, Aug. 24.

R. setosa Coquillett.

N. H. Mt. Washington (Mrs. Slosson).

R. soccata Loew. MANN. New Bedford.

R. sordida Loew.

K. I. Kingston, May 21 (Barlow).

R. tersa Coquillett.

Mr. Mt. Desert, June 24. N. H.—"New Hampshire"; Hampton, May 17 (Shaw).

R. umbilicata Loew.

M.M. Orr'n Inl., July 21. N. H.—Franconia (Mrs. Slosson).
 MANN. Dedham, Sept. 4; Petersham, Sept. 3 (G. C. Wheeler).
 CONN. Bear Mt., Aug. 22.

R. umbrosa Loew.

Мн. 8. N. H.--11, 14. Vr.—21. June 10-July 9. Мамм. 23. June 15.

R. valga Coquillett.

Mn. Harbor, June 7. N. H.—"New Hampshire"; Hampton, May 19 (Shaw).

R. vara Loow.

MN. Nouthwest Harbor, June 20–25. MANN. Wakefield, May 18 (Barber); Essex Co. (Morse).

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R. virgata Coquillett.

ME.—Southwest Harbor, June 21.

MASS.-Blue Hill, Milton, May 30; Auburndale, May 22; Danvers, June 5.

LONCHOPTERIDAE.

Lonchoptera Meigen.

L. furcata Fallen (L. lutea of authors, not Panzer). ME.-4, 6, 8. N. H.-12, 15. VT.-22. June 30-Aug. 17. MASS.-23, 27, 30, 32. R. I.-33. CONN.-35. May 9-Nov. 11. L. furcata var. lacustria Meigen. ME.-8. N. H.-15. July 13-Aug. 1. MASS.-23, 27, 28. R. I.-32. CONN.-35. May 15-Nov. 4.

PHORIDAE.

Trupheoneura Malloch, 09-27.

T. fratercula (Brues).

N. H.—Hampton, Mar. 25 and Dec. 13 (Shaw).

T. microcephala Loew.

ME.—Woodland, Dec. 1, 1917, on snow (O. O. Nylander). See Brues, 24–92.

T. subfusca Malloch, 12-422.

MASS.—Cambridge, Apr. 4, 1870; Fall River, Mar. 27, 1905 (N. S. Easton).

T. pachyneura Loew.

Mass.—Boston, Apr. 27, 1923.

T. vitrinervis Malloch, 12-419.

N. H.—"White Mts." (Morrison), U. S. Nat. Mus.

Chaetoneurophora Malloch, 12-422.

C. aureiventris Brues, 13-90.

N. H.—Hampton, May 16, 1906 (Shaw). MASS.—Auburndale ("Riverside"), May 20, 1905. R. I.— Kingston, May 7, 1905 (Barlow).

C. curvinervis (Becker), 01-33.

ME.-Mt. Desert, July 13. N. H.-Hampton, May 5, 1907 (Shaw).

C. luggeri (Aldrich).

N. H.—Franconia (Mrs. Slosson). MASS.—New Bedford (Hough). R. I.—Kingston, May (Barlow). CONN.—Georgetown, Aug. 23, 1910.

C. spinipes (Coquillett). N. H.—Hampton, Apr. 7 (Shaw).

MASS.—Boston, Forest Hills, Apr. 7 (Reiff). CONN.—Hartford.

C. thoracica (Meigen).

N. H.-Franconia (Mrs. Slosson).

Paraspiniphora Malloch, 12-425.

P. multiseriata (Aldrich).

MASS.—Chester, Aug. 5, 1911; Sharon, Aug. 3, 1909. CONN.— Branford, Aug. 22, 1904 (Winkley).

P. slossonae Malloch, 12-428.

N. H.—Mt. Washington (Mrs. Slosson).

P. spinosissima Strobl.

MASS.—Chester, May 26, 1912.

Dohrniphora Dahl.

D. concinna (Meigen) (*Phora cimbicis* Aldrich; *P. nitidifrons* Brues).

ME.-1. VT.-19. Aug. 17-27.

MASS.-23, 26, 27, 29, 32. CONN.-35. July 9-Oct. 16.

D. venusta (Coquillett).

MASS.—Boston, Sept., 1868 (U. S. Nat. Mus.); Brookline, July 20.

Hypocera Lioy.

H. clavata Loew.

ME.---3, 9. N. H.---15. Apr. 14-Aug. 18. MASS.--23, 26, 27, 32. R. I.---33. Apr. 3-Aug. 2.

H. ehrmanni Aldrich.

N. H.—Hampton, Apr. 19, 1912 (Shaw).

H. femorata (Meigen).

ME.-3, 8. N. H.-11, 14, 15. May 8-Aug. 11.

Mass.-26, 29, 32. R. I.-33. May 30-Aug. 2.

H. johnsoni Brues.

MASS.—Cohasset, Sept. 9 (Bryant).

H. flavimana (Meigen).

MASS.—Hyannisport, July 4, 1904. R. I.—Buttonwoods, June 20, 1912.

Beckerina Malloch, 10-90.

B. orphnephiloides Malloch, 12–441. MASS.—Mt. Tom, Sept. 22.

Phalacrotophora Enderlein, 12-21.

P. longifrons Brues.

R. I.—Buttonwoods, June 12, 1912.

P. epeirae (Brues).

ME.—Princeton, July 12; Mt. Desert, July 12. N. H.—Mt. Washington. VT.—Burlington, June 19.

MASS.—Auburndale, July 11. CONN.—Rowayton, June 16.

Platyphora Verrall.

P. eurynota Brues, 14-77. MASS.—Forest Hills, Boston, May 30, 1910 (Mrs. C. T. Brues). Megaselida Rondani, 1856 (Aphiochaeta Brues, 1904). M. anomala (Malloch), 12-484. N. H.-Mt. Washington (Mrs. Slosson). **M. agarici** (Lintner). MASS.—Newton, Sept. 8, 1910. Bred from mushrooms. M. approximata Malloch, 12-483. CONN.-New Haven, Nov. 4 (Viereck). M. atlantica (Brues). MASS. - Woods Hole. M. cata (Melander and Brues). MASS. - Woods Hole. M. cavernicola (Brues). Mass.-Chester, May 28, 1912. M. ciliata (Zetterstedt). ME.—Bar Harbor, July 12, 1921. MASS.—Chester, May 26. M. difficilis (Malloch). MASS.—Beverly, June-Aug. (Burgess). M. dyari Malloch, 12-484. R. I.—Kingston, June 19, 1907 (Barlow). M. franconiensis (Malloch), 12–479. N. H.-Franconia; Mt. Washington (Mrs. Slosson). M. inaequalis Malloch, 12-464. N. H.—Hanover, July 6. M. minor (Zetterstedt) (P. minuta Aldrich). N. H.-Mt. Washington. MASS.—New Bedford (Hough); Somerset, July 14 (N. S. Easton). M. nigriceps (Loew). ME.-3, 8. N. H.-11, 15. May 6-Sept. 10. MASS.-23, 27, 29, 32. R. I.-33. CONN.-35. May 23-Sept. 8. M. picta (Lehmann). N. H.—White Mts. MASS.—Great Barrington, June 16. M. projecta Becker. N. H.-White Mts. (Morrison); Hanover, July 5, 1908 (Shaw). Mass.—Brookline, June 28. M. pleuralis Wood, 09–117 and 146 (see Brues, 18–191). MASS.—Milton; New Bedford (Hough).

M. pygmaea (Zetterstedt)?

ME.—Mt. Desert, July 31 (McAtee).

M. pulicaria (Fallen). ME.—Mt. Desert, July 31 (*McAtee*). MASS.—.

M. rostrata (Melander and Brues). MASS.—Woods Hole. About the burrows of Halicius pruinosus.

M. ruficornis (Meigen). N. H.—Franconia.

M. rufipes Meigen. ME.-3, 8. N. H.-11, 12, 15. VT.-19. Apr. 17-Oct. 22. MASS.-27, 32. R. I.-33. CONN.-35. Apr. 20-Sept. 28.

M. straminipes (Malloch), 12–474. ME.—Bar Harbor, July 22. MASS.—Chester, July 25–Aug. 7.

M. sublutea (Malloch), 12–468. N. H.—Franconia.

M. subobscurata Malloch, 12–485. N. H.—Mt. Washington.

M. vulgata (Malloch), 12-483.

ME.—Mt. Katahdin, 5215 ft., Aug. 19, 1902. N. H.—Hampton (Shaw).

MASS.—Boston, July 31.

Apocephalus Coquillett.

A. borealis Brues, 24–41. ME.—Salisbury Cove, Mt. Desert, July 17, 1923.

Gymnophora Macquart.

G. quartomollis Schmitz (*G. arcuata* of authors, not Meigen). ME.—7, 8. N. H.—11, 12. VT.—16, 20, 22. June 24–July 17. MASS.J 29. CONN.—35. June 12.

Phora Latreille.

P. aterrima (Fabricius).
ME.-3, 7, 8. N. H.-11, 12, 15. VT.-20. July 7-Aug. 18.
MASS.-23, 26, 27, 32. R. I.-33. CONN.-35. May 2-Aug. 10.

P. velutina (Meigen).

ME.-7, 8. Aug. 17-Sept. 10. MASS.-23, 32. May 31-Aug. 8.

Conicera Meigen.

C. atra Meigen. ME.—8. N. H.—12. July 6–31. MASS.—27, 32. R. I.—33. Сомл.—35. May 18–July 28.



Puliciphora Dahl.

 P. glacialis Malloch, 12-507 (see Brues, 24-44).
 MASS.—Tyngsboro, "active on the ice, Jan. 1874" (F. Blanchard); Framingham, Mar. 3, 1923 (Frost).

P. occidentalis Melander and Brues. MASS.—Woods Hole. About the burrows of Halictus.

PLATYPEZIDAE.

Agathomyia Verrall.

A. notata (Loew). ME.-8. N. H.-11, 12. July 5-30. MASS.-23, 27. Aug. 5-Sept. 8. A. talpula (Loew). ME.--8. N. H.--11, 14. June 8-July 29. MASS.-23, 27. May 26-June 15. A. pulchella (Johnson), 08-58. ME.-4, 8. N. H.-11. VT.-18, 19, 20, 22. June 27-Aug. 30. MASS.-23, 28. May 31-Aug. 7. **A. fulva** (Johnson), 08–59. ME.—Capens, July 19, 1907. N. H.—Mt. Washington, carriage road, 3000 ft., July 21, 1915. A. cushmani Johnson, 16-30. N. H.-Mt. Passaconaway, 3800 ft., Sept. 12, 1912 (Cushman). VT.—Bolton Mt., 2500 ft., Aug. 30 (Bryant). A. dubia Johnson, 16–28. MASS.—Chester, Aug. 4, 1911. A. vanduzeei Johnson, 16-29. ME.-Liberty, Sept. 9, 1917 (Cushman). VT.-Killington Peak, Aug. 28, 1919. A. perplexa Johnson, 16–29. VT.—Base of Killington Peak, Aug. 27, 1919. A. obscura (Johnson), 16-30. MASS.—Hammond's Pond, near Brookline, Sept. 25, 1913. A. brooksi Johnson, 23–57. MASS.-Manomet, May 31, 1919 (W. S. Brooks). A. monticola Johnson, 23–57. N. H.-Mt. Washington, 2500 ft., July 24, 1915. A. divergens (Loew). N. H.-Mt. Monadnock, June 22, 1917; Jaffrey, June 15, 1923. Callimyia Meigen.

C. proxima Johnson, 16–32.

N. H.-Mt. Washington, 3000 ft., July 16, 1915.

C. velutina Johnson, 16-32.

ME.-Mt. Desert, June 27-July 16. N. H.-Mt. Washington, base to 3500 ft., June 14–July 28; Jaffrey, June 22.

MASS.—Chester, Aug. 5.

C. venusta Snow.

ME.-Eastport. July 14, 1909. N. H.-Mt. Washington, 3000 ft., July 16; Glen House, July 25, 1922 (Cushman).

Platypeza Meigen.

P. anthrax Loew (P. elongata Banks, 15-215).

ME.--6, 8, 9. N. H.-11, 13, 15. VT.-17, 19. Aug.12-Sept. 16.

MASS.-25, 27, 28. Aug. 27-Oct. 7.

P. banksi Johnson, 23-53.

Vт.—Killington Peak, Aug. 28.

MASS.—Forest Hills, Oct. 5; Brookline, Aug. 31, and Auburndale, Sept. 13.

P. flavicornis Loew.

N. H.—Franconia (Mrs. Slosson).

MASS.—Brookline, Auburndale and Chester. Aug. 13-Sept. 24.

P. minorata Banks, 15-214.

MASS.-Newton, Sept. 17-20, bred from Agaricus campestris: Framingham, Oct. 2 (Frost).

P. infumata Haliday.

N. H.-Mt. Washington, 2500 ft., and "Glen," July 15-28; Hampton, May 15 (Shaw). MASS.—Chester; Waltham and Norwood, May 24-Aug. 6.

R. I.—Buttonwoods, June 18.

P. obscura Loew.

N. H.-Franconia (Mrs. Slosson).

P. taeniata Snow.

ME.-9, 10. N. H.-13, 15. VT.-19. Aug. 25-Sept. 16. MASS.-23, 26, 27, 32. CONN.-34. Aug. 6-Oct. 12.

P. velutina Loew.

ME.-7, 8. N. H.-11, 12, 13, 15. VT.-19, 20. July 6-Sept. 10.

Mass.-23, 27. Conn.-35. May 28-Sept. 18.

P. pallipes Loew, \heartsuit (Calotarsa ornatipes Townsend, \checkmark). ME.---8, 10. N. H.---11, 15. VT.---17, 19. Aug. 25-Sept. 10. MASS.-27. Sept. 1-Sept. 24.

Platypezoides Johnson.

P. diversa Johnson, 23–56.

ME.—Bar Harbor, Sept. 11. N. H.—Mt. Washington (Mrs. Slosson); Center Harbor, Sept. 11.



DIPTERA.

Microsania Zetterstedt.

M. stigmaticalis Zetterstedt (see Melander, 22-46) (Platycnema imperfecta Loew).

ME.—Mt. Desert, July 31 (W. A. McAtee); Mt. Katahdin, July 31 (Blake). N. H.—Franconia (Mrs. Slosson).

MASS.—Boston, Apr. 23-Aug. 13, on windows; Manomet, July 17 (Cushman).

PIPUNCULIDAE.

Chalarus Walker.

C. spurius (Fallen).

ME.-7, 8. N. H.-12. VT.-20. June 14-Aug. 16. MASS.-23, 26, 27. CONN.-25. June 1-Sept. 24.

Verrallia Mik.

V. pilosa Zetterstedt.

ME.--8. N. H.--11, 14, 15. VT.--21. June 5-July 12. MASS.-23, 24, 27. May 24-July 10.

Nephrocerus Zetterstedt.

N. daeckei Johnson.

N. H.-Franconia (Mrs. Slosson).

N. slossonae Johnson, 15-55.

N. H.-Mt. Washington (Mrs. Slosson); Base Station, July 4 (C. A. Frost); Bretton Woods, June 25-28; Mt. Monadnock, June 20.

Pipunculus Latreille.

P. affinis Cresson, 11-283. VT.—Burlington, June; St. Johnsbury, June. MASS.—Barnstable, July.

P. dubius Cresson, 11–284.

ME.-4, 7, 8. VT.-16. June 24-July 25. R. I.---33. July 21-Aug. 2.

P. nigripes Loew.

N. H.—11, 15. July 1. MASS.-23, 25, 27, 32. June 27-July 30.

P. semifasciatus Cresson, 11-288. N. H.-Hanover, July 4; Hampton, June 15. MASS.-Mt. Tom, July 14; Sharon, July 7.

P. aequus Cresson, 11-292.

N. H.—Hampton, July 25. VT.—Manchester, June 8. MASS.—Hyannisport, July 4; Auburndale, June 17; North Adams, June 20.

P. minor Cresson, 11–293. ME.--1, 2, 4, 8. N. H.--11, 14. June 27-Aug. 16. MASS.-27, 32. CONN.-35. June 12-Aug. 6.



P. atlanticus Hough.

ME.—8. N. H.—12, 14, 15. June 7–July 5. Mass.—23, 27, 39, 32. R. I.—33. Conn.—35. May 26–July 23.

P. appendiculatus Cresson, 11-296. Vr.—Manchester, June 6; Mt. Equinox, June. Mass.—Wellfleet, Aug. 18.

P. mainensis Cresson, 11–298. ME.—Ft. Kent, Aug. 17.

P. cingulatus Loew. ME.—8. N. H.—11, 12. VT.—17, 20. June 21–July 17. MASS.—25, 27, 29. CONN.—35. June 13–Aug. 23.

P. fuscus Loew. N. H.—Mt. Washington (Mrs. Slosson). Mass.—Auburndale, Aug. 13; North Adams, June 18.

P. viduus Cresson, 11-301.
ME.—Mt. Desert, July 19; Oquossoc, July 3. VT.—Burlington, June 24.
MASS.—Washington, Aug. 8.

P. houghi Kertesz (P. femoratus Cresson, 11-302; 12-454). VT.-16, 20, 21. June 24-July 11. MASS.-23, 27, 29, 32. R. I.-33. June 11-July 25.

P. brevis Cresson, 11–303. VT.—Norwich, July 8.

P. nitidiventris Loew. N. H.—Mt. Washington (Mrs. Slosson).

P. horvathi Kertesz. ME.—8. N. H.—12, 14. June 23–July 17. MASS.—26, 27. May 22–Sept. 1.

P. angus Cresson var., 11–305. Vr.—St. Johnsbury, June.

P. sororius Cresson, 11–305. ME.—3, 5. VT.—19, 20, 22. July 1–Aug. 15. R. I.—33. July 7.

P. alpinus Cresson, 11–306.

N. H.—Glen House, June 11; Mt. Washington (Mrs. Slosson). Vr.—Mt. Ascutney, 2000 ft., July 11, 1908; Mt. Equinox, June 5, 1910.

P. luteicornis Cresson, 11–307.

ME.—Machias, July 20, 1907. N. H.—Hampton, June 24 (Shaw).



- **P.** pallipes Johnson (*P. houghi* Cresson, not Kertesz, see Cresson, 12-455). N. H.-11, 14. VT.-16. June 20-Sept. 11. Me.—8. MASS.-23, 27. CONN.-35. June 11-28. P. albofasciatus Hough. ME.-6. N. H.-11. VT.-16. June 22-July 24. MASS.-27. July 11. P. flavomaculatus Hough. N. H.-Hampton, May 30 (Shaw). MASS.—Horse Neck Beach, Aug. 6 (Hough); Brookline, May 23; Berlin, Aug. 8 (Frost); Gloucester, June 17. **P. subvirescens** Loew. MASS.—New Bedford (Hough). P. scoparius Cresson, 11-317. ME.-Eastport, July 15, 1909; Mt. Desert, July 17. N. H.-Hampton, Aug. 4 (Shaw). MASS.—Edgartown, June 29; Boston, Aug. 18. R. I.—Tiverton, July 31. P. appendipes Cresson, 11-319. VT.—Manchester, June 8. P. globosus Cresson, 12-453. R. I.—Buttonwoods, July 25, 1911. P. trichaetus Malloch, 12–296. N. H.-Mt. Washington (Mrs. Slosson). P. caudatus Cresson, 12–289. ME.-Mt. Desert, June 9-15. MASS.—Chester, Aug. 4; Brookline, June 17. P. confraternus Banks, 12–285. MASS.—Auburndale, July 16. P. similis Hough. N. H.—Hampton, May 16 (Shaw). R. I.—Buttonwoods, July 25. CONN.—Cheshire, July 8 (Viereck). SYRPHIDAE. Microdon Meigen. M. conflictus Curran, 24-226. ME.—Bar Harbor, July 30, 1919. MASS.-Washington, Aug. 8, 1912. CONN.-Scotland, July 25 (Walden).
 - **M. globosus** Fabricius (*M. fuscipennis* of authors, not Macquart).
 - ME.—9. N. H.—11, 15. June 7–July 3.
 - MASS.-23, 24, 26, 27, 28. CONN.-35. June 8-June 14.

M. manitobensis Curran, 24-227.

ME.—Capens, July 15, 1907; Southwest Harbor, July 22, 1921; Oquossoc, July 2, 1922.

M. megalogaster Snow.

MASS.—Great Barrington, June 16. CONN.—Darien, June 12.

M. ocellaris Curran, 24–227.

ME.—Bar Harbor, June 9. N. H.—Jaffrey, June 20, 1923. MASS.—Newton, May; Framingham, May 12, 1910 (Frost). CONN.-Lyme, from pupa, May 26, 1911 (Champlain); Darien, June 12, 1915.

M. pseudoglobosus Curran, 24-226.

VT.-Chittenden, Aug. 15, 1916 (J. Bequaert).

M. tristis Loew.

ME.-8. N. H.-11, 14. June 8-June 27. MASS.-23, 27. CONN.-35. May 29-June 22.

M. ruficrus Williston (see Knab, 19-135).

N. H.—11, 14. June 16–21.

MASS.-23, 26, 27. CONN.-35. June 3-June 28.

M. cothurnatus Bigot.

ME.-Mt. Desert, June 20. N. H.-Mt. Washington, July 6. MASS.-West Chop, July 4 (Morse).

Chrysotorum Meigen.

C. derivatum Walker.

ME.-Penobscot Co. (Sec. 2, Range 7), Aug. 2, 1910 (Cushman). MASS.—Sherborn, Aug. 24, 1912 (Frost).

C. fasciolatum De Geer.

ME.-2, 4, 5, 8. N. H.-11, 14. June 11-July 24. Mass.—23. June 15.

C. laterale Loew.

ME.-... CONN.-New Haven, June 11.

C. pubescens Loew (C. luteopilosum Curran, 24-36).

MASS.-North Saugus, Aug. 3, 1911 (Tothill); Framingham, Aug. 11, 16 (Frost); Boston; Auburndale, Aug. 28 and Sept. 20, 1906; Gloucester, July 8, 1918.

C. perplexum Johnson, 24-99. ME.-8. N. H.-11, 14. VT.-17. Aug. 16-Sept. 12.

MASS.-23, 27. CONN.-34. Aug. 6-Sept. 8.

C. plumeum Johnson, 24-99.

MASS.-Montgomery, May 27, 1899 (Dimmock). CONN.-South Norwalk, Aug. 4, 1908.

Mixogaster Macquart.

M. breviventris Kahl. CONN.-Wallingford, Sept. 1, 1923 (S. W. Bromley).

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Chrysogaster Meigen.

C. nigripes Loew.

- ME. 6, 7, 8. N. H. 11, 14, 15. VT. 16, 21. June 5-July 21. Maga 22, 25, 26, 27, 20, P. L. 22, Conv. 24, 25, Apr.
- MASS.—23, 25, 26, 27, 29. R. I.—33. Conn.—34, 35. Apr. 29-July 4.
- C. nitida Wiedemann.
- MASS.—Fall River, July 26 (*Easton*); Woods Hole, July 24, 1905; Nantucket, Aug. 8. R. I. Buttonwoods, July 24. CONN.—Winnipauk, Aug. 4.
- C. pictipennis Loew.
- Vт.—6. June 24.
- MASS.-23, 27, 29, 31, 32. R. I.-33. CONN.-35. May 4-Aug. 5.
- C. pulchella Williston.
- ME.-1, 8, 9. N. H.-11, 14, 15. VT.-17, 21. June 12-Aug. 19.
- MASS.-23, 24, 25, 27, 28, 32. R. I.-33. CONN.-34, 35. May 24-Aug. 11.

Pipiza Fallen.

P. femoralis Loew.

МЕ.—9. N. H.—11, 14, 15. VT.—21. May 17-June 18. MASS.—23, 24. Сом.—35. May 7-June 14.

- P. femoralis var. albipilosa Williston.
- ME.--9. N. H.--14. June 1-Aug. 8.
- MASS.-23, 25, 27. CONN.-34. May 26-July 25.

P. quadrimaculata (Panzer).

- ME.--8. N. H.--11, 14. June 10-July 14.
- MASS.-23 (Mt. Greylock), June 15, 1906.
- P. nigropilosa Williston.
- ME.—8. N. H.—11, 14. June 17-Aug. 1.
- MASS.-23, 25. CONN.-35. May 14-June 14.
- P. nigrotibiata Curran, 24-81.
- N. H.—Jaffrey, June 17, 1917; Alstead, Aug. 8, 1914 (A. P. Morse).
- MASS.—Chester, Aug. 6, 1914.
- P. puella Williston.
- N. H.—White Mts., Aug. 1 (Williston).

Pipizella Rondani.

P. apisaon (Walker) (*Pipiza modesta* Loew, ♀; *P. nigribarbis* Loew, ♂; and *P. pulchella* Williston; see Curran, 24-342).
 ME.—6, 10. N. H.—11, 15. VT.—18. June 27-July 24.
 MASS.—23, 27, 29, 30, 32. R. I.—33. CONN.—35. June 20-

MASS.—23, 27, 29, 30, 32. R. I.—33. CONN.—35. June 20-Oct. 19.

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P. pubescens (Loew).

Mz.--4, 6, 7, 8. N. H.-.. VT.--18, 21. June 5-July 19. MASS.--23, 25, 26, 27, 28, 29. June 1-Sept. 1.

P. recedens (Walker) (*Pipiza fraudulenta* Loew).

ME.—Mt. Desert, June 15–July 15. N. H.—Glen House, June 14. VT.—Mt. Equinox, June 5.

MASS.—Waltham.

Heringia Rondani.

H. salax Loew (P. radicum Walsh and Riley; P. pistica Williston).
ME.—6, 8, 10. N. H.—11, 13, 14, 15. June 9–Sept. 10.
MASS.—23, 27, 28, 29, 31. R. I.—33. CONN.—35. May 23–Aug. 24.

Cnemodon Egger.

C. calcarata Loew.

ME.—9, 10. N. H.—15. June 25–July 27. MASS.—23, 27, 28. CONN.—35. May 29–July 28.

C. elongata Curran, 21–362. ME.—Bar Harbor, June 9, 17, 1921–22.

C. pisticoides Williston. ME.-4, 8, 10. N. H.-11, 15. June 7-Aug. 1. MASS.-27. July 4.

C. squamulae Curran, 21–361. MASS.—Weston, July 23, 1911.

C. trochanterata Malloch, 18–127. MASS.—Cohasset, May 29, 1904 (Bryant).

Psilota Meigen.

?P. buccata Macquart. MASS.—Woods Hole.

Paragus Latreille.

P. angustifrons Loew. ME.-7, 8, 9. N. H.-14, 15. June-Aug. 18. MASS.-27, 29, 30, 31, 32. R I.-33. CONN.-34, 35. June 27-Sept. 9.

P. bicolor Fabricius.

ME.-7. N. H.-11, 14, 15. VT.-21. May 11. MASS.-23, 25, 26, 27, 28, 29, 30, 32. R. I.-33. Conn.-34, 35. May 25-Sept. 21.

P. tibialis Fallen.

ME.—7, 8. N. H.—11, 15. June 6-July 22. Mass.—23, 27, 28, 29, 30, 31, 32. R. I.—33. Сомм.—35. June 2-Aug. 9.



Chilosia Meigen.

C. hiawatha Shannon, 22–138.

MASS — Forest Hills, Boston (J. Bequaert).

C. lasiophthalma Williston.

N. H.-Mt. Washington (Mrs. Slosson).

C. orilliaensis Curran, 22-67 (C. petulca of Mrs. Slosson's Mt. Washington list).

ME.—Mt. Desert, June 21. N. H.—Mt. Washington, July 8-16; "Glen House," June 14-July 14; Jaffrey, June 18.

C. pontiaca Shannon, 22–142.

ME.—Machias, July 17, 1909. N. H.—Mt. Washington, Halfway House, July 6, 1916.

Cartosyrphus Bigot.

Subgenus Hiatomyia Shannon.

C. cyanescens Loew.

ME.—Oquossoc, July 3. N. H.—White Mts.; Franconia. MASS.—Chester, July 25. CONN.—.

Subgenus Cartosyrphus Bigot.

C. pallipes Loew.

ME.---5, 7, 8, 9, 10. N. H.---11, 13, 14. VT.---21. June 21--July 30.

MASS. 23, 25, 27, 28, 29, 32. R. I. 33. CONN. 34. July 5-Sept. 21.

C. tristis Loew.

ME.-2, 5, 6, 7, 8, 9, 10. N. H.-11, 14, 15. June 13-Sept. 6. MASS.-23, 27, 28, 29, 32. CONN.-34, 35. June 11-Sept. 21.

C. sialia Shannon, 22-132.

N. H.—"Glen House," July 7, 1914.

C. similis Shannon, 16–196.

MASS.—Near Ellis Station, Norwood, Sept. 4, 1908.

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C. slossonae Shannon, 22–144.

ME.—Mt. Desert, June 10, 1921. N. H.—Hampton, Apr. 18-May 9 (Shaw).

MASS.—Sherborn, May 2, 1919 (E. J. Smith); Essex Co. (F. H. Walker).

Cynorhinella Curran, 22-14.

C. longinasus Shannon, 24-123.

N. H.—Jaffrey, June 6, 1920.

Chalcomyia Williston.

C. aerea Loew.

MASS.—Sherborn, May 18 (E. J. Smith); Auburndale, May 26, 1905.

C. cyanea H. E. Smith, 12–119 (C. calcitrans Curran).

N. H.—Franconia (Mrs. Slosson); Belmont, May 16, 1920 (C. Hoessler).

Myiolepta Newman.

M. nigra Loew (Xylota tuberans Williston).

- N. H.—Jaffrey, June 18, 1917; Squam Lake, June 22 (Allen). Vr.—Mt. Equinox, June 5.
- R. I.—Buttonwoods, June 18, 1912. CONN.—Wallingford, June 22.

M. varipes Loew.

N. H.-Jaffrey, June 18, 1917.

Ferdinandea Rondani (Chrysochlamys Rondani).

F. dives Osten Sacken.

N. H.—Jaffrey, June 9–30.

MASS.—Amherst; Arlington, May 20. CONN.—New Haven, May 9, 1905.

Larva lives in fermented sap from maple and birch stumps.

F. nigripes Osten Sacken.

N. H.—Mt. Washington ("Alpine Garden"), Aug. 16, 1916; Halfway House, July 16.

Mass.—.

Baccha Fabricius.

B. cognata Loew.

ME. 7, 8, 10. N. H. 11, 12, 14, 15. VT. 19. June-Aug. 25. MASS. 23, 27, 28. CONN. 34. June 19-Aug. 21.

B. fascipennis Wiedemann.

ME.—2 (Houlton). N. H.—11, 14. VT.—20. June 28-Aug. 24.

MASS.-25, 27. CONN.-34, 35. July 1-Aug. 19.

B. tarchetius Walker.

CONN.—Litchfield, Sept. 12, 21, 1922 (L. B. Woodruff).

Ocyptamus Macquart.

O. fuscipennis (Say).

N. H.—15. Aug. 10.

MASS.-26, 27, 32. R. I.-33. CONN.-35. May 30-July 31.

Pyrophaena Schiner.

P. granditarsus (Forster).

ME.--1, 6, 8. N. H.--11, 15. VT.--18, 19, 20. June 10-Sept. 6.

MASS.-23, 27. CONN.-34. May 29-Sept. 4.

P. rosarum (Fabricius).

ME.--8. N. H.--11, 15. July 15-29.

MASS.—26, 27, 32. July 3–Aug. 2.



Platychirus St. Fargeau et Serville. P. albimanus (Fabricius). N. H.-Mt. Washington (Mrs. Slosson). P. chaetopodus Williston. ME.—Mt. Desert, June 8; Ft. Kent, July 5; Van Buren, July 7. N. H.—Mt. Washington, July 8; Jaffrey, June 7. MASS.—North Saugus, Aug. 11. P. hyperboreus (Staeger). ME.-9, 10. N. H.-11, 14, 15. VT.-20. June 1-July 24. MASS.-27, 29, 32. CONN.-35. May 16-Aug. 20. P. peltatus (Meigen). Me.—6, 8. N. H.—11, 14. July 2-Aug. 21. Mass.—23, 27. R. I.—33. Солм.—35. May 30-Aug. 13. **P. quadratus** (Say). ME.—6, 8, 10. N. H.—11, 15. VT.—20. May 28-Aug. 7. MASS.—24, 25, 26, 27, 28, 29. R. I.—33. CONN.—35. June 19-Sept. 2. **P. perpallidus** Verrall. ME.--1, 2, 6, 8. N. H.-.. June 13-Aug. 3. MASS.—26. Aug. 29. P. scutatus Meigen. ME.—Orono, about Spiraea infested with Aphis spercacola (Metcalf, 17–163). **P. immarginatus** Zetterstedt. ME.—Bar Harbor, July 25 (Metcalf). P. discimanus Loew. ME.—. P. angustatus Zetterstedt. ME.—. P. varipes Curran, 23-65. ME.-Ft. Kent, Aug. 17, 1910. Melanostoma Schiner. M. angustatum Williston. ME.-Mt. Desert, June 14. N. H.-Mt. Washington. VT.-Mt. Equinox. M. montivagum Johnson, 16-78. N. H.-Mt. Washington, 3000 to 4000 ft., and near the Glen House, July 6, 1914. M. mellinum (Linné). ME.-4, 8, 10. N. H.-11, 13, 14, 15. VT.-20. May 21-Aug. 31. MASS.-23, 26, 27, 28, 29, 30, 32. R. I.-33. Conn.-35. Apr. 25–Sept. 7.

M. obscurum (Say).

ME.--8, 9. N. H.--11, 14, 15. VT.--17, 19. June 8-Aug. 7. MASS.--25, 26, 27. R. I.--33. CONN.--35. May 30-Oct. 19.

M. confusum Curran.

ME.—Mt. Katahdin, Aug. 11 (I. H. Blake); Southwest Harbor, June 16; Eastport, July 15. N. H.—Mt. Washington, 4000 ft., July 16. VT.—Killington Peak, Aug. 28.

Leucozona Schiner.

L. lucorum var. americana Curran, 23-38.

ME.—Mt. Desert, June 9, 1920; Bailey Isl., July 18 (Allen).
 N. H.—Mt. Washington, 4000 ft.; Mt. Kearsarge, 3270 ft., July 2.

Didea Macquart.

D. fasciata var. fuscipes Loew. ME.—6, 8. N. H.—11, 14. June 12–19. MASS.—27, 29. CONN.—35. May 20–Sept. 25.

Syrphus Fabricius.

S. arcuatus Fallen.

ME.--1, 6, 7, 8. N. H.--11, 12. VT.--17. June 21-Sept. 13. MASS.--27, 29. CONN.--34, 35. July 13-Oct. 16.

S. perplexus Osburn, 10-55. ME.—8. N. H.—11, 12, 14, 15. VT.—21. May 20-July 12. MASS.—23, 25, 26, 28, 32. CONN.—35. May 5-Oct. 16.

S. johnsoni Curran, 24–79. N. H.—Jaffrey, June 15–18, 1917.

S. vinelandi Curran.

MASS.—Winchester, Aug. 20, 1922. R. I.—Kingston, May 9, 1908 (Barlow).

S. disjectus Williston. ME.—8. N. H.—11, 15. July 22–Sept. 3. MASS.—23, 25, 27. R. I.—33. CONN.—34. May–Sept. 1.

S. nitens Zetterstedt.

ME.—Orono, July 23–July 11, larvae feeding on the "willow grove plant-louse," *Pterocomma flocculosa* Weed (Metcalf, 16– 242); "Narrows," Mt. Desert, Aug. 13.

S. wiedemanni Johnson, 19-32 (S. americanus Wiedemann, 1830, not Swederus, 1787).

ME.--3, 4, 8, 10. N. H.--11, 15. VT.--16, 19, 20, 21. June 9-Aug. 28.

MASS.-27, 29, 31, 32. R. I. - 33. CONN.-35. June 24-Oct. 16. S. latifasciatus Macquart (S. abbreviatus Williston). N. H.—15. May 13. Mass.—23, 24, 26, 27, 28, 29, 30, 32. R. I.—33. Conn.—35. Apr. 23-Sept. 20. S. knabi Shannon, 16-200. ME.—Orono. S. ribesii Linné. ME.-4, 6, 7, 8. N. H.-11, 13, 14, 15. VT.-19, 21. June 15-Sept. 19. Mass.-23, 25, 26, 27, 29, 32. Conn.-34, 35. May 25-Sept. **2**2. S. ribesii var. vittafrons Shannon, 16-202. ME.-4, 8. N. H.-14. June 8-July 16. MASS.-27, 32. CONN.-34. July 14-Sept. 19. S. rectus Osten Sacken. ME.---6, 8. N. H.---11, 14. June 2-Aug. 25. MASS.-23, 26, 27, 31. CONN.-34. June 13-Oct. 4. S. torvus Osten Sacken. ME.---3, 6, 8, 9, 10. N. H.---11, 13, 15. VT.---17. Apr. 10-Sept. 25. MASS.-23, 24, 25, 26, 27, 28, 29, 32. CONN.-34, 35. May 19-Oct. 16. S. vitripennis Meigen. ME.-4, 7, 10. N. H.-11. VT.-17. June 18-July 25. MASS.-23, 27, 31. CONN.-34. Apr. 22-Aug. 5. S. laxa (Osten Sacken). ME.-3, 4, 7, 8, 9. N. H.-11, 14. VT.-17. June 21-Sept. 13. Mass.-27. June 12. S. amalopis Osten Sacken. ME.---8, 9. N. H.---11, 14, 15. VT.---21. May 20-July 12. MASS.---23, 25, 28, 32. CONN.---35. May 5-Sept. 7. S. laticaudus Curran. ME.—Orono, June 4 (Parshley). N. H.—Mt. Washington, 4000 ft., July 6; Glen House, July 7; Mt. Monadnock, July 12. MASS.—Chester, May 28, 1912. S. limatus Hine. ME.—Bar Harbor, June 13, 1921. S. venustus Meigen. ME.-Mt. Desert, June 9. N. H.-Mt. Washington, 5000 ft.; Mt. Kearsarge, 3270 ft., July 2 (Morse); Jaffrey, June 4. S. emarginatus (Say). ME.---8. N. H.---11. MASS.-23, 25, 27, 28. R. I.-33. CONN.-.

S. divisa (Williston).

ME.—Orono, Aug. 25. N. H.—White Mts., July 25.

S. felix (Osten Sacken).

ME.—8. July 17.

Mass.—23, 27, 31. Conn.—34. June 4-Aug. 25.

Epistrophe Walker, 1852 (Stenosyrphus Matsumura).

E. grossulariae Meigen.

Ме.—4, 8, 9. N. H.—11, 13, 14, 15. Vт.—17. June-Sept. 10. Mass.—23, 25, 27. R. I.—33. Сомл.—34. Aug. 3-Aug. 21.

E. xanthostomus Williston.

ME.—Bar Harbor, July 19. N. H.—Glen House, June 14; Jaffrey, June 18.

MASS.—Sharon, May 26, 1908. CONN.—South Meriden, May 25, 1914 (H. L. Johnson); Darien, May 24.

E. contumax Osten Sacken.

N. H.---Mt. Washington, 4000-5000 ft., June 30-July 4.

E. diversipes Macquart.

ME.--4, 7, 8. N. H.--11, 14. VT.--19, 21. June 4-July 25. MASS.--27. Aug. 9.

E. abruptus Curran, 24-80.

N. H.—Mt. Washington, 2500 ft., June 13, 1916.

E. umbellatorum (Fabricius).

ME.--1, 4, 8. N. H.--11, 14, 15. VT.--16, 18. June 11-Sept. 25. MASS.--23. CONN.--34. Aug. 13-Sept. 1.

E. geniculatus (Macquart).

ME.--Mt. Desert, June 11-July 13. N. H.--Mt. Washington, July 6-20.

E. fisheri (Walton).

ME.—8. N. H.—11, 14. June 25-Aug. 22.

MASS.-24, 25, 27, 28. CONN.-34. May 30-Sept. 18.

E. mentalis (Williston).

ME.---6, 8. N. H.---11, 13, 14, 15. VT.---16. May 5-July 7. MASS.---25, 27. CONN.---34, 35. Apr. 13-Sept. 10.

E. vitifacies (Curran), 23-66.

N. H.—Hampton, Apr. 14, 1905 (Shaw).

E. genualis (Williston).

ME.-4, 6, 7, 8, 9. N. H.-11, 14. VT.-21. May 3-July 14. MASS.-25. CONN.-35. May 10.

E. articus (Zetterstedt).

ME.—Bar Harbor, Sept. 11. N. H.—Mt. Washington, 4000 ft., July 8; Base Station, Aug. 15; Jaffrey, May 5.

E. oronoensis (Metcalf), 17-162.

ME.—Orono (Metcalf); Bar Harbor, July 19. N. H.—Hampton, Aug. 30 (Shaw). VT.—Burlington, June 24.

MASS.—Rutland, Sept. 20; Essex Co., Aug. 12 (Morse).



E. xylotoides Johnson, 16-80.

N. H.—Jaffrey, June 18.

MASS.—Great Barrington, June 16; Amherst; Dighton, June 28 (Easton); Tyngsboro, June 6 (Fall). CONN.—Washington. June 14 (Chamberlain).

Xanthogramma Schiner.

X. flavipes Loew.

N. H.—15. Aug. 23.

MASS.-24, 27, 28, 29. Conn.-35. June 12-Aug. 10.

Doros Meigen.

D. aegualis Loew.

N. H.-Franconia (Mrs. Slosson); Glen House, June 18; Jaffrey, June 14.

MASS.—Princeton, July (L. W. Swett). CONN.—Short Beach, May 30, 1896.

Allograpta Osten Sacken.

A. obliqua (Say).

ME.---8. N. H.---15. July 29-Aug. 8.

MASS.-24, 25, 27, 29, 31. R. I.-33. CONN.-35. June 20-Oct. 18.

Toxomerus Macquart (Mesogramma Loew).

T. geminatus (Say).

ME.-8, 10. N. H.-11, 12, 14, 15. VT.-16, 19. June 11-Oct. 3.

MASS.-23, 27, 31. R. I.-33. CONN.-35. May 30-Oct. 16. T. marginatus (Say).

ME.---8, 9. N. H.---11, 14. VT.---19, 20. July 18-Oct. 15. MASS.---23, 24, 25, 26, 27, 28, 29, 30, 31, 32. R. I.---33. CONN.---35. May 16–Oct. 19.

T. politus (Say).

N. H.—11. VT.—20. Aug. 18. Mass.—24, 27, 28, 31. R. I.—33. Conn.—35. Aug. 28-Oct. 16.

T. boscii Macquart.

MASS.—.

Sphaerophoria St. Fargeau et Serville.

S. cylindrica (Say).

MASS.-23, 26, 27, 29, 30, 31, 32. R. I.-33. CONN.-35. May 9-Oct. 1.

S. menthastri (Linné).

- ME.-1, 2, 3, 4, 6, 7, 8, 10. N. H.-11, 14. VT.-16, 19, 20, 21. June 4–Aug. 16.
- MASS.-23, 24, 25, 26, 27, 28, 30, 31. R. I.-33. May 14-Aug. 25.

S. novaeangliae Johnson, 16-76.

ME.-4, 5, 6, 7, 8. N. H.-11, 12. June 25-July 19.

MASS.-23, 27. May 26-July 24.

S. strigata Staeger.

N. H.-Mt. Washington, 2500 ft., June 15, 1916; Hampton, May 20, 1907 (Shaw).

S. cleoae Metcalf, 17-12.

ME.—Orono, Aug. 11–24, 1915. MASS.—Forest Hills, Boston, May 16, 1920 (L. H. Taylor).

Sphegina Meigen.

S. campanulata Robertson.

ME.—Orono, June 8; Machias, July 17. N. H.—Hampton, June 25 (Shaw); Jaffrey, June 20.

CONN.—Branford, May 25 (Winkley).

S. flavimana Malloch, 22-143.

ME.--8. N. H.--11, 14. VT.--21. June 17-Aug. 10.

MASS.-23. June 18-Aug. 5.

S. infuscata Loew.

ME.-... N. H.-11, 14, 15. VT.-21. May 24-July 6. Mass.—23. June 18.

S. keeniana Williston.

ME.--. N. H.--11, 14. VT.--21. June 6-28.

MASS.-23, 27. R. I.-33. CONN.-35. May 22-June 17.

S. lobata Loew.

ME .--- Capens, July 17. N. H .--- Mt. Washington and Glen House, June 11-July 20; Cornish, July 13; Jaffrey, June 14.

S. monticola Malloch, 22-142.

ME.-Sugar Isl., Moosehead Lake, July 17. N. H.-Mt. Washington; Glen House, June 11–July 20.

S. petiolata Coquillett, 10-125.

ME.--4, 7, 8. N. H.-11, 14. June 18-July 17. Mass.-25, 27, 29. July 24-Aug. 4.

S. rufiventris Loew.

ME.--1, 4, 6, 7. N. H.--11, 14, 15. VT.--21. June 18-Aug. 17. MASS.--24, 25, 26. R. I.--33. CONN.--35. May 29-July 5.

Neoasia Williston.

N. distincta Williston.

N. H.-Mt. Washington; Hampton, May 20.

MASS.—Beverly, May 8 (E. Burgess). CONN.—South Meriden, May 15 (H. L. Johnson).

N. globosa Walker.

ME.--6, 8. N. H.-11, 15. May 8-Aug. 11.

MASS.-24, 26, 27, 30, 31. CONN.-35. May 19-Aug. 8.



DIPTERA.

N. globosa var. albipes Bigot.

CONN.-New Haven, May 26; Darien, June 12; Cheshire, July 8.

Rhingia Scopoli.

R. nasica Say.

ME.---1, 4, 5, 6, 8, 9. N. H.---11, 13, 14, 15. VT.---16, 17, 19, 21. June 9-July 25.

MASS.-23, 25, 27, 28. R. I.-33. CONN.-34, 35. May 22-Sept. 1.

Hammerschmidtia Shummel.

H. ferruginea Fallen.

ME.---5, 8. N. H.---11, 14. VT.---21. June 9-July 3. MASS.---23 (Great Barrington).

Brachyopa Meigen.

B. perplexa Curran, 22-249.

N. H.—11, 14. June 9–July 15.

MASS.—26, 27. May 14.

Common, and breeding in the fermenting sap oozing from stumps and trees.

B. notata Osten Sacken.

ME.-5. N. H.-11, 14, 15. June 9-July 24.

MASS.-27 (Wellesley, A. P. Morse). May 13.

B. flavescens Shannon, 15-144.

N. H.—Bretton Woods, June 24; Glen House, June 14; Jaffrey, June 23.

MASS.—Mt. Greylock (summit), June 15.

B. vacua Osten Sacken.

MASS.—Cohasset, June 5, 1904 (Bryant); North Saugus.

B. diversa Johnson, 17–361.

ME.—Bar Harbor, June 8, 1921. N. H.—Jaffrey, June 18, 1917.

Volucella Geoffroy.

V. bombylans var. lateralis Johnson, 16–162. ME.-5, 8, 9. N. H.-11. June 7-July 8.

V. bombylans var. evecta Walker.

N. H.—11.

MASS.—23, 26, 27. CONN.—34. June 14–July 25.

V. bombylans var. americana Johnson, 16-162.

ME.-9, 10. N. H.-12. June 29-July 24.

MASS.-23, 24, 25, 27. CONN.-34. June 15-July 14.

The larvae of this species of Volucella live, in both Europe and North America, in the nests of the various species of bumble-bees (*Bombus*). The American forms are not specifically distinct from the European V. bombylans Linné. V. vesiculosa (Fabricius).

Conn.—.

V. obesa (Fabricius).

MASS.—Melrose Highlands, Sept. 17, 1908 (Townsend).

Condidea Coquillett.

C. lata Coquillett, 07–75.

ME.—Bar Harbor, June 21, 1922.

MASS.—North Saugus; Melrose Highlands, May 30; Wellesley, June 4 (J. D. Tothill).

C. sexfasciata (Loew).

ME.—Southwest Harbor, Mt. Desert, June 16, 1921. N. H.— Franconia (Mrs. Slosson).

Sericomyia Meigen.

S. bifasciata Williston (S. chalcopyga Coquillett, not Loew, Q).
 ME.—Mt. Desert, June 17-July 12. N. H.—Mt. Washington (Dimmock), July 15, 1919 (L. W. Swett); Glen House, June 11; Franconia (Mrs. Slosson).

S. chrysotoxoides Macquart.

ME.--1, 4, 5, 6, 8, 9. N. H.--11, 14, 15. VT.--17, 19, 20, 21. June 5-Sept. 25.

MASS.-23, 25, 27, 31. CONN.-34, 35. May 30-Sept. 23.

S. militaris Walker.

ME.-2, 4, 5, 8, 9, 10. N. H.-11, 14, 15. VT.-17, 19, 20. June 5-Sept. 16.

MASS.-23, 25, 27. CONN.-34, 35 (New Haven). May 23-Sept. 27.

Eristalis Latreille.

E. tenax (Linné).

ME.--1, 8, 9, 10. N. H.--11, 13, 14, 15. VT.--17, 18, 19, 20. June-Sept. 22.

MASS.-23, 24, 25, 26, 27, 28, 29, 32. R. I.-33. CONN.-34, 35. June 14-Sept. 26.

E. nemorum (Linné).

ME.---7, 8. VT.---16, 17. Conn.---.

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E. inornatus Loew.

ME.—Saddleback Mt., 4000 ft., July 18 (*Metcalf*); Capens, July 11; Oquossoc, July 1.

E. arbustorum (Linné).

ME.-1, 6, 7, 8, 9. N. H.-11, 13, 14, 15. VT.-17, 19. May 16-Sept. 28.

Mass.—23, 24, 25, 26, 27, 28, 30, 32. R. I.—33. Сомм.—34, 35. June 15–Oct. 16.



E. brousi Williston (E. meigenii of authors, not Wiedemann). ME.-7, 10. N. H.-11, 14. VT.-20. June-July 25. Mass.—27, 28, 30, 32. May 22-Aug. 21. E. compactus Walker. ME.--6, 8. N. H.-11, 14, 15. VT.-19. May 20-Aug. 8. Mass.-25. Conn.-34. June 29. E. dimidiatus Wiedemann. ME.---3, 4, 6, 8, 9, 10. N. H.---11, 14, 15. VT.---19. June 12-Sept. 25. MASS.-23, 27, 28. R. I.-33. CONN.-34, 35. Apr. 25-Oct. 4. E. saxorum Wiedemann. ME.--4, 8. N. H.-13, 14. June-July 11. MASS.-24, 25, 26, 27, 31, 32. R. I.-33. Conn.-34, 35. May 24-Aug. 16. E. transversus Wiedemann. ME.-4, 6, 8, 9, 10. N. H.-11, 13, 14, 15. VT.-16, 17, 19, 21. June 8-Sept. 28. MASS.-23, 24, 25, 26, 27, 28, 29, 32. R. I.-33. CONN.-34. 35. June 27-Oct. 20. E. bastardi Macquart. ME.--1, 4, 6, 8, 9, 10. N. H.--11, 13, 14, 15. VT.--19, 20. June 12-Sept. 22. MASS.-23, 24, 25, 26, 27, 28, 29, 31, 32. CONN.-34, 35. Apr. 15-Sept. 20. E. flavipes Walker. ME.-2, 4, 8, 9. N. H.-11, 14, 15. VT.-19, 20. June 18-Sept. 22. MASS.-26, 27, 29, 31. R. I.-33. CONN.-34, 35. May 4-Aug. 25. E. aeneus (Scopoli). N. H.—15. Aug. 14–26. MASS.-27, 28, 29, 31, 32. R. I.-33. CONN.-35. June 23-Oct. 19. Tropidia Meigen. T. calcarata Williston. MASS.—Arnold Arboretum, Forest Hills, Boston, June 14, 1912 (Reiff). T. quadrata Say. ME.-1, 6, 7, 8, 9, 10. N. H.-11, 14, 15. VT.-20, 21. June 28-Aug. 12. MASS.-25, 26, 27, 28, 29, 30, 32. CONN.-34, 35. May 30-Sept. 1.

Helophilus Meigen.

H. bilinearis Williston. ME.—Orono, June 15 (Parshley). CONN.—Branford, May 9, 1905 (Winkley). H. lunulatus Meigen. ME.-Mt. Desert, June 13. MASS.—Melrose, June 4; Lexington, July 12; Billerica, Aug. 27. H. hamatus Loew. MASS.-25, 26, 27, 29, 31. CONN.-35. May 8-June 29. H. conostoma Williston. ME.--8. N. H.-11, 15. May 26-Aug. 12. MASS.-27, 28, 29, 30, 31, 32. R. I.-33. CONN.-35. May 15-Sept. 1. H. chrysostomus Wiedemann. N. H.—11. MASS.-26, 27, 28, 29. R. I.-33. CONN.-34, 35. May 14-Aug. 18. H. distinctus Williston. CONN.—New Haven (Williston). H. integer Loew. ME.-7. July 10. MASS.-25, 26, 27, 29, 30, 31, 32. R. I.-33. CONN.-35. May 25-Aug. 19. H. laetus Loew. ME.---6, 8, 9. N. H.---11, 14. June 3-July 27. MASS.-25, 27, 29, 32. R. I.-33. CONN.-35. June 4-Aug. 11. H. porcus Walker. ME.—Orono, June 22; Oquossoc, July 1; Saddleback Mt. (Metcalf). **H. flavifacies** Bigot. ME.—Monmouth, June 21, 1909 (C. A. Frost). **H. obscurus** Loew. ME.—Saddleback Lake, 2500 ft., July 19, 1916 (Metcalf). H. obsoletus Loew. ME.—Bar Harbor, June 13. MASS.—Hopkinton, June 10 (C. A. Frost). H. latifrons Loew. ME.-4, 6, 8. N. H.-11, 14, 15. VT.-19. July 19-Sept. 8. MASS.-27, 28, 29, 32. CONN.-34. June 25-Oct. 20. H. similis Macquart. ME.-4, 6, 8, 9. N. H.-11, 14, 15. VT.-16, 19. May 24-Sept. 30. MASS.-26, 27, 32. CONN.-34, 35. June 15-Oct. 4.

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DIPTERA.

H. borealis Staeger (*H. glacialis* Loew; see Hine, 23-94). ME.-Roque Bluff, Aug. 11, 1907 (Cushman); Mt. Desert, Aug. 13; Waterville (Hitchings); Isle of Springs, July 5, 1920 (C. E. White, Jr.). VT.—(Harris Coll.). MASS.—Dorchester, June 1.

H. borealis var. dychei Williston. ME.—Capens, July 11-16, 1907.

H. groenlandicus (O. Fabricius).

N. H.-Kearsarge Mt., 3270 ft., July 2, 1891 (A. P. Morse).

Mallota Meigen.

M. cimbiciformis (Fallen). **ME.**—4. N. H.—11, 14. VT.—21. June 15–July 25. MASS.-23, 27. CONN.-35. June 20-July 13.

M. cimbiciformis var. bautias Walker. ME.-4. N. H.-14. VT.-21. June 16-July 19. MASS.-23, 27. CONN.-34. June 18-July 24.

M. posticata (Fabricius). ME.—4, 8. N. H.—11, 14. June 21–July 21. MASS.—25, 27, 31. CONN.—34, 35. May 30–July 14.

Merodon Meigen.

M. equestris (Fabricius). The Narcissus Fly.

ME.—Bar Harbor, July 25, 1916 (Metcalf), July 19, 1919 (C. W. J.)

Mass.—Great Barrington, June 16, 1915.

M. equestris var. narcissi (Fabricius).

MASS.—Blue Hill, June 5, 1910; Brookline, May 30; Sherborn, June 8.

M. equestris var. transversalis Meigen.

MASS.—Melrose Highlands, June 18; Salem, May 25. The larva lives in the bulbs of narcissus.

Polydontomyia Williston (Triodonta Williston, 1885, not Bory, 1824).

P. curvipes (Wiedemann).

ME.---7, 8, 10. N. H.---15. June 3-Aug. 13. MASS.---26, 27, 28, 29, 32. R. I.---33. CONN.---35. May 25-Aug. 5.

In New England this species is confined to the immediate sea-coast.

Teuchocnemis Osten Sacken.

T. lituratus (Loew).

N. H.—Hampton, May 21 (Shaw).

MASS.—Concord; Brookline; Tyngsboro, June 5 (Fall); Natick and Sherborn; Woods Hole. May 17-June 15.

Pterallastes Loew.

P. thoracicus Loew.

CONN.-New Haven, June 8, 1911.

Syritta St. Fargeau et Serville.

S. pipiens (Linné).

ME.-1, 4, 6, 8, 9. N. H.-11, 12, 13, 14, 15. VT.-16, 18, 19, 21. June 2-July 30.

MASS.—25, 26, 27, 28, 29, 30. R. I.—33. CONN.—35. June 8-Aug. 28.

Eumerus Meigen.

E. strigatus Fallen. The Lunate Onion-fly.

ME.—Bar Harbor, July 25, 1916 (Metcalf).

MASS.—Brookline, June, 1909; Melrose Highlands, 1914 (Webber); Cambridge, Aug. 6, 1908. CONN.—From bulbs, 1906 (Chittenden); Colebrook, Aug. 18, 1922 (W. M. Wheeler).

The larva lives in onions, narcissus and other bulbs. For its appearance in America, see Metcalf, 19–170.

Xylota Meigen.

X. angustiventris Loew.

N. H.—White Mts., Aug.

CONN.—Darien, June 10.

X. anthreas Walker.

N. H.—.

Conn.--.

X. hesperia atlantica Shannon (X. obscura of authors).

ME.—Capens, July 16; Mt. Desert, July 14–29. N. H.—Franconia.

X. ejuncida Say.

ME. 4, 5, 6, 8, 9, 10. N. H. 11, 13, 14, 15. VT. 21. June 21-July 20.

MASS.—23, 24, 25, 26, 27, 28, 32. R. I.—33. CONN.—34, 35. May 10-Sept. 1.

X. ejuncida elongata Williston.

ME.—Capens, July 16; Bar Harbor, June 7–July 24.

CONN.-Stafford, Aug. 24 (Britton).

X. fraudulosa Loew.

N. H.—White Mts.

MASS.—Chester, Aug. 4. CONN.—.

X. confusa Shannon.

ME.—*Princeton*, July 12, 1909.

X. fascialis Coquillett, 10-126 (X. nemorum of authors).

N. H.—Mt. Washington, Glen House, June 13; Halfway House, July 6.



X. subfasciata Loew. ME.—Capens, July 14. N. H.—Bretton Woods, June 24; Glen House, July 15. **X. libo** Walker (X. marginalis Williston). ME.-Princeton, July 12. N. H.-Mt. Washington, July 15; Halfway House, July 6; Glen House, June 14; Franconia. X. chalybea Wiedemann. ME.—9. N. H.—13, 14. June 19-July 4. Mass.—23, 24, 25, 27, 29. Conn.—35. June 6-July 4. X. curvipes Loew. ME.-3, 4, 8, 9. N. H.-11. June 11-Aug. 1. X. vecors Osten Sacken. ME.-4, 9. N. H.-11, 14. VT.-17, 19. June 4-Aug. 1. MASS.—27 (Brookline). June 18. X. bicolor Loew. MASS.-Concord (Barber); Melrose Highlands, June 18; Nantasket, June 17 (C. E. White, Jr.). CONN.-New Haven, June 9. X. pigra Fabricius. ME.-6, 7. N. H.-11. June 12-26. MASS.-25, 26, 27. CONN.-34. May 1-18. Brachypalpus Macquart. B. frontosus Loew. ME.---8, 9. N. H.---11, 14. June 13-22. MASS.-25, 27, 32. CONN.-. Apr. 7-May 31. B. rileyi Williston. Mass.—Sherborn, May 1, 1919 (E. J. Smith); Newton, Apr. 30, 1920 (C. E. White, Jr.). Criorhina Meigen. C. intermedia Johnson, 17-153. N. H.-Jaffrey, June 15-18, 1917; Mt. Monadnock (summit), June 10, 1920; Dublin. MASS.—Dartmouth, Apr. 25, 1916 (N. S. Easton). C. verbosa Walker. ME.--9. N. H.-11, 14, 15. Apr. 17. MASS.-24, 25, 26, 27, 32. CONN.-. Mar. 13-Apr. 19. Cynorhina Williston (Blera Billberg). C. analis (Macquart). ME.-5, 8, 9. N. H.-14, 15. VT.-21. June 8-20. MASS. 23, 25, 26, 27, 28, 29, 31. CONN. - 34. May 30-July 22. C. armillata (Osten Sacken). ME.—Enfield (Hitchings). N. H.—Mt. Washington (Mrs. Slosson); carriage road, 2000 ft., June 17 (L. W. Swett).

C. nigra Williston. ME.-6. N. H.-11, 14. June 9-July 6. MASS.-27. May 8. C. badia Walker (C. intersistens Walker). ME.--8. N. H.--11, 14, 15. VT.--21. May 17-June 26. MASS.-23, 27. CONN.-35. June 10-June 28. C. confusa Johnson, 13-294. ME.-4, 5, 7, 8. N. H.-11, 14. June 7-July 19. C. umbratilis Williston. N. H.—North Conway, Aug. 18 (A. M. Wilcox).
MASS.—East Walpole, May 26; Oak Bluffs, June 13, 1917; Ellis, May 24. CONN.—New Haven, June. Somula Macquart. S. decora Macquart. ME.--8. N. H.-11, 14. June 11-28. MASS.-24, 27, 28, 31. CONN.-35. May 22-June 13. Milesia Latreille. **M. virginiensis** (Drury). MASS.-24, 27, 32. CONN.-34. June 20-Sept. 19. Spilomyia Meigen. S. fusca Loew. ME.-4, 6, 8. N. H.-11, 14, 15. VT.-17, 19, 20. July 14-Sept. 12. MASS.-23, 25, 27, 28. CONN.-34. July 15-Sept. 6. S. hamifera Loew. N. H.-White Mts., July 3. MASS.—Boston, June 29; Sudbury, June 22, 1919 (C. A. Frost); Sherborn, June 15, 1920. CONN.—Colebrook, July 22 (Wheeler). S. longicornis Loew. Vт.—17. Sept. 10. MASS.-23, 25, 27, 31. CONN.-34, 35. Aug. 6-Sept. 11. S. quadrifasciata (Say). ME.-1, 3, 4, 9. N. H.-11, 14, 15. VT.-17, 19. Aug. 17-Sept. 17. MASS.-26, 27. CONN.-34. Aug. 19-Sept. 13. Sphecomyia Latreille. S. vittata Wiedemann. N. H.-11, 14, 15. VT.-21. May 30-June 21. MASS.-23, 25, 27, 32. CONN.-35. May 17-June 18. Temnostoma St. Fargeau et Serville. T. aequalis Loew. ME.-4, 5, 7, 8. N. H.-11. VT.-17. June 9-July 25.

T. alternans Loew. ME.-4, 6, 7, 8. N. H.-11, 14. VT.-17, 21. June 15-July 25. MASS.-26, 27. CONN.-34, 35. May 30-July 17. T. excentricum Harris. ME.---7, 8, 9. N. H.---11, 14. VT.---17. June 9-July 20. MASS.-23 (Mt. Greylock). June 15. T. venustum Williston. ME.-Saddleback Mt., 4000 ft., July 18, 1916 (Metcalf); Bar Harbor and Salisbury Cove, June 9. N. H.-Mt. Washington (Mrs. Slosson). MASS.--. T. bombylans (Fabricius). ME.-5, 8, 9. N. H.-11, 14, 15. VT.-18, 21. June 9-July 9. MASS.-26, 27, 32. R. I.-33. CONN.-34, 35. May 30-Aug. 7. T. obscurum Loew. ME.-9. N. H.-11, 14. VT.-18. June 16-July 7. MASS.-23, 24, 27. CONN.-34, 35. May 30-June 19. Ceriodes Rondani (Ceria Fabricius, not Scopoli, 1763). C. abbreviata (Loew). CONN.-New Haven (Williston). C. proxima Curran, 24-228. ME.-Metagamon, July 4, 1901. VT.-Bennington, June 18-21, 1915. C. willistoni (Kahl). MASS.—Forest Hills, Boston, June 4, 1913 (P. W. Whiting). CONOPIDAE. Conops Linné. C. brachyrhynchus Macquart. MASS.—Hadley, July 7, 1909. CONN.—New Haven, July 6, 1913 (W. E. Britton). C. sylvosus Williston. N. H.—11, 13, 15. June 26–Aug. 2. MASS.-24, 27. CONN.-34, 35. July 3-Aug. 21. C. xanthopareus Williston. MASS.—. CONN.—New Haven, Aug. 9; Sachem Head, Aug. 1. Physocephala Schiner. P. furcillata (Williston). ME.-3, 4, 6, 7, 8, 9. N. H.-11, 12, 13, 14. VT.-17, 19, 20. July 4-Aug. 30.

Mass.-23, 25. Conn.-34. July 5-Aug. 24.

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P. marginata (Say).

N. H.-White Mts. (Williston).

P. sagittaria (Say).

ME.-6. VT.-22. July 14-16.

MASS.-24, 25, 27, 29. CONN.-34. June 27-Aug. 10.

P. tibialis (Say).

MASS.-24, 25, 26, 27, 28, 29, 32. R. I.-33. CONN.-34, 35. June 25-Sept. 20.

Zodion Latreille.

Z. abdominalis (Say) (Z. bicolor Adams, see Banks, 16-196).

MASS.-North Adams, Aug. 10 (Bryant); Melrose Highlands, June 13 and Mashpee, June 2 (Webber).

Z. fulvifrons Say (Z. abditus Adams, see Banks, 16-193).

ME.--6, 8. N. H.--14, 15. June 8-Aug. 25. MASS.--27, 29, 30, 31, 32. R. I.--33. CONN.--34, 35. June 13–July 11.

Z. intermedium Banks, 16–193. ME.-8. N. H.-11, 14, 15. VT.-20. May 15-Aug. 16. MASS.-25, 26, 27, 28. R. I.-33. CONN.-34. June 19-Sept. 5.

Z. nanellum Loew.

ME.-1, 3, 4, 7. N. H.-11, 15. VT.-19. July 16-Sept. 13.

Z. perlongum Coquillett.

ME.-8. N. H.-11, 15. July 12-Sept. 9. MASS.-24, 27, 28, 32. CONN.-34. July 25-Sept. 16.

Stylogaster Macquart.

S. biannulata Say.

MASS.—Southbridge (Bromley). R. I.—Kingston, July 5 (Barlow). Conn.—.

S. neglecta Williston.

MASS.—Auburndale, July 16; South Hadley, June 26; Westfield, July 10 (Bryant). CONN.—.

Dalmannia R.-Desvoidy.

D. nigriceps Loew.

N. H.—11, 15. VT.—21. June 9–16. Mass.-26, 27. Conn.-35. May 30-June 7.

Thecophora Rondani.

(Occemya R.-Desvoidy; Oncomyia Loew.)

T. abbreviata (Loew).

ME.-4, 9. N. H.-11, 15. July 15.

MASS.-23, 25, 26, 27, 32. CONN.-34, 35. July 4-Aug. 24.

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DIPTERA.

T. baroni (Williston).

N. H.—11, 12. July 5. MASS.-27. R. I.-33. CONN.-35. Aug. 1-27. T. modesta var. melanopoda (Williston). N. H.-11, 12, 13, 14, 15. VT.-20. July 2-Aug. 18. MASS.-23, 24, 26, 27. CONN.-35. June 27-Aug. 22. T. loraria (Loew). ME.--8. N. H.-11, 15. July 17-Sept. 5. MASS.-23, 25, 27, 29. CONN.-34, 35. May 26-Aug. 25. Myopa Fabricius. M. clausa Loew. ME.-4, 5, 7, 9. N. H.-11, 14, 15. VT.-20. May 31-July 15. MASS.-23, 24, 25, 27. CONN.-35. May 18-June 10. M. vesiculosa Say. ME.—9. N. H.—11, 14, 15. May 12-June 18. MASS.—27, 32. R. I.—33. CONN.—35. May 3-29. M. vicaria Walker. ME.---6, 9. N. H.---15. Apr. 22-May 5. MASS.-25, 27, 32. R. I.-33. CONN.-35. Apr. 18-June 1. M. virginica Banks, 16-198. ME.-9. N. H.-12. VT.-21. June 8-July 14. MASS.-23. CONN.-34. June 14-July 15. PYRGOTIDAE. Pyrgota Wiedemann. P. chagnoni Johnson. MASS.—West Pittsfield, July 1, 1924 (Carpenter). CONN.— Lyme, May 27, 1918 (A. B. Champlain). P. undata Wiedemann. ME.--6, 9. N. H.--11, 14. VT.--16, 21. June 9-19. MASS.-23, 24, 25, 27, 28. CONN.-35. June 3-July 12. P. valida (Harris). N. H.—11, 14, 15. May 27. MASS.-24, 26, 27. R. I.-33. CONN.-35. May 2-June 20. OESTRIDAE. Oestrus Linné. Oe. ovis Linné. The Sheep Bot-fly. ME.-Hallowell, July (Harris Coll.). N. H.-Dublin (Harris Coll.). MASS.—Cambridge, July 1, 1838 (Harris). CONN.—.

Hypoderma Clark.

H. bovis Linné. The Ox Warble Fly.

- ME.—Oxford Co. (Bishopp). N. H.—Grafton, Merrimack and Rockingham Counties (Bishopp). VT.—Manchester. Bred from larva obtained from a cow June 7, 1910, pupated June 11, imago June 30 (Johnson, 10-231). Recorded by Bishopp from Franklin, Washington, Rutland and Windham Counties, 15 - 361.
- MASS.—West Newbury. CONN.—Saybrook.

H. lineata De Villiers.

- ME.—"Maine" (Harris Coll.). N. H.—Carroll Co.; Franconis. Vт.—.
- MASS.-Melrose Highlands. CONN.-Stonington, May, 1914.

Bogeria Austen (Cuterebra of authors in part).

- **B. buccata** (Fabricius). The Rabbit Bot-fly. N. H.—Jaffrey, June 25, 1919 (*Miss Spaulding*). MASS.—Winchendon, July 5, 1892 (*Morse*); West Newbury (Merritt); Swampscott, June 17, 1919 (Walker); Amherst, Aug. 4, 1916; Attleboro, June 20, 1920 (C. A. Frost).

B. fontinella (Clark). The Squirrel Bot-fly.

MASS.—Freetown, Aug. 13, 1908 (Easton); East Wareham, Aug. 20, 1911 (Franklin); Martha's Vineyard, Aug. (F. M. Jones); Paxton, July.

B. emasculator (Fitch).

MASS.—Amherst, Aug. 9, 1916 (Mass. Agric. College Coll.). This species also infests squirrels.

Larvae of Bogeria sp. have been obtained from the meadow mouse, Provincetown, Mass. (G. S. Miller); a tame rabbit, West Newbury, Aug. 20, 1908 (Merritt); and a kitten, Vernon, Conn., Oct. 2, 1920 (Britton).

PHASIIDAE.

Cistogaster Macquart (Gymnoclytia Brauer and Bergenstamm).

C. immaculata Macquart.

ME.-9, 10. N. H.-15. VT.-20, 21. June 19-Aug. 8. MASS.-23, 27, 30. R. I.-33. CONN.-34, 35. June 6-Sept. **20**.

C. occidua (Walker).

ME.-2, 8, 10. N. H.-11, 15. VT.-16, 17, 19. June & Aug. 16.

MASS.-24, 26, 27, 28, 29, 30. R. I.-33. CONN.-34, 35. June 6-Sept. 22.



Gymnosoma Meigen.

- G. fuliginosa R.-Desvoidy.
- ME.---I, 2, 4, 6, 8, 9, 10. N. H.---11, 14, 15. VT.---18. 19. 21. June 13-Sept. 25.
- MASS.-24, 25, 26, 27, 29, 30. R. I.-33. CONN.-34. 35. June 6-Sept. 21.

Phasia Latreille (Alophora R.-Desvoidy, 1830; Phorantha Rondani, 1862). P. aeneoventris (Williston).

ME.--1, 3, 4, 6, 7, 8. N. H.--11, 15. July 25-Sept. 25. MASS.--23, 24, 25, 27, 28, 31. CONN.--35. June 13-Oct. 19. **P. calvptrata** (Coquillett).

MASS.—Charles River Village, Aug. 7; North Saugus, July 2.

- P. fenestrata (Bigot) (P. phasiatrata H. E. Smith, 15-98; Paraphasia fenestrata Townsend, 15-20).
- MASS.—Melrose Highlands, May 18, 1911 (Smith); Cohasset, June 30, 1914 (Webber).
- P. fumosa (Coquillett).

N. H.—Pelham, Aug. 11, 1905 (J. C. Bridwell).

- MASS.—Melrose Highlands, June 9-July 14; Amherst, July; Agawam, Oct. 27 (Smith). CONN.—Colebrook, July 13 (Wheeler).
- P. magnipennis (Johnson), 04-19.

N. H.—Hampton, Sept. 9 (Shaw).

MASS.—Great Barrington, May 31, 1917 (W. I. Beecroft).

P. nitida (Coquillett).

MASS.—.

P. phasioides (Coquillett) (Alophoropsis phasioides Townsend, 15-20).

ME.-3, 8. N. H.-11. June 15-Sept. 25.

MASS.-24, 27. CONN.-34. July 12-13.

P. pulverea (Coquillett) (Oedematopteryx pulverea Townsend, 16-· 633).

ME.—Orono, Oct. 5, 1913 (Parshley). N. H.—Franconia (Mrs. Slosson); Jackson, Sept. 25 (Bryant).

MASS.—Cohasset, July 15, 1905 (Bryant). CONN.—Yalesville, Oct. 9 (Viereck).

P. splendida (Coquillett) (*Phasiomyia splendida* Townsend, 15-20).

ME.-1, 3, 4, 5, 8. N. H.-11. July 13-Sept. 25. MASS.-27, 28. CONN.-34. July 10-Sept. 11.

- P. subopaca (Coquillett).
- N. H.—15. Oct. 15.

MASS.-27, 29, 31. CONN.-35. May 30-Oct. 19.

Phoranthella Townsend, 15-23.

P. occidentis (Walker). MASS.—Ellis Station, Norwood, May 24; Needham, Sept. 3. CONN.-New Haven, Oct. 21 (Viereck).

Parasitic on Miris dolobrata (Leonard, 16-236), and on the False Chinch-bug (Milliken and Wadley, 23-28).

Euphorantha Townsend, 15-20.

E. divisa (Coquillett).

ME.—Orono, Oct. 5, 1913 (Parshley).

MASS.-Milton, Sept. 20 (Dr. Minot); Forest Hills and Stony Brook Res., Sept. 15 (G. C. Wheeler); West Bedford, Sept. (L. W. Swett); Sherborn, Sept. 12 (Frost).

Trichoclytia Townsend, 16-633.

T. atrata Coquillett (Clytiomyia atrata Coquillett). ME.--6, 8. N. H.--11, 14. June 4-26. MASS.--24, 26, 27. May 24-Oct. 3.

Trichopoda Latreille.

Subgenus Trichopodopsis Townsend, 13-148.

T. cilipes Wiedemann. MASS.—West Roxbury.

T. pennipes (Fabricius).

N. H.—15.

MASS.-23, 24, 26, 27, 32. CONN.-35. June 23-Oct. 1. Parasitic on the Squash-bug (Anasa tristis), Worthley, 24-7.

Polistomyia Townsend, 08-132 and 15-121.

P. plumipes var. trifasciata (Loew).

"Conn." Parasitic on grasshoppers, Dissosteira.

Gymnophania Brauer and Bergenstamm.

G. montana Coquillett.

ME.-Mt. Desert, July 14-25; Houlton, Aug. 25 (Alexander). N. H.-Mt. Washington (Mrs. Slosson); Hampton, June 30-July 4 (Shaw).

TACHINIDAE.

Myiophasia Brauer and Bergenstamm.

M. metallica (Townsend) (*M. aenea* of authors; see Aldrich, 24-213).

N. H.—15, Hampton (Shaw).

MASS.-26, 27, 28, 29, 32. R. I.-33. CONN.-35. June 28-Aug. 22.

Parasitic on various species of weevils: Balanius, Conotrachelus, etc.



E. nigrifrons (Townsend). **ME.**—8. VT.—18. Aug. 22, 23. MASS.—27, 28, 29. Conn.—34. July 25–Oct. 5.

Ennyomma Townsend.

E. ruficornis (Townsend). ME.-3. N. H.-11. VT.-19. Aug. 17-28. MASS.-23, 27. Aug. 8-22.

Mauromyia Coquillett.

M. pulla Coquillett.

N. H.—White Mts. (Morrison). VT.—Bolton Mt., July 16, 1922 (Bryant).

Emphanopteryx Townsend.

(Cryptomeigenia of authors, not Brauer and Bergenstamm.)

E. prisca (Walker) (C. theutis of authors in part; Eumyothyria illinoisensis Townsend).

ME.---8. N. H.---11, 14, 15. Apr. 29-June 21. MASS.--25, 26, 27, 32. May 2-5.

Parasitic on the various species of May Beetles, Davis, 19-107.

E. menapis (Walker). **ME.**—9. N. H.—11, 14, 15. VT.—. June 3–10. **MASS.**—24, 26, 27, 28. R. I.—33. CONN.—35. May 19–July 22

Eulasiona Townsend.

E. comstockii Townsend. ME.--7. N. H.--11, 14. June 7-July 21. MASS.--23, 25, 27. CONN.--35. May 24-June 5.

Ocypterosoma Townsend, 15-19.

O. polita (Coquillett) (*Admontia polita* Coquillett). ME.—Mt. Desert, July 16, 1918. MASS.—Woburn, June 8, 1921.

Euhyperecteina Townsend, 15-19.

E. nasoni Coquillett (*Admontia nasoni* Coquillett). MASS.—Medford, June 24, 1922 (*Barber*).

Iconomedina Townsend, 16-626.

I. washingtonae (Coquillett). N. H.—Mt. Washington.

Spathimeigenia Townsend, 15-19.

S. nigriventris H. E. Smith, 17–139. MASS.—"Hatch Experiment Station" [Amherst]. S. spiniger Townsend, 12-19 (Admontia demylus Coquillett, not Walker).

CONN.—Easton, July 6, 1922, larva from saw-fly larva; emerged Aug. 25, 1922 (Zappe).

Parasitic on Lophyrus abbotti and L. lecontei.

Schizotachina Walker.

S. convecta Walker (Clausicella usitata Coquillett).

N. H.—White Mts. (Morrison); Canobie Lake (Dimmock).

MASS.—New Bedford (Hough); Fall River, June 11 (Cushman). CONN.—East River.

S. vitinervis Thompson, 11–268.

N. H.—Hampton, May 5, 1908 (Shaw).

MASS.—Lowell, May 31, June 1 (Thompson); Mt. Tom, Sept. 22; Auburndale, July 16.

Nephopteropsis Townsend, 16-623.

N. johnsoni (Coquillett) (Clausicella johnsoni Coquillett). MASS.—Lincoln, Aug. 31 (G. W. Barber); Brookline, Sept. 6; Nantucket, Aug. 9.

Phylacteropoda Townsend, 16-623.

P. tarsalis (Coquillett).

N. H.—White Mts. (*Morrison*); Mt. Washington (*Mrs. Slosson*). VT.—Killington Peak, Aug. 27, 1919.

Plectops Coquillett.

P. melissopodis Coquillett.

ME.—Machias, July 19. N. H.—Hampton, May 20 (Shaw).

MASS.—Boston, Aug. 16; Dedham, June 3; Franklin, May 29 (Barber); Plymouth, July 28. CONN.—New Haven, May 24 (Britton).

Lispidea Coquillett.

L. palpiger Coquillett.

ME.—Orr's Isl., July 24. VT.—Amsden, July 10.

MASS.—Chester, Aug. 6; Framingham, Aug. 17 (Frost). CONN.— New Haven, July 20 (Walden).

Thryptocera Macquart.

T. americana Townsend (Polychaetoneura elyii Walton, 14-91).

ME.—Northeast Harbor, June 26-July 16 (Dr. Minot).

R. I.—Kingston, Aug. 13 (Barlow). ČONN.—East River, Aug. 2, 1912 (Ely).

Bred from Schizura concina.

T. atripes Coquillett.

MASS.—New Bedford (Hough).

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T. flavipes Coquillett.

N. H.—Mt. Washington (Mrs. Slosson); Bretton Woods, June 24-26.

Euryceromyia Townsend.

E. robertsoni Townsend.

MASS.—Squantum, Oct. 17, 1904 (A. P. Morse). CONN.—New Haven, June 24, 1902 (Moore).

Actia R.-Desvoidy.

A. palloris Coquillett.

ME.—Little Black River Rapids, Sept. 13, 1907 (Cushman); Northeast Harbor, July 6, 1909 (Dr. C. S. Minot). N. H.— "New Hampshire" (Coquillett). VT.—Norwich, July 7; Mt. Ascutney, July 11.

A. pilipennis (Fallen).

ME.-4, 8. N. H.-11, 15. VT.-19. June 9-Sept. 9.

MASS.-24, 26, 27, 28, 29. R. I.-33. CONN.-35. July 4-Nov. 15.

Dichaetoneura Johnson, 07-9.

D. leucoptera Johnson, 07-9.

ME.-6, 8, 9. N. H.-14, 15. VT.-21. July 5-Aug. 12. MASS.-24, 25. Conn.-34. July 6-15.

Parasitic on Archips cerasivorana and A. fervadana.

Chaetophleps Coquillett.

C. setosa Coquillett.

ME.—Orono (Alexander); Monmouth, July 19 (Frost); Mt. Desert, July 12. N. H.—Canobie Lake (Dimmock).
 MASS.—. CONN.—Danbury, June 15.

Celatoria Coquillett.

C. diabrotica (Shimer).

N. H.—Hampton, Sept. 16, 1905 (Shaw).

MASS.—Auburndale, July 12; Manomet, July 17 (Brooks); Barnstable, July 5.

Parasitic on Squash Beetles, Diabrotica vittata and D. 12punctata.

C. spinosa Coquillett.

MASS.-27. R. I.-33. CONN.-35. May 26-Oct. 10.

Parasitic on the Dogwood Flea-beetle (*Altica corni*) and on the Elm Flea-beetle (*Altica ulmi*), see W. C. Woods, Bull. 273, Maine Agric. Exp. Sta., p. 173 and 193.

Euadmontia Townsend, 15-19.

E. pergandei (Coquillett). ME.—1. N. H.—11. VT.—21. July 11-Aug. 19.

MASS.-24, 26, 27, 28, 29. CONN.-35. July 4-Aug. 30.

Hylotomomyia Townsend, 16-31.

H. hylotomae (Coquillett).

MASS.-Woods Hole: Melrose Highlands, June 16.

Parasitic on saw-fly, Hylotoma humeralis Beauvois.

Aubaeanetia Townsend, 19-569.

A. assimilis Townsend, 19-561 (Hypostena floridensis of authors. not Townsend).

ME.-8. N. H.-11, 14. June 7-July 29. MASS.—23, 25. June 14-Aug. 5.

Xenadmontia Townsend, 15-22.

X. degeerioides (Coquillett).

ME.-7. N. H.-11, 14, 15. June 6-July 19. MASS.-26, 27, 28, 29. May 15-Sept. 22.

Neadmontia Townsend, 12-164.

N. limata (Coquillett).

MASS.—North Saugus, Aug. 21.

Parasitic on the larvae of Tipulidae.

Parameigenia Townsend, 19-576.

P. albifacies (Townsend), 19-576 (Paradexodes albifacies Townsend, 08–102).

N. H.—White Mts. (Dimmock).

MASS.-North Adams, June 14, 1906; Melrose Highlands, Sept. 29.

Lixophaga Townsend, 08-86 (Euzenillia Townsend, 11-148).

L. variabilis (Coquillett) (E. aurea Townsend, 11-148; 12-111; 15-121; 16-31).

ME.--8. N. H.--11, 15. June 12-Sept. 6. MASS.--26, 27. CONN.--35. June 11-Aug. 15.

Parasitic on the Coddling Moth and on Pyrausta penitalis.

Hypostena Meigen.

H. gilvipes Coquillett. MASS.—New Bedford (Hough).

Methypostena Townsend, 08-67.

M. barbata (Coquillett).

ME.--6, 8. N. H.--11. July 18-19.

MASS.—26, 27, 32. CONN.—35. May 16-Aug. 4. Parasitic on Leaf Beetles, Disonycha xanthomelaena and Deloyala clavata.

Pseudomyothyria Townsend.

P. indecisa Townsend.

MASS.—Southbridge, July 23. CONN.—New Haven, Aug. 1.

DIPTERA.

Oedematocera Townsend, 16-621.

Oe. flaveola (Coquillett).

N. H.—Franconia (Mrs. Slosson).

MASS.—Wellesley, Aug. 26 (Morse); Cohasset, July 15 (Bryant); Amherst. Conn.—Prospect.

Paradexodes Townsend, 08-101.

P. aurifrons Townsend, 08–101.

MASS.—North Saugus, July 14 (Gipsy Moth Laboratory).

Pseudeuantha Townsend, 15-416 (Anaporia Townsend, 19-560).

P. coquilletti Aldrich, 21-90.

N. H.—White Mts. (Morrison).

MASS.—May 5. CONN.—Lyme.

Bred from Tortricidia flexuosa.

- **P. pristis** (Walker) (*Macquartia pristis* of authors in part; *Aporia limacodis* Townsend).
- ME.-8. N. H.-11. VT.-20, 21. June 5-July 18.

MASS.-23, 27, 29, 31, 32. CONN.-35. June 20-July 25.

Parasitic on Empretia stimulea, Euclea ceppus, etc.

Xanthocera Townsend, 15-22.

X. clistoides Townsend (Hyalurgus johnsoni Coquillett, not Townsend, 15-22).

MASS.—Ipswich, June 10.

Polidea Macquart.

P. areos Walker.

ME.---1, 3, 4, 6, 8. N. H.---11, 12, 13, 14, 15. VT.---19, 20. June 18-Sept. 25.

Mass.—24, 27, 30, 32. R. I.—33. Conn.—35. May 28-Sept. 22.

Chaetophlepsis Townsend, 15-422.

C. tarsalis Townsend, 15–423 (see Aldrich, 23–161) (Hypochaeta longicornis Coquillett, not Schiner; H. endryae H. E. Smith, 16–94).

ME.—Wales, June 18 (Frost). N. H.—White Mts. (Morrison). MASS.—Brookline, June 3; Newton; Fall River, May 13 (Easton). R. I.—Kingston, May 28 (Barlow).

Bred from a larva of *Eudryas grata*, Apr. 12, 1911 (Smith, 6-94).

Pelatachina Meade.

P. pellucida Coquillett.

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Mass.—"Lynn Woods," near Lynn. Bred from Euvanessa antiopa.



Apinops Coquillett.

A. atra Coquillett.

ME.—Southwest Harbor, Aug. 20. N. H.—Mt. Washington, Sept. 19.

Genea Rondani, 1850.

G. analis (Say), see Aldrich, 24-210.

MASS.—Bashbish Falls, June 26; Cohasset, Sept. 8, 1907 (Bryand). Conn.—.

G. texensis Townsend (*Dejeaniopsis texensis* Townsend, 16–321). ME.—Princeton, July 12. VT.—Mt. Equinox, June 5. Conn.—Colebrook, July 13 (*Wheeler*).

Leskiopsis Townsend, 16-627.

L. thecata Coquillett.

MASS.—Mt. Tom, July 14. CONN.—.

Myobiopsis Townsend, 16-628.

M. similis Townsend, 16–628.

N. H.-13, 14, 15. Aug. 20-Sept. 10.

Mass.-23, 27, 28, 29. R. I.-33. Conn.-34, 35. July 15-Sept. 8.

Leskiomima Brauer and Bergenstamm.

L. tenera (Wiedemann).

N. H.—Franconia (Mrs. Slosson); Jaffrey, June 14; Durham, July 27 (Lowry).

MASS.—Sharon, Aug. 25; Mt. Tom, Sept. 22. CONN.—New Haven.

Paradionaea Townsend, 16-631.

P. atra (Townsend) (*Leucostoma atra* Townsend, genotype). ME.—1. N. H.—11. VT.—21. June 18-Aug. 19. MASS.—24, 26, 27, 28. R. I.—33. July 16-Sept. 8.

P. senilis (Townsend).

MASS.—Tisbury, July 21 (Cushman). CONN.—New Haven, June 20.

Sciasma Coquillett.

S. frontalis H. E. Smith, 17-56.

MASS.—West Springfield, Aug. 13, 1915 (Smith); Essex Co., May 2, 1921 (Morse).

S. nebulosa Coquillett. N. H.—Hampton, June 17, 1910, and July 30, 1923 (Shaw). MASS.—New Bedford (Hough).



Hyalomyodes Townsend.

H. triangulifera (Loew).

ME.-4, 6, 7, 8, 9. N. H.-11, 12, 15. VT.-17, 19. June 21-Sept. 26.

MASS.—23, 27. R. I.—33. CONN.—34, 35. May 30-Oct. 16. Bred from Haltica bimarginata by W. C. Woods.

Psalidopteryx Townsend, 16-21.

P. slossonae Townsend, 16-22.

N. H.—Mt. Washington (Mrs. Slosson).

Ormia R.-Desvoidy (Oestrophasia Brauer and Bergenstamm).

O. clausa (Brauer and Bergenstamm). N. H.—15. July 5–Sept. 5. MASS.—23, 26, 27, 28. R. I.—33. June 2–Aug. 7.

O. signifera Van der Wulp.

N. H.—Franconia.

R. I.—Buttonwoods, June 18, 1912. CONN.—South Meriden, July 2 (H. L. Johnson).

Eliozeta Rondani, 1856 (Clytiomyia Rondani, 1861).

E. flava Townsend. **ME.**—1, 3, 8, 9. N. H.—11. July 13–Sept. 13. **MASS.**—24, 29. CONN.—35. May 28–July 26.

Eubrachymera Townsend, 18-162.

E. debilis Townsend, 18–162. ME.—Southwest Harbor, July 15–20.

Eutrixa Coquillett.

E. exile (Coquillett) (E. masuria Coquillett, not Walker).
ME.—9. N. H.—11, 15. June 15–18.
MASS.—24, 27, 28. CONN.—35. May 15–July 31.
Parasitic on May Beetles (Davis, 19–112).

Xanthomelanodes Townsend, 08-129 (Xanthomelana Van der Wulp).

X. arcuata (Say).

N. H.—Holderness, Aug. 2, 1899 (Morse); Hampton, Aug. 10 (Shaw).

MASS.—Beverly, Aug. 22; Springfield, July 13. CONN.—Westbrook, Aug. 30; Colebrook, Aug. 19 (Wheeler).

X. flavipes (Coquillett).

VT.-Mt. Ascutney, July 23, 1912 (W. S. Brooks).

Mass.—Horse Neck Beach, Aug. 4, 1896 (Hough); Auburndale, Aug. 13, 1904.

Hemyda R.-Desvoidy.

H. aurata R.-Desvoidy.

N. H.—Hampton, Aug. 25 (Shaw).

MASS.-Groton, July 8; Brookline, Sept. 7; Framingham, Aug.

18 (Frost); Cambridge, Sept. 13. CONN.-Yalesville, Sept. 24.

Siphophyto Townsend.

S. floridensis Townsend.

ME.—8. N. H.—11, 14. June 16–Aug. 25. MASS.—23, 24, 26. July 16–Aug. 7.

Epigramyia Townsend.

E. polita Townsend.

N. H.—White Mts.; Hampton, May 22 (Shaw).

MASS.—Bridgewater, July 11, 1905 (Cushman). CONN.— Rowayton, June 12.

Siphoclytia Townsend.

S. robertsoni Townsend.

CONN.—New Haven, June 26, 1902 (E. J. S. Moore).

Pseudosiphona Townsend, 16-622.

P. brevirostris (Coquillett).

N. H.—Cornish, July 13, 1908.

CONN.—Winnipauk, Aug. 4, 1908.

Siphona Meigen.

S. geniculata (DeGeer).

ME.-1, 4, 7, 8, 9. N. H.-11, 13, 15. VT.-19. June 9-Sept. 10.

Mass.-27, 29, 30, 32. R. I.-33. Conn.-35. May 26-Aug. 13.

S. lutea (Townsend) (Crocuta lutea Townsend, 19–583).

N. H.—Franconia, July 20-21, 1915 (Townsend).

Metaplagia Coquillett.

M. occidentalis Coquillett.

MASS.—Melrose Highlands, June 15 (H. E. Smith).

Anthomyiopsis Townsend, 16–21.

A. cypseloides Townsend, 16–21. N. H.—Franconia (Mrs. Slosson).

Blepharigena Rondani (Paraplagia Brauer and Bergenstamm).

B. spinulosa (Bigot).

ME.—Eliot, Sept. 17, 1920 (Morse).

MASS.—New Bedford (Hough); West Springfield, Aug. 24 (Smith). CONN.—Strafford, Aug. 24.



Cyrtophloeba Rondani.

C. horrida Coquillett.

МЕ.—8. N. Ĥ.—15. VT.—21. Apr. 25-Aug. 11. Mass.—23, 24, 26, 27, 32. Сом..—35. May 4-June 20.

Voria R.-Desvoidy, 1830 (Plagia Meigen, 1838).

V. americana Van der Wulp.

ME.-Mt. Desert, July 20-Sept. 12; Capens, July 16.

MASS.—Auburndale, Šept. 4–Oct. 20; Melrose Highlands, June 15; Nantucket, Aug. 8.

Siphoplagia Townsend.

S. rigidirostris (Van der Wulp).

MASS.—Melrose Highlands, June 24; Wellesley, Sept. 21 (Morse). CONN.—New Haven, June 24 (Moore); Colebrook, July 12 (Wheeler).

Pseudotractocera Townsend.

P. lachnosternae (Townsend), 08–106.

MASS.—Cohasset, Aug. 20, 1905 (Bryant).

Distichona Van der Wulp.

D. auriceps Coquillett.

MASS.-Melrose Highlands, Sept. 13 (Tothill); Andover, Sept. 25.

Siphosturmia Coquillett.

S. rostrata Coquillett.

MASS.—Melrose Highlands, July 3.

Viviania Rondani (Biomyia of authors; Eubiomyia Townsend, 16-74).

V. georgiae Brauer and Bergenstamm (P. calosomae Coquillett, MS.).

MASS.—Amherst, Lyndfield, June 7, and Essex Co., Sept. 7 (*Morse*); Melrose Highlands, Gipsy Moth Laboratory, June 16. A parasite of the Calosoma Beetle.

Belvosia R.-Desvoidy (Latreillimyia Townsend, 08-105).

B. bifasciata (Fabricius).

N. H.—15. Sept. 8.

MASS.-23, 24, 25, 27. R. I.-33. CONN.-34, 35. July 8-Sept. 4.

Parasitic on Citheronia regalis, Dryocampa rubicunda, etc.

Triachora Townsend, 08-105.

T. unifasciata (R.-Desvoidy).

MASS.-23, 24, 26, 27. CONN.-34, 35. June 15-Sept. 7. Parasitic on the Army Worm (Helophila unipunctata).

Melanophrys Williston.

M. insoleta (Walker). Mn.-9. N. H.-11, 14, 15. VT.-21. June 18-21. Mass.-24, 27. Conn.-35. May 24-June 23.

Aphria R.-Desvoidy.

A. ocypterata Townsend.

ME.—Orono (Hitchings). N. H.—Franconia.

MASS.-Winchendon, July 5, and Dover, July 17 (Morse); Stony Brook Res., Aug. 1 (Taylor); Wollaston, Sept. 5; Indian Orchard, Aug. 15 (Smith).

Parasitic on Carneades messoria.

Cylindromyia Meigen, 1803 (Ocyptera Latreille, 1805). Subgenus Cylindromyia Meigen.

C. argentea (Townsend) (not Coquillett).

ME.-9, 10. N. H.-11, 15. June 22-July 27. MASS.-25, 27, 28, 29. R. I.-33. CONN.-34, 35. June 15-Sept. 23.

C. sp.

MASS.-Waltham.

Subgenus Neocyptera Townsend, 16-32.

C. dosiades (Walker).

ME.-4, 6, 8, 9. N. H.-11, 15. VT.-19, 20, 21. June 19-Sept. 11.

MASS.-23, 24, 25, 27, 29. CONN.-34, 35. July 5-Aug. 16.

Linnaemyia R.-Desvoidy.

(Bonellia R.-Desvoidy: Bonellimyia Townsend, 18-117.)

L. haemorrhoidalis (Fallen) (L. picta Meigen). ME.---8, 10. N. H.---11, 14. VT.---19. July 18-Sept. 11. MASS.---23, 24, 26, 27, 32. R. I.---33. CONN.---35. July 10-Sept. 9.

Bonnetia R.-Desvoidy.

B. comta (Fallen).

ME.-1, 4, 6, 8, 9. N. H.-11. VT.-19, 21. June 24-Sept. 21. MASS.—23, 24, 26, 27, 28, 29, 30. R. I.—33. CONN.—34. June 2–Sept. 7.

Parasitic on Agrotis ypsilon and Carneades messoria.

Pyraustomyia Townsend, 16-627.

P. penitalis (Coquillett).

MASS.—Arlington, July 8, 1920 (Anderson).

This specimen may have been introduced from the West in connection with some work on the corn-borer parasites.

> Ernestia R.-Desvoidy (see Curran, 24-214). Mericia R.-Desvoidy.

E. flavicornis Brauer.

ME.—Capens, July 14. N. H.—Randolph, July 12; Bretton Woods, June 24-Aug. 15; Jaffrey, June 18.



DIPTERA.

E. ampelus (Walker) (*Panzeria radicum* of authors in part). ME.—8, 10. N. H.—11, 14, 15. VT.—19. June 3-Aug. 21. MASS.—24, 27, 29. CONN.—35. May 7-Aug. 19. Parasitic on the Fall Web-worm, etc.

E. arcuata (Tothill), 21–248. **ME.**—8. N. H.—11, 14. VT.—21. June 9–July 7. **MASS.**—23, 24, 26, 27. May 10–June 16.

E. johnsoni Tothill, 21–229.
N. H.—Glen House, base of Mt. Washington, June 11, 1916.
MASS.—Wellesley (*Morse*); Melrose Highlands and North Saugus (*Tothill*).

E. nigropalpis Tothill, 21–247.
ME.—Sugar Isl., Moosehead Lake, July 17; Mt. Desert, Aug. 21. VT.—Killington Peak, Aug. 28.
MASS.—Beverly, Aug. 22; Cohasset, Sept. 10 (Bryant); Amherst.

E. platycarina Tothill, 21–270. ME.---3, 4, 7, 8, 10. N. H.---11. VT.---19. July 7-Sept. 6. MASS.---23, 24, 25. July 24-Aug. 28.

Macromeigenia Brauer and Bergenstamm.

 M. chrysoprocta (Wiedemann).
 N. H.—Farmington (Fall).
 MASS.—Melrose Highlands and North Saugus, July 15–30; Agawam, Aug. 14.

Chrysotachina Brauer and Bergenstamm (Eugymnochaeta Townsend, 12-314;

18-182).

C. alcedo (Loew). N. H.—12, 15. VT.—21. June 21–July 3. MASS.—24, 27. CONN.—35. June 10–23.

C. ruficornis (Williston). ME.—Oquossoc, July 1. N. H.—Hampton, May 15 (Shaw). MASS.—Mt. Wachusett, May 30. CONN.—Darien, June 12.

Gymnochaeta R.-Desvoidy (Chlorometaphyto Townsend, 18-180).

C. vivida Williston. ME.—Bar Harbor, June 21, 1922. MASS.—Amherst.

Nemorilla Rondani,

N. insolens Aldrich and Webber, 24-6. MASS.—Melrose Highlands, May-June, 1918. 195

N. maculosa (Meigen) (Exorista pyste (Walker) Coquillett). ME.---8, 10. N. H.---11, 14, 15. June 25-Sept. 7. MASS.---26, 27, 28, 29. R. I.---33. CONN.---35. June 3--Oct. 2.

Bred from the Fire-worm (Peronia minuta), Archips rosana, Corn-borer (Pyrausta nubilalis), etc.

Zenillia R.-Desvoidy.

Subgenus Zenillia R.-Desvoidy.

Z. amplexa (Coquillett) (Exorista amplexa Coquillett).

ME.--9. N. H.--11.

MASS.-24, 26, 27. R. I.-33. June 9-Oct. 8.

- Z. coerulea Aldrich and Webber, 24-23.
- MASS.—Auburn, June 29, July 12 (Eels).

Reared from Cimbex americana.

Z. eudryae (Townsend) (Oxexorista thompsoni Townsend, 15-21). ME.--8. N. H.--11. July 13. MASS.--24, 27, 32. R. I.--33. CONN.--35. June 22-Aug. 28.

Parasitic on Eudryas grata and E. unio, Alypia, Automeris.

Z. formosa Aldrich and Webber, 24-23.

MASS.-West Medford, May 31; Melrose Highlands (Townsend). CONN.—North Haven, Aug. 3 (Viereck). Reared from Automeris io and Agrotis ypsilon.

Z. helvina (Coquillett) (Exorista helvina Coquillett).

- ME.—8. N. H.—11, 15. Aug. 22. MASS.—23, 27. July 29-Aug. 28.

Reared from Amphidosia cognataria.

Z. protuberans Aldrich and Webber, 24-15.

VT.—Rockingham, July 23-25, 1915 (Culver). Reared from Malacosoma disstria.

Z. reclinata Aldrich and Webber.

ME.—Liberty, July 20, 1912 (Cushman). VT.—Mt. Ascutney, 2500 ft., July 11, 1908.

Subgenus Phryze R.-Desvoidy.

Z. caesar (Aldrich), 16–20 (Exorista nigripalpis Townsend, 1896, not of Macquart, 1848).

ME.-2, 4, 8, 9, 10. N. H.-11, 13, 15. VT.-19. June 16-Sept. 13.

MASS.-23, 26, 27, 28. June 4-Aug. 28.

Reared from Cacoecia, Pyrausta, Crambus, etc.

Z. crassiseta Aldrich and Webber, 24-29.

Mass.—Andover.

Z. vulgaris (Fallen) (Exorista vulgaris of authors).

ME.-4, 5, 7, 8, 10. N. H.-11, 13. July 3-Sept. 10.

MASS.-23, 24, 27, 29. May 20-Sept. 19.

Bred from the Cabbage Butterfly (Pontia rapae) and Sprace Bud-moth (Harmologa fumiferana).



DIPTERA.

Subgenus Parexorista Brauer and Bergenstamm.

Z. affinis (Fallen) (*Exorista affinis* of authors). ME.-4, 5, 8, 9. N. H.-11, 15. June 16-Sept. 22. MASS.-24, 26, 27, 28. July 16-Aug. 1.

Z. chelomiae Rondani (Exorista cheloniae of authors).

N. H.—Franconia (Mrs. Slosson).

MASS.—Melrose Highlands, May 17-22; Coffin's Beach, May 30. CONN.—Portland (Zappe).

Bred from the American Tent Caterpillar, etc.

Z. confinis (Fallen) (Exorista confinis of authors).

ME.-4, 6, 8. N. H.-11, 14, 15. VT.-21. June 18-Aug. 20. MASS.-24, 26, 27, 28, 29, 32. R. I.-33. CONN.-35. June 9-Sept. 6.

Z. fronto Coquillett.

N. H.-Mt. Washington (Mrs. Slosson).

Subgenus Eusisyropa Townsend, 08-97.

Z. blanda blanda Osten Sacken (*Exorista boarmiae* Coquillett).
ME.—8. N. H.—11, 13, 14, 15. July 8-Aug. 16.
MASS.—25, 26, 27, 29. R. I.—33. June 14-Aug. 28. Parasitic on Vanassa cardui, Thansos brizo, etc.

Z. blanda virilis Aldrich and Webber, 24–40. MASS.—Gipsy Moth Laboratory (Melrose Highlands).

Z. blandita (Coquillett) (Exorista blandita Coquillett).

N. H.—Franconia (Mrs. Slosson).

Mass.—North Saugus, Aug. 1; Auburndale, Aug. 28. R. I.— Buttonwoods, June 22.

Z. futilis (Osten Sacken) (Exorista futilis Osten Sacken; Euexorista futilis Townsend, 12–166).

ME.-9. N. H.-14, 15. VT.-18. June 27-Sept. 10.

MASS.-23, 24, 25, 27, 32. R. I.-33. CONN.-35. June 5-Oct. 21.

Parasitic on Vanassa atalanta, etc.

Phorocera R.-Desvoidy.

Subgenus Phorocera R.-Desvoidy.

P. slossonae Townsend, 08–108 (*Euphorocera cinerea* Coquillett, 1897, not Van der Wulp, 1890).

- N. H.-Franconia (Mrs. Slosson).
- Mass.—Norwood, Apr. 3 (Reiff); Duxbury, Aug. 12 (Preston). Conn.—Lyme, Apr. 3 (Champlain).

Subgenus Parasetigena Brauer and Bergenstamm.

P. claripennis (Macquart) (Euphorocera claripennis Coquillett; Exorista petiolata Coquillett; Neophorocera edwardsii Townsend, 12-163).

ME.-9. N. H.-11, 15. July 26-Sept. 11.

MASS.—26, 27, 29, 31. R. I.—33. CONN.—34, 35. June 20-Sept. 8.

Parasitic on the Tussock Moth, Fall Web-worm, Cutworms, etc.

P. einaris Smith, 12–119 (*Neopales einaris* Britton, 20–193). MASS.—26, 27, 28, 29. CONN.—35. July 27–Sept. 20.

P. hamata Aldrich and Webber, 24-62.

MASS.—Nantucket, Aug. 8. CONN.—New Haven.

Reared from sawfly, Diprion simile, July 19, 1915 (Britton).

P. imitator Aldrich and Webber, 24-63. CONN.-Lyme, Sept. 4, 1909 (Champlain).

Subgenus Patelloa Townsend.

P. leucaniae Coquillett.

MASS.—Arlington, July 3 (Barber). CONN.—. Parasitic on the Army Worm, etc.

P. pachypyga Aldrich and Webber, 24–70.

N. H.—Glen House, June 11.

MASS.—Lunenburg, May, 1914 (Webber); Lynn ("Woods"), May 7, 1916 (Preston); Winchendon, May 7 (Russell); Concord, May 30 (Reiff).

P. silvatica Aldrich and Webber, 24-72.

MASS.—Melrose Highlands, June 25; Sunderland, May 29. CONN.—New Haven, May 21 (Champlain).

Subgenus Neopales Coquillett.

P. erecta Coquillett.

ME.-Waterville.

MASS.—Malden; Watertown, Aug. 12, 1919 (H. E. Smith); West Medford (Vinal); Cambridge (Caffrey), reared from the Cornborer, Pyrausta nubilalis. CONN.—Wallingford, reared from Desmia funeralis by A. B. Porter.

P. noctuiformis (H. E. Smith), 15–101.

ME.—Sugar Isl., Moosehead Lake, July 17; Orr's Isl., July 25, 1907.

MASS.—Revere; North Andover.

- P. sternalis Coquillett (Phyllophorocera sternalis Townsend, 16-621).
- ME.—East Eddington (Hough). N. H.—Franconia (Mrs. Slosson).

P. tortricis Coquillett (*Tortriciophaga tortricis* Townsend).

VT.—Bennington, July 6, 1915, reared from Cacoecia cerasivorana. MASS.—Melrose Highlands (Webber); Agawam, July 27; Amherst. CONN.—.

Pseudotachinomyia H. E. Smith, 17-54.

P. webberi H. E. Smith, 17–54.

MASS.—Melrose Highlands, May 16; Malden, May 15; Cohasset, May 29 (Bryant); Amherst.

Madremyia Townsend, 16-622.

M. saundersii (Williston) (*Phorocera saundersii* Williston).

MASS.—East Wareham, July 13-Aug. 18, reared from *Cacoecia* parallela (Franklin); Forest Hills, Boston.

Eupelecotheca Townsend, 18-169.

E. celer Townsend, 18–169 (*Phorocera rufilabris* Coquillett, not Van der Wulp).

VT.—Mt. Ascutney, July 11.

MASS.—Springfield, July 13; Auburndale, June 11; Woods Hole, July 1; Medford, June 23 (Barber).

Exoristoides Coquillett.

E. slossonae Coquillett (*Exorista spinipennis* Coquillett). ME.-3, 7. N. H.-11, 14. VT.-21. June 4-Aug. 1. MASS.-24, 26, 27. May 31-Aug. 15.

Homalactia Townsend, 15-21.

H. harringtoni (Coquillett) (*Exoristoides harringtoni* Coquillett). N. H.—Summit of Mt. Monadnock, June 10, 1920.

Doryphorophaga Townsend, 12-164.

D. aberrans Townsend, 16-217 (Smith, 17-124); (Frontina aberrans Britton, 20-193).

ME.--8. VT.-19, 20. July 11-Sept. 13.

MASS.—24, 26, 27. CONN.—35. June 8-Sept. 3. Reared from the Potato Beetle.

D. dorsalis (Coquillett) (Exorista dorsalis Coquillett).

N. H.—Peterboro, July 20 (C. F. Batchelder).

MASS.—Boston, July 2; Melrose Highlands, June 24.

D. doryphorae (Riley).

MASS.-24, 27, 29. CONN.-35. Aug. 17-Oct. 14.

Parasitic on the Potato Beetle.

Frontina Meigen.

F. aletiae (Riley).

ME.--8. VT.-20. July 11-25.

MASS.-26, 27, 29. R. I.-33. CONN.-.. June 6-Sept. 16.

Parasitic on the Tussock Moth, etc.

F. ancilla (Walker).

CONN.-Eastboro.

F. archippivora (Williston).

ME.--6, 9. N. H.--15. Aug. 28.

MASS.—24, 27. R. I.—33. CONN.—. July 12-Sept. 30.

Parasitic on the Monarch Butterfly, Mourning-cloak, etc.

F. frenchi (Williston).

ME.-4, 6, 8, 9. N. H.-15. VT.-19. June 22-Aug. 30. MASS.-24, 26, 27. CONN.-35. Apr. 22-July 3.

Parasitic on Papilio glauca, Telea polyphemus, Samia cecropia, etc.

F. spectabilis Aldrich, 16-20.

MASS.—Medford, June 27, 1923 (Barber).

Myrsina R.-Desvoidy.

M. tenthredinidarum (Townsend) (*Masicera exilis* Coquillett). ME.-2, 7, 8. N. H.-11, 14. VT.-16, 19, 21. June 4-Sept. 6. MASS.-26, 27, 28, 29. June 1-Aug. 2.

Argyrophalax Brauer and Bergenstamm.

A. schizurae Townsend, 1891, not Coquillett, 1897. Mass.—Lynn, Aug. 25. Parasitic on Schizura ipomaeae.

Eumasicera Townsend.

E. sternalis Coquillett.

Vr.—Chittenden, Aug. 1 (Bequaert). MASS.—Auburndale, June 16.

Gymnocarelia Townsend, 19-582.

G. ricinorum Townsend, 19-582 (Sturmia albifrons Coquillett, not Walker).

MASS.-24, 25, 26, 27, 32. CONN.-35. June 23-Aug. 27.

Phrynofrontina Townsend, 19-579.

P. discalis (Coquillett) (P. convexa Townsend, 19-580).

ME.—Mt. Desert, Aug. 20-Sept. 6. VT.—Bennington, June 21. MASS.—Brookline, July 4; North Saugus, July 18 (Smith);

Gloucester, Aug. 30.

Sturmia R.-Desvoidy.

S. bakeri Coquillett.

MASS.—Melrose Highlands, June 24 (H. E. Smith).

S. fraudulenta Van der Wulp.

MASS.—Horse Neck Beach (Coquillett).

S. inquinata Van der Wulp.

N. H.—Canobie Lake (Dimmock).

MASS.—Amherst, June 26; Sharon, June 15, 1906 (Sampson).



S. phyciodes Coquillett.

MASS.—Cape Cod; Melrose Highlands, June 18; North Saugus, July 30; Cambridge, Aug. 27. R. I.—Bristol, June 20. CONN.— Winnipauk, Aug. 4.

Phrynolydella Townsend, 19-572.

P. polita Townsend, 19–572. Mass.—Sandwich, June 19 (*Hitchings*).

P. eufitchiae Townsend.

N. H.-11. VT.-21. June 21.

MASS.-24, 27. R. I.-33. May 27-Aug. 21.

Paraphorocera Brauer and Bergenstamm.

P. myoidaea (R.-Desvoidy) (Andrina radicis Townsend, 16–19). ME.—Orono.

MASS.—Arlington, July 8; Gloucester, July 8; Melrose Highlands, June 6; Auburndale, Aug. 16.

Parasitic on Papaipema nitela and the European Corn-borer.

Masicera Meigen (Ceromasia Rondani).

M. rutila Meigen (*M. festinans* Meigen).

N. H.—Canobie Lake (Dimmock).

MASS.—Amherst, Sept.; North Saugus. Conn.—Thompson, July 11.

M. polita Coquillett.

Mass.—Peabody, July 25, 1920 (L. H. Taylor).

M. luctuosa Van der Wulp.

N. H.-White Mts. (Mrs. Slosson).

Neothelaria Townsend, 15-120.

N. aurifrons (Coquillett) (N. dexina Townsend, 12-109 and 16-29).

N. H.—Mt. Washington (Mrs. Slosson); Canobie Lake (Dimmock). MASS.—Swampscott, Aug. 29, 1908; Lynn, Aug. 28, 1908; North Saugus.

N. chaetoneura (Coquillett).

ME.---3, 4, 8. N. H.---11, 14. VT.---21. June 6-Sept. 7. MASS.---23, 29. June 26-Aug. 5.

Euceromasia Townsend, 12-112.

E. spinosa Townsend, 12-112 and 16-20. MASS.—North Andover, Aug. 21, 1908 (Clemons).

Dichoceropsis Townsend, 16-178.

D. orientalis (Coquillett). MASS.—Beverly. 201

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Otomasicera Townsend, 12-113.

O. patella Townsend, 12-113 (adult not described). MASS.—Melrose Highlands, June 8, 1909.

Metatachina Townsend, 19-588.

M. mellifrons Townsend, 19–588. ME.—Sebago Lake, Sept. 8, 1914 (Townsend).

Compsilura Bouché, 1834.

C. concinnata Meigen.

ME. --5, 6, 7, 8, 9, 10. N. H. --11, 12, 13, 14, 15. VT. --16, 18, 19, 20, 21, 22. June 24-Sept. 28.

MASS.—23, 24, 25, 26, 27, 28, 29, 30, 31, 32. R. I.—33. CONN.— 35. May 10-Sept. 20.

Introduced and colonized by the U. S. Bureau of Entomology as a parasite of the Gipsy and Brown-tail Moths in 1906, it has increased and spread over a large part of New England. It also parasitizes at the present time (1923) upwards of one hundred of our native moths, butterflies, saw-flies, etc. See Howard and Fiske, 11-218; Burgess, 15-9; Culver, 1919.

Zygobothria Mik.

Z. nidicola Townsend, 08–99.

ME.--6, 9, 10. N. H.--13, 14, 15.

Mass.—24, 25, 26, 27, 28, 29, 30, 31, 32. R. I.—33. Conn.— 35. July-Aug.

An imported parasite of the Brown-tail Moth, introduced in 1906 and now widely distributed. Regarding its appearance in Connecticut Dr. W. E. Britton says: "Not introduced into the State, but taken at Canterbury and Waterford in 1917 and Stonington and Groton in 1918." See Meusebeck, 1922.

Pelatea Townsend, 16-178.

P. ruficornis Smith, 17–138.

N. H.—Hampton, July 25 (Shaw).

P. unicolor Smith, 17–137.

Parachaeta Coquillett.

P. fusca Townsend, 16-11 (*P. bicolor* Coquillett, not Macquart; *P. inermis* Coquillett, not Bigot).

MASS.—Forest Hills, July 19 (Bequaert).

Blepharipeza Macquart.

B. adusta Loew. ME.-6. N. H.-11, 15. VT.-17, 19, 22. May 2-Aug. 28. MASS.-23, 26, 27, 29. R. I.-33. CONN.-35. May 9-Sept. 4.

Parasitic on Leucarctia acraea, etc.



B. leucophrys Wiedemann.

ME.---6, 9. N. H.---15. May 12-Sept. 6.

MASS.-24, 25, 26, 27, 28. CONN.-34. May 4-Sept. 4.

Winthemia R.-Desvoidy.

W. fumiferanae Tothill, 12-3.

N. H.—Glen House, June 18, 1916.

A parasite of the Spruce Budworm.

W. quadripustulata (Fabricius).

- ME. 3, 4, 6, 7, 8, 10. N. H. 11, 14, 15. VT. 19. June 6-Aug. 28.
- MASS.-23, 24, 26, 27, 28, 29, 32. R. I.-33. CONN.-35. June 3-Sept. 20.

Parasitic on the Army Worm, Tussock Moth, etc.

W. vesiculata (Townsend), 16-28 (Trisisyropa vesiculata Townsend, 16-28).

ME.-Lakehurst, Sebago Lake, Sept. 6, 1914.

Muscopteryx Townsend.

M. obscura Coquillett.

N. H.-Mt. Washington, 2500 ft., July 8.

Paradidyma Brauer and Bergenstamm.

P. singularis Townsend. Mass.—24, 26, 27, 29, 31, 32. Conn.—35. May 21-Aug. 13.

Metachaeta Coquillett.

M. helymus (Walker). "*Maine*" (Walker).

M. atra Coquillett. **ME.**—4. N. H.—11, 15. Apr. 14–Sept. 7. MASS.—27, 29. CONN.—35. May 22–June 27.

Blepharipa Rondani.

B. scutellata R.-Desvoidy.

ME.--9, 10. N. H.--11, 12, 13, 14, 15. VT.--16, 19, 20, 21, 22. June 14-July 4.

MASS.-23, 24, 25, 26, 27, 28, 29, 31, 32. R. I.-33. CONN.-35. June 3-Aug. 4.

Introduced from Europe and first colonized in 1907 (Howard and Fiske, 11–213 and 308). An important parasite of the Gipsy Moth.

Acemyia R.-Desvoidy.

A. dentata Coquillett.

N. H.—Hampton, Aug. 18, 1904 (Shaw).

MASS.—Woburn, June 11 (Barlow); Barnstable, July 5; Beverly.

A. tibialis Coquillett.

MASS.—Dedham, Sept. 14 (Aldrich det.)

Buthers Loew.

B. tentatrix Loew.

MASS.—Boston (Jack); Tyngsboro, Aug. 26, 1923 (Fall); Mt. Tom, Sept. 22.

Obolocera Townsend, 18-180.

O. rapae (H. E. Smith) (*Homosonychia rapae* H. E. Smith, 17-139).

MASS.—Gipsy Moth Laboratory (Melrose Highlands), bred from the Cabbage Butterfly (Pontia rapae), Aug. 17, 1915.

Exorista Meigen (Tachina of authors).

B. larvarum (Linné) (Tachina mella Walker; T. utilis Townsend). **Mz.**—6, 9. N. H.—11, 14. VT.—21. June 22–July 19.

- MASS.-24, 25, 26, 27. R. I.-33. CONN.-35. May 23-Sept. 4.
 - Parasitic on the Gipsy Moth, Tussock Moth, Forest Tent Caterpillar, etc.

Chaetotachina Brauer and Bergenstamm.

C. simulans (Meigen) (Tachina rustica of authors).

ME.--1, 2, 4, 6, 8, 9, 10. N. H.--11, 13, 14. VT.--19, 20, 21. June 18-Sept. 21.

Mass.—23, 24, 25, 26, 27, 28, 32. Conn.—34, 35. May 24-Sept. 4.

Tachinomyia Townsend.

T. robusta Townsend.

ME.-6. N. H.-11, 13, 15. VT.-21. May 16-July 10.

Mass.—23, 24, 25, 26, 27, 29. R. I.—33. Сомм.—35. Арт. 16-July 4.

Parasitic on the cutworm, Agrotis ypsilon, etc.

Daeochaeta Townsend.

D. harveyi Townsend.

ME.—Orono.

Neofischeria Townsend, 08-74.

N. flava Townsend, 08-75.

CONN.-New Haven, Aug. 18, 1910 (Walden); Lyme, Aug. 28.

Phorichaeta Rondani.

P. sequax (Williston).

ME.-7, 8. N. H.-11, 12, 14, 15. VT.-16, 21. June 9-Aug. 16. MASS.-23, 24, 26, 27, 28, 29, 31, 32. R. I.-33. CONN.-35.

Apr. 22-Aug. 22.



Eutrichogena Townsend, 15-23.

- E. setipennis (Coquillett) (*Tricogena setipennis* Coquillett; *Neophorichaeta johnsoni* H. E. Smith, 15–100).
- ME.—Northeast Harbor, July 26 (Dr. Minot); Southwest Harbor, July 15; Machias, July 19. N. H.—Franconia (Mrs. Slosson).
 VT.—Bolton Mt., Aug. 30 (Bryant).

Gonia Meigen.

G. aldrichi Tothill, 24–198.

MASS.—Essex, Apr. 8, 1920 (Fuller).

G. brevipulvilli Tothill, 24-211.

MASS.—Melrose Highlands (Tothill).

G. frontosa Say (G. capitata of authors, not De Geer).

- ME.--6, 8, 9. N. H.-11, 14, 15. VT.-16. Apr. 22-June 24. MASS.-23, 24, 25, 26, 27, 28, 32. R. I.--33. Conn.--35. Mar. 31-June 15.
- **G. sagax** Townsend. CONN.—Hartford (*Tothill*).
- G. senilis Williston.

CONN.—New Haven, June 27, 1902 (E. J. S. Moore).

G. exul Williston (G. sequax Williston).

ME.--6. N. H.-11, 15. Aug. 16-Sept. 18.

MASS.-26, 27, 30. R. I.-33. CONN.-35. Aug. 21-Sept. 23.

G. setigera Tothill, 24-199.

MASS.—Essex, May 20, 1920 (A. B. Fuller).

Subgenus Cnephalogonia Townsend, 16-178 and 16-306.

G. distincta H. E. Smith, 15-99.

ME.-Mt. Desert, July 15-21.

MASS.—Westport Factory, July 31; Provincetown, June 25; Petersham, Aug. 26. CONN.—Colebrook, July 15 (Wheeler).

Spallanzania R.-Desvoidy.

S. bucephala (Meigen) (S. hebes Rondani, not Fallen).

MASS.—Melrose Highlands, May 21; Wellesley, June 18 and Sherborn, Sept. 27 (Morse). R. I.—Buttonwoods, June 15. CONN.—.

S. hesperidarum Williston.

ME.-4, 9, 10. N. H.-11, 14. VT.-19, 20. July 11-Aug. 15. MASS.-25, 26, 27, 29, 30. R. I.-33. CONN.-34, 35. June 15-Oct. 8.

Eugaediopsis Townsend, 16-620.

E. ocellaris Coquillett.

N. H.-Durham.

MASS.—Auburndale, Sept. 4, 1904. CONN.—.

E. serricolor Townsend.

MASS.—Melrose Highlands, June 17.

Chaetogaedia Brauer and Bergenstamm.

C. analis Van der Wulp.

MASS.—Auburndale, Sept. 20; Amherst; Salem, July 9. R. I.— Kingston, July 20 (Barlow).

Dichrocera Williston.

D. orientalis Coquillett.

MASS.—Beverly (E. Burgess).

Trichophora Macquart.

T. ruficauda Van der Wulp.

MASS.—Forest Hills; Melrose Highlands, June 21; North Saugus, July 30; Amherst. Conn.—

Cuphocera Macquart (Sphyricera Lioy).

C. furcata (Van der Wulp).

N. H.—Franconia (Mrs. Slosson).

MASS.—Melrose Highlands, July 31; Amherst.

Peleteria R.-Desvoidy.

P. iterans (Walker) (*P. tessellata* of authors). ME.--6, 8, 9, 10. N. H.--11, 15. VT.--16, 18, 19, 20. May 30-Sept. 22.

MASS.-24, 25, 26, 27, 28, 29, 30, 31, 32. CONN.-34. May 20-Oct. 23.

P. anaxias (Walker) (*P. robusta* of authors).

ME.--6, 8. N. H.-11, 15. VT.-17, 19, 22. July 12-Sept. 11. MASS.-23, 24, 26, 27, 29. R. I.-33. CONN.-34, 35. June 8-Sept. 18.

P. confusa Curran.

ME.---8, 9. July 12-Sept. 11. MASS.---23, 27. July 24-Oct. 12.

Archytas Jaennicke.

A. analis (Fabricius).

ME.-2, 6, 7, 8, 10. N. H.-11, 12, 14, 15. VT.-17, 19, 20, 21. June 24-Sept. 6. MASS.-23, 24, 25, 26, 27, 29. CONN.-34, 35. June 29-Sept. 6.

A. aterrima (R.-Desvoidy).

ME.-2, 6, 7, 8. N. H.-11, 14, 15. July 19-Sept. 18. MASS.-23, 24, 27, 28, 29, 32. R. I.-33. CONN.-34, 35. June 20-Oct. 4.

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- A. hystrix (Fabricius).
- N. H.—15. July 30.
- MASS.-24, 26, 27, 28, 32. R. I.-33. CONN.-.. July 31-Sept. 12.
- A. lateralis (Macquart).
- MASS.—. CONN.—.
- Fabriciella Bezzi, 1906.
- F. algens (Wiedemann) (Echinomyia algens of authors; Rhachogaster kermodei Townsend, 15-291 and 16-26).
- ME.--1, 4, 6, 7, 8, 10. N. H.--11, 14. VT.--17, 19, 20, 21. June 10-Aug. 28.
- MASS.-23, 25. CONN.-34. June 24-Sept. 19.
- F. hispida Tothill, 24–265 (Eularvaevora algens Townsend, 16–27).
- ME.-1, 3, 4, 7, 8. N. H.-11. VT.-20. June 24-Sept. 25.
- F. piceifrons (Townsend) (Echinomydes piceifrons Townsend, 16-25).
- ME.-1, 9. N. H.-11. Aug. 19-Sept. 20.
- MASS.-23, 25, 26, 27. CONN.-34. Aug. 5-Sept. 14.
- F. montana (Townsend) (Fabriciodes montana Townsend, 16-26).
- ME.—Mt. Desert, July 10–15. N. H.—Mt. Washington, 4000 ft., July 11; Glen House, July 16.
- F. dakotensis (Townsend).
- ME.-Sebago Lake (Tothill, 24-262).
- MASS.—Mt. Holyoke (Tothill, 24-262).
- F. dakotensis var. orientalis (Townsend) (Echinomyia florum of authors; Larvaevoropsis orientalis Townsend, 16-24).
- ME.--6, 8, 10. N. H.--11, 13. VT.-20. June 20-Sept. 16. MASS.-23, 24, 26, 27, 29, 30. R. I.--33. CONN.-35. May
- MASS.--23, 24, 26, 27, 29, 30. R. I.--33. CONN.--35. May 30-Oct. 16.
- **F. pilosa** Tothill, 24–263.
- N. H.-White Mts. (Scudder; U. S. Nat. Mus.; Tothill).

Epalpus Rondani.

- E. signiferus (Walker).
 ME.—5, 6, 8. N. H.—11, 13, 14, 15. VT.—21. May 19– July 19.
- MASS.-23, 24, 26, 27, 28, 32. CONN.-35. Apr. 13-June 20.

Bombyliopsis Townsend, 15-23.

- B. abrupta (Wiedemann) (Bombyliomyia abrupta of authors).
- ME.--2, 6, 8, 9, 10. N. H.--11, 15. VT.--19, 20. July 10-Sept. 20.
- MASS.-23, 27, 32. R. I.-33. CONN.-34, 35. Aug. 8-Sept. 19.

Jurinia R.-Desvoidy.

J. metallica R.-Desvoidy (J. adusta Van der Wulp). CONN.—New Haven; Lyme, Aug. 27, 1909 (Champlain). J. decisa (Walker) (Echinomyia decisa of authors; Pararchytas decisa Brauer and Bergenstamm).

ME.--4, 7, 8, 9, 10. N. H.--11, 15. VT.--17, 19, 20, 21. July 15-Sept. 11.

MASS.-23, 24, 25, 27. CONN.-34. July 13-Sept. 1.

MEGAPROSOPIDAE.

Microphthalma Macquart.

M. disjuncta (Wiedemann).

ME.-8. N. H.-11, 15. VT.-17, 20. July 28-Sept. 11.

MASS.-24, 27, 29. CONN.-35. June 27-Sept. 23.

Bred from larvae of May Beetles, Phyllophaga (Davis, 19-78).

M. pruinosa Coquillett.

VT.—Chelsea, May 31, 1916 (H. E. Smith).

MASS.—Framingham.

Bred from May Beetles, Phyllophaga (Davis, 19-81).

DEXIIDAE.

Rhynchodexia Bigot.

R. confusa West, 24–185.

N. H.—Durham. VT.—Bolton Mt. (Bryant).

MASS.—Chester; Rutland; Woods Hole. R. I.—Tiverton. CONN.—Storrs; Colebrook, July-Sept. (Wheeler).

Paraprosena Brauer and Bergenstamm.

P. apicalis R.-Desvoidy.

MASS.—Wellesley (Morse). CONN.—Colebrook, July 17, 1921 (Wheeler).

Dexia Meigen (Zelia R.-Desvoidy).

D. vertebrata Say.

N. H.—Mt. Washington (Mrs. Slosson).

MASS.—Fall River, July 21; Sherborn, Sept. 4, 1918; Ware, July 5 (F. E. Zeissig).

Ateloglossa Coquillett.

A. cinerea Coquillett. ME.—Waldoboro (J. H. Lovell).

A. wheeleri West, 24–186. CONN.—Colebrook (Wheeler).

Ptilodexia Brauer and Bergenstamm.

P. harpasa (Walker) (*Ptilodexia tibialis* of authors, not R-Desvoidy).

ME.-2, 8, 10. N. H.-11, 15. VT.-17, 20. June 7-Sept. 25. MASS.-24, 27, 28, 29, 30, 32. R. I.-33. Conn.-34, 35. June 10-Sept. 16.

Parasitic on white grubs, the larvae of the May Beetles (Davis, 1919).

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P. neotibialis West, 24-184.

MASS.—Cohasset, Sept. 15, 1904 (Bryant). CONN.—Colebrook (Wheeler).

P. rufipennis Macquart.

N. H.-Mt. Washington (Mrs. Slosson).

Myiocera R.-Desvoidy.

M. isolata West, **24–188.** N. H.—*Hanover*, July 4, 1908.

M. novaeangliae West, 24–189. CONN.—Colebrook (Wheeler); Darien, June 16, 1909.

M. protrudens West, 24–190. Mass.—*Sharon*, Aug. 3, 1909.

Cholomyia Bigot.

C. inaequipes Bigot (*Thelairodes basalis* Giglio-Tos, \Im). MASS.—Waltham.

A parasite of the Plum Curculio and other species of Conotrachelus (see Quaintance and Jenne, 12-150).

Sardiocera Brauer and Bergenstamm.

S. valida (Wiedemann) (*Theresia tandrec* of authors, see Townsend, 12-117).
ME.-9. N. H.-11, 15. June 28-July 17.

ME.—9. N. H.—11, 15. June 28–July 17. Mass.—24, 26, 27, 28, 32. Conn.—34. July 18–Sept. 25.

Thelaira R.-Desvoidy.

T. nigripes (Fabricius) (*T. leucozona* Panzer). ME.—5, 8. N. H.—11, 12, 15. VT.—16, 21. June 18–Sept. 10. MASS.—23, 24, 25, 27, 28, 29, 32. R. I.—33. CONN.—35. June 5–Oct. 4.

Ochrocera Townsend, 16-18.

O. vaginalis Townsend, 16–18.

ME.—Bar Harbor, Aug. 10, 1920. N. H.—Base Station, Mt. Washington, Aug. 27-31, on flowers of Solidago (Townsend).

Protodexia Townsend, 12-117.

P. synthetica Townsend, 12–117 and 16–19. MASS.—Melrose Highlands, Aug. 14, 1908 (Clemons).

Eutheresia Townsend, 11-149.

E. canescens (Walker).

MASS.—Phillipston, Aug. 26, 1920 (G. C. Wheeler).

E. montana West, 24–188.

VT.-Mt. Mansfield, 4000 ft., July 21, 1891 (Morse).

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Opsodexia Townsend, 15-20.

O. bicolor (Coquillett) (Chaetona bicolor Coquillett, 99–221). ME.-8. N. H.-11. VT.-17, 21. June 5-Sept. 11. MASS.-23, 25, 26, 27. June 15-Sept. 25.

Phyllophila Townsend, 15-21.

P. nitens (Coquillett). N. H.—11, 15. Aug. 3. Mass.—23, 27, 28. Conn.—35. May 27-Aug. 5.

Arctophyto Townsend, 15-22.

A. johnsoni West, 24–187. Mass.—*Concord*, Aug. 7, 1920.

A. regina West, 24–187. MASS.—Brookline, Sept. 6, 1904.

Spathidexia Townsend, 12-110.

S. clemonsi Townsend, 12–110. ME.—6, 8, 9. N. H.—15. June 27–July 24. MASS.—25, 27, 28. June 28–Aug. 17.

S. dunningi (Coquillett), Townsend, 15–366 (*Hypostena dunningi* Coquillett).
ME.—4, 10. N. H.—14, 15. VT.—21. May 20–July 25.
MASS.—24, 26. R. I.—33. CONN.—35. May 21–Aug. 24.

Epidexipsis Townsend, 16-308.

E. orbitalis Townsend. MASS.—Wollaston, Sept. 5; West Springfield, Aug. 31.

Estheria R.-Desvoidy.

E. tibialis R.-Desvoidy.
ME.—Bowlin Pond, Aug. 31 (Cushman); Grand Lake Stream, Aug. 16 (Morse); Mt. Desert, Sept. 6.
MASS.—Rutland, July 31.

Dinera R.-Desvoidy.

D. futilis West, 24-191.
ME.--6, 8. N. H.--11, 15. July 10-Sept. 25.
MASS.--24, 26, 27, 30. R. I.--33. CONN.--35. June 28-Sept. 7.

Melanophora Meigen.

M. roralis (Linné).

N. H.—Hampton, June 29 (Shaw).

MASS.—26, 28, 29, 30, 31, 32. CONN.—34, 35. June 6-Oct. 29. Parasitic on "sow-bugs," Porcellio, sp.



SARCOPHAGIDAE.

Amobiinae.

Amobia R.-Desvoidy (Amobiopsis Townsend, 15-20).

A. aurata Coquillett.

년 1

- N. H.-Mt. Washington, 4000 ft., July ME.—Capens, July 19. 16: Jaffrey, June 18.
- A. confundens Townsend, 15-20 (A. distincta Coquillett, 1897, not Townsend, 1892).

N. H.—Holderness.

MASS.—Bashbish Falls, June 27, 1912.

Brachycoma Rondani.

(Laccoprosopa Townsend, 15-116; Eubrachycoma Townsend, 16-19.)

B. apicalis Coquillett.

MASS.—Great Barrington, June 15, 1915.

B. sarcophagina (Townsend).

ME.—Mt. Desert, June 21–July 18.

MASS.—Salem, July 7; Forest Hills, Boston, July 21, 1921.

Parasitic in the nest of bumble bee, Bremus bimaculatus (see O. E. Plath, Psyche, vol. 29, p. 194, 1922).

Oppiopsis Townsend, 15–20.

O. sheldoni (Coquillett) (Harbeckia tessellata Aldrich, 16-47; Townsend, 18-20).

MASS.—Melrose Highlands, June 1; North Andover, July (H. E. Smith); Amherst. CONN.—Danbury, June 15.

MLITOGRAMMINAE.

Metopia Meigen.

M. leucocephala Rossi (*M. luggeri* Townsend).

ME.-4, 7, 8. N. H.-11, 15. VT.-19, 20. July 16-Aug. 22. MASS.-23, 24, 27, 28, 29, 32. R. I.-33. Conn.-35. May 23-Aug. 5.

M. campestris (Fallen).

ME.-5, 8. N. H.-11. VT.-21. June 8-Aug. 21.

MASS.-23, 25, 26, 27, 29. R. I.-33. CONN.-35. June 1-Aug. 30.

M. lateralis Macquart (Parametopia morrisoni Townsend, 16-619).

VT.-St. Albans, June 19, 1915.

Euaraba Townsend, 15-20.

E. grisea R.-Desvoidy (Araba tergata Coquillett).

- N. H.—11, 12, 15. VT.—21. June 19-Aug. 5. MASS.—23, 24, 27, 29. R. I.—33. CONN.—35. June 20-Sept. 10.

Opsidia Coquillett.

O. gonioides Coquillett.

N. H.—15.

MASS.--24, 27, 31, 32. R.I.--33. CONN.--35. June 28-Sept. 8.

Prosinella R.-Desvoidy (Euhilarella Townsend, 15-22).

P. fulvicornis (Coquillett); see Allen, 24–92.

N. H.—11.

MASS.-24, 29, 30, 32. R.I.-33. CONN.-35. June 25-Sept. 10.

Eumacronychia Townsend.

E. polita Townsend.

N. H.—15.

Mass.-27, 28, 29, 31. R.I.-33. Conn.-35. June 8-Aug. 1.

Hilarella Rondani.

H. dira (R.-Desvoidy) (H. hilarella and H. siphonina Zetterstedt). MASS.—West Springfield, Aug. 31 (H. E. Smith); Provincetown, June 25; Manomet, July 17 (Cushman); Westport, July 31.

Pachyophthalmus Brauer and Bergenstamm.

P. signatus (Meigen).

ME.-4, 6, 7, 8. N. H.-11, 14. June 18-Aug. 17. MASS.-24, 25, 26, 27, 28, 32. R. I.-33. May 18-July 16.

Senotainia Macquart.

S. trilineata Van der Wulp.

МЕ.—1, 8. N. H.—11, 15. Vт.—16, 19. June 21-Aug. 17. Mass.—24, 27, 28, 29, 30, 31, 32. R. I.—33. Сомм.—35. June 15-Sept. 4.

S. rubriventris Macquart.

MASS.—Framingham, Sept. 4 (Frost); Cohasset, July 15 (Bryant); Wollaston, Sept. 5. R. I.—Buttonwoods, June 25.

S. litoralis Allen, 24–90.

MASS.—Manomet, July 17, 1904 (Cushman).

S. vigilans Allen, 24-89.

MASS.—West Springfield, July 26, 1915 (H. E. Smith).

Taxigramma Perris, 1852.

(Heteropterina Macquart; Nasonimyia Townsend, 16-619).

T. nasoni (Coquillett).

MASS.—West Springfield, June 15 (H. E. Smith).

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SARCOPHAGINAE.

Wohlfahrtia Brauer and Bergenstamm (Paraphyto Coquillett).

W. vigil (Walker); see Aldrich, 16–29. **ME.**—Presque Isle, July 20, 1921 (*Edith M. Patch*). **MASS.**—Wellfleet, Aug. 14–18, 1919 (*C. W. J.*).

Argia R.-Desvoidy.

A. affinis (Fallen).

ME.—Mt. Desert, July 12. N. H.—White Mts. (Morrison).
 MASS.—North Saugus, May 18 (H. E. Smith); Wellesley, May 19 (Morse).

Sarcofahrtia Parker, 16-131 (Thelodiscus Aldrich, 16-63).

S. ravinia Parker, 16–133 (*T. indivisus* Aldrich, 16–64 and 302). MASS.—24, 25, 26, 27, 28. CONN.—34, 35. May 20-Aug. 20.

S. atlantica Parker, 19–203. CONN.—Hamden, May 22, 1911 (Walden).

Metoposarcophaga Townsend, 17-46.

M. pachyprocta (Parker), 16-171 and 19-154 (Sarcophaga larga Aldrich, 16-147).

MASS.-25, 26, 27, 29, 30, 32. R. I.-33. June 9-Sept. 4.

Chaetoravinia Townsend, 17-190 and 195.

C. latisetosa (Parker), 14–63. ME.—10. VT.—17. July 24–Aug. 30. MASS.—23, 27, 31, 32. CONN.—35. June 15–Sept. 6.

C. quadrisetosa (Coquillett). Conn.—.

Helicobia Coquillett.

H. helicis (Townsend).

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ME.---6, 7, 8. N. H.---11, 12, 15. VT.---16, 19. June 26---
Sept. 11.
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Mass.—24, 27, 28, 31, 32. R. I.—33. Conn.—34, 35. May 15-Oct. 16.

Sarcophaga Meigen.

Subgenus Cistudinomyia Townsend, 17-48.

S. cistudinis Aldrich, 16-278.

As this species has only been bred from Box Turtles, the larva recorded by Packard, taken from a Box Turtle at Middleboro, Mass. (Amer. Nat., vol. 16, p. 589, 1882) and by Wheeler from a Box Turtle taken at Windsor, Conn., undoubtedly represent this species. Dr. Babcock bred this species from a Box Turtle in Boston, but the turtle originally came from Virginia. Four specimens were in the Hough collection without label. Subgenus Oxysarcodexia Townsend, 17-194.

- S. cingarus Aldrich, 16-289.
- MASS.—Cohasset, Sept. 10 (Bryant). CONN.—Danbury, June 15.
- Subgenus Acridiophaga Townsend, 17-46 (Amblycoryphenes Townsend, 17-162).

S. amblycoryphae Coquillett, 04–187.

- MASS.—Springfield, bred from Amblycorypha oblongifolia by Dr. G. Dimmock.
- S. reversa Aldrich, 16–138.
- MASS.—Melrose Highlands (H. E. Smith); New Bedford (Hough); Woods Hole (Sturtevant).
- S. setigera Aldrich, 16-138.
- MASS.—Melrose Highlands, June 23, 1909, and July 14, 1911 (H. E. Smith).

Subgenus Blaesoripha Loew (Blaesoriphotheca Townsend, 17-159).

S. coloradensis Aldrich, 16–139 (B. caudata Townsend, 17–159, \Im).

MASS.—New Bedford (Hough).

Subgenus Ravinia R.-Desvoidy.

- S. communis (Parker), 14–55.
- ME.-4, 6, 8, 10. N. H.-11, 15. VT.-17, 19, 20. May 24-Sept. 28.
- Mass.—23, 24, 25, 26, 27, 28, 31. R. I.—33. Conn.—34, 35. Apr. 29–Sept. 22.

S. peniculata (Parker).

ME.—8, 10. N. H.—11, 13, 15. Vт.—19. May 30-Sept. 10. MASS.—23, 24, 27, 32. R. I.—33. Conn.—35. May 25-Sept. 22.

Subgenus Sarcophaga Meigen.

S. aldrichi Parker, 16-438.

ME.--3, 6. N. H.--12. VT.--21. June 19-July 20.

- MASS.—23, 24, 25, 26, 27, 29. June 7–July 9.
- S. atlanis Aldrich, 16–100 (*Tephromiella frankliniana* Townsend, 17–164, §).
- ME.—Salisbury Cove, Mt. Desert, July 18. N. H.—Franklin, July 5. From the Common Field Grasshopper.

S. bisetosa (Parker) (Bottcheria bisetosa Parker, 14–69). ME.-6, 8. N. H.-13. VT.-19, 21. May 25-Sept. 10. MASS.-24, 25, 26, 27. CONN.-34. May 6-Sept. 7.

S. bullata Parker, 16-359 (S. bison Aldrich, 16- plate 12). ME.-4, 6, 10. July 18-Aug. 20. MASS.-24, 26, 27, 28, 29, 31. CONN.-35. May 15-Aug. 30.



S. cimbicis Townsend (Bottcheria fernaldi Parker, 14-72).

ME.-4, 8, 10. N. H.-11, 13. VT.-16, 21. June 8-Sept. 11. MASS.-24, 26, 27, 28, 31. CONN.-35. June 16-Oct. 20.

S. dux sarracenioides (Aldrich); Parker, 19-41 (S. tuberosa var. sarracenioides Aldrich, 16-227; S. sarraceniae Coquillett. not Riley, Mrs. Slosson's Mt. Washington list).

ME.—10. N. H.—11, 15. July 24–Aug. 27. MASS.—26, 27, 28, 29. CONN.—35. June 25–Aug. 30.

- S. dux exuberans Pandel; Parker, 19-42 (S. tuberosa var. exuberans Aldrich, 16-232).
- MASS.—New Bedford (Hough).
- S. dux harpax Pandel.
- MASS.—Melrose Highlands, reared from pupae of Gipsy Moths, imported from Japan (Parker, 19–45).
- S. excisa Aldrich, 16-127.
- MASS.—Woods Hole, June 25, 1913 (Sturtevant).
- S. fletcheri Aldrich, 16-96.
- ME.—Salisbury Cove, Mt. Desert, July 18, 1923.
- S. falculata Pandel.
- MASS.—Boston, Aug. 3; Sherborn (Morse); Cohasset, Aug. 1 (Bryant).

S. fossoria Pandel.

- ME.—Orr's Island, July 26, 1907.
- MASS.—Wellesley, June 4, 1915 (Morse); Forest Hills (Brues).

S. haemorrhoidalis Fallen (S. georgina Wiedemann). N. H.—13. Sept. 10. MASS.-26, 27, 28. CONN.-35. May 4-Oct. 4.

- S. houghi Aldrich, 16–170. MASS.—New Bedford (Hough); Melrose Highlands (H. E. Smith).

S. hunteri Hough (Protodexia synthetica Townsend, 16-19). ME.-2. VT.-17. July 22-Aug. 16. MASS.-27, 29. CONN.-35. July 30-Sept. 8. Reared from grasshoppers.

S. idonea Aldrich, 16–90.

MASS.—New Bedford, May 17, 1896, and July (Hough).

S. johnsoni Aldrich, 16-162 (Wohlfahrtiopsis johnsoni Townsend, 17-45).

MASS.-26, 27, 29, 30, 32. R. I.-33. June 17-Aug. 16.

S. latisterna (Parker) (Boettcheria latisterna Parker, 14–67). ME.-4, 8. N. H.-11, 14. VT.-16, 20, 21. June 9-Aug. 23. MASS.-26, 27, 32. CONN.-35. May 19-Sept. 4.

S. scoparia nearctica Parker, 16–422 (S. scoparia Aldrich, 16–214 and 302).

ME.-5, 6, 7, 8, 9, 10. N. H.-15. VT.-17, 19. June 21-Sept. 8.

MASS.-23, 24, 26, 27, 28, 29, 32. CONN.-35. June 14-Sept. 23.

S. securifera Villeneuve.

MASS.—Worcester (S. T. Oxton).

S. sinuata Meigen (Sarcotachinella intermedia Townsend).

ME.-8. N. H.-11, 12. VT.-19. June 11-Sept. 17.

MASS.-26, 27, 28, 32. R. I.-33. CONN.-35. June 1-Sept. 23.

S. uliginosa Kramer, 08–152.

MASS.—Melrose Highlands Laboratory, May 13, 1908 (reared); North Saugus, Sept. 29, 1909, and Lunenburg, July 14, 1914 (see Aldrich, 16-165).

CALLIPHORIDAE.

PHORMINAE.

Cochliomyia Townsend, 15-646.

C. macellaria (Fabricius). The Screw-worm Fly. ME.-10. N. H.-15. VT.-21. June 21-Sept. 3.

MASS.-25, 26, 27, 28, 29, 30. CONN.-34, 35. July 14-Oct. 9.

Protocalliphora Hough.

P. splendida form splendida Macquart (P. metallica Townsend, 19-379; P. chrysorrhea of authors, not Meigen). The Bloodsucking Larva Fly.

ME.---1, 8. N. H.---11, 14, 15. Aug. 29-Sept. 8. MASS.---27, 29. R. I.---33. CONN.---34, 35. Apr. 19-Sept. 29.

- **P.** splendida form sialis Shannon and Dobroscky, 24-251 (P. azurea of authors, not Fallen).
- N. H.-White Mts. (Morrison); Peterboro, Aug. 29, 1924 (C.F. Batchelder).
- MASS.—Wellesley, Aug. 10 (E. F. Everett); Blue Hill (Banks); Sherborn, May 4 (E. J. Smith). CONN.—Stafford, Aug. 24 (Britton).

P. splendida form aenea Shannon and Dobroscky, 24-251.

N. H.—Franconia (Mrs. Slosson).

The larvae of this species are parasitic on nestling bluebirds, robins, brown thrashers, etc.

P. hirudo var. cuprea Shannon and Dobroscky, 24-235.

MASS.—Near Middleboro (J. S. Pfeil). From maggots in the neck of a sparrow, pupa Aug. 3, imago Aug. 12, σ φ .

Phormia R.-Desvoidy (Euphormia Townsend, 19-542).

P. regina (Meigen).

ME.—1, 5, 6, 7, 8, 9, 10. N. H.—12, 13, 14, 15. Apr. 19–Sept. 18. MASS.—23, 24, 25, 26, 27, 28, 29, 31, 32. R. I.—33. Conn.— 35. Mar. 29–Aug. 27.

Protophormia Townsend, 08-123.

P. terraenovae (R.-Desvoidy).

ME.--4, 6, 8, 9. N. H.-11, 12, 14, 15. Apr. 23-Aug. 29. MASS.-23, 24, 25, 26, 27, 28, 29, 30, 32. R. I.--33. Conn.--35. Apr. 6-Aug. 9.

CALLIPHORINAE.

Onesia R.-Desvoidy.

O. aculeata Pandel.

MASS.—Melrose Highlands, Sept. 13 (Townsend), see Shannon, 23-14; Forest Hills, Boston, July 29, 1919 (Bequaert).

Cynomyia R.-Desvoidy (Cynomyopsis Townsend, 15-118).

C. cadaverina R.-Desvoidy.

ME.--1, 4, 5, 6, 8, 9. N. H.--11, 13, 14, 15. VT.--. Apr. 22-Sept. 8.

MASS.-25, 27. R. I.-33. CONN.-35. Apr. 30-Nov. 3.

C. mortuorum (Linné).

ME.—Oquossoc, July 1, 1912.

CONN.—Westville, May 20, 1905 (Britton).

C. flavipalpis Macquart.

N. H.-Mt. Washington (Mrs. Slosson).

Calliphora R.-Desvoidy. The Blue-bottle Flies.

C. vomitoria (Linné).

ME.--4, 6, 8, 9. N. H.--11, 13, 14, 15. VT.--17. June 10-Sept. 10.

Mass.—23, 25, 27, 29. R. I.—33. Conn.—34, 35. May 22-Oct. 5.

C. vomitoria var. nigribarbis Shannon, 23-116.

- ME.--3, 7, 8, 10. N. H.--11. VT.--17, 21. June 5-Sept. 22. MASS.--26, 29, 32. R. I.--33. Apr. 27-Nov. 6.
- C. viridescens R.-Desvoidy.
- N.H.—Jaffrey, June 9, 1920. Vr.—Chittenden, Aug. 1 (Bequaert); Mt. Equinox, June 5.
- C. erythrocephala (Meigen).
- МЕ.—6, 8, 9, 10. N. H.—13, 15. Vт.—17. June 15-Oct. 15. MASS.—23, 24, 25, 26, 27, 28, 31, 32. R. I.—33. CONN.—35. May 3-Oct. 5.

Lucilia R.-Desvoidy. "The Green-bottle Flies" (Shannon, 24-72).

L. caesar (Linné) (L. infuscata Townsend, 08-125; see Tothill, 13-124).

ME.--1, 5, 6, 7, 8, 9, 10. N. H.--11, 12, 14, 15. VT.--19, 20. July 1-Sept. 22.

MASS.-24, 25, 26, 27, 29, 32. R. I.-33. CONN.-34, 35. June 17-Sept. 6.

L. sylvarum Meigen (Bufolucilia sylvarum Townsend, 19–542). ME.—2, 7, 8, N. H.—14. VT.—16, 20, 21. June 22-Aug. 20. MASS.—26, 27, 29, 32. CONN.—35. June 17-Sept. 1.

L. sericata Meigen.

ME.—6. N. H.—15, VT.—21. June 18-Aug. 1.

MASS.—25, 26, 27, 29, 30, 32. R. I.—33. ČONN.—35. June 14-Oct. 13.

Polleniinae.

Pollenia R.-Desvoidy.

P. rudis (Fabricius). The Cluster Fly.
 ME.--1, 6, 7, 8, 10. N. H.--11, 13, 14, 15. VT.--20, 21. Apr. 15-Dec. 1.

MASS.-23, 24, 25, 26, 27, 28, 29, 31, 32. R. I.-33. CONN.-34, 35. Jan.-Dec.

MUSCIDAE.

STOMOXYIDINAE.

Stomoxys Geoffroy.

S. calcitrans (Linné). The Biting House-fly. ME.—1, 6. N. H.—11, 13, 14, 15. VT.—19. Apr. 27–Sept. 25. MASS.—23, 24, 25, 27, 28, 29, 30, 31. R. I.—33. CONN.—35. May 27–Oct. 31.

Lyperosia Rondani (Haematobia of authors).

L. irritans (Linné) (H. serrata R.-Desvoidy). The Horn Fly. ME.-6, 8, 9. N. H.-14, 15. VT.-21. June 23-Sept. 7. MASS.-24, 25, 26, 27, 29, 30, 31, 32. CONN.-34, 35. July 10-Aug. 9.

MUSCINAE.

Musca Linné.

M. domestica Linné. The House Fly.

ME.---1, 3, 5, 6, 7, 8, 9. N. H.---11, 13, 15. VT.---20, 22. July 7-Sept. 22.

Mass. 23, 24, 26, 27, 30, 32. R. I. 33. Conn. 35. Mar. 3-Oct. 10. Cryptolucilia Brauer and Bergenstamm (Pseudopyrellia Girschner).

- C. caesarion Meigen (P. cornicina authors, not Fabricius; see Bequaert, 22-90).
- ME.-1, 6, 9, 10. N. H.-14, 15. VT.-17, 19, 20. Apr. 25-Sept. 28.
- Mass.—23, 24, 25, 26, 27, 29, 31, 32. R. I.—33. Conn.—34, 35. Apr. 28-Oct. 10.

Pyrellia R.-Desvoidy.

P. serena (Meigen).

ME.-2, 6, 8. N. H.-11, 12, 13, 14, 15. VT.-16, 17, 19, 20, 21, 22. June 14-Sept. 10.

MASS.-23, 25, 26, 27, 32. R. I.-33. CONN.-35. Mar. 26-Oct. 30.

Mesembrina Meigen.

Subgenus Eumesembrina Townsend, 08-124.

- M. latreillei R.-Desvoidy (M. resplendens of authors, not Wahlberg).
- ME.-4, 5, 6. N. H.-11. VT.-17, 21. June 24-Aug. 30.

Morellia R.-Desvoidy.

M. micans (Macquart).

- ME.-1, 2, 4, 5, 6, 7, 8, 10. N. H.-11, 13, 15. VT.-17, 19. May-Sept. 10.
- MASS.-23, 24, 26, 27, 29, 32. R. I.-33. CONN.-34, 35. May 10-Sept. 5.

Graphomyia R.-Desvoidy.

G. maculata Scopoli.

- ME.-1, 3, 4, 8, 10. N. H.-11, 14, 15. VT.-16, 17, 19, 20. June 9-Sept. 7.
- MASS.-23, 26, 27, 29, 32. CONN.-34, 35. May 30-Sept. 6.

Muscina R.-Desvoidy.

M. assimilis (Fallen).

- ME.--6, 8. N. H.-13, 15. July 13-Sept. 10. MASS.-24, 25, 26, 27, 28, 32. R. I.-33. CONN.-35. Apr. 20-Oct. 31.
- **M. stabulans** (Fallen). The Stable Fly.
- ME.--6, 7, 8, 9. N. H.-11, 12, 14, 15. VT.-17, 20, 21. Apr. 22–Aug. 29.
- MASS.—24, 26, 27, 28, 29, 32. R. I.—33. CONN.—35. May 30-Aug. 19.

M. pascuorum Meigen.

- ME.-10. N. H.-11, 13. Aug.-May.
- Mass.—24, 25, 26, 27, 32. Conn.—34, 35. Aug.-April.
- A recently introduced species, appearing first in August, 1922 (see Johnson, 23-1 and 24-17).

Myiospila Rondani.

M. meditabunda (Fabricius).

ME.--1, 2, 7, 8. N. H.--11. VT.--21. June 10-Aug. 17. MASS.--24, 27, 29, 32. R. I.--33. CONN.--35. June 14-Aug. 5.

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GASTEROPHILINAE.

Gasterophilus Leach.

G. intestinalis DeGeer (*Gastrophilus equi* of authors). The Horse Bot-fly.

ME.—Orono; Waterville. N. H.—Dublin and Gilford (Harris Coll.). VT.—Mt. Mansfield, July 21 (Morse); Killington Peak, Aug. 23; Chelsea, Sept. 4.

MASS.—Mt. Greylock, Aug. 17; Cheshire (*Beecroft*); Amherst, June; Readville, Sept. 4. CONN.—Suffield (*L. H. Sikes*); Cornwall, July 12 (*Chamberlain*).

ANTHOMYIINAE.

In the "Faune de France" (1923), "Anthomyides," by E. Seguy, is presented for the first time a very comprehensive account of the flies of this subfamily. I have followed to a great extent the genera and their arrangement, although their order is reversed. If united the family Muscidae should be used instead of Anthomyiidae.

Pseudophaonia Malloch, 23-234.

P. orichalcea (Stein).

ME.—5. N. H.—14, 15. VT.—21. June 18-Aug. MASS.—23, 25, 27. May 12-June 16.

P. griseocaerulea Malloch, 23-235.

N. H.—"T. D. 4335"="Townsend Dissection "(White Mts.), Aug. 27, 1912 (Solidago flowers).

Bigotomyia Malloch, 23-236.

B. houghi (Stein).

ME.—4, 8, 10. N. H.—11. July 8-Aug. 17. Mass.—26, 27, 32. July 1-Aug. 16.

Dendrophaonia Malloch, 23-237.

D. querceti Bouchi.

ME.—Ft. Kent, Aug. 17, 1910. N. H.—Durham (W. & F.).

Phaonia R.-Desvoidy.

P. protuberans Malloch, 23–247.

N. H.—Mt. Washington, base to summit, June 11 to Aug. 16; Mt. Monadnock, June 22.

MASS.—Mt. Greylock, summit, June 15, 1906.



- P. serva (Meigen).
- ME.-4, 7, 8, 10. N. H.-11, 14, 15. VT.-17, 19, 21. June 4-Sept. 11.
- MASS.-23, 27. June 13-26.
- P. fraterna Malloch, 23–251.
- MASS.—Lunenburg, May 19, 1916 (S. M. Dohanian).
- P. tipulivora Malloch, 23-252.
- N. H.-Halfway House, Mt. Washington, July 6, 1914.
- MASS.—Winchendon; Lunenburg; Raynham; Melrose Highlands. Apr. 29-May 21.
- **P. pallidula** Coquillett.
- MASS.—Barnstable, July 5, 1904.
- P. rufibasis Malloch, 19-207.
- ME.—Ashland Junction, Aug. 16; Mt. Desert, Aug. 6. N. H.— Hanover, July 6.
- MASS.—Chester, Aug. 3, 1911; Great Barrington, June 15.
- P. cayugae Johannsen, 17-327 (P. nigricans Johannsen, 16-395, not Stein, 1897).
- ME.--8, 10. N. H.--15. VT.--16. May 15-Sept. 11.
- MASS.-23, 25, 26, 27. CONN.-35. May 7-Sept. 1.
- P. errans Meigen.
- ME.—4, 7. N. H.—11. VT.—19, 21. June 5-Aug. 1. Mass.—23, 27. Conn.—35. July 16-Sept. 19.
- P. errans var. completa Malloch, 23–258.
- ME.—Mt. Desert, June 26 and Sept. 10. N. H.—Base Station and Mt. Washington, July 3 to Aug. 15.
- MASS.—Sharon, Aug. 3.
- P. deleta (Stein).
- N. H.—11. VT.—21. June 24–July 28.
- MASS.-23, 27. CONN.-35. June 8-Aug. 23.
- P. soccata Walker.
- VT.—Manchester, June 9, 1910. Mass.—Chester, May 26, 1912.
- **P. morrisoni** Malloch, 23–264. N. H.—11. VT.—19, 29, 21, 22. June 5–Aug. 23. MASS.—Petersham, Aug. 25, 1920 (*L. H. Taylor*).
- P. harti Malloch, 23–266. Mass.—Auburndale, May 26.
 - P. brevispina Malloch, 23-269.
 N. H.—Glen House, June 11, and summit of Mt. Washington, June 30, 1913.
 - P. flavibasis Malloch, 19–208. MASS.—Chester, May 28.

P. curvinervis Malloch, 23-275.

CONN.-New London, July 10, 1916 (R. C. Osburn).

P. apicata Johannsen, 16-3.

ME.-4, 7, 8. N. H.-11. VT.-20, 21. June 5-Aug. 21.

MASS.-23, 27. CONN.-34. May 10-Aug. 9.

P. apicata var. solitaria (Stein), 18 (20)-15.

N. H.-11, 14. VT.-21. June 5-11.

MASS.-23, 27. June 16-Sept. 6.

P. apta Stein, 18 (20)-4.

MASS.-Woods Hole, July 7, 1902.

P. bysia (Walker).

ME.-7, 8. N. H.-11, 12, 14. VT.-22. June 7-Aug. 4.

MASS.-23, 25, 27, 28, 32. R. I.-33. June 20-Aug. 25.

P. laticornis Malloch, 22-279.

VT.—Dummerston, July 14, 1908.

P. fusca (Stein).

ME.—Fort Kent, Aug. 19, 1910. N. H.—Hanover, July 6, 1908. MASS.—Sharon, Aug. 25; Concord, Apr. 20; Woods Hole, July 25. **P. vagans** Fallen.

N. H.—Mt. Washington (Mrs. Slosson).

Phaonia abacta Giglio-Tos and *Mydaea rufusa* Giglio-Tos, recorded from Mt. Washington by Mrs. Slosson, are undoubtedly wrong determinations.

Alloeostylus Schnabl.

 A. diaphanus Wiedemann (A. signia Walker).
 ME.—3, 5, 7, 8, 10. N. H.—11, 15. VT.—16, 17, 19. June 21– Aug. 30.

MASS.-23, 26, 27. CONN.-35. May 30-Sept. 23.

Dialyta Meigen.

D. flavitibia Johannsen, 16-395 (D. rufitibia Stein, 20-23).

ME.-5, 7, 8, 9. June 10-July 21. MASS.-23, 25, 26, 27, 28. R. I.-33. CONN.-34, 35. June

15–Aug. 26.

Trichopticus Rondani.

T. latipennis Malloch, 20-158.

ME.-4. N. H.-11, 12. VT.-21, 22. June 24-July 17. MASS.-23. June 16-18.

T. johnsoni Malloch, 20-160.

N. H.—Mt. Washington, 2500 ft., Aug. 16; Glen House, Aug. 3; Franconia.

MASS.—North Adams, June 18, 1906.

T. conformis Malloch, 20-157.

N. H.-Base Station, Mt. Washington, Aug. 15, 1916.

MASS.—Mt. Greylock, Aug. 8, 1908 (Bryant).

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T. spiniger Stein, 04–428.

ME.-Mt. Katahdin, Aug. 11-17 (Blake). N. H.-Mt. Washington, 2000 to 5000 ft., July 6-Aug. 16. VT.-Chittenden (North Pond, 2500 ft.), Aug. 1 (Bequaert).

Stein is evidently wrong in uniting this with T. septentrionalis Stein, 18 (20)-20.

T. innocuus Zetterstedt.

ME.—Capens, July 11; Mt. Desert, July 15. N. H.—Mt. Washington, 4000 ft., July 15.

MASS.—Mt. Greylock (summit), June 15.

This was referred to Lasiops cunctans in Mrs. Slosson's list, according to a specimen received from her. A. nigrifrons Walker of the same list probably represents this species also (see Stein on Walker's types).

T. curvipes Stein, 18 (20)–19. MASS.—Lynn, Aug. 23 (Bezzi).

Rhynchotrichops Schnabl.

R. subrostrata Zetterstedt.

N. H.-Mt. Washington, 5000 ft. July 4-Aug. 16.

Pogonomyia Rondani.

P. flavinervis Malloch, 15-35 and 21-120 (Spilogaster nitens Stein, 1897, not Macquart, 1846; *P. flavipennis* Stein, 18 (20)-21). ME.—Mt. Desert, June 22. N. H.—Hampton, July 25 (Shaw); Durham, June 5 (Bridwell). VT.—Burlington, June 24. The type locality "Mass." should read "Toronto," see

Aldrich, 18–180.

Hydrotaea R.-Desvoidy.

H. militaris Meigen (H. implexa Loew).

ME.-7, 8, 9. N. H.-11, 12, 14, 15. VT.-16, 18, 19, 20, 21. June 23-Sept. 9.

MASS.-23, 25, 27, 32. R. I.-33. Conn.-35. May 27-Aug. 9.

H. houghi Malloch, 16–111.

ME.--7, 8. N. H.-13, 14. VT.-19. June 9-Sept. 9.

MASS.-25, 26, 27. R. I.-33. May 26-Aug. 12.

H. cristata Malloch.

ME.—Eastport, July 14; Machias, July 19.

MASS.—New Bedford (Hough); Boston, Sept 12; Auburndale, May 22.

H. occulta Meigen.

N. H.-Mt. Washington.

H. metatarsata Stein.

MASS.—New Bedford (Hough).

H. armipes Fallen.

N. H.—12, 15. July 7-16.

MASS.-27, 32. CONN.-35. May 21-Aug. 9.

H. meteorica (Linné).

ME.—Machias, July 21. VT.—Mt. Ascutney, July 11. CONN.—Oxford, May 21.

Ophyra R.-Desvoidy.

O. leucostoma (Wiedemann).

ME.-2, 6, 7, 8, 9. N. H.-11, 12, 14, 15. VT.-17, 18, 20. May 27-Aug. 16.

MASS. 25, 27, 28, 29. R. I. 33. CONN. 35. May 15-Aug. 22.

Fannia R.-Desvoidy (Homalomyia Bouché).

F. abrupta Malloch, 24–423.

N. H.—Mt. Washington, July 8, 1914.

F. aethiops Malloch, 13-628. N. H.—"White Mountains" (Morrison).

F. canicularis (Linné). ME.—3, 6, 8, 9. N. H.—11, 12, 15. VT.—21. Apr. 24-July 25. MASS.—26, 27, 32. R. I.—33. CONN.—35. Feb. 28-Oct. 29.

F. carbonaria (Meigen). ME.-4, 7, 8. N. H.-11, 14. VT.-21. June 13-July 30.

F. depressa Stein. ME.—Orr's Island, July 25. N. H.—Franconia. MASS.—New Bedford (*Hough*).

F. flavibasis Stein. N. H.—Franconia.

F. fuscula Fallen. ME.—3, 6, 7, 8, 10. N. H.—12, 15. June 17-Aug. 21. MASS.—23, 27, 29, 32. R. I.—33. CONN.—35. June 9-Aug. 4.

F. incisurata Zetterstedt. ME.—8. N. H.—11, 15. July 19-Aug. 10. MASS.—25, 26, 27, 28, 29, 32. Conn.—35. May 22-Sept. 4.

F. kowarzii (Verrall); see Malloch, 13–609. ME.—7, 8. N. H.—11, 15. June 10–July 19. MASS.—23, 24. June 15–Sept. 20.

F. laevis Stein. MASS.—New Bedford (*Hough*); Wellfleet, Aug. 15.



F. manicata Meigen. N. H.-Franconia (Mrs. Slosson); Hampton, Sept. 10, Oct. 1 (Shaw). F. minutipalpis Stein. ME.--7, 8. N. H.-11, 12. VT.-18, 19, 22. June 7-Aug. 26. MASS.-23, 27. May 24-Aug. 28. F. morrisoni Malloch, 13-627. N. H.—"White Mountains" (Morrison). F. pallidiventris Malloch, 24-422. VT.-Mt. Ascutney, July 11, 1908. MASS.—Mt. Greylock, July 25. F. polychaeta Stein. MASS.—New Bedford (Hough). F. postica Stein. N. H.-"White Mountains" (Morrison); Malloch, 13-627. F. pretiosa Schiner (see Malloch, 13-630). ME.-Machias, July 25, 1909. VT.-Mt. Ascutney, July 11, 1908. Mass.—Chester, July 25, 1913; Sharon, Aug. 3, 1904. F. pusio (Wiedemann) (Homalomyia femorata Loew; see Malloch, 13-623). N. H.—. CONN.---. F. scalaris (Zetterstedt). ME.-7, 8, 9, 10. N. H.-11, 15. May 5-July 25. MASS.-26, 27, 28, 29, 32. R. I.-33. CONN.-35. Apr. 17-Aug. 15. **F. serena** Fallen. ME.-1, 7, 8. N. H.-11, 12. June 15-Aug. 19. MASS.-23, 24, 27. May 30-Aug. 13. F. sociella (Zetterstedt) (see Malloch, 13-627). ME.-8. N. H.-11, 15. VT.-18, 19. July 6-Aug. 27. Mass.—23, 25, 27. July 8–Oct. 13. Coelomyia Haliday.

C. subpellucens (Zetterstedt) (Homalomyia flavaria Coquillett).
ME.—Eastport, July 15; Mt. Desert, June 27. N. H.—Mt. Washington ("Glen" to summit), June 11–July 8.
MASS.—Mt. Greylock (summit), June 15, 1906.

Platycoenosia Strobl.

P. miki Strobl. ME.—Bar Harbor, July 20.

L

Azelia R.-Desvoidy.

A. cilipes Zetterstedt. ME.-7. N. H.-11, 14. VT.-17, 22. July 2-Aug. 30. MASS.-23, 24. R. I.-33. May 28-Aug. 7.

A. gibbera Meigen. N. H.-Hampton (Shaw). MASS.—.

A. triquetra Macquart.

N. H.-11, 12. VT.-19, 20, 21, 22. June 19-Aug. 27. MASS.-23, 27. Aug. 4-28.

Hebecnema Schnabl.

H. affinis Malloch, 21-214. ME.--7, 8. N. H.-11. VT.-18, 19. June 15-Aug. 15. H. pallipes Malloch, 20-269. MASS.—Chester, Aug. 7; Auburndale, June 22, Oct. 1.

H. umbratica (Meigen).

ME.-7. N. H.-13, 15. VT.-22. July 14-Sept. 10. MASS.-23, 32. R. I.-33. June 12-Aug. 9.

H. vespertina (Fallen).

ME.-6, 7. N. H.-11, 15. VT.-19. June 3-Aug. 27. MASS.-27, 32. R. I.-33. May 30-Dec. 25.

Mydaea R.-Desvoidy.

M. nubila Stein (Spilogaster obscura Stein, 1897, not Van der Wulp).

Mass.—Auburndale, May 26, Aug. 23.

M. rugia Walker.

N. H.-Mt. Washington, 2500 to 5000 ft., June 13-July 16.

M. flavicornis Coquillett.

N. H.—12, 14. June 12–July 6.

MASS.-23, 27, 28. CONN.-35. May 22-Aug. 9.

M. occidentalis Malloch, 20–134.

ME.-7, 8. N. H.-11. VT.-19. July 7-Aug. 15.

MASS.-23. R. I.-33. June 22-27.

M. persimilis Malloch, 20–134.

N. H.-14. VT.-16, 21. June 3-July 11.

MASS.-25, 26, 27, 28. CONN.-35. June 16-Aug. 9.

M. impedita Stein, 18 (20)-33.

MASS.—Woods Hole, July, 1900.

M. brevipilosa Malloch, 20–135.

VT.-Manchester, June 4; St. Albans, June 21; Brattleboro, July 15.

CONN.—Stonington (Britton).

M. discimana Malloch, 20-136. ME.-5, 7, 8, 10. N. H.-11, 14. VT.-21. June 8-Aug. 6. MASS.-23, 24, 25, 27, 32. R. I.-33. CONN.-35. May 28-Aug. 14. M. neglecta Malloch, 20-136. Vт.—20. July 11. R. I.--33. CONN.--35. June 15-Sept. 6. MASS.—23, 27, 32. M. hirtiventris Malloch, 20-269. ME.-Mt. Desert, June 17-Aug. 16. MASS.—Chester, Aug. 5. **M. pagana** (Fabricius). ME.-Machias, July 19; Bar Harbor, June 7. N. H.-Jaffrey, June 8. M. urbana (Meigen). N. H.—11, 14. June 8-July 18. Me.—8. MASS.-23, 26, 27, 28, 32. R. I.-33. CONN.-35. May 26-Sept. 4. Helina R.-Desvoidy (Spilogaster Macquart). H. marmorata Zetterstedt. ME.---7, 8. N. H.---11, 14. VT.---20, 21. June 5-Aug. 17. MASS.-23, 27, 28. R. I.-33. June 14-July 27. H. lucorum Fallen. ME.-3, 4, 7, 8, 10. N. H.-11, 15. VT.-16, 18, 19, 21. June 11-Aug. 27. MASS.-23, 25, 27. CONN.-35. May 30-July 7. H. multisetosa Schnabl. ME.--6, 8. N. H.--11, 14, 15. VT.--19. Aug. 15-Sept. 14. H. nigripennis (Walker) (Aricia nitida Stein). MASS.—Cohasset, June 1 (Bryant); Provincetown, June 25. **H. nigricans** Stein. ME.-1, 8. N. H.-15. VT.-16, 19, 22. June 22-Aug. 19. MASS.-23, 27. Aug. 4-Sept. 1. H. duplicata Meigen. ME.-3. N. H.-11. July 12-31. Mass.—23, 27, 28. June 10–July 12. H. rufitibia Stein. VT.---Mt. Ascutney, July 11, 1908. H. pectinata Johannsen, 16–396. ME.—Bar Harbor, July 22, 1919. H. brevis Stein. ME.—Eastport, July 14; Southwest Harbor, July 13. H. consimilata Malloch, 20-144. MASS.—New Bedford (Hough).

H. mimetica Malloch, 20–142.

ME.—Mt. Desert, June 7–17. N. H.—Glen House, June 13. MASS.—North Adams, June 18; Dover, June 27.

H. neopoeciloptera Malloch, 20-139 (A. poeciloptera Malloch, 18-271, not Stein).

N. H.-Mt. Washington, 4000 to 5000 ft., July 16-21.

Mass.—Sharon, May 26, 1908.

H. obscurinervis Stein.

ME.—Waterville (*Hitchings*). N. H.—Hampton, Sept. 1–Oct. 9 (Shaw); Durham, June 13.

H. abiens Stein.

MASS.—New Bedford (*Hough*); Woods Hole, Aug. 19; Nantucket, July 23 (*Cushman*).

H. uniseta Stein.

N. H.—15. VT.—16, 21. June 9-Aug. 15.

MASS.-23, 24, 27, 28, 32. R. I.-33. CONN.-35. June 10-Sept. 22.

H. johnsoni Malloch, 20–141.

ME.—8. N. H.—14. June 7–22.

MASS.-27, 29. CONN.-35. May 29-June 29.

H. fulvisquama Zetterstedt (*H. tuberculata* Malloch, 19–277). N. H.—Base Station, Mt. Washington, July 7.

H. lysinoe Walker (S. amoeba Stein).

ME.---8, 9. N. H.---12, 13, 15. June 15-Sept. 10.

MASS.—23, 26, 27, 28, 29, 31, 32. R. I.—33. May 30-Oct. 29. H. uliginosa (Fallen).

MASS.—Boston, Aug. 29.

H. exilis Stein, 18 (20)-30. Mass.—.

H. obscuripes Zetterstedt.

N. H.-White Mts. (Stein), 04-449.

H. humeralis Zetterstedt.

N. H.—Franconia.

MASS.—New Bedford, from Hough Coll. (Stein).

Lispoides Malloch, 20-146.

L. aequifrons (Stein) (L. aequalis Malloch, 21-61, not Stein).
 N. H.—Hampton, June 11, 1923 (Shaw); Peterboro, Sept. 6, 1924 (C. F. Batchelder).

MASS.-Auburndale, Aug. 16-Sept. 12; Blue Hill, June 6.

Limnophora R.-Desvoidy.

L. discreta Stein (see Marchand, 23–58). N. H.—Franconia.

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- L. narona Walker.
- N. H.-Hampton, June 20 (Shaw).
- MASS.-26, 28, 32. R. I.-33. CONN.-35. June 19-July 30.

Spilogona Schnabl and Dziedzicki (Melanochelia Rondani).

- S. aerea (Fallen).
- ME.—Machias, July 17; Southwest Harbor, June 21; Mt. Katahdin, July 30 (Blake).
- MASS.—Wellesley, Oct. 13 (Morse).
- S. acuticornis Malloch, 20-147.
- ME.—Machias, July 17, 1909.
- S. alticola Malloch, 20-153.
- ME.—Princeton, July 12; Bar Harbor, June 7. N. H.—Mt. Washington, Glen House and Bretton Woods, June 28-Aug. 3; Mt. Monadnock, June 26.
- S. argenticeps Malloch, 24–200.
- N. H.-Mt. Washington, 4000 ft., Aug. 8.
- S. carbonella (Zetterstedt).
- N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett.
- S. caroli Malloch, 20-154.
- ME.—Mt. Desert, June 17-Aug. 17; Capens, July 14. N. H.— Jaffrey, June 8. VT.—Mt. Ascutney, July 11, 1908.
- S. clivicola Malloch, 20-155.
- ME.—Eastport, July 16; Mt. Desert, June 11–20. N. H.— Cornish, July 13. VT.—Dummerston, July 14.
 MASS.—Chester, Aug. 5.
- S. litorea (Fallen).
- N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett.
- S. monticola Malloch, 20–152.
- N. H.—Mt. Washington, Tuckerman's Ravine, July 4; Carriage Road, 2500 ft., July 24.
- S. novaeangliae Malloch, 20–151.
- N. H.—Mt. Washington, 4000 ft., July 4; Bretton Woods, Base Station and Glen House, June 11-Aug. 15.
- **S. suspecta** (Malloch), 20–154. ME.—Capens, July 19, 1907.
- S. tetrachaeta (Malloch), 20–153.
- ME.—Bar Harbor, June 15–July 30; Mt. Katahdin, Aug. 17 (Blake).
- S. torreyae (Johannsen), 16–391.
- N. H.—Hanover, July 6. Vr.—Dummerston, July 14.

MASS.—Chester, Aug. 3–9.

Paralimnophora Malloch.

P. velutina (Malloch), 20-147, also 21-62 (Paralimnophora brunneisquama Malloch, 13-605, not Zetterstedt). ME.-7, 8. N. H.-11, 14. VT.-16, 17. June 14-July 19. Mass.—23. June 15-27.

Limnospila Schnabl.

L. albifrons Zetterstedt. ME.---8. N. H.---15. June 14-Aug. 23. • Mass.—26, 29, 30, 32. July 14-Aug. 2.

Phyllogaster Stein.

P. cordyluroides Stein. ME.-7, 8, 10. July 24-Aug. 31. MASS.-26, 27, 29, 30, 31, 32. R. I.-33. June 28-Sept. 5.

P. robustus Johnson, 17-148 (P. maxima Stein, 20-59). MASS.-26, 29, 30, 31, 32. R. I.-33. June 17-Aug. 2.

Tetramerinx Berg. 1898.

(Tetrachaeta Stein, not Ehremberg; Parasteinia Cockerell, 05-361.)

T. unica Stein.

ME.—9. Aug. 10.

MASS.-26, 28, 29, 30, 31, 32. R. I.-33. June 5-Sept. 9.

Lispocephala Pokorny.

L. alma Meigen.

ME.-Mt. Desert, Sept. 6. N. H.-Passaconaway, Sept. 12, 1912 (Cushman).

L. alma var. pallipalpis Zetterstedt. ME.---6, 8. N. H.-15. VT.--20. Mar. 3-Oct. 27. MASS.-27. Nov. 18.

L. erythrocera R.-Desvoidy (Anthomyza lacteipennis Zett., Dipt. Scand, vol. 4, 1722). ME.-3, 7, 8. N. H.-11, 14, 15. Apr. 22-Aug. 30.

MASS.-23, 25, 26, 27, 29, 32. R. I.-33. CONN.-35. June 23-Nov. 30.

It was also taken in a greenhouse in Cambridge, Mass., Mar. 23, feeding on "white flies."

L. verna (Fabricius).

N. H.-Mt. Washington (Mrs. Slosson), det. by Coquillett.

Lispa Latreille.

L. albitarsis Stein. ME.--8. N. H.-11. June 13-Aug. 16. MASS.-23, 26, 27, 29, 31, 32. CONN.-35. June 25-Oct. 18.



L. johnsoni Aldrich, 138. ME.-Mt. Desert, Sept. 13, 1922. N. H.-Hampton, Aug. 20, 1914 (Shaw). MASS.—Cohasset, Sept. 9 (Bryant). L. nasoni Stein. MASS.—Cohasset, Sept. 9 (Bryant). L. palposa Walker. Mass.—Plymouth, July 28; Gloucester, June 20. L. sociabilis Loew. ME.---7, 8. N. H.---11, 14. June 13-Aug. 5. MASS.—27, 29. June 27-Aug. 3. L. tentaculata DeGeer. ME.-Princeton, July 12; Mt. Desert, July 15-Sept. 13. MASS.—Dartmouth, Feb. 24 (Easton); Sharon, Aug. 3. L. uliginosa Fallen. ME.-Mt. Desert, June 13-Aug. 20. N. H.-Mt. Washington (Mrs. Slosson). Fucellia R.-Desvoidy. F. maritima Haliday (Fucellia fucorum of authors, not Fallen). The "Kelp Fly." ME.-7, 8, 10. N. H.-15. Mar. 27-July 15. MASS.-26, 27, 28, 29, 30, 31, 32. R. I.-33. Conn.-35. Jan. 3-Nov. 30. Chirosia Rondani. C. capito Coquillett. N. H.-Hampton, Sept. 1 (Shaw). MASS.—Ipswich Beach, Aug. 12 (Fuller); Provincetown, Sept. 21 (Bryant). Anthomyia Meigen. A. pluvialis (Linné). ME.-8. N. H.-11, 13, 14, 15. VT.-.. May 8-Sept. 10. MASS.-24, 27, 32. R. I.-33. CONN.-35. May 25-Sept. 22. Calythea Schnabl and Dziedzicki. C. separata Malloch, 24-198. N. H.—15. Mass.-29, 30, 32. R. I.-33. Conn.-35. June 27-Aug. 24. C. albicincta (Fallen). MASS.—New Bedford (Hough). CONN.—Colebrook, July 21 (Viereck). Anthomyiella Malloch. A. pratincola (Panzer). ME.-1. N. H.-12, 15. VT.-21. June 22-Aug. 19.

MASS.-27. R. I.-33. CONN.-35. May 24-Oct. 16.

Pegomyia R.-Desvoidy.

P. affinis Stein (P. vicina Stein, not Lintner).

ME.---8, 9. N. H.---11, 14, 15. VT.---16. Apr. 26-Sept. 24. MASS.---23, 24, 25, 26, 27, 32. R. I.---33. CONN.---35. May 15-Sept. 4.

P. bicolor Wiedemann.

ME.-Mt. Desert, June 21; Mt. Katahdin, Aug. 24 (Blake).

MASS.-Wellesley, May 21 (Morse). CONN.-Windsor, larva in sorrel, emerged July 15 (M. P. Zappe).

P. calyptrata Zetterstedt.

N. H.—11, 12, 14. June 8–July 6.

MASS.-26, 27, 29, 32. R. I.-33. CONN.-35. May 15-July 23.

P. connexa Stein, 20–68 (P. emmesia Malloch, 20–179). ME.-7, 8. N. H.-11. VT.-16. June 11-Aug. 21.

MASS.—23, 28. CONN.—35. June 16–July 2.

P. finitima Stein.

N. H.-Hampton, May (Shaw).

MASS.—Wellesley, July 5, 1919 (Morse).

P. fuscofasciata Malloch, 20-178.

ME.---6, 7, 8. N. H.---14. VT.---21. June 5-July 21.

MASS.-23, 25, 27, 28, 29, 31. CONN.-35. May 28-Aug. 14.

P. geniculata Bouché.

ME.-4, 7, 8. N. H.-11. VT.-16, 18, 21. June 5-July 14. MASS.-23, 27. CONN.-35. June 6-28.

P. hyoscyami Panzer (*P. vicina* Lintner).

ME.-5, 6, 8, 9. N. H.-11, 14, 15. Vr.-17. May 10-July 22. MASS.-25, 27, 28. CONN.-35. May 1-Sept. 9. The larva mines the leaves of beets.

P. juvenilis Stein.

ME.-4, 5, 7, 8. N. H.-11, 12. VT.-16, 20. June 21-July 30. MASS.—23, 32. R. I.—33. June 9-Aug. 6.

P. lipsia Walker.

N. H.-11, 12, 14, 15. VT.-19, 21, 22. May 25-Sept. 11. MASS.-23, 26, 27, 29. CONN.-35. June 10-Aug. 28.

P. littoralis Malloch, 20-127.

ME.—Mt. Desert, July 16–25; Princeton, July 12.

P. luteola Malloch, 20–175.

ME.—Eastport, July 14; Machias, July 21; Mt. Desert, July 12-24.

MASS.—Chester, Aug. 9, 1912.

P. rubivora Coquillett.

MASS.—Framingham, May 28, 1904. CONN.—Bristol.

P. slossonae Malloch, 20–127. N. H.-Mt. Washington, 2500 ft., June 14, 1916. P. triseta Malloch, 20-177. MASS.-23, 27, 28, 29. R. I.-33. May 22-Sept. 21. **P. unicolor** Stein. VT.-St. Albans, June 21; Mt. Ascutney, July 11. MASS.—Chester, Aug. 3; Great Barrington, June 14. **P. vittigera** Zetterstedt. ME.-7, 8, 10. N. H.-13, 15. VT.-18. June 21-Sept. 10. MASS.—23, 25, 27. Aug. 8–23. P. winthemi Meigen (P. latitarsis Zetterstedt). ME.--8. N. H.-11, 14, 15. June 7-Sept. 8. MASS.-27, 31, 32. Aug. 2-4. Eremomyoides Malloch, 21-76. E. cylindrica (Stein). ME.--6. N. H.-15. Apr. 15-May 13. MASS.-24, 26, 27, 28, 32. Apr. 3-June 1. Acroptena Pokorny. A. ambigua (Fallen). ME.--3, 7, 8, 9. VT.--20. June 13-Aug. 5. MASS.--26, 27, 28, 29. R. I.--33. CONN.--35. May 30-Aug. 27. Hydrophoria R.-Desvoidy. H. arctica Malloch, 19-690. N. H.-Mt. Washington, "Alpine Garden," 5000 ft., Aug. 16, 1916. H. proxima Malloch, 20-171. ME.—Machias, July 21; Princeton, July 12; Bar Harbor, June 13. H. uniformis Malloch, 18-297. CONN.—Yalesville, Oct. 19, 1903 (Viereck). Eustalomyia Kowarz. E. vittipes Zetterstedt. ME.-4. N. H.-12, 14, 15. June 18-July 21. MASS.-23, 27, 28, 29. CONN.-35. May 6-Sept. 18. **E. brixia** Walker (*E. histrio* Zetterstedt?). ME.-Northeast Harbor, July 16, 1909 (Dr. C. S. Minot). N. H.-Glen House, June 14, 1916. MASS.—Southbridge (Bromley); Great Barrington, June 16; Medford and Blue Hill, July 3-16. Proboscimyia Bigot (Dolichoglossa Stein).

P. siphonina Bigot.

MASS.—Nantucket, Sept. 8.

Hylemyia R.-Desvoidy.

H. alcathoe (Walker).

ME.-1, 6, 7, 8. N. H.-11, 14, 15. VT.-16, 17, 18, 19, 21. June 13-Aug. 19.

MASS.—23. June 8-Aug. 9.

H. antiqua (Meigen) (*H. ceparum* Meigen; *H. cepetorum* Meade). The Onion Maggot.

ME.-1, 6, 7, 8. N. H.-11, 14, 15. June 8-Aug. 21. MASS.-24, 27, 28. CONN.-35. June 29-Aug. 20.

H. brassicae Bouché. The Cabbage Maggot.

Ме.—8, 9. N. H.—11, 15. Apr. 20-July 13. Mass.—27, 32. R. I.—33. Сомм.—35. Apr. 30-July 16.

H. coenosiaeformis Stein, 04-477.

ME.-1, 7, 8. N. H.-11. VT.-19. June 23-Aug. 19.

H. depressa Stein.

ME.-1, 6, 7, 9, 10. N. H.-11, 12, 13, 15. VT.-16, 20, 22. June 24–Sept. 11.

MASS.-23, 25, 26, 27, 28. CONN.-35. June 25-Aug. 9.

H. innocua Malloch, 20-186.

ME.-Mt. Desert, July 18-20; Oquossoc, July 1.

MASS.—New Bedford (Hough).

H. inornata Stein.

ME.--7, 8. N. H.--11, 12, 13, 15. VT.--21. June 4-Sept. 10. MASS.-23, 27, 32. R. I.-33. CONN.-35. May 26-June 19.

H. johnsoni Stein.

N. H.-Bretton Woods, June 26. VT.-Manchester, June 8; St. Albans, June 19.

MASS.—Sharon, July 7. CONN.—Branford, June 13 (Walden). **H. latipennis** Zetterstedt.

ME.-4, 7, 8, 10. N. H.-11, 15. VT.-19, 20. May 26-July 12.

MASS.-23, 26, 27. CONN.-.. June 4-Aug. 4.

H. megacephala Malloch, 20–188.

MASS.—Auburndale, May 22.

H. pluvialis Malloch, 18-130.

ME.—Penobscot Co. (Section 2, Range 7), Aug. 2 (J. A. Cushman).

H. sinuata Malloch, 24-196.

MASS.—Newton, May 15, 1920 (C. A. White).

H. testacea Stein.

N. H.—White Mts. (Morrison), Stein, 04-479.

H. trivittata Stein (H. longicauda Malloch, 9). ME.-1, 7. N. H.-12. July 4-Aug. 19. MASS.-23, 27, 29, 32. June 23-Aug. 4.



DIPTERA.

H. variata (Fallen). N. H.—Hampton, Apr. 16 (Shaw). MASS.—New Bedford (Hough).

Subgenus Pycnoglossa Coquillett, 1901 (Pogonomyza Schnabl and Dziedzicki, 1911).

H. flavipennis (Fallen). ME.--7, 8. N. H.-11, 15. VT.-20. June 13-July 21. Mass.-25, 26. July 4-8.

H. proboscidalis Malloch, 21-79. ME.-8. N. H.-11. VT.-16, 18. June 21-July 12. MASS.-23, 25, 27. R. I.-33. CONN.-35. May 26-Aug. 9.

Subgenus Pareglea Schnabl and Dziedzicki.

H. aestiva (Meigen).

ME.—Mt. Desert, July 11.

H. cinerella (Fallen). ME.--6, 8, 9. N. H.--11, 12. June 12-July 12. MASS.-29, 32. R. I.-33. CONN.-35. June 6-July 25. H. radicum (Linné). ME.--1, 6, 7. N. H.--11, 12, 14. June 8-Aug. 17. Mass.--23, 27, 28, 29. Conn.--35. May 16-Oct. 16.

Subgenus Egle R.-Desvoidy.

H. muscaria (Meigen).

N. H.-Hampton, Apr. 26 (Shaw); Durham, Mar. 23, 1924 (Lowry).

MASS.-Winchendon, Apr. 25, 1904 (Russell); Sherborn, Apr. 3, 1910 (E. J. Smith); Dartmouth, Apr. 25, 1916 (N. S. Easton).

Subgenus Chortophila Macquart (Phorbia of authors).

H. cilicrura Rondani (Phorbia fusciceps of authors, not Zetter-

stedt). The "Seed-corn Maggot" (Hawley, 23-944). ME.-1, 4, 6, 7, 8, 9, 10. N. H.-11, 14, 15. VT.-16, 18, 19, 21. May 10-Aug. 19.

MASS.-23, 24, 25, 26, 27, 28, 29, 31, 32. R. I.-33. CONN.-34, 35. May 8-Oct. 29.

H. trichodactyla Rondani.

ME.—Bar Harbor, July 19.

MASS.—Wellesley, June 13 (Morse). R. I.—Providence, Sept. 1 (Davis).

H. laevis Stein.

MASS.—New Bedford (Hough).

H. betarum Lintner (H. substriata Stein, 20-92). MASS.—New Bedford (Hough).

H. bicaudatus Malloch, 20-193.

N. H.-Hampton, Apr. 25, 1907 (Shaw).

H. longipalpis Malloch, 24-197.

ME.-Waterville, May 11 (Hitchings).

H. fabricii Holmgren. N. H.—White Mts. (Coquillett).

Prosalpia Pokorny.

P. angustitarsis Malloch.

ME.-7, 8. N. H.-14. July 12-Sept. 1. MASS.-25, 26, 27. June 10-Sept. 4.

P. silvestris (Fallen) (*Anthomyia grisea* Walker?). ME.--1, 4, 7, 8. N. H.--11, 13, 15. VT.--16, 19, 20, 21. June 16-Sept. 10.

MASS.—27, 28. CONN.-34. June 16-Aug. 6.

Hylephila Rondani (Hammomyia of authors, not Rondani).

H. marylandica Malloch, 21-78.

N. H.-Mt. Washington, 3800 ft., Aug. 6 (W. Reiff).

H. obtusa Zetterstedt (*H. paludis* Johannsen, 17–323).

MASS.-Melrose Highlands, Apr. 2 (Preston); Essex, Apr. 19 (Fuller).

H. setigera Johannsen, 16–387. MASS.—Mt. Greylock, June 15. CONN.—Darien, June 11.

H. unilineata Zetterstedt.

MASS.—New Bedford, Apr. 17 (Hough); Malden, Apr. 16. CONN.—South Meriden, Mar. 15.

Macrophorbia Malloch.

M. houghi Malloch, 20-173.

N. H.-Hampton, Apr. 26.

MASS.—Sherborn, Apr. 30-May 26 (E. J. Smith); Melrose Highlands, May 3; Danvers, May 19; New Bedford, May 10 (Hough).

Neodexiopsis Malloch, 20-162.

N. basalis (Stein) (Dexiopsis basalis Stein).

MASS.—Ipswich Beach, Aug. 12 (Fuller); Eastham, June 27. CONN.-New Haven, Oct. 16 (Viereck).

Macrorchis Rondani.

M. ausoba (Walker) (Coenosia aurifrons Stein).

ME.-1, 2, 6, 7, 8, 10. N. H.-11, 14, 15. VT.-16, 17, 21, 22. June 22-Sept. 18.

MASS.-23, 27, 28, 29, 32. R. I.-33. CONN.-35. May 26-Aug. 27.

Xenocoenosia Malloch.

- X. calophaga (Loew); Malloch, 20-162.
- N. H.-Mt. Washington (Mrs. Slosson).
- MASS.—New Bedford (Hough). CONN.—New Haven, Oct. 16 (Viereck).

Coenosia Meigen.

C. calopyga Loew.

N. H.-Mt. Washington (Mrs. Slosson).

- CONN.—New Haven, Oct. 15 (Viereck).
- C. compressa Stein, 04-489.

ME.---4, 7, 8. N. H.---12, 13. July 7-Sept. 10. MASS.---23, 25, 32. June 28-Aug. 26.

C. denticornis Malloch, 20-164.

- N. H.—Glen House, June 11, 1916.
- C. errans Malloch, 21–204 (C. flavipes Stein, 1897, not Williston, 1896, = C. steinii Johnson, 1913, not Verrall, 1912). Although Stein (20-104) considers his C. flavipes the same as C. hypopygialis, I think he is in error.
- N. H.-Glen House, July 2; Mt. Monadnock, June 22; Pelham, Sept. 11 (Bridwell).
- MASS.—Woods Hole, July 23. R. I.—Kingston, July 17-25 (Barlow).

C. flavicoxa Stein.

ME.-3. N. H.-12, 13. VT.-17. June 25-Sept. 10.

MASS.-23, 27. R. I.-33. CONN.-35. May 14-July 12.

C. fuscifrons Malloch, 19-96.

ME.-1, 4, 8. N. H.-11, 13. VT.-22. June 11-Sept. 10. MASS.-23. July 25.

C. hypopygialis Stein.

N. H.—Glen House, July 3.

MASS.—New Bedford (Hough); Cohasset, June 1 (Bryant).

C. humilis Meigen (C. nana Zetterstedt).

N. H.—Hampton, May 24 (Shaw).

MASS.—Forest Hills, June 21, in greenhouse (H. A. Preston); Waban, Apr. 1 (Reiff); New Bedford (Hough); Woods Hole. CONN.—Suffield (Dimmock).

C. lata Walker (C. canescens Stein).

ME.--6, 10. N. H.--11, 14, 15. VT.--20.

MASS.-23, 24, 26, 27, 28, 29, 31, 32. R. I.-33. CONN.-35. Although Stein (20-103) questions the identity of the two

- species, I think there is little doubt but that they are the same.
- C. modesta Loew.
- ME.-Ft. Kent, Aug. 19. N. H.-Claremont, May 20. VT.-Burlington, June 24.

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C. nivea Loew.

N. H.-Manchester, June 6, 1910.

MASS.—Cheshire, June 21, 1906.

C. nigrescens Stein.

ME.—Orono, Sept. 12; Mt. Desert, June 20–Sept. 7; Mt. Katahdin, Aug. 17 (Blake), Aug. 21 (Alexander). N. H.—Franconia (Mrs. Slosson).

C. nudiseta Stein.

MASS.-26, 28, 29, 30, 31, 32. R. I.-33. June 17-Aug. 28.

C. solita Walker.

N. H.—Mt. Washington (Mrs. Slosson).

C. rufitibia Stein, 17-161 and 20-105 (C. tibialis Stein, 1897, not Macquart, 1843). Conn.—.

Caricea R.-Desvoidy.

C. albicornis Meigen.

N. H.—Mt. Washington (Mrs. Slosson), det. by Coquillett. CONN.—.

Macrocoenia Malloch, 20-162.

M. triseta (Stein). ME.—7, 8. N. H.—11, 15. VT.—18. June 17–July 24. MASS.—23, 27, 32. May 30–June 15.

Hoplogaster Rondani.

H. nigritarsis Stein.

ME.-1, 8, 10. N. H.-11, 12, 13. VT.-17, 21, 22. July 7-Sept. 10. Maga 22, 25, 27. Conv. 25. June 15. Sept. 4

MASS.—23, 25, 27. CONN.—35. June 15-Sept. 4.

H. morrisoni Malloch, 24–172.

N. H.—White Mts. (Morrison), U. S. Nat. Mus.

Bithoracochaeta Stein.

- **B.** leucoprocta (Wiedemann) (Caricea antica Walker; C. insignis Stein, see Malloch, 21-107).
- N. H.—Mt. Washington (Mrs. Slosson); White Mts. (Morrison), Stein, 04-452.

Schoenomyza Haliday.

S. chrysostoma Loew.

ME.-3, 8, 9. N. H.-11, 15. VT.-20. May 14-Aug. 21. MASS.-24, 26, 27, 28, 29, 31, 32. R. I.-33. Conn.-35. May 29-Sept. 6.

S. dorsalis Loew.

ME.---3, 4, 8. N. H.---11, 14. VT.---18. June 27-Aug. 17. MASS.---24, 26, 27, 29, 32. CONN.---35. May 24-Aug. 30.

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S. litorella (Fallen) ME.—Kineo, Aug. 17; Mt. Desert, July 12. MASS.—New Bedford, Aug. 8 (Hough); Provincetown, June 25.

SCATOPHAGIDAE.

Cordilura Fallen.

C. angustifrons Loew. ME.—Machias, July 25; Orono, June 21. Mass.—Auburndale, June 15; Blue Hill, May 30. C. latifrons Loew. N. H.—14, 15. June 10–30. MASS.-26, 28, 29, 31, 32. R. I.-33. CONN.-35. June 4-Aug. 28. C. carbonaria Walker (C. gagatina Loew). ME.---8. N. H.--11, 14. VT.--19. June 8-Aug. 17. MASS.--27, 28. June 1-July 27. C. capillata Loew. N. H.-White Mts. (Osten Sacken). C. cincta Loew. ME.—Princeton, July 12, 1909. C. gracilipes Loew. ME.--7, 8, 9. N. H.-11, 15. VT.-21. May 30-Aug. 1. MASS.-23, 27. R. I.-33. CONN.-35. May 22-Aug. 10. C. lutea Loew. N. H.-Mt. Washington (U. S. Nat. Mus.). C. nana Loew. ME.-7, 8, 9. N. H.-11, 15. June 26-Aug. 10. MASS.-23. CONN.-35. June 11-Aug. 8. C. praeusta Loew. ME.-7, 9. N. H.-11, 14, 15. June 21-July 20. MASS.-23, 27, 28. June 15-Aug. 9. C. setosa Loew. ME.--7, 8. N. H.--11, 14, 15. VT.--16, 21. June 1-July 28. MASS.--23, 24, 25, 27, 28. R. I.--33. CONN.--35. May 29-July 27. C. tricincta Loew. ME.-8. N. H.-11. VT.-19. June 13-Aug. 23. Mass.-23. June 27-Aug. 5. C. variabilis Loew. ME.--8. N. H.-11, 15. May 23-July 10. MASS.-24, 27. R. I.-33. CONN.-35. May 20-Aug. 3.

Parallelomma Becker.

P. dimidiata (Cresson), 18-135.

ME.—Bar Harbor, June 7. VT.—Mt. Equinox, June 5; Norwich, July 8.

MASS.—Wellesley, July 19.

P. emarginata Malloch, 23-179.

N. H.—Hanover, July 6. VT.—Chittenden, Aug. 1 (Bequaert). MASS.—Auburndale, Aug. 2, June 26, May 22.

P. munda (Loew).

N. H.—Mt. Washington (Mrs. Slosson).

MASS.—Mt. Greylock, Aug. 8 (Bryant); Chester, July 25; Auburndale, Aug. 9. R. I.—Wickford, June 9.

P. pleuritica (Loew) (Cordylura slossonae Coquillett).

ME.—7, 8, 9. N. H.—11, 13, 14, 15. VT.—21. June 7-Sept. 4. MASS.—23, 25, 26, 27, 28. R. I.—33. Conn.—35. May 26-Aug. 8.

P. scapularis (Loew).

N. H.—Glen House; Jaffrey, June 18. MASS.—Cohasset (Bryant).

P. similata Malloch, 23-178.

N. H.—Bretton Woods, June 26; Mt. Washington, 2500 ft., July 28.

P. glabra (Loew).

N. H.—Mt. Washington, 2500 ft., July 28; Glen House, July 15. Vr.—Chittenden, Aug. 1 (Bequaert).

MASS.-Mt. Greylock, Aug. 8 (Bryant); Auburndale, Aug. 28.

Hexamitocera Becker.

H. flavida Coquillett. ME.—Eastport, July 15–16. N. H.—Franconia (Mrs. Slosson).

Micropselapha Becker.

M. albifacies Johnson, 22–23. ME.—Ft. Kent, Aug. 17, 1918.

Amaurosoma Becker.

A. pallidipes Malloch, 22-77.

N. H.—Mt. Washington, 2500 ft., July 13; Hampton, May 20-31 (Shaw).

MASS.—Dedham, June 3.

A. nuda Malloch, 22–78. N. H.—Hampton, May 20–31 (Shaw). MASS.—Tyngsboro, July 3, 1919 (Fall).



Americina Malloch, 23-139.

A. adusta (Loew). ME.--7, 8. N. H.-11, 12, 15. May 30-July 29. A. inermis (Loew). N. H.—11, 12, 14. June 7–July 4. MASS.-23, 27, 28. July 25-Aug. 9.

Achaetella Malloch, 23-140 (Parallelomma of authors).

A. varipes Walker. ME.---7, 8, 9. N. H.---11, 15. VT.---16. June 16-July 27. MASS.---23, 26, 27, 28. CONN.---35. May 30-Aug. 5.

Cordylurella Malloch, 19-78c.

C. nebulosa (Coquillett). MASS.—Provincetown, June 28, 1891 (Morse).

Orthacheta Becker.

O. dissimilis Malloch, 24-194. ME.--6. N. H.-15. May 29-June 5. MASS.-23, 26. CONN.-34, 35. May 10-June 16.

Pselaphephila Becker.

P. similis Coquillett. N. H.—Hampton, Apr. 14 and June 26 (Shaw). MASS.—Beverly, Apr. 20 (E. Burgess).

Acanthocnema Becker.

A. albibarba (Loew). N. H.-White Mts. (Osten Sacken).

A. nigrimana Zetterstedt. N. H.-White Mts. (U. S. Nat. Mus.).

Microprosopa Becker.

M. flavinervis Malloch, 24–193. MASS.—Auburndale, May 22.

M. volucricaput (Walker).

- N. H.-Mt. Washington (Mrs. Slosson); Mt. Washington, "Alpine Garden," 5000 ft., July 4, 1914.
- M. haemorrhoidalis Meigen.
- N. H.—"White Mts." (Östen Sacken).

Trichopalpus Rondani.

T. punctipes (Meigen) (Chaetosa punctipes (Meigen) Coquillett). ME.-Monmouth, July 19, 1904 (Frost).

T. palpalis (Coquillett) (*Opsiomyia palpalis* Coquillett). ME.—Mt. Desert, July 29. N. H.—White Mts. VT.—Bennington, June 24.

Plethochaeta Coquillett.

- P. atrifrons Coquillett, 10-44.
- N. H.—White Mts.

Scatophaga Meigen.

- S. stercoraria (Linné).
- ME.--4, 6, 7, 8, 10. N. H.-11, 15. VT.-11, 20, 21. May 27-July 19.
- MASS.-23, 24, 25, 26, 27, 28, 29, 30, 31, 32. R. I.-33. CONN.-34, 35. May 3-Oct. 19.
- S. merdaria (Fabricius).
- ME.--3, 6, 8. N. H.--11, 15. VT.--16, 17, 21. June 27-Aug. 2.
- MASS.-23, 25, 26, 27, 29, 30, 32. R. I.-33. Conn.-35. Apr. 27-Oct. 11.
- S. litorea (Fallen) (S. intermedia Walker). ME.-7, 8. N. H.-15. June 5-Sept. 12. MASS.-26, 28, 29, 31. May 21-June 29.
- S. furcata Say (S. bicolor Walker). ME.-3, 8. N. H.-11, 15. VT.-21. June 8-Aug. 24. MASS.-25, 26, 27, 29, 32. R. I.-33. CONN.-35. May 21-June 29.
- S. canadensis Walker. N. H.—11, 14. June 7–July 4. MASS.—23, 25, 26, 27, 32. Apr. 29–Oct. 30.
- S. monticola Malloch, 24–195.
- N. H.—Mt. Washington (Mrs. Slosson); Hermit Lake, Mt. Washington, July 8 (C. W. J.).

S. suilla (Fabricius). ME.—1, 4, 8. N. H.—11, 14. VT.—18, 19, 21. June 5–Aug. 19. MASS.—23, 25. June 5–15.

S. nigrolimbata Cresson, 18-134.
N. H.—Mt. Washington, July 8; Jaffrey, June 23. Vr.—Mt. Equinox, June 5.
MASS.—Mt. Greylock, June 15.

S. lutaria (Fallen). ME.—8. N. H.—15. VT.—21. June 5–July 25. MASS.—23. June 15–Aug. 5.

Ceratinostoma Mead.

C. ostiorum (Haliday) (S. oceana Macquart, see Johnson, 10-232). ME.--7, 8, 10. N. H.--15. May 24-July 27. MASS.--26, 28. May 30-Sept. 9.



Eugenacephala Johnson, 22-22.

E. salsa Johnson, 22–22. ME.—"Narrows," Mt. Desert, Aug. 13. N. H.—Hampton Beach, May 3, 1904 (C. E. White, Jr.).

MASS.-Essex, May 7, 1920 (Fuller); Cohasset, May 16, 1904 (Bryant).

Gimnomera Rondani.

G. tarsea Fallen.

N. H.—White Mts. (U. S. Nat. Mus.).

Hydromyza Fallen.

H. confluens Loew.

ME.—Monmouth, June 21 (Frost); Mt. Desert, July 27, on lily pads.

CONN.—Goshen, July 4 (Zappe).

HELOMYZIDAE.

Porsenus Darlington, 08-69.

P. johnsoni Darlington, 08-71.

MASS.—Boston, Oct. 19.

Tephrochlamys Loew.

T. canescens Meigen (*T. rufiventris* Meigen). ME.---6, 8, 9. N. H.---11, 14, 15. VT.---. Mar. 11-Aug. 20. MASS.-24, 27, 30, 32. R. I.-33. CONN.-35. Mar. 25-Oct. 14.

T. flavitarsis Darlington, 08-71.

N. H.—"White Mts." (Morrison), U. S. Nat. Mus.

Suillia R.-Desvoidy (Holomyza Fallen 1820, not 1810.)

S. apicalis Loew. ME.-4, 7, 8. N. H.-11. July 15-25. MASS.-23. Aug. 8.

S. longipennis Loew. ME.-1, 4, 6, 7, 8, 9. N. H.-11, 12, 13, 15. VT.-16, 18. June 24-Sept. 10. R. I.—33. June 15–22. MASS.—23, 26.

S. plumata Loew. ME.--4, 8. N. H.-12, 15. VT.-16, 18, 22. June 27-July 20. MASS.—23, 27. CONN.—35. June 17-Aug. 23.

S. quinquepunctata Say (H. latericia Loew). ME.-Ft. Kent, Aug. 7. N. H.-Mt. Washington (Mrs. Slosson); Hampton, Oct. 13 (Shaw). VT.-Burlington, June 23.

CONN.—Rowayton, June 16.

S. zetterstedti Loew. N. H.—Mt. Washington.

Allophyla Loew.

A. laevis Loew.

ME.--1, 4, 7, 8, 10. N. H.--11, 13. VT.--16, 17, 18, 19. June 11-Sept. 19.

Mass.—23. June 15-Aug. 25.

Oecothea Haliday.

O. fenestralis Fallen.

MASS.—New Bedford, Apr. 13, 1896 (Hough). CONN.—New Haven, June 23, 1916 (Zappe).

Anorostoma Loew.

A. marginata Loew. N. H.—Hampton, June 12–July 4 (Shaw). MASS.—26, 28, 29, 30, 32. May 30–June 20.

Scoliocentra Loew.

S. fraterna Loew.

N. H.-Mt. Washington (Mrs. Slosson).

S. helvola Loew.

ME.---7, 8. N. H.---11. VT.---16, 17, 20. June 14-Aug. 30. MASS.---23, 27. May 27-Aug. 5.

S. tincta Walker (Leria pubescens Loew; Achaetomus pilosus Coquillett).

ME.—Orono, June 19, 1905. N. H.—Glen House, Aug. 17. MASS.—Winchendon, Apr. 29; Brookline, Apr. 22.

Chaetomus Czerny, 1924.

C. flavotestaceus (Zetterstedt) (Leria biseta Loew).

N. H.—Mt. Washington (Mrs. Slosson). VT.—St. Johnsbury, June 26.

Neoleria Malloch, 1919.

N. discolor Loew.

ME.—Ft. Kent, Aug. 17. N. H.—Mt. Washington (Mrs. Slosson); Bretton Woods, June 22. VT.—Bolton Mt., Aug. 30.

N. leucostoma Loew.

ME.—1, 8. N. H.—11, 13, 15. VT.—17, 21. June 5–Sept. 11. MASS.—23. May 27, 1912.

Helomyza Fallen, 1810 (Leria of authors, in part).

H. serrata (Linné).

N. H.-Mt. Washington.

MASS.—Cambridge, Apr. 21.

Morpholeria Garrett, 21-27.

M. tristis (Loew). ME.—Waterville, May 11, 1906 (*Hitchings*). Conn.—South Meriden, Feb. 20, 1915 (*H. L. Johnson*).



Pseudoleria Garrett, 21-128.

P. pectinata Loew.
ME.—Bridgton, June 15. N. H.—Hampton, July 3 (Shaw).
MASS.—Boston, May 27–Sept. 27; Cohasset, June 5. R. I.— Providence, June 21.

CLUSIIDAE.

Acartophthalmus Czerny.

A. nigrinus Czerny. MASS.—Petersham (*Melander*, 24–5).

A. bicolor Olderberg.

MASS.—Woods Hole, July 23, 1903.

Clusia Haliday.

C. czernyi Johnson, 13–100.

ME.--7, 8. N. H.-11, 14, 15. VT.-21. June 5-Aug. 15.

MASS.—Chester, May 21, 1912.

C. lateralis Walker.

- ME.--7, 8, 9. N. H.--11, 12, 15. VT.--16, 17, 18. June 20-July 15.
- MASS.-23, 26, 27, 29. R. I.-33. CONN.-35. June 19-Aug. 23.

Clusiodes Coquillett, 04-93 (Heteroneura Fallen, 1823, not 1810). Subgenus Clusiodes Coquillett.

C. albimana Meigen.

VT.-St. Johnsbury, June 28, 1906.

- C. americana Malloch, 22-48.
- ME.—Mt. Desert, July 25, 1919; Bayville, July 25, 1916 (G. M. Allen).
 N. H.—Intervale, Aug. 23 (Allen).
 VT.—Mt. Ascutney, July 11.

Subgenus Clusiaria Malloch, 22-47.

C. atra Melander and Argo, 24-18. MASS.—Greenfield, June 1, 1914 (Melander).

C. geomyzina (Fallen).

ME.—Machias, July 17, 1909. N. H.—Bretton Woods, June 28, 1913.

C. melanostoma (Loew). ME.--7, 8. N. H.--11, 12. VT.--20. June 19-July 25.

MASS.—23, 25, 27. May 22–June 15.

C. orbitalis Malloch, 22-50.

ME.—Bar Harbor, June 13, 1921.

C. pictipes (Zetterstedt).

N. H.—Mt. Washington (Mrs. Slosson), det. by Coquillett.

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- C. terminalis Melander and Argo, 24-20 (C. apicalis Malloch, 18-06, and 22-48, not Zetterstedt, 1848).
- N. H.-""White Mts." (Morrison): Bretton Woods, June 25, 1913.

Subgenus Columbiella Malloch, 22-47.

- C. apiculata Malloch, 22-49.
- N. H.-Milford, June 23, 1914. Vr.-Manchester, June 4, 1910.

C. johnsoni Malloch, 22-49.

- ME.-Mt. Desert, July 12, 1918; Capens, July 14. VT.-Burlington, June 23, 1906.
- MASS.—Washington, Aug. 8, 1912.

C. nigripalpis Malloch, 22–49. ME.-4, 8. N. H.-11, 14. VT.-16. June 10–July 26. MASS.—23. June 27-Aug. 8.

Heteromeringia Czerny, 03-72.

H. nitida Johnson, 13-99.

Mass.—Boston, Aug. 2, 1922.

Sobarocephala Czerny, 03-85.

S. convergens (Malloch), 22-50.

N. H.-White Mts.; Hampton, June 4 (Shaw).

S. flaviseta (Johnson), 13-99.

MASS.—Boston, July 30, 1917.

S. latifrons (Loew).

MASS.—Chester, Aug. 7; Weston, July 23; Auburndale, Aug. 9; Brookline, July 4.

BORBORIDAE.

Sphaerocera Latreille.

S. annulicornis Malloch, 13-363.

MASS.-Brookline, Mar. 20, 1874; Woods Hole, Aug.-Sept. (Sturtevant).

S. pusilla Fallen.

ME.-9. N. H.-11, 15. Apr. 6-June 17. MASS.-23, 26, 27. May 2-27.

S. subsultans (Fabricius).

МЕ.—10. N. H.—11, 14, 15. Vт.—21. May 16-June 20. MASS.—23, 29, 32. R. I.—33. Сомм.—35. Mar. 26-Sept. 9.

Leptocera Olivier.

Subgenus Collinella Duda.

L. atra Adams (L. setifer Adams).

MASS.—Beverly (Burgess); Horse Neck Beach (Hough); Woods Hole (*Melander*).



L. frosti Johnson, 15–21.

MASS.—Framingham, Oct. 19, 1913 (Frost); Tyngsboro, Sept. 29 (Fall); Beverly; Lexington.

L. limosa Fallen.

N. H.—.

MASS.—Danvers, Sept. 23; Brookline, Sept. 29. CONN.—.

L. lutosa Stenhammer.

ME.--1, 8. N. H.--11, 15. VT.--16. Apr. 3-Aug. 17. MASS.--26, 27, 32. May 5-Sept. 22.

Subgenus Leptocera Latreille.

L. fontinalis (Fallen).

N. H.-Mt. Washington (Mrs. Slosson).

MASS.—Forest Hills, Boston, Sept. 27; Tyngsboro, July 3 (Fall). Conn.—New Haven, June 22.

L. hoplites Spuler, 24–115. VT.—Lyndon (Melander).

Subgenus Scotophilella Duda.

L. carinata Spuler. ME.—8. N. H.—15. Jan. 2-Aug. 15. MASS.—26, 27. CONN.—35. May 23-Oct. 16.

L. crassimana Haliday. Vr.—Manchester, June 7, 1910; Dummerston, July 14. MASS.—Boston, June 5; Edgartown, June 28; Brookline, Aug. 23.

L. palliceps Johnson, 15–22. MASS.—Sherborn, Apr. 10, 1921, and Oct. 21, 1923 (Frost).

Subgenus Coprophila Duda.

 L. ferruginata Stenhammer.
 ME.—Wales, July 5 (Frost).
 MASS.—Auburndale, June 22, 1905; Brookline, Sept. 29. CONN.— Yalesville, Oct. 19 (Viersck).

> Borborus Meigen. Subgenus Borborus Meighen.

B. equinus (Fallen).

ME.--6, 8. N. H.--11, 12, 15. VT.--18, 20, 21. Apr. 11-Sept. 27.

MASS.-23, 24, 26, 27, 29, 31, 32. R. I.-33. CONN.-35. Apr. 7-Oct. 19.

B. neglectus Malloch, 13–364.

N. H.-Hampton, Apr. 5, 1910 (Shaw).

MASS.—Beverly, Apr. 4, 1867 (Burgess); Cohasset, Nov. 29 (Bryant).

Subgenus Borborillus Duda, 23-54.

B. marmoratus Becker, 08-133 (B. brevisetus Malloch, 13-365; B. minutus Johnson, 13-449).

MASS.—Horse Neck Beach, Aug. 8, 1896 (Hough); Gloucester. May 20; Woods Hole, June (Sturtevant). CONN.-Stamford, May 18, 1919 (Sturtevant).

Subgenus Cruomnyia Macquart.

B. immensa Spuler.

N. H.—Hampton, Mar. 3, 1904 (Shaw).

MASS.—Arlington, Jan. 19 and Apr. 5 (P. J. Darlington).

Scatophora R.-Desvoidy.

S. carolinensis R.-Desvoidy (Olina geniculata Macquart, see Spuler, 23-378).

ME. N. H. --- 11, 15. VT. --- 16, 18, 19, 21. June 13-Aug. 15. MASS.-23, 24, 26, 27, 29, 31, 32. May 1-June 10.

PHYCODROMIDAE.

Coelopa Meigen.

C. frigida Fallen. The Flat Kelp Fly. ME.-10. N. H.-15. Apr. 8-July 24. MASS.-26, 27, 28, 29, 30, 31, 32. R. I.-33. Apr. 6-Nov. 22.

C. parvula Haliday.

ME.-10. N. H.-15. June 5-July 25. MASS.-26, 27, 28, 31, 32. R. I.-33. May 15-Oct. 13.

SCIOMYZIDAE.

Neuroctena Rondani.

N. anilis (Fallen). ME.-5, 7, 8, 9. N. H.-11, 14, 15. VT.-16, 17, 18, 20, 21, 22. June 18–July 15. MASS.-23, 27, 28. R. I.-33. CONN.-35. June 19-Sept. 4.

N. simplex (Loew).

MASS.-23, 25. May 28-Aug. 25.

Dryomyza Fallen.

D. dayi Cresson, 20–34. ME.-5, 8. N. H.-11, 12. VT.-20. June 24-July 28. MASS.—23, 27. June 15-Aug. 5.

D. ferruginea Melander, 20–311. ME.—Bar Harbor, June 13. N. H.—Bretton Woods, June 24. VT.-Lyndon, Aug. 22, 1900 (Melander).



Oidematops Cresson.

O. ferruginea Cresson, 20–36. VT.—Manchester, June 5-8, 1910. MASS.—Sunderland, May 30, 1923.

Sciomyza Fallen.

S. aristalis (Coquillett). MASS.-23, 24, 27. May 30-June 15.

Pteromicra Lioy (Dichrochira Hendel).

P. albicalceata (Cresson), 20-39. ME.--7. N. H.-15. July 12-Aug. 1. MASS.-26, 27. CONN.-35. May 30-Sept. 4.

P. apicata (Loew). MASS.—Beverly, June 20 (E. Burgess).

Atrichomelina Cresson.

A. pubera (Loew). ME.---8, 9. N. H.---11, 12, 15. VT.---16. May 16–July 7. MASS.-23, 27. CONN.-35. Aug. 4-Sept. 30.

Pherbellia R.-Desvoidy (Melina R.-Desvoidy, 1830, not Retzius, 1788).

P. albocostata (Fallen).

ME.-2, 3, 4. N. H.-11, 12. VT.-.. June 17-Aug. 16.

- P. fuscipes (Macquart) (Melina spadix and M. fusca Cresson, 20-43).
- N. H.—Hampton, May 24 (Shaw).

MASS.—Auburndale, June 23; Boston, Aug. 28; Chester, Aug. 7; Dedham, May 20.

P. obtusa (Fallen).

MASS.-New Bedford (Hough); Brookline, Aug. 26, 1924 (C. W. J.).

P. tenuipes (Loew).

- ME.—Machias, July 20; Mt. Desert, June 10–20. VT.—Bolton Mt., July 16 (Bryant).
- MASS.—New Bedford (Hough).
- **P. vitalis** (Cresson), 20–43 (*M. annulipes* var. vitalis (Cresson); Melander, 20-315).
- ME.—Capens, July 11; Mt. Desert, July 11. N. H.—Hampton, May 1 (Shaw).
- MASS.—Woods Hole, July 25, 1903; Edgartown, June 29, 1912.

P. albovaria (Coquillett), 01-616.

ME.-Mt. Desert, Aug. 18. N. H.-Mt. Washington (Mrs. Slosson); Glen House, July 20; Hanover, July 6. VT.-Stratton, July 8.

P. nana (Fallen).

Ме.—4, 8. N. H.—11, 15. May 7-July. Mass.—27, 30, 32. R. I.—33. Сомл.—35. June 15-Nov. 4.

P. schoenherri (Fallen) (Melina (Graphomyzina) maculata Cresson, 20-48).

ME.—Bowlin Pond, Penobscot Co., July 31 (Cushman). N. H.— Hampton, Apr. 11 (Shaw). VT.-Rutland, Aug. 28.

P. grisescens (Meigen).

ME.—Bar Harbor, Aug. 10; Narrows, Mt. Desert, Sept. 12.

Hemitelopteryx Cresson.

H. johnsoni Cresson, 02–51.

N. H.-Franconia (Mrs. Slosson).

MASS.—Briggsville; North Adams, June 18, 1906.

Antichaeta Haliday.

A. analis Meigen. MASS.—(Melander).

Renocera Hendel.

R. longipes (Loew). ME.-Capens, July 11; Princeton, July 12. N. H.-White Mts.

R. johnsoni Cresson, 20-53. ME.—Fort Kent, Aug. 17, 1910.

R. amanda Cresson, 20–53.

ME.-Machias, July 28; Bridgton, June 25. N. H.-Bretton Woods, June 24; Jaffrey, June 4.

MASS.—North Adams, June 18; Great Barrington, June 16.

Poecilographa Melander, 13-205.

P. decora (Loew).

ME.-... N. H.-Hampton, July 15 (Shaw). VT.-Newport, July 12.

MASS.—Cheshire, June 30; Washington, Aug. 8. R. I.—Buttonwoods, June 22.

Dictyomyia Cresson, 20-82.

D. ambigua (Loew).

ME.-1, 2, 4, 6. N. H.-13, 15. Aug. 13-Sept. 6. MASS.-23, 27. CONN.-34. June 8-Sept. 9.

Euthycera Latreille.

E. arcuata (Loew).

ME.—Ashland Junction, Aug. 16; Capens, July 17. N. I.-Dublin, May (Harris Coll.).

MASS.—Chester, Aug. 5. CONN.—Rowayton, June 16.

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E. arcuata var. uniformis Cresson, 20–74 (*Tetanocera flavescens* Loew, 1847, not R.-Desvoidy, 1830).

N. H.-Franconia; Bretton Woods, June 24.

MASS.—Mt. Greylock, Aug. 8; Bashbish Falls, June 27; Lexington, July 5.

E. borealis Cresson, 20-74.

ME.—Capens, July 21; Mt. Katahdin, Aug. 28, 2400 ft. (Blake); Oquossoc, July 1. N. H.—Bretton Woods, June 25; Mt. Washington, 2000 to 4000 ft., July 6-24.
MASS.—North Adams, June 18.

Trypetoptera Hendel.

T. canadensis (Macquart) (*T. pallida* Loew). ME.—8, 9. N. H.—11, 12, 15. VT.—20, 22. June 27–July 18. MASS.—23, 27. R. I.—33. CONN.—35. June 21–Aug. 14.

Hoplodictya Cresson, 20-67.

H. setosa (Coquillett).

ME.-7, 8. N. H.-15. July 27-Aug. 13.

MASS.-26, 27, 28, 31, 32. CONN.-35. June 28-Sept. 8.

Dictya Meigen (Monochaetophora Hendel).

D. umbrarum (Linné). ME.--4, 6, 7, 8, 9. N. H.--11, 14, 15. VT.--16, 17, 19. June 8-Aug. 28. MASS.--23, 24, 26, 28, 29, 30, 32. CONN.--35. Apr. 24-Oct. 21.

Limnia R.-Desvoidy.

L. boscii R.-Desvoidy (T. combinata Loew).
ME.-4, 6, 7, 8, 9. N. H.-13, 15. VT.-16, 18. June 21-Sept. 8.
MASS.-25, 29, 32. CONN.-34, 35. June 6-July 30.

L. boscii var. sparsa (Loew).

ME.-4, 7, 8. N. H.-11, 15. VT.-16, 20. June 19-Sept. 3. MASS.-23. R. I.-33. June 19-Aug. 8.

L. costalis (Loew).

1

ME.—Mt. Desert, July 18. N. H.—Mt. Washington (Mrs. Slosson).

L. saratogensis (Fitch).

ME.--1, 4, 6, 7, 8, 9. N. H.--11, 12, 14, 15. VT.--19, 20. June 27-Aug. 28. Mag. 22 JF 26 07 28 20 21 29. Cours. 24 25. May 27.

Mass.—23, 25, 26, 27, 28, 29, 31, 32. Conn.—34, 35. May 27– Aug. 30.

L. saratogensis var. ottawensis Melander, 20–324. ME.—Mt. Desert, July 18, 1919. Tetanocera Dumeril (Chaetomacera Cresson, 20-54).

- T. clara Loew.
- ME.-7, 8. N. H.-11, 15. VT.-22. June 25-Aug. 10.
- MASS.-23, 24, 25, 27, 28, 29. CONN.-... June 28-Aug. 5.
- T. valida Loew.
- ME.-1, 3, 4, 5, 7, 8, 9. N. H.-11, 12, 14. VT.-18, 22. June 28-Aug. 19.
- MASS.-23, 24, 25, 26, 27, 29, 31. R. I.-33. CONN.-35. June 17-Aug. 27.
- **T. vicina** Macquart (*T. plumosa* Loew).
- ME.-1, 3, 4, 6, 7, 8. N. H.-11, 13, 14. VT.-16, 18, 19, 21. June 22-Aug. 28.
- Mass.-23, 24, 25, 26, 27, 28. R. I.-33. Conn.-35. June 8-Sept. 10.
- **T. triangularis** Loew.
- ME.-8, 9. N. H.-11. VT.-16, 19. June 22-Aug. 28.
- MASS.-27. CONN.-35. June 17-Sept. 4.
- T. plebeia Loew.
- ME.-4, 5, 6, 7, 8, 9. N. H.-11, 12, 14, 15. VT.-16, 18, 20, 21, 22. June 7-July 19.
- MASS.-23, 25, 26, 27, 28, 29. R. I.-33. Conn.-34, 35. May 28-Aug. 4.

T. elata (Fabricius).

ME.--4, 7, 8. N. H.-11. VT.-16, 20. June 22-July 27.

MASS.-23, 27. R. I.-33. CONN.-.. June 8-23.

T. rotundicornis Loew. ME.—. N. H.—Mt. Washington (Mrs. Slosson); Glen House, July 8. VT.—Jay Peak, 4018 ft., July 14, 1891 (Morse).

T. unicolor Loew.

ME.-Ft. Kent, Aug. 17; Machias, July 20; Mt. Desert, July 15-Aug. 10.

Hedroneura Hendel.

H. rufa (Panzer) (T. lineata Day, not Fallen). MASS.—Mt. Greylock, June 8; Brookline, Aug. 23. CONN.— Cornwall, Aug. 10; New Haven, Oct. 21.

Elgiva Meigen.

E. lineata (Fallen).

ME.-Katahdin Ironworks, Aug. 20, 1905 (F. M. Jones); Salisbury Cove, Mt. Desert, July 8, 1920 (Sanford). MASS.—Essex Co., Sept. 29 (Morse).

Sepedon Latreille.

S. armipes Loew.

ME.-1. N. H.-11, 15. VT.-16, 21. June 5-Aug. 19. MASS.-24, 26, 27, 28. CONN.-35. May 30-Sept. 23.



S. pusillus Loew.

- ME.-1, 3, 4, 6, 8. N. H.-11, 13, 15. Vr.-21. June 5-Sept. 8.
- MASS.-23, 24, 25, 27, 28, 32. R. I.-33. CONN.-34, 35. May 13-Sept. 16.

S. fuscipennis Loew.

ME.-6. N. H.-13, 15. VT.-19. July 14-Sept. 5.

MASS.-25, 26, 27, 28, 29, 30, 31, 32. R. I.-33. CONN.-35. June 6-Sept. 20.

SAPROMYZIDAE.

Lauxania Latreille.

L. cylindricornis (Fabricius).

- ME.-3, 5, 7, 8, 9. N. H.-11, 12, 14, 15. VT.-17, 20, 21. May 21-July 24.
- MASS.-23, 25, 26, 27, 32. R. I.-33. CONN.-35. May 18-June 28.

Camptoprosopella Hendel.

C. vulgaris (Fitch).

N. H.-12, 15. VT.-22. July 6-Aug. 1. MASS.-23, 27, 28, 29. R. I.-33. CONN.-35. June 26-Aug. 9.

Deceia Malloch, 23-49.

Subgenus Melanomyza Malloch, 23-50.

D. gracilipes (Loew).

- N. H.—11, 12. VT.—16, 22. July 8–14.
- MASS.-23, 24, 26, 27, 29, 32. R. I.-33. CONN.-35. July 4-Sept. 4.

D. intermedia Malloch, 23-50 and 24-13.

MASS.—Blue Hill, Milton, July 16, 1905.

Caliope Haliday.

C. flaviceps (Loew).

MASS.—Fall River, Apr. 13; Melrose Highlands, from a bird nest collected Feb. 25, 1911; flies issued in March (Smith and Shepherd).

Minettia R.-Desvoidy.

M. valida (Walker) (*M. macula* Loew).

- MASS.-Scituate, May 15; Barnstable, July 5; Edgartown, June 27; Woods Hole, Aug. R. I.—Buttonwoods, June 15. CONN.— Danbury, June 15.
- **M. puncticeps** (Coquillett).
- N. H.-Mt. Washington.

M. cena Melander, 13-72.

MASS.-New Bedford (Hough); Mt. Everett, June 28; Mt. Wachusett, May 30; Rutland, June 5.

M. lupulina (Fabricius).

ME.-1, 2, 4, 5, 6, 7, 8, 9, 10. N. H.-11, 12, 14, 15. VT.-16, 19, 21. June 5-Aug. 19.

Mass.—23, 26, 27, 28, 29, 32. R. I.—33. Солм.—35. Мау 27-Aug. 2.

M. americana Malloch (*M. longipennis* of authors, not Fabricius). ME.-8. N. H.-11, 12, 14. VT.-20, 21. June 5-July 8. MASS.-23, 25, 26, 27, 29. CONN.-35. May 17-July 10.

M. obscura (Loew).

ME.--7, 8. N. H.--11, 12, 14. VT.--16, 18, 21, 22. June 5--July 13.

MASS.-23, 25, 26, 27, 29, 32. R. I.-33. CONN.-35. May 17-July 13.

Sapromyza Fallen.

S. annulata (Melander), 13-72.

ME.--1, 4, 7, 8. N. H.--11, 12, 14. VT.--16, 17, 20, 21. June 5-Aug. 19.

MASS.-23, 26, 27, 28. CONN.-35. June 10-Aug. 23.

S. quadrilineata Loew.

ME.---3, 8. N. H.--11, 12, 14, 15. VT.--20, 21. June 6--Aug. 24.

MASS.-23, 27, 28, 29. R. I.-33. CONN.-35. June 5-Aug. 10.

S. obtusilamellata Malloch, 23–52.

ME.--4, 8. N. H.--11, 14. VT.--20, 21. June 18-July 19. MASS.--23, 25, 28. June 5-July 16.

S. serrata Malloch, 23–52.

ME.—Bar Harbor, June 11. N. H.—Mt. Washington, July 4. VT.—Norwich, July 7; Manchester, June 5. MASS.—North Adams, July 7.

S. brachysoma Coquillett. ME.-4, 8. N. H.-11, 14. VT.-17, 20, 21. June 5-July 28. MASS.-23, 26, 27, 28. CONN.-35. May 19-Aug. 23.

S. rotundicornis Loew.

ME.--4, 5, 7, 8. N. H.--11, 14, 15. VT.--21. June 5-July 22. MASS.--23. June 15-Aug. 5.

S. umbrosa Loew. MASS.—27, 29, 32. R. I.—33. CONN.—35. June 19–July 29.

Sapromyzosoma Malloch, 23-51.

S. fraterna (Loew). ME.-1, 7, 8. N. H.-11, 13. VT.-16, 20. June 24-Sept. 10. MASS.-23, 27. R. I.-33. CONN.-35. July 4-Aug. 5.



- S. deceptor Malloch, 24–24.
- ME.—Mt. Desert, July 12–16. N. H.—White Mts. (Morrison); Bretton Woods, June 27.
- Mass.—North Adams, June 15–19.
- S. philadelphica (Macquart).
- ME.--7, 8. N. H.--11, 12, 13, 15. VT.--19, 20, 22. June 5-Sept. 13.
- MASS.-23, 27, 28. CONN.-35. June 19-Oct. 16.
- S. disjuncta (Johnson), 14-22.
- ME.—8. N. H.—11. June 3–17.
- MASS.-24, 25, 27, 29. R. I.-33. CONN.-35. May 27-Sept. 22.
- S. conjuncta (Johnson), 14-22.
- VT.—Amsden, July 10.
- MASS.—Auburndale, Aug. 2; Blue Hill, May 30; Manomet, July 27. R. I.—Buttonwoods, June 18.
- S. compedita (Loew).
- ME.—6, 8, 10. N. H.—11, 13, 14. VT.—20. June 17–Sept. 10. MASS.—23, 24, 25, 26, 27, 29, 32. R. I.—33. Conn.—35. May 30–July 23.
- S. ornatipes (Johnson), 14-20.
- MASS.—Mt. Everett and Bashbish Falls, June 28, 1912.
- S. melanderi (Johnson), 14-21.
- MASS.—Provincetown, June 24; Eastham, June 27; Barnstable, July, 1904; Nantucket, July 5 (Cushman), Aug. 15 (Fernald).
- S. sheldoni (Coquillett).
- ME.—Ft. Kent, Aug. 19; Mt. Katahdin, Aug. 30 (Blake); Orono, Aug. 5 (Alexander); Mt. Desert, July 30.
- MASS.—Wellesley, July 11 (Van Duzee).
- S. houghii (Coquillett).
- MASS. 27, 29, 30, 31, 32. R. I. 33. CONN. 35. June 12-Aug. 3.
- S. incerta (Malloch), 14-36.
- Mass.—Manomet, July 27, 1905.
- S. citreifrons (Malloch), 20-127.
- ME.—Bar Harbor, June 13. N. H.—Bretton Woods, June 28; Glen House, June 15.
- MASS.—Mt. Everett, June 28; Auburndale, June 17.
- S. bispina (Loew).
- ME.-1. Aug. 17.
- MASS.-29. R. I.-33. CONN.-35. June 2-28.
- S. tenuispina (Loew).
- N. H.—Hampton, July 1 (Shaw).
- MASS.—Eastham, June 27; Horse Neck Beach, July 30. R. I.— Buttonwoods, June 18.

S. imitatrix (Malloch), 20-128. Conn.—Darien, May 27.

S. littoralis (Malloch), 15–47. Vr.—Winooski River, Burlington (Dr. Perkins).

S. aequalis (Malloch), 14-26. VT.-Norwich, July 7, 1908.

Sphyroperiscelis Sturtevant, 23-1.

S. wheeleri Sturtevant, 23–2. MASS.—Naushon Island, July 10 and 16 (Sturtevant).

LONCHAEIDAE.

Lonchaea Fallen.

L. polita Say.

ME.-8, 10. N. H.-11, 15. VT.-16. Apr. 30-Aug. 20. Mass.-23, 26, 27, 29. R. I.-33. Conn.-35. May 26-Oct. 16.

L. affinis Malloch, 20–130. Mr = 1.6.8 N H Mt Washington 5000 to 5000

ME.-1, 6, 8. N. H.-Mt. Washington, 5000 ft., July 4, 1914. June 10-Aug. 17. MASS.-23, 26. June 15-Aug. 16.

L. albiceps Meigen. ME.-1, 8. N. H.-12, 15. June 27-Aug. 17. MASS.-23. June 28-July 25.

L. angustitarsis Malloch, 20–131. ME.—Echo Lake, Mt. Desert, July 12.

L. aterrima Malloch, 20-129. ME.—Orono, May 19, 1918 (Parshley). N. H.—Mt. Washington, "Alpine Garden," July 4; 2500 ft., July 6, 1914.

L. hirta Malloch, 20–129. N. H.—Bretton Woods, June 26. Mass.—North Adams (Briggsville), July 18.

L. nigrociliata Malloch, 20-131. ME.—Southwest Harbor, July 11.

L. laticornis Meigen. ME.—Bar Harbor, Aug. 10. Mass.—Melrose Highlands, July 1; S

L. vaginalis Fallen. ME.—Bar Harbor, June 11. MASS.—Chester, Aug. 5.

L. marylandica Malloch, 23-46 N. H.-White Mts. (Morrison

DIPTERA.

PALLOPTERIDAE.

Palloptera Fallen.

P. superba Loew.

ME.—8. N. H.—11, 12. VT.—19, 22. June 26-Aug. 25. MASS.—23. Aug. 21.

P. similis Johnson, 10-233 and 21-23.

ME.—Fort Kent, Aug. 17. N. H.—Bretton Woods. June 28; Mt. Washington, 2500 ft., July 24.

P. subarcuata Johnson, 21-21.

ME.—Northeast Harbor, July 1 (Dr. C. S. Minot : 3 Jarber. Aug. 10. N. H.—Base Station, Aug. 15; Mt. Washington. Me P. arcuata (Mrs. Slosson).

ORTALIDAE.

Amphicnephes Loew.

A. pertusus Loew.

MASS.-24, 27, 29, 32. R. I.-33. CONN.-35. June 10-July 23.

Rivellia R.-Desvoidy.

R. conjuncta Loew.

MASS.—Manomet, July 27; Barnstable, July 5. Woods Hole, July 25. R. I.—Wickford, June 9. Coss.—New Haven, June 24.

R. brevifasciata Johnson.

MASS.-Nantucket, Aug. 8; Tuckernuck Island. July 21 (Allen).

R. cognata Cresson, 19–191.

N. H.—Cornish, July 13.

MASS.—Tyngsboro, June 22 (Fall); Brooking July 4. CONN.—. Winnipauk, June 12.

R. metallica Van der Wulp.

New.

lune

MASS. ______ *on, July 8; Fall River, May 21 (Easton). Conn. _____ Nev June 8 (Britton).

R. fl ME A

N. H.-Hanover, July 8. Vr.-St. len, July 10; Hartland, July 22

(Lutz).

Manomet, July 26; Fall River, Aug. fiddletown, June 19; South Meriden,

Vr.-21, June 18-22
 R. L-33, CONN.-33, Jup⁻⁴

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R. quadrifasciata Macquart.

MASS.—Springfield, July 13. R. I.—Buttonwoods. July 25. CONN.-New Haven, Aug. 1; Branford, July 5 (Winkley).

R. pallida Loew.

N. H.—15. VT.—22. July 14.

MASS.-23, 24, 25, 27. R. I.-33. CONN.-35. June 16-Aug. 8

Myrmecothea Hendel, 10-310 (Mymecomyia of authors, not R.-Desvoidy). M. myrmecoides (Loew).

Tritora Loew.

CONN.-..

T. flexa Wiedemann.

CONN.--.

T. incurva Loew.

CONN.—East Hartford, Aug. 9; South Meriden, July 10 (H. L. Johnson).

Camptoneura Macquart.

C. picta (Fabricius). ME.--9.

MASS.-24, 26, 27, 29. CONN.-35. June 5-Sept. 16.

Idana Loew.

I. marginata Say. CONN.---.

Tephronota Loew.

T. narytia Walker (T. ruficeps Van der Wulp). ME.-6, 9. N. H.-11. VT.-16, 21, 22. June 24-July 15. MASS.-23, 27, 28. CONN.-34, 35. June 11-Aug. 8.

T. canadensis Johnson.

ME.—Eastport, July 16. N. H.—. VT.—St. Albans, June 20; Bennington, June 22. Mass.—Cheshire, June 30.

Melieria R.-Desvoidy.

M. similis Loew. ME.-3, 9. N. H.-11, 12, 13, 14. July 3-Aug. 28. MASS.-23, 26, 27, 29, 32. CONN.-34. May 30-Aug. 29.

Tetanops Fallen.

T. luridipennis Loew.

MASS.-West Springfield, Aug. 31. CONN.-New Haven, June 26-Aug. 6 (Viereck); Milford, July 1; South Meriden, June 21 (H. L. Johnson).

Caliopistromyia Hendel.

C. annulipes (Macquart). ME.—6. N. H.—15. VT.—21. June 19–Sept. 8.

MASS.-26, 27, 28, 29. R. I.-33. CONN.-35. Apr. 15-Sept. 18.



Pseudotephritis Johnson.

P. corticalis (Loew). CONN.—Branford, May 3 (Winkley).

P. vau (Say). ME.--5, 9. N. H.--11, 14, 15. June 16-July 3. MASS.-24, 25, 27, 28. CONN.-35. May 12-Sept. 7.

P. vau var. approximata (Banks), 14-138 (P. metzi Johnson, 15-49). MASS.-Brookline, Sept. 6, 1920 (C. E. White, Jr.).

P. vau var. conjuncta Johnson, 21-15. ME.—Bar Harbor, Aug. 10, 1920.

Chrysomyza Fallen.

C. demandata (Fabricius). MASS.-Melrose Highlands (Webber); Peabody, Sept. 12; Wellesley, Oct. 12, 1922 (Morse); Medford, July 2 (Barber). CONN.--.

Psairoptera Wahlberg.

P. nubecula (Johnson) (*Chiliza nubecula* Johnson, 21–14). ME.-Northeast Harbor, July 6 (Dr. C. S. Minot). VT.-Mt. Ascutney, July 11.

Euxesta Loew.

E. notata (Wiedemann). VT.-16. June 20. MASS.-27, 29. R. I.-33. CONN.-35. June 1-Oct. 12.

E. scoriacea Loew.

MASS.—Bourne, June 17; Provincetown, July 8 (Barber); Pocasset (Barrett Isl.), Aug. 9, 1912 (Cushman).

Chaetopsis Loew.

C. aenea (Wiedemann); see Cresson, 13-318. МЕ.—7, 8, 10. N. H.—15. June 26—Sept. 8. MASS.—26, 27, 28, 29, 30, 31, 32. R. I.—33. Conn.—35. June 15—Sept. 4.

C. apicalis Johnson.

N. H.—15. May 25.

Мавз.—26, 27, 28, 29, 30, 31, 32. R. I.—33. Сомм.—35. May 27-Sept. 7

C. apicalis var. duplicata Johnson, 21-16. ME.—Machias, July 17; Mt. Desert, June 9-Aug. 13.

C. fulvifrons (Macquart).

ME.-6, 7, 8. N. H.-11, 12. VT.-21. June 19-Aug. 16. MASS.-23, 24, 25, 26, 27, 28, 30. R. I.-33. CONN.-35. May 28-July 20.

C. massyla (Walker).

ME.-4, 6, 7, 8, 9. VT.-20, 21. June 21-Aug. 15. MASS.-29, 30, 32. R. I.-33. May 30-Aug. 8.

Seioptera Kirby.

S. vibrans (Linné). ME.-2, 4, 6, 7, 8, 9. N. H.-11, 12, 15. VT.-16. June 7-July 19. MASS.-23, 24, 27. CONN.-35. June 6-Aug. 8.

S. dubiosa Johnson, 21-15.

ME.—Northeast Harbor, July 16, 1909 (Dr. C. S. Minot).

Stenomyia Loew.

S. nasoni Cresson, 13-320.

MASS.—Barnstable, July 5, 1904; Tuckernuck Isl., Aug. 6, 1909 (*Cushman*). CONN.—Westport, June 24 (*Britton*); Hamden, July 10.

S. tenuis Loew.

MASS.—Lexington, June 28; Nantucket, July 4 (Cushman); Woburn, July 11. CONN.—West Haven, June 27; North Haven, Aug. 3.

Eumetopiella Hendel, 07-98 (Eumetopia of authors, not Westwood).

E. rufipes (Macquart). MASS.—27, 32. R. I.—33. CONN.—35. June 23-Aug. 29.

TRYPETIDAE.

Straussia R.-Desvoidy.

S. longipennis (Wiedemann).

ME.—9. N. H.—11, 15. June 25. MASS.—23, 24, 27, 31. R. I.—33. CONN.—35. May 24-

July 7.

S. longipennis form. trimaculata Macquart (typica Loew). MASS.—24, 27, 31. CONN.—35. May 31-July 15.

S. longipennis form. cornigera Walker (longitudinalis Loew). MASS.—23, 24, 27. CONN.—35. May 21-Aug. 5.

S. longipennis form. confluens Loew.

CONN.-(Loew).

The larvae of the above species infest the stalks of sunflowers and "Jerusalem Artichokes."

· Zonosema Loew.

Z. electa (Say). Conn.—.



Z. flavonotata Macquart (Z. basiolum Osten Sacken).

ME.---8. N. H.---15. Aug. 16.

MASS.-27, 28, 29. July 14-Aug. 20.

Trypeta Meigen, 1803.

(Forellia R.-Desvoidy, 1830; Spilographa Loew, 1862; Phorellia Rondani, 1870).

P. tortilis (Coquillett).

N. H.-Bretton Woods, June 28, 1913; "Glen House," July 26, 1915.

Acidia R.-Desvoidy.

A. fratria (Loew).

N. H.—. VT.—21. June 19.

MASS.-23, 27, 29. CONN.-35. June 2-Aug. 8.

The larvae mine the leaves of parsnips.

Epochra Loew.

E. canadensis Loew. Currant Fruit-fly.

ME.-Orono; Norway; Waterville; Westbrook, May 29-June 2. MASS.—.

The larvae infest currants and gooseberries.

Aciura R.-Desvoidy.

Subgenus Eucosmoptera Phillips, 23-131.

A. nigricornis Doane.

ME.-8. N. H.-11, 14, 15. VT.-20. May 24-July 19.

A. limata Coquillett.

MASS.—New Bedford (Hough). CONN.—Brookfield, July 27 (Dickerson).

Stenopa Loew.

S. vulnerata Loew.

N. H.-Franconia (Mrs. Slosson); Crawford's, Sept. 28, 1916

(Parshley). VT.-Woodstock, Aug. 13, 1910 (Morse). MASS.-Cohasset, Aug. 19 (Bryant). CONN.-South Kent, Aug. 21, 1894 (Morse).

Rhagoletis Loew.

R. cingulata Loew. The Cherry Maggot.

N. H.-Tyngsboro, Aug. 5, 1923 (Fall),

MASS.—Boston, June 24–July 2, 1903 (Parshley). CONN.— New Haven, Aug. 2 (Walden); South Meriden, July 12.

R. pomonella Walsh. The Apple Maggot.

ME.--6, 9. N. H.--11, 14. VT.-.. July 16-Sept. 7. MASS.--23, 24, 27, 29, 32. CONN--35. June 13-Aug. 21.

The larva, popularly known as "Railroad Worm," is injurious to early apples, also infests blueberries and cranberries.

R. tabellaria Fitch.

ME.—Orono, July 11, 1907; Houlton, June 28.

R. fausta Osten Sacken.

ME.—Orono, June 25. N. H.—Mt. Washington, summit, July 10: Bretton Woods, June 28.

Mass.—Truro.

The larvae infest cherries.

R. suavis (Loew).

MASS.—Amherst (Babb). CONN.—.

The larva lives in the husk of the Black Walnut (Juglans nigra).

Procecidochares Hendel, 14-91 (Oedaspis Loew, in part).

P. atra (Loew).

ME.—Machias, July 21. N. H.—Hampton (Shaw).

MASS.—Magnolia, Oct. 7, 1911 (Cora H. Clarke); Sherborn, July 26 (C. A. Frost). CONN.-.

P. polita (Loew).

MASS.—Southbridge, Aug. 27. R. I.—Kingston, June 17 (Bar-low). CONN.—New Haven, May 31 (Britton). The larvae form leafy rosette galls on Solidago altissima.

P. setigera (Coquillett).

MASS.—Avon, June 14. R. I.—Kingston, June 17 (Barlow); Bristol.

P. penelope (Osten Sacken).

MASS.—Chester, Aug. 4, and Westfield, Aug. 7, 1911.

Terellia R.-Desvoidy (Trypeta of authors, not Meigen).

T. palposa (Loew).

ME.—3, 5. July 8–Aug. 1. MASS.—26, 29, 30, 31. R. I—33. June 15–July 8.

The larva lives in the flower buds of the Pasture Thistle (Cirsium pumilum).

T. florescentiae (Linné).

ME.-2, 3, 4, 8, 10. VT.-16, 17, 18. MASS.-23, 26, 27. July 11-Aug. 8. July 8-Aug. 16.

The larvae live in the flower buds of the Canada Thistle (Cirsium arvense).

T. vernoniae (Loew).

MASS.-Westport Factory, July 31, 1913, on the flower buds of the Ironweed (Vernonia noveboracensis).

Neaspilota Osten Sacken.

N. alba (Loew).

MASS.—Westport Factory, July 31. R.I.—Buttonwoods, June 15. The larvae live in the flower buds of Ironweed.



N. albipennis (Loew).

MASS.—Westport Factory, July 31; Swansea, Aug. 19 (Easton). CONN.—New Haven, Aug. 15 (B. H. Walden). The larvae live in the flower buds of Ironweed.

N. achilleae Johnson.

MASS.—Manomet, July 27; Edgartown, Aug. 22; Tisbury, July 31 (Cushman); Waquoit, Sept. 21 (Bryant).

Frequenting the flowers of Yarrow or Milfoil (Achillea millefolium).

Xanthomyia Phillips, 23-140.

X. platyptera (Loew).

VT.-Woodstock (A. P. Morse).

CONN.—Kent, Aug. 31 (A. P. Morse); South Meriden, June 8 (H. L. Johnson); East Hartford, Aug. 9 (P. L. Butrick).

Eutreta Loew.

E. sparsa (Wiedemann).

ME.-3, 6, 7, 8, 9, 10. N. H.-11, 12, 13, 14, 15. VT.-17, 20, 22. July 7-Sept. 6.

MASS.-23, 24, 27, 32. R. I.-33. CONN.-34, 35. July 6-Sept. 22.

The larvae form root galls on Goldenrod.

Eurosta Loew.

E. solidaginis (Fitch).

ME.--6, 7, 8, 9. N. H.-11, 12, 13, 14, 15. June 9-28.

MASS.-23, 24, 25, 27, 32. R. I.-33. CONN.-35. May 4-June 5.

The larvae form round galls on the stalks of Goldenrod.

E. reticulata Snow.

N. H.—11, 15. June 1.

MASS.-23, 24, 25, 27, 32. R. I.-33. CONN.-35. May 18-Aug. 27.

E. conspurcata Doane. N. H.—Hampton, May 30 (Shaw). Mass.—Springfield (Dimmock).

E. latifrons Loew. ME.—6, 8. N. H.—11, 12. VT.—16, 20. June 20-Sept. 1. MASS.—24, 27, 28. CONN.—24, 25. Aug. 21-Sept. 5.

 E. comma (Wiedemann).
 ME.—8, 9. N. H.—11, 13, 14. Aug. 25-Sept. 7.
 MASS.—25, 27. CONN.—34, 35. Aug. 30-Sept. 28. The larvae form root galls on Goldenrod, Solidago juncea. E. elsa Daecke, 10-324.

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ME.-9, 10. N. H.-11, 13, 14, 15. VT.-19. July 25-Sept. 18.

MASS.-24, 26, 27. CONN.-34. July 9-Sept. 28.

The larvae form root galls on Goldenrod, Solidago rugosa.

Acidogona Loew.

A. melanura Loew. MASS.---"Cambridge," two specimens in the Society's collection.

Icterica Loew.

I. seriata (Loew).

ME.—6. N. H.—15. July 21–Sept. 4. MASS.—24, 25, 26, 27, 28, 32. CONN.—35. July 15–Sept. 14.

Euaresta Loew.

E. bella (Loew). ME.-6. N. H.-11, 13, 15. VT.-16, 20. July 10-Sept. 10. MASS.-23, 24, 25, 26, 27, 28, 29, 32. R. I.-33. CONN.-34, 35. July 4-Sept. 4.

E. festiva (Loew).

CONN.-East Hartford, Aug. 9; Winnipauk, Aug. 4, 1908.

E. aequalis (Loew).

MASS.—Plymouth, July 28, 1905. On the Cocklebur (Xanthium).

E. pura Loew.

ME.---8, 9. N. H.---11, 15. July 13--18. MASS.-26, 27, 28, 29, 30. CONN.-35. Apr. 26-Aug. 16.

E. angustipennis (Loew).

ME.-Bar Harbor, June 7, 1921. N. H.--"Glen House," June 3, 1914.

Tephritis Latreille.

T. albiceps (Loew). ME.--6, 7, 8, 10. N. H.--11, 14, 15. VT.--20. June 27-Aug. 15.

MASS.—23, 26, 28, 29. June 8-Aug. 29.

T. geminata (Loew). N. H.-Franconia (Mrs. Slosson).

Trypanea Schrank (Urelia R.-Desvoidy).

T. abstersa (Loew).

MASS.-Woods Hole, July 25, 1903. CONN.-Short Beach, Sept. 5.

T. mevarna (Walker) (U. solaris Loew). MASS.—Waquoit, Sept. 12, 1910 (O. Bryant). **T. dacetoptera** (Phillips), 23–148. ME.—9. N. H.—11, 15. Sept. 16. MASS.—23, 29, 32. R. I.—33. CONN.—35. July 25–Oct. 8.

MICROPEZIDAE.

Calobata Meigen.

C. albiceps Van der Wulp. N. H.—Franconia.

C. pallipes Say. ME.—6, 7, 8. N. H.—11, 12, 25. June 27–July 22. MASS.—26, 27. CONN.—35. May 13–June 24.

C. univitta Walker. ME.—8. N. H.—11, 12, 15. VT.—16, 18, 22. June 22-Aug. 17. MASS.—23, 26, 27. R. I.—33. CONN.—35. May 26-June 22.

Taeniaptera Macquart.

T. antennaepes Say.

N. H.—11, 12, 14, 15. VT.—16, 17, 20, 21. June 19–July 18. Mass.—23, 26, 27. R. I.—33. Conn.—35. June 14–Aug. 6.

T. divaricata Cresson, 14–459. CONN.—Branford, Aug., 1905 (W. H. Winkley).

Tanypeza Fallen.

T. luteipennis Knab and Shannon, 16-34.

ME.-5, 8. N. H.-11, 12. VT.-19. June 11-Aug. 28.

Referred to T. longimana Fallen by the writer, Psyche, vol. 17, p. 234, 1910.

SEPSIDAE.

Sepsis Fallen.

S. violacea Meigen.

ME.--1, 2, 6, 8, 10. N. H.--11, 14, 15. VT.--18, 19, 20. June 14-Aug. 23.

Mass.-25, 26, 27, 28, 29, 30, 32. R. I.-33. Conn.-34, 35. Apr. 10-Nov. 4.

S. violacea var. similis Macquart.

N. H.—Hanover, July 3.

MASS.—New Bedford; Woods Hole; Greenfield (Melander); Auburndale, May 26.

S. violacea var. hecate Melander and Spuler, 17–22. MASS.—Greenfield (*Melander*).

S. pectoralis Macquart (Melander and Spuler, 17–23). N. H.—15. VT.—18. Apr. 25.

MASS.-24, 27, 29, 31, 32. Apr. 25-June 28.

S. vicaria Walker.

MASS.—Greenfield; Woods Hole (Melander).

S. signifera Melander and Spuler, 17–26.

ME.—Bar Harbor, July 30. N. H.—Hanover, July 4.

MASS.—New Bedford (Hough); Woods Hole (Melander); Auburndale, July 12.

S. signifera var. curvitibia Melander and Spuler, 17–28. ME.—7, 8. N. H.—12, 15. VT.—18. July 7–Oct. 22. MASS.—24, 26, 27, 32. CONN.—35. June 20–Oct. 19.

S. neocynipea Melander and Spuler, 17–28.

ME.-...7. N. H.-..11. VT.-..18. July 7. Mass.-..24, 27, 28, 29, 32. R. I.-..33. Conn.-..35. May 20-Nov. 4.

Meroplius Rondani.

M. stercorarius (R.-Desvoidy) (Nemopoda minuta Meigen).
 ME.—8, 10. N. H.—11, 12, 14, 15. VT.—16. May 19-Aug. 25.

Mass.-24, 25, 27, 28, 29, 32. R. I.-33. Conn.-35. May 25-Sept. 8.

Nemopoda R.-Desvoidy.

N. cylindrica (Fabricius).

ME.--1, 2, 4, 7, 8, 9, 10. N. H.--11, 14, 15. VT.--16, 22. May 31-Aug. 17.

MASS.-23, 27, 29, 32. R.I.-33. CONN.-35. May 14-July 24.

Enicita Westwood.

E. annulipes (Meigen). ME.—Ft. Kent, Aug. 17.

Themira R.-Desvoidy.

T. putris (Linné).

ME.--1, 8, 9. N. H.-11, 15. VT.--18. May 16-Aug. 17. Mass.--23, 26, 27, 29, 32. Conn.--. May 28-Aug. 1.

T. incisurata var. latitarsata Melander and Spuler, 17–45. VT.—Lyndon (*Melander*); summit of Jay Peak (*Morse*).

T. flavicoxa Melander and Spuler, 17–46. CONN.—Yalesville, Oct. 19 (*Viereck*).

T. minor Haliday. ME.—8. VT.—18. June 18-Aug. 20. MASS.—24, 26, 28. May 15.

Saltella R.-Desvoidy.

S. scutellaris (Fallen). ME.—7, 8. N. H.—14. VT.—18. June 9-Aug. 13. MASS.—24, 26, 27. R. I.—33. CONN.—35. May 10-July ³¹.



S. scutellaris var. ruficoxa Macquart.

MASS.-Salem, June 16 (Morse). R. I.-Tiverton, July 31.

S. scutellaris var. nigerrima Rondani.

- MASS.—Danvers, May 16. R. I.—Buttonwoods, June 17. CONN.—Guilford, May 10 (Foote).
- S. scutellaris var. parmensis Rondani.
- N. H.—Jaffrey, June 27. MASS.—Framingham, July 4 (C. A. Frost).

PIOPHILIDAE.

Prochyliza Walker.

P. xanthostoma Walker.

N. H.—11. VT.—17. July 16.

MASS.-27, 32. R. I.-33. CONN.-35. Apr. 7-Sept. 14.

P. affinis Meigen.

MASS.—Boston; Greenfield (Melander); New Bedford (Hough); Woods Hole, June-Sept. (Sturtevant).

Piophila Fallen.

P. casei (Linné). Cheese-maggot Fly. ME.-1, 6, 7, 8. N. H.-11, 15. VT.-21. June 7-Sept. 8. MASS.-23, 27, 28, 29, 31. R. I.-33. CONN.-35. May 7-Oct. 16.

P. nigriceps Meigen.

ME.-7, 8. N. H.-15. June 8-July 25.

MASS.-27, 28, 29, 30, 32. R. I.-33. May 8-Sept. 14.

P. oriens Melander and Spuler, 17-63.

ME.-Ft. Kent, Aug. 17; Eastport, July 14; Bar Harbor, June 22. MASS.—Greenfield, June (Melander); Auburndale, May 27.

P. privigna Melander, 24-87 (P. pusilla of authors, not Meigen). N. H.—Glen House, July 20, 1915. MASS.—Woods Hole and New Bedford (Hough); Provincetown,

June 24; Melrose Highlands, May 25 (Webber); Edgartown, **June 27**.

Mycetaulus Loew.

M. longipennis Loew.

N. H.—Franconia (Mrs. Slosson).

MASS.—Pegan Hill, Dover, Oct. 7, 1923 (A. P. Morse).

M. pulchellus Banks, 15-145.

ME.—Bar Harbor, Sept. 11, 1922. N. H.—Wolfeboro, Sept. 11.

PSILIDAE.

Loxocera Meigen.

L. cylindrica Say.

VT.-22. July 14-Aug. 8. N. H.—11, 14.

MASS.-23, 27, 29, 32. CONN.-35. June 7-Aug. 15.

L. cylindrica var. pleuritica Loew. ME.--7, 8. N. H.--11, 12, 14, 15. VT.--20. June 20-Aug. 8. MASS.-23, 26, 27, 28. CONN.-35. June 1-Aug. 9. L. cylindrica var. pectoralis Loew. N. H.-White Mts. VT.-Mt. Ascutney, July 11. MASS.—Auburndale, May 29. CONN.-L. cylindrica var. obsoleta Johnson, 20-15. Vr.—Burlington, June 22; Winooski, Aug. 2. MASS.—Plymouth, July 28. R. I.—Buttonwoods, June 22. CONN.—Cornwall, June 23 (Chamberlain). L. collaris Loew. ME.-Liberty, Sept. 11, 1913 (Cushman). N. H.-Hampton, July 14 (Shaw). MASS.-Medford, Aug. 26 (G. W. Barber); Salem, June 28 (Morse). Pseudopsila Johnson, 20-17. P. angustata (Cresson), 19–193. VT.-Woodstock, Aug. 20 (A. P. Morse). **P. fallax** (Loew). ME.-8. N. H.-11, 15. July 23-Sept. 3. MASS.—25, 27, 28, 32. Aug. 16-Sept. 13. P. bivittata (Loew). ME.--6, 9. N. H.-15. VT.--16. June 14-25. MASS.-23, 26, 27. R. I.-33. CONN.-35. May 28-June 28. P. collaris (Loew). ME.--6, 8. N. H.--11, 12, 15. VT.--16, 21. June 10-July 10. MASS.-23, 26, 27, 29. CONN.-35. May 27-July 4. P. perpolita Johnson, 20-18. ME.-Liberty, Sept. 9, 1913 (Cushman). N. H.-Center Harbor, Sept. 10, 1914. Psila Meigen. P. bicolor Meigen. ME.-7, 8. N. H.-11. VT.-19, 20. July 8-21. P. bicolor var. dimidiata Loew. ME.—Capens, July 14, 1907. **P. frontalis** Coquillett. ME.-6. N. H.-11. VT.-12, 20, 22. July 7-23. MASS.-23, 24. July 14-Aug. 5. P. lateralis Loew. MASS.—Auburndale, June 4–July 12; Ipswich, June 10. CONN.-Winnipauk, June 12. P. levis Loew. ME.-Mt. Desert, June 15-July 24; Ft. Kent, Aug. 17. N. H.— Mt. Washington, 3000 ft., July 28; Jaffrey, June 8.

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P. longula Johnson, 21–14.

ME. 1, 8. N. H. 11, 12. VT. 22. July 7-Aug. 28. MASS. 23. Aug. 6.

MASS. 20. Mug. 0.

P. rosae (Fabricius).

ME.—Pittsfield. N. H.—Franconia (Mrs. Slosson). VT.— Bennington, June 8; St. Albans, June 19.

MASS.—Haggetts, Sept. 6 (Morse).

P. sternalis Loew.

VT.—Burlington and St. Albans. June 21-23.

MASS.—North Adams, June 14. CONN.—Darien, May 27.

Chyliza Fallen.

C. annulipes Macquart.

MASS.—New Bedford (Hough).

C. apicalis Loew.

VT.—Dummerston, July 14.

MASS.—Auburndale and Winchester, July 2, 1912. R. I.— Buttonwoods, June 20. CONN.—Winnipauk, June 16.

C. erudita Melander, 20-99.

VT.-Norwich, July 7; Bolton Mt., July 15 (Bryant).

MASS.—Boston, May (Melander); New Bedford, May 24 (Hough); Essex Co., May 2 (A. P. Morse).

C. notata Loew.

N. H.—Mt. Washington, 2500 ft., July 16; Bretton Woods, June 24; Hampton, May 30 (Shaw).

CONN.—Danbury, June 15.

DIOPSIDAE.

Sphyracephala Say.

S. brevicornis Say. The Hammer-head Fly.

N. H.-Franconia (Mrs. Slosson); Dublin (Harris Coll.).

MASS.-23, 24, 27, 42. R. I.-33. CONN.-35. May 3-Oct. 18.

NOTIPHILIDAE.

Gymnopa Fall (Mosillus of authors, not Latreille).

G. tibialis (Cresson), 16-149 and 22-329.

MASS.-28, 29, 30, 31, 32. R. I.-33. CONN.-.. March 3-Sept. 21.

Athyroglossa Loew.

A. ordinata Becker, 06–135.

N. H.—Cornish, July 13, 1908. Vr.—Lyndon, June 13 (Melander).

Ochtheroidea Williston.

O. granulosa Cresson, 22-314.

VT.—Dummerston, July 14.

MASS.—New Bedford (Hough).

Clanoneurum Becker, 03–165.

C. cimiciformis (Haliday), 55-124.

ME.—"Narrows," Mt. Desert, Aug. 15, 1920.

MASS.—North Falmouth, July 22 (Sturtevant).

Psilopa Fallen.

P. atrimana Loew.

ME.---8. N. H.---12. July 24-Sept. 6.

MASS.-24, 26, 27, 29, 30, 31, 32. CONN.-35. May 10-Oct. 24.

P. flavida Coquillett.

MASS.—New Bedford (Hough); Woods Hole, Aug.-Sept. (Sturtevant). CONN.—New Haven, May 11 (Champlain).

P. fulvipennis Hine, 04-63.

N. H.—Hampton, May 5, 1907 (Shaw).

MASS.—Essex, Aug. 10 (Fuller); Horse Neck Beach, July 30; Woods Hole, July-Sept., and Naushon Isl., July 24 (Sturtevant).

P. leucostoma Meigen.

ME.—"Narrows," Mt. Desert, June 29, 1920.

Mass.—Gloucester, June 17, 1924.

P. pulchripes Loew.

MASS.—Cuttyhunk Island (Cockerell).

Trimerina Macquart.

T. madizans (Fallen).

ME.—Bar Harbor, Aug. 16. N. H.—Mt. Washington (Mrs. Slosson as Psilopa similis); Milford, June 23.

MASS.—Plymouth, July 28; Brookline, Aug. 23; Wellesley, May 5-20 (Morse); Gloucester, June 17.

Rhysophora Cresson, 24-159.

R. robusta Cresson, 24-159.

ME.—Bar Harbor, July 30.

MASS.—Norfolk, Aug. 2; Sharon, Aug. 23; Nantucket, July 30, Aug. 19.

Ditrichophora Cresson, 24-159.

D. exigua Cresson, 24-159.

ME.—Bar Harbor, July 22, 1919.

D. parilis Cresson, 24–160.

ME.—Bar Harbor, Aug. 18. VT.—Mt. Ascutney, July 11, 3000 ft.

D. tacoma Cresson, 24–160.

ME.—Fort Kent, Aug. 17, 1910. VT.—Bolton Mt., Aug. 30 (Bryant).

D. xanthocera (Loew) (*D. lacteipennis* Loew). MASS.—Plymouth, July 28, 1905.



Discocerina Macquart.

D. leucoprocta Loew. ME.---7, 8. June 9-July 17. MASS.-27, 28, 29. R. I.-33. May 15-July 25.

D. parva Loew. ME.-4. N. H.-11. Aug. 18. MASS.-23, 25, 27. CONN.-35. May 31-Oct. 19.

Polytrichophora Cresson, 24-161.

P. conciliata Cresson, 24-161. ME.-Machias, July 17, 1909. MASS.—Muskeget, July 14 (Brooks).

Allotrichoma Becker.

A. simplex (Loew). MASS.—Auburndale, May 7, 1905; Boston, Sept. 22.

A. trispinum Becker. CONN.-New Haven, May 4; Branford, June 27 (Viereck).

Axysta Haliday.

A. cesta Haliday. MASS.-Woods Hole.

Glenanthe Haliday.

G. litorea Cresson. MASS.—Gloucester, June 20, 1924.

Hydrellia R.-Desvoidy.

H. coniformis Loew. R. I.—Newport (Osten Sacken); Providence, Sept. 16.

H. formosa Loew.

ME.—Bar Harbor, Aug. 12. R. I.—Kingston, July 25, 1905 (Barlow). Сомм.—New Haven, May 14, 1904 (Viereck).

H. hypoleuca Loew.

ME.-Moosehead Lake, July 14, 1907; Princeton, July 12. VT.-St. Albans, June 20.

- MASS.—Nantucket, July 20, 1910 (G. M. Allen); North Reading, June 10.
- H. ischiaca Loew.
- N. H.—Mt. Washington (U. S. Nat. Mus.).
- H. morrisoni Cresson, 24-162. N. H.—"White Mts." (U. S. Nat. Mus.).

H. notiphiloides Cresson, 24-162. MASS.—Nantucket, July 20, 1910 (Allen). H. obscuripes Loew (Mon. Dipt. N. Amer., pt. 1, p. 150, 1862); (H. obscuriceps Loew, Mon. Dipt. N. Amer., pt. 1, p. 152, 1862). N. H.-Mt. Washington (Mrs. Slosson). Vr.-Norwich, July 7. MASS.—Beverly; Forest Hills, Boston; Woods Hole.

H. scapularis Loew.

ME.-5, 7, 8. N. H.-11. VT.-16. June 21-July 27. MASS.-26. CONN.-35. July 27-Aug. 4.

H. tibialis Cresson.

ME.-Bar Harbor, Aug. 10. N. H.-Mt. Washington (Mrs. Slosson as H. hypoleuca).

H. valida Loew.

МЕ.—7, 8, 10. July 17-Aug. 13. Mass.—28, 29, 32. R. I.—33. Сомм.—35. June 21-Sept. 8.

Ilythea Haliday.

I. spilota Curtis.

ME.-1, 6, 7, 8, 9, 10. N. H.-11, 15. VT.-22. June 11-Aug. 9.

MASS.-23, 27, 32. R. I.-33. CONN.-35. June 18-Oct. 21.

Notiphila Fallen.

Subgenus Notiphila Fallen.

N. loewi Cresson, 17-44 (N. unicolor Loew, 1852, not Walker, 1860).

ME.—Bar Harbor, June 22.

MASS.—Eastham, June 27; Nantucket, July 20 (Allen).

N. riparia Meigen.

MASS.—Nantucket and Tuckernuck, July 20-21 (Allen). CONN.— New Haven, July 8.

N. vittata Loew.

ME.—Bar Harbor, July 20.

MASS.—Auburndale, Aug. 2; Nantucket, July 20 (Allen). CONN.— New Haven, July 27.

Subgenus Agrolimna Cresson, 17-48.

N. atripes Cresson, 17-50. ME.-Machias, July 17; "Narrows," Mt. Desert, Aug. 13. MASS.—Beverly, June 15, 1875 (Burgess).

N. bispinosa Cresson, 17-58. Ме.—7, 8. July 17-Aug. 13. Mass.—29, 32. R. I.—33. Сомм.—35. June 27-July 25.

N. olivacea Cresson, 17-52. ME.--8. VT.-21. June 24-July 26. MASS.-29, 30. CONN.-35. June 25-Aug. 1.



DIPTERA.

N. scalaris Loew. N. H.—11, 15. Aug. 24. Mass.-27, 29. R. I.-33. CONN.-35. June 26-Aug. 24. Dichaeta Meigen. **D.** caudata (Fallen) (D. brevicauda Loew).

ME.--7, 8. N. H.--11, 12, 14, 15. April 25-Sept. 1. MASS.--26, 27, 29, 32. R. I.--33. CONN.--35. May 20-Aug. 23.

Typopsilopa Cresson, 16-147.

T. atra Loew. CONN.-New Haven, Oct. 21, 1903 (Viereck).

Philygria Stenhammer.

P. debilis Loew (P. fuscicornis Loew). ME.—Mt. Desert, July 25-Sept. 7. N. H.—Mt. Washington (Mrs. Slosson). VT.—Lyndon (Melander).

MASS.—Beverly (Burgess); Forest Hills, Boston.

P. fuscicornis Loew.

ME.-Mt. Katahdin, 4750 ft., Aug. 21, 1913 (Alexander). N. H.-Mt. Washington (Mrs. Slosson).

MASS.—Essex Co., June 20 (Morse). CONN.—New Haven, May 12, 1904 (Viereck).

P. opposita Loew. N. H.-11, 12, 13. VT.-20. June 30-Sept. 11. MASS.-27. R. I.-33. July 31-Sept. 6.

P. picta Fallen.

N. H.-Mt. Washington (Mrs. Slosson).

Gastrops Williston.

G. nebulosus Coquillett. MASS.—Woods Hole, Sept. (Sturtevant). CONN.—New Haven, Oct. 18 (G. M. Allen).

Ephydridae.

Pelina Haliday.

P. truncatula Loew.

MASS.—Barnstable, July 5; Provincetown, July 10 (Morse). R. I.—Providence, Aug. 10 (Davis).

Lytogaster Becker.

L. gravida (Loew) (L. willistoni Cresson, 16–150). MASS.—Scituate, May 15, 1915; Rockport, July 15, 1904.

L. extera Cresson, 24-162. MASS.—Danvers, Sept. 23.

Napaea R.-Desvoidy.

- N. abbreviata (Loew).
- MASS.—Springfield, May 7; Mt. Tom, July 14; Brookline, July 4; Dedham, Sept. 4; Woods Hole, Sept. 5 (Sturtevant).
- N. alpina Cresson, 24–163.
- ME.—Fort Kent, Aug. 19, 1910; Mt. Desert, July 16-Aug. 11.

N. breviceps Loew.

N. H.-Hanover, July 6.

MASS.—Scituate, May 15; Auburndale, Aug. 2-Sept. 1; Chester, Aug. 7. Conn.—Winnipauk, June 16-Aug. 4.

N. imitans (Loew).

ME.—"Narrows," Mt. Desert, Sept. 12; Roque Bluff, Aug. 13 (Morse); Kittery (Thaxter).

MASS.—New Bedford (Hough). CONN.—Short Beach, July 5 (Butrick).

N. varia Loew.

ME.—Bar Harbor, Aug. 18. N. H.—Franconia (Mrs. Slosson); Glen House, June 11, 1916.

Paradra Stenhammer.

P. bituberculata Loew.

ME.-1, 4, 8, 9. N. H.-11, 12, 15. Apr. 11-Aug. 19.

MASS.-26, 27. R. I.-33. CONN.-35. May 15-Oct. 31.

P. quadrituberculata Loew.

ME.—Eastport, July 14; Mt. Desert, July 20.

MASS.—Scituate, May 15. R. I.—Buttonwoods, June 18.

Ochthera Latreille.

O. mantis (De Geer). ME.-3, 4, 8. N. H.-11. July 18-Aug. 16. MASS.-27, 28, 29, 32. CONN.-35. May 15-Sept. 30.

Brachydeutera Loew.

B. argentata (Walker).

ME.—Southwest Harbor, June 24.

MASS.—Gloucester, Aug. 30; Danvers, Sept. 25; Wellesley, Oct. 26 (Morse); Woods Hole, Sept. (Sturtevant).

Ephydra Fallen.

E. atrovirens Loew.

- N. H.—Hampton, Aug. 28 (Shaw).
- MASS.—Rockport, Aug. 28. CONN.—Branford, June 21; Woodmont, July 9.

E. subopaca Loew (E. halophila Packard, 1869, not V. Heyd, 1844).

ME.---8. N. H.---15. May 21-Aug. 13.

MASS.—26, 27, 29, 32. R. I.—33. CONN.—35. May 20-Aug. 28.



Cirrula Cresson, 15-70. C. gigantea Cresson, 15-71. ME.—7, 8, 9. N. H.—15. Apr. 22-Sept. 22. MASS.—26, 27, 28, 29, 31. CONN.—35. June 21-Oct. 13. Coenia R.-Desvoidy. C. bisetosa Coquillett. N. H.—Hampton, Jan. 2, 1906 (Shaw). MASS.—Eastham, June 27, 1904. C. palustris (Fallen). N. H.—Hampton, March 28 and April 30, 1910 (Shaw). Dimecoenia Cresson, 16-152. D. spinosa (Loew).

ME.-8. N. H.-15. July 27-Sept. 12.

MASS.—26, 27, 28, 29, 32. R. I.—33. CONN.—35. June 27-Sept. 8.

Scatella R.-Desvoidy.

S. callosicosta Bezzi.

MASS.—Tuckernuck, July 21, 1910 (G. M. Allen); Martha's Vineyard, June 13, 1917.

S. dichaeta Loew.

N. H.—Hampton, Jan. 2, 1916 (Shaw).

MASS.—Eastham, June 27; Nantucket, July 20, 1910 (G. M. Allen); Muskeget, July 14 (Brooks); Gloucester, June 20.

S. flavillacea Loew.

Mass.—Chester, Aug. 7, 1912.

S. lugens Loew.

ME.---3, 8. N. H.---15. July 16-Aug. 18.

MASS.-26, 27, 28, 29, 30. R. I.-33. CONN.-35. May 26-Oct. 1.

S. obsoleta Loew.

MASS.—Eastham, Chatham and Hyannisport, June 27-July 4; Nantucket, July 20 (G. M. Allen).
R. I.—Buttonwoods, June 17.

S. stagnalis (Fallen).

ME.-7. N. H.-11, 15. May 4-July 17.

MASS.-27, 28, 29. CONN.-35. May 15-Oct. 31.

S. stenhammeri Zetterstedt.

ME.—Mt. Katahdin, 5000 ft., Aug. 2, 1913 (Alexander); Mt. Desert, June 17–July 11.

Mass.—Brookline, June 11, 1905; Sherborn, Oct. 14, 1922 (C. A. Frost).

Scatophila Becker.

S. mesogramma Loew.

MASS.—Nantucket and Tuckernuck, July 20, 1921 (Allen); Martha's Vineyard, June 13, 1917.

R. I.—Newport (Osten Sacken).

S. variabilis Cresson, 17-341 (?S. despecta Haliday).

ME.—Southwest Harbor, Aug. 20, 1920.

MASS.—Forest Hills, Boston (Bromberger); Springfield, May 7 (Russell).

Canacea Malloch, 24-52.

C. macateei Malloch, 24-52.

MASS.—Good Harbor Beach, East Gloucester, June 20, 1924. R. I.—Buttonwoods, July 25, 1911.

CHLOROPIDAE.

Meromyza Meigen.

M. americana Fitch.

ME.—6, 8. N. H.—11, 15. July 4-Aug. 12. MASS.—26, 27, 28, 29, 32. R. I.—33. Conn.—35. June 21-Sept. 8.

M. flavipalpis Malloch, 14–117.

ME.-Mt. Desert, Sept. 8.

MASS.-23, 26, 27, 29, 30. CONN.-35. May 23-Aug. 20.

Cetema Hendel, 07-98 (Center Loew, 1872, not Schönh., 1847).

C. procera (Loew).

N. H.—Mt. Washington (Mrs. Slosson). CONN.—.

C. subvittata (Loew) (C. hypocera Becker, 12-27). See Malloch, 23-33.
 ME.--1, 8. July 30-Aug. 19.

MASS.—23, 27, 32. R. I.—33. July 22–Sept. 4.

Epichlorops Becker, 1912 (Eurina Coquillett, not Meigen).

E. exilis (Coquillett).

ME.---7, 8, 9. N. H.---11. June 13-July 15.

MASS.—Beverly, June 3, 1876 (E. Burgess).

Chloropisca Loew (Pseudochlorops Malloch, 14-119 and 15-162).

C. glabra (Meigen) (C. assimilis Macquart).

ME.---1, 3, 4, 6, 8. N. H.---11, 12, 13, 15. VT.---19, 20. June 7--Aug. 19.

MASS.—24, 26, 27, 30, 32. R. I.—33. CONN.—35. May 14-Sept. C. grata Loew. ME.-3, 4, 6, 7, 8. N. H.-11, 12. VT.-16, 18, 21, 22. June 18-Aug. 19. July 31. C. variceps Loew. ME.-1, 6, 8. N. H.-11, 12, 14, 15. VT.-20. Mar. 28-Aug. 17. MASS.-24, 25, 27. CONN.-35. May 5-Oct. 17. C. rufescens Coquillett, 10-45. ME.--8. N. H.-15. July 1-Aug. 1. MASS.-26, 27, 28. R. I.-33. CONN.-35. June 25-Aug. 6. C. integra Becker, 12-66. Mass.—24, 27, 29, 30, 31. June 25–July 11. Diplotoxa Loew. D. versicolor Loew. ME.--3, 7, 8, 9. N. H.--11, 15. July 17-Aug. 30. MASS.-27, 28, 29, 31, 32. R. I.-33. CONN.-35. June 16-Aug. 9. D. microcera Loew. MASS.—Chester, May 28, 1912. D. nigripes Coquillett, 10-44. MASS.—Brookline, Aug. 23; Manomet, July 26; Avon, June 14; Saxonville, Aug. 1 (Morse). R. I.—Tiverton, July 31. Anthracophaga Loew. A. sanguinolenta Loew. ME.—7, 8. N. H.—11, 14, 15. June 8–July 14. MASS.—23, 27, 28, 30, 32. R. I.—35. May 23–July 4. Chlorops Meigen. C. crocata Loew. ME.-1, 7, 8. N. H.-15. July 17-Aug. 19. MASS.-23, 26, 27, 29, 30, 32. CONN.-35. May 27-Aug. 9. C. brunnipennis Becker, 12–58. MASS.—Fall River, Aug. 17 (Cushman). R. I.—Tiverton, July 31. CONN.—Hamden, June 3 (Zappe). C. obscuricornis Loew. ME.--8. N. H.-11, 14, 15. June 8-Aug. 13. MASS.-27, 31, 32. June 16-Aug. 9. C. melanocera Loew. ME.—Southwest Harbor, July 13. MASS.—29, 32. CONN.—34, 35. June 9-Aug. 2. C. albifacies Adams. MASS.—Woods Hole (Melander).

C. certima Adams, 04-304.

N. H.-Durham. VT.-Winooski, Aug. 20 (Davis).

MASS.-Boston, July 12; Woodburn, July 11. CONN.-New Haven, June 16 (Welden).

C. proxima Say.

ME.-8. N. H.-11. VT.-17. July 11-21.

MASS.-27, 29, 31. CONN.-35. June 15-Aug. 1.

C. scabra Coquillett.

ME.-Ft. Kent, Aug. 19; Mt. Desert, Aug. 23.

Mass.—Groton, July 8.

C. subnigra Coquillett.

ME.—Bar Harbor, Aug. 12, 1920.

Parectecephala Becker, 1910.

P. aristalis (Coquillett).

MASS.—New Bedford, July 20.

P. eucera (Loew).

ME.--6, 7, 8. N. H.-11, 12, 14, 15. VT.-17, 22. June 9-Aug. 21.

MASS.-26, 27, 32. CONN.-35. May 23-July 21.

Ectocephala Macquart.

E. similis Becker, 12–72.

ME.—Bar Harbor, July 21.

MASS.-Weston, July 23; Manomet, July 27. CONN.-Darien, Aug. 4.

Pseudogaurax Malloch, 15-159.

P. anchora (Loew).

MASS.-Forest Hills, Boston, May 4 (Whiting); Essex, Aug. 8 (Fuller); Brookline, Aug. 31; Weston, July 23.

Gaurax Loew (Neogaurax Malloch, 14-119).

G. apicalis Malloch, 15-160.

VT.--Norwich, July 8, 1908; Dummerston, July 14, 1908.

G. interruptus Malloch, 15-363.

ME.—Mt. Desert, July 16. MASS.—Woods Hole, July 23.

G. dorsalis Loew.

N. H.-Mt. Washington (Mrs. Slosson).

CONN.—Winnipauk, Aug. 4, 1908.

G. dorri Johnson, 1924(-1925). ME.—Mt. Desert, June 27.

G. ephippium Zetterstedt. ME.-7, 8. N. H.-11, 12. VT.-21. June 19-Aug. 10. MASS.—Eastham, June 27.

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G. festivus Loew. Mass.—Beverly, July 20 (U. S. Nat. Mus.).

G. fumipennis (Malloch), 15–108. VT.—Norwich, July 8, 1908.

G. montanus Coquillett. N. H.—Mt. Washington (*Mrs. Slosson*). MASS.—Woods Hole, July 23. CONN.—Darien, May 27.

G. obscuripennis Johnson, 13–35. N. H.—. Mass.—Chester, Aug. 7, 1912.

Crassiseta Von Roser (Elachiptera of authors, not Macquart).

C. aliena Becker, 12-81. MASS.—Woods Hole, July (Melander).

 C. costata Loew.
 MASS.—Auburndale, Sept. 12; Wellesley, May 4 (Morse). R. I.— Kingston (Barlow). CONN.—New Haven, Oct. 16 (Viereck).

C. formosa Loew. N. H.—Mt. Washington (Mrs. Slosson).

C. nigriceps Loew.
ME.-4, 8. N. H.-11, 14, 15. June 7-Aug. 4.
MASS.-26, 29, 31, 32. R. I.-33. Conn.-35. May, 13-July 24.

Melanochaeta Bezzi, 1906.

M. decipiens (Loew) (Oscinis decipiens Loew). ME.—Mt. Desert, June 9-Aug. 10. N. H.—Mt. Washington and Glen House, June 14-July 4; Durham. MASS.—Wellesley, May 4 (Morse).

M. planicollis Becker. ME.—Bar Harbor, Aug. 18. MASS.—Essex Co., Sept. 29 (*Morse*).

M. eunota (Loew).

ME.—Mt. Desert, July 30 (McAtee). N. H.—Hanover, July 3 (Shaw).

CONN.—Branford, June 21 (Viereck).

M. longula (Loew). ME.--6, 8. N. H.--11, 15. May 12-Aug. 14.

MASS.-24, 26, 27, 28, 29, 30, 32. R. I.-33. CONN.-35. May 28-Oct. 11.

M. nigricornis (Loew). N. H.—Mt. Washington (Mrs. Slosson). >

Hippelates Loew.

H. flavipes Loew.

ME.—8. N. H.—11, 12. July 7–14.

MASS.—23, 26, 27, 28, 29, 30, 31, 32. R. I.—33. CONN.—35. June 15-Sept. 20.

H. pusio Loew.

N. H.-Mt. Washington (Mrs. Slosson); Durham, June 30.

MASS.—Eastham, June 27; Freetown, June 5 (*Easton*); New Bedford (*Hough*). CONN.—New Haven, June 26-Aug. 3, and Cheshire, July 3 (*Viereck*).

H. nobilis Loew.

N. H.—14. VT.—16, 20. June 22–July 19.

MASS.-24, 26, 27, 29, 32. R. I.-33. CONN.-35. June 17-Aug. 7.

H. plebius Loew.

MASS.—Essex Co., May 16 (Morse). R. I.—Buttonwoods, June 17.

H. nitifrons Malloch.

MASS.—Woods Hole, July-Sept. (Sturtevant).

H. subvittatus Malloch.

N. H.-Hanover, Aug. 31 (Sturtevant).

MASS.—Woods Hole and Oak Bluff, Aug. (Sturtevant).

Madiza Fallen (Siphonella Macquart).

M. aequa Becker, 12–102. MASS.—Woods Hole, July (Melander).

M. cinerea Loew (S. parva Adams). ME.—8. N. H.—13, 15. VT.—16. June 27–Sept. 10. MASS.—26, 27, 28, 29, 31, 32. CONN.—35. May 16–Oct. 19.

M. latifrons Loew. N. H.—Mt. Washington (Mrs. Slosson).

M. neglecta Becker, 12–100. ME.—Mt. Desert, July 30 (*McAtee*). MASS.—26, 27, 28, 29, 31. R. I.—33. June 17-Aug. 5.

M. nigripalpis Malloch, 13–282. ME.—Mt. Desert, Aug. 20–Sept. 6; Orr's Isl., July 24. MASS.—Chester, Aug. 7; Blue Hill, May 30; Auburndale, Aug. 2.

M. oscinina Fallen (S. laevigata of authors). ME.-2, 8, 9, 10. N. H.-11, 13, 15. June 4-Sept. 10. MASS.-26, 27, 28, 32. R. I.-33. CONN.-35. May 7-Sept. 8.

M. setulosa Malloch, 18–110. ME.—Mt. Desert, July 31 (McAtee).



M. provocans Becker, 12–98. MASS.—Horse Neck Beach, June (Melander). Conn.—East Hartford, Aug. 9 (Walden).

Notonaulax Becker, 1903.

N. cincta (Meigen). N. H.-Mt. Monadnock, June 22, 1917. MASS.—Dedham, Sept. 4; Auburndale, June 28.

Chaetochlorops Malloch.

C. inquilina Coquillett. MASS.—Arlington, Nov. 27, 1920.

Dicraeus Loew.

D. ruficeps (Meigen). MASS.—Essex, Apr. 17 (Fuller), from gall on cherry.

Botanobia Lioy (Oscinis of authors; Oscinella Becker).

B. anthracina (Meigen) (O. atriceps Loew). MASS.—New Bedford (Hough).

B. coxendix (Fitch).

- ME.-1, 6, 8. N. H.-11, 12, 13, 14, 15. VT.-16, 20, 21, 22. June 15-Sept. 11.
- MASS.-26, 27, 28, 29, 32. R. I.-33. CONN.-34, 35. Apr. 30-Oct. 19.

B. dorsata (Loew) (O. dorsalis Loew, 1869, not 1863).

N. H.-Mt. Washington (Mrs. Slosson).

MASS.-26, 28, 29, 30. R. I.-33. CONN.-35. June 17-Aug. 8.

- B. frit (Linné). ME.---3, 4, 8. N. H.---11, 14, 15. May 5-Aug. 28.
- MASS.-24, 26, 27, 29, 30, 32. R. I.-33. CONN.-35. May 14-Sept. 20.

B. frit var. pusilla Meigen (O. carbonaria Loew).

- ME.—Mt. Desert, July 14. N. H.—Mt. Washington. MASS.—Scituate, May 15. CONN.—West Haven, June 21 (Viereck).
- **B. infesta** (Becker), 12–109.
- ME.--8. N. H.-15. July 27-Sept. 12.
- MASS.-26, 28, 29, 31, 32. R. I.-33. CONN.-35. June 17-Sept. 8.
- **B. minor** (Adams), 05–110.
- ME.—Mt. Katahdin, Aug. 21 (Alexander).
- MASS.—Arnold Arboretum, Boston, July 25, 1921 (H. Morrison).
- R. I.—Providence, June 22 (Davis).

B. melancholica (Becker), 12-109.
ME.—Orono, Sept. 12 (Parshley).
MASS.—Brookline, Aug. 5, 1918. CONN.—New Haven, Oct. 16 (Viereck).

B. nitidissima (Meigen) (O. variabilis Loew).

ME.-Mt. Desert, July 13.

MASS.-27, 32. CONN.-34, 35. June 27-July 21.

B. nudiusculus Loew. ME.—Mt. Desert, July 21 (*McAtee*).

B. pallipes (Loew). N. H.—Mt. Washington (*Mrs. Slosson*).

B. pectoralis (Coquillett). N. H.—Franconia (*Mrs. Slosson*).

B. umbrosa (Loew). CONN.—West Haven, June 27 (Viereck). R. I.—Kingston, June 17 (Barlow).

B. trigramma (Loew). ME.—Mt. Desert, Aug. 13.

DROSOPHILIDAE.

Amiota Loew (Phortica Schiner).

A. alboguttata Wahlberg. ME.-7. N. H.-12, 14. VT.-20. June 16-July 17. MASS.-23, 24, 27, 32. R. I.-33. June 14-Sept. 18.

A. humeralis Loew.

ME.---4, 8. N. H.---11, 14. June 14-Aug. 15. MASS.---23, 27, 32. Aug. 7--23.

A. leucostoma Loew.

ME.--4, 7, 8. N. H.--11, 14. VT.--16, 18, 20. June 10-July 26.

MASS.-23, 24, 27, 32. R. I.-33. June 22-Aug. 25.

A. minor Malloch, 21-312.

ME.--4, 5, 8. N. H.-11, 14. VT.--16. June 16-Aug. 18. MASS.--23, 24, 27. R. I.--33. June 26-Sept. 22.

Stegana Meigen.

S. coleoptrata Scopoli.

ME.—Mt. Desert, July 10-26. N. H.—Bretton Woods, June 24; Jaffrey, June 20. VT.—Norwich, July 8.

S. curvipennis (Fallen) (S. vittata Coquillett). VT.-22. July 15. MASS.-27, 32. R. I.-33. CONN.-35. June 10-21.



Clastopteromyia Malloch, 24-31.

C. inversa (Walker) (Drosophila inversa Walker).

N. H.—11, 12. July 7.

MASS.-26, 27. CONN.-35. July 23-Oct. 18.

The larva of this species lives in the "spittle" of leaf-hoppers.

Mycodrosophila Oldenberg.

M. dimidiata (Loew). N. H.—Franconia (Mrs. Slosson).

MASS.—Woods Hole (Sturtevant).

Chymomyza Czerny.

C. amoena (Loew).

ME.--6, 8, 10. N. H.--11, 12, 15. VT.--16, 22. June 23-July 18.

MASS.—23, 25, 27, 29, 32. R. I.—33. CONN.—35. May 28-Oct. 16.

C. procnemis Williston.

N. H.—Franconia and Mt. Washington (Mrs. Slosson).

Leucophenga Mik.

L. maculosa Coquillett.

MASS.—Woods Hole, Sept. 16 (Sturtevant).

L. varia Walker.

MASS.—Woods Hole (Sturtevant). R. I.—Buttonwoods, July 25.

Drosophila Fallen.

D. affinis Sturtevant, 16-334. N. H.-Mt. Washington (Mrs. Slosson); Hanover. MASS.—Beverly (E. Burgess); Woods Hole (Sturtevant). CONN.—. **D. busckii** Coquillett. ME.-6. N. H.-14, 15. Sept. 17-Nov. 9. Mass.-27, 29, 32. Conn.-35. Mar. 1-Oct. 15. D. colorata Walker (D. sulcata Sturtevant, 16-330). N. H.-11, 12, 14. VT.-22. June 24-July 14. Mass.—23. May 26-Aug. 9. D. funebris (Fabricius). ME.--6, 8, 9. N. H.-11, 12, 15. VT.-19, 20. Apr. 17-Nov. 14. MASS.-23, 24, 25, 26, 29, 32. CONN.-35. Mar. 28-Oct. 21. D. hydei Sturtevant, 21-101. MASS.—Boston, Oct. 11-27, 1913; Woods Hole, Sept. 10, 1913 (Sturtevant). R. I.—Providence, Sept. 14, 1904 (Davis). **D.** immigrans Sturtevant, 21-83 (D. tripunctata Sturtevant, not Loew). MASS.-Woods Hole, June 7, 1913 (Sturtevant); New Bedford; Attleboro.

D. melanica Sturtevant, 16-332. ME.-7. N. H.-11. July 22. MASS.-23, 27, 28, 29. R. I.-33. July 28-Oct. 21.

D. melanogaster Meigen (*D. ampelophila* Loew). ME.--6, 10. N. H.-12, 14, 15. Vr.--21, 22. July 15-Oct. 3. MASS.-23, 24, 25, 26, 27, 28, 29, 32. R. I.-33. CONN.-35. June 17-Oct. 16.

D. ordinaria Coquillett. N. H.—White Mts. (Morrison). MASS.—Chester, Aug. 5.

D. putrida Sturtevant, 16-339. MASS.-Woods Hole, Sept. 2, 1914 (Sturtevant); Auburndale, Oct. 1.

D. quinaria Loew.

ME.-4. N. H.-11, 12, 15. VT.-16, 22. June 23-Aug. 5. MASS.-23, 27, 28, 29, 30, 32. R. I.-33. CONN.-35. May 22-Oct. 21.

D. repleta Wollaston (D. punctulata Loew).

MASS.-Boston, Sept. 10, Oct. 11; Fall River, Nov. 4 (Easton); Woods Hole (Sturtevant).

D. robusta Sturtevant, 16-331. N. H.—Hanover. MASS.-Woods Hole, Sept. 17, 1915 (Sturtevant).

D. simulans Sturtevant, 19–153.

N. H.-Randolph (Miss H. Daniels).

D. transversus Fallen.

ME.-2, 4, 7, 8. N. H.-11, 12, 13, 14. VT.-16, 22. June 20-Nov. 4.

MASS.-23, 27, 29, 32. R. I.-33. CONN.-35. May 23-Nov. 15.

Scaptomyza Hardy.

S. adusta (Loew).

ME.—. N. H.—. Vт.—. MASS.-29, 30, 32. CONN.-35. Aug. 4-Nov. 9.

S. graminum (Fallen).

ME.-7, 8, 10. N. H.-11, 12, 15. VT.-20. July 7-Oct. 29. MASS.-23, 27, 28, 29. R. I.-33. CONN.-35. Apr. 16-Oct. 18.

S. terminalis (Loew) (Drosophila apicata Thomson).

N. H.-Mt. Washington (Mrs. Slosson); Glen House, June 11, 1916.

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DIPTERA.

Curtonotum Macquart.

C. helvum (Loew). Vт.—22. July 15.

MASS.-26, 27, 28, 29, 31. R. I.-33. CONN.-34. July 25-Aug. 22.

Leiomyza Macquart.

L. slossonae Aldrich, 19–140. N. H.—Franconia (Mrs. Slosson).

Periscelis Loew.

P. annulata (Fallen).

Mass.—Woods Hole, June, on sap of an oak (Sturtevant).

Aulacigaster Macquart.

A. leucopeza (Meigen) (A. rufitarsis Macquart). N. H.-Hanover; Jaffrey, June 18, 1923. MASS.-Norwood, Apr. 20 (Reiff); Bedford, June 23 (Barber); Woods Hole (Sturtevant).

ASTEIIDAE.

Asteia Meigen.

A. beata Aldrich. ME.—Southwest Harbor, Mt. Desert, July 13, 1910. MASS.—Chester, Aug. 6, 1914.

Sigaloëssa Coquillett.

S. flaveola Coquillett.

N. H.-Franconia.

MASS.—Boston, Sept. 23.

GEOMYZIDAE.

Geomyza Fallen (Balioptera Loew).

G. subdola Johnson, 22-15.

VT.—Dummerston, July 14, 1908.

MASS.—Manomet, July 27, 1905; Auburndale, Aug. 16; Rutland, July 9.

Diastata Meigen.

D. nebulosa (Fallen).

N. H.—Franconia; Hampton, June 3 (Shaw). MASS.—Wellesley, Mar. 27 (Morse); Medford, Sept. 14 (Barber). CONN.-New Haven, Oct. 31.

D. repleta (Walker) (D. pulchra Loew). See Sturtevant, 23-4.

ME.-Orono, June 5; Mt. Desert, July 8. N. H.-Hampton, May 17 (Shaw); Durham.

MASS.—Woods Hole, June-Sept. (Sturtevant).

D. vagans Loew.

ME.-1, 2, 4, 8, 9. N. H.-11. VT.-20. June 20-Sept. 9. Mass.—23, 25. June 15-Sept. 20.

D. modesta Melander, 13-290.

N. H.—Summit of Mt. Washington, June 30, 1913.

Cyamops Melander, 13-291.

C. nebulosa Melander, 13-292.

ME.—Salisbury Cove, Mt. Desert, July 13, 1923.
MASS.—Woods Hole, July 7, 1902 (Melander); Middleboro, July 28 (Sturtevant); Woburn, July 11 (Barlow).

Ischnomyia Loew.

I. spinosa Hendel, 11–45.

VT.—Norwich, July 7, 1908.

MASS.—Chester, Aug. 5; Brookline, July 4. R. I.—Buttonwoods, June 22.

Anthomyza Fallen.

A. gracilis Fallen.

ME.--6, 8. N. H.-14. VT.-16, 21. June 19-Aug. 21.

A. tenuis (Loew).

ME.--4, 8. N. H.--11, 12, 14. VT.--16, 18. June 15-Aug. 12. MASS.--.

A. variegata (Loew).

ME.—Capens, July 20; Mt. Desert, Aug. 12. N. H.—Hanover, Aug. 3 (Sturtevant).

MASS.—Manomet, July 27; Woods Hole, July (Sturtevant).

Mumetopia[®] Melander, 13–293.

M. occipitalis Melander, 13–294. MASS.—Woods Hole, July–Sept. (Sturtevant).

M. terminalis Loew (M. nitens Melander, 13-294, 3).
 ME.—Mt. Desert, July 17. N. H.—White Mts.
 MASS.—Woods Hole, July 16, 1902 (Melander); Bashbish Falls, June 27.

Trixoscelis Rondani (Parodinia Coquillett).

T. cinerea Coquillett (*T. prima* Hendel, 11-43). N. H.—Claremont, type locality for *T. prima*.

Tethina Haliday.

T. albula (Loew).

MASS.—Chatham, July 1; Edgartown, June 29; Wollaston, Sept. 5; New Bedford (*Hough*); Muskeget Isl., July 12 (*Brooks*).

T. parvula (Loew) (*Rhicnoëssa whitmani* Melander, 13–289). ME.—10, Orr's Isl., July 24, 1907. MASS.—26, 27, 28, 29, 30. July 8–Sept. 5.



DIPTERA.

Pelomyia Williston.

- **P. mallochi** Sturtevant, 23-7 (*T ethina parvula* of authors, not Loew.)
- ME.—"Narrows," Mt. Desert, June 9. N. H.—Hampton, May 18 (Shaw).
- MASS.—North Falmouth, July 22; Woods Hole; Naushon Isl. (Sturtevant); Ipswich, Aug. 2 (Fuller); Barnstable, July 5. CONN.—Rowayton, Aug. 9.

Chiromyia R.-Desvoidy (Scyphella R.-Desvoidy).

C. flava (Linné).

ME.---6, 7, 8. N. H.---11, 12. July 4-27.

MASS.-26, 27, 29. June 5-Aug. 3.

MILICHIIDAE.

Pholeomyia Bilimek.

P. indecora (Loew).
ME.-4, 6, 7, 8, 10. N. H.-11, 12, 15. VT.-21. June 18-Aug. 16.
MASS.-26, 29, 32. R. L.-33. CONN.-35. June 16-Aug. 4.

Milichiella Giglio-Tos.

M. arcuata (Loew). ME.—8. N. H.—11, 15. VT.—21. June 18–July 13. MASS.—29. June 8–Aug. 6.

M. lacteipennis Loew. MASS.—26, 27, 29, 32. R. I.—33. June 17-Aug. 20.

Eusiphona Coquillett.

E. mira Coquillett.
ME.—Salisbury Cove, July 15. N. H.—Hanover, July 4 and 6, 1908; Peterboro, Sept. 1 (C. F. Batchelder).
R. I.—Buttonwoods, June 21.

Paramyia Williston.

P. nitens (Loew). ME.—Mt. Desert, July 30 (*McAtee*). N. H.—White Mts., July. MASS.—Woods Hole, Aug. (*Sturtevant*).

Phyllomyza Fallen.

P. securicornis Fallen.
ME.—Orr's Island, July 25, 1907. N. H.—Hanover, July 4.
MASS.—Beverly, Oct. 9; Auburndale, Aug. 2; Woods Hole, July 23.

Desmonetopa Loew. D. latipes (Meigen). ME.--6, 8, 10. N. H.--11, 12, 13, 14, 15. June 4-Sept. 10. MASS.--27, 29, 32. R. I.--33. CONN.--35. May 24-Oct. 16. D. m-nigrum (Zetterstedt). ME.—1. N. H.—12, 13, 15. July 4-Sept. 10. MASS.—26, 27, 32. R. I.—33. CONN.—34, 35. May 7-Oct. 16.

D. sordidum (Fallen). ME.-4, 6, 8, 10. N. H.-12, 14. June 4-Aug. 1. MASS.-25, 27. R. L.-33. CONN.-35. May 30-Aug. 4.

D. tarsalis Loew. MASS.—Boston, June 22.

Mallochiella Melander, 18-169 (Madiza of authors).

M. glabra (Fallen).

МЕ.—4, 6, 8, 9, 10. N. H.—12, 15. Vт.—21. July 6-Aug. 14. Mass.—23, 24, 26, 27, 29, 32. R. I.—33. Conn.—34, 35. Apr. 26-Sept. 26.

M. halteralis (Coquillett). MASS.—26, 27, 28, 29, 30, 31. R. I.—33. May 30-Aug. 8.

Meoneura Rondani.

M. vagans (Fallen).

ME.—Orr's Isl., July 26, 1907.

MASS.—Boston, July 4 and Aug. 7; Cambridge; Woods Hole, July 30 (Sturtevant).

OCHTHOPHILIDAE.

Ochthiphila Fallen.

O. aridella Fallen.

ME.-Mt. Desert, June 9-Aug. 21.

MASS.—Gloucester, May 22; Groton, July 8; Wellesley, May 12 (Morse); Framingham, May 28.

O. geniculata Zetterstedt.

N. H.—Glen House, June 14. Vr.—Bennington, June 19. MASS.—Gloucester, May 22; Danvers, May 16.

O. juncorum Fallen.

ME.---7, 8. N. H.---11. June 10-Aug. 11. MASS.---23, 27. May 10-June 8.

O. maritima Zetterstedt. CONN.—Rockville, Aug. 23, 1905 (Viereck).

O. polystigma Meigen.

ME.--8. N. H.--11, 14, 15. June 14-Aug. 22.

Mass.—23, 24, 25, 26, 27, 29, 30, 32. R. I.—33. Conn.—34, 35. May 22–July 24.

Chamaemyia Panzer.

C. elegans Panzer.

ME.—Sugar Isl., Moosehead Lake, July 14; Salisbury Cove, July 15, 1922.

MASS.—Wellesley, May 31, 1922 (Morse); North Reading, June 10. CONN.—Westville, May 16 (Britton).

Leucopis Meigen.

L. maculata Thompson. ME.—Machias, July 17, 1909.

L. nigricornis Egger.

ME.-4, 7, 8. N. H.-13. June 10-Aug. 21. MASS.-23, 27, 29, 30. R. I.-33. CONN.-35. June 11-

Aug. 16.

L. simplex Loew. ME.--7. N. H.--11. July 10. MASS.--23, 24, 27, 32. Apr. 22-Aug. 10.

AGROMYZIDAE.

Odinia R.-Desvoidy.

O. maculata (Meigen). Mass.—Cambridge, June 11, 1908.

O. picta Loew. CONN.—Branford, June 23.

Traganops Coquillett.

T. irrorata Coquillett.

MASS.—Fall River, July 11, 1916, on fermenting sap of red oak; Woods Hole and Naushon Isl., July (Sturtevant).

Agromyza Fallen.¹

A. aeneiventris Fallen. ME.—8. N. H.—11, 12, 14, 15. VT.—16. June 4-Sept. 25. MASS.—23, 26, 27. R. I.—33. CONN.—35. May 22-Sept. 4.

A. aceris Greene, 17–313. R. I.—Buttonwoods, June 18, 1912. A cambium miner in maple.

A. ambigua Fallen (A. neptis Loew). N. H.—Franconia (Mrs. Slosson). MASS.—New Bedford (Hough).

¹Until the American species have been more thoroughly studied it seems inadvisable to separate the species into the several genera proposed by Hendel in 1920. The synonymy in part, is that given by Hendel.

A. amelanchieris Greene, 17–316.

N. H.—Hampton, May 21, 1921 (Shaw).

R. I.—Kingston, June 16, 1909 (Barlow).

A cambium miner of the Shadbush (Amelanchier canadensis).

A. artemisiae Kaltenbach (A. jucunda Van der Wulp; A. platyptera Thompson; A. malvae Burgess).

ME.---6, 8. N. H.---11, 12, 15. June 27-July 11.

MASS.-23, 25, 26, 27, 29, 32. R. I.-33. CONN.-... June 30-Sept. 4.

A. atra Meigen (A. angulata Loew). ME.---6, 8. VT.---16. June 23-July 11. MASS.---26, 27, 29. CONN.---35. June 10-July 23.

A. bellidis Kaltenbach. N. H.—Base Station, Mt. Washington, June 27. MASS.—Mt. Greylock, July 25; Walpole, May 26.

A. burgessi Malloch, 13–323. MASS.—Beverly, June 2, 1876 (E. Burgess).

A. canadensis Malloch, 13–299. VT.—St. Albans, June 21, 1913.

A. citreifrons, Malloch, 13–290. ME.—Princeton, July 12, 1909. VT.—Norwich, July 7, 1908.

A. curvipalpis Zetterstedt. MASS.—Sharon, May 26; Woods Hole (*Melander*, 13-267 and 251).

A. diversa Johnson, 22–26. VT.—*Dummerston*, July 14, 1908. MASS.—*Chester*, Aug. 7, 1912.

A. dubitata Malloch, 13–311. MASS.—Beverly, July 19, 1869 (E. Burgess).

A. genualis Melander, 13–261 (A. coloradensis Malloch, 13–297). ME.—Eastport, July 14; Machias, July 14; Mt. Desert, July 15. MASS.—Gloucester, July 8.

A. lateralis Macquart (*A. coquilletti*, Malloch, 13–295). ME.—8. N. H.—12. VT.—20. July 3–18. MASS.—26, 27, 30. May 28–July 8.

A. longipennis Loew. N. H.—Mt. Washington (*Mrs. Slosson*). MASS.—Chester, Aug. 9, 1912.

A. marginata Loew.

Mass.—Horse Neck Beach, Aug. 5 (Hough); Beverly, May 28 and Aug. 28 (Burgess); Auburndale, May 7; Eastham, June 27.



A. melampyga Loew (A. flaviventris Johnson).

ME.--7, 8. N. H.-11, 14. VT.--16, 20, 21. June 5-July 15. MASS.--23, 26, 27, 28, 29. CONN.--35. June 19-Aug. 16.

A. morosa Meigen (A. luctuosa Meigen; A. lateralla Zetterstedt; A. magnicornis Loew).

ME.—8. N. H.—11, 12, 14. VT.—20. June 7-Aug. 8.

MASS.-23, 25, 26, 27. CONN.-35. May 16-Aug. 7.

The larvae form galls on the leaves of Iris; see Thompson, 13– 17, and Claasen 18–9.

A. nasuta Melander, 13–260 (A. madizina Hendel, see Malloch, 24–192).

ME.—Mt. Desert, July 30, on flowers (McAtee).

A. pacifica Melander, 13-264 (A. longipennis Malloch, 13-276).

MASS.—Auburndale, Aug. 16; Brookline, Aug. 23. CONN.— Middletown, June 17.

A. parvicornis Loew.

- ME.—7, 8. N. H.—12, 15. VT.—20. June 23–29. MASS.—24, 27, 29. CONN.—35. June 15-Aug. 2.
- **A. perpusilla** Meigen (Odinia immaculata Coquillett). N. H.—Mt. Washington (Mrs. Slosson).

A. posticata Meigen (A. terminalis Coquillett).

- ME.--7, 8, 10. N. H.--11, 12, 15. VT.--20, 21, 22. June 22-Aug. 4.
- MASS.-23, 26, 27, 29, 32. R. I.-33. CONN.-35. June 15-Sept. 29.

A. pruinosa Coquillett.

MASS.—Dedham, May 20. A cambium miner in birch, see Greene, 14–471.

A. pusilla Meigen (A. trifolii Burgess).

ME.-3, 8. N. H.-11, 12, 14. June 15-Sept. 8.

MASS.—26, 27, 29. CONN.—. June 13-Oct. 23.

A. salicis Malloch, 13–314. MASS.—Reading, May 16, 1908, from willow (Felt).

A. schineri Giraud.

MASS.—Framingham, May 5, 1908, from galls on poplar (Frost).

A. setosa Loew. N. H.—Franconia. Mass.—.

A. simplex Loew.
ME.—. N. H.—11. VT.—16. June 23-July 15.
MASS.—26. 27, 28, 29. R. I.—33. CONN.—35. May 30-July 8.

A. subnigripes Malloch, 13-334 (A. nigripes Schiner, not Meigen; see Malloch, 13-286). N. H.—Hampton (Shaw).

A. variata Malloch, 13-277. ME.-Calais, July 10, 1909; Mt. Desert, July 27, 1919. MASS.—East Walpole, May 26; Cohasset, Aug. 19.

A. virens Loew. MASS.—Cambridge.

A. viridula Coquillett. ME.—Mt. Desert, Aug. 17, 1920. MASS.-Mt. Tom, Sept. 22; Beverly, June 29, 1876 (Burgess).

Cerodontha Rondani, 1861.

(Cerodonta as amended, see Melander, 13-249; Aldrich, 18-63.)

C. dorsalis (Loew).

ME.-4. N. H.-11. June 30.

MASS.-24, 26, 27, 32. R. I.-33. CONN.-35. Apr. 19-Nov. 4.

Napomyza Haliday.

N. lateralis (Fallen).

ME.-Echo Lake, Mt. Desert, July 12, 1918. N. H.-Mt. Washington.

MASS.—Mt. Greylock, June 15.

Phytomyza Fallen.

P. affinis Fallen. MASS.-Framingham, May 28.

P. albiceps Meigen (*P. bipunctata* Loew). ME.—Mt. Desert, July 30 (McAtee). MASS.—. CONN.—Middletown, June 17.

P. aquilegiae Hardy. The Columbine Leaf-miner. ME.-Mt. Desert, June 20. MASS.—Boston, June. CONN.—New Haven.

P. atricornis Meigen (P. chrysanthemi Kowarz, see Hendel, 18 (20)-162). The Margarite Fly. ME.-2, 4, 8. N. H.-15. June 27-Aug. 4.

. MASS.-23, 24, 25, 27, 31. CONN.-35. June 15-July 10. The larvae mine the leaves of chrysanthemum and margarite (Smulyan, 1914).

P. bicolor Coquillett (=P. abdominalis Zetterstedt?).N. H.-Glen House, July 26. CONN.—Stamford, May 18 (Sturtevant).

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P. flavicornis Zetterstedt. Mass.—Brookline, July 4.

P. ilicicola Loew. The Holly Leaf-miner. MASS.-...

P. obscurella Fallen. MASS.—Boston, Aug. 7.

PUPIPARA

HIPPOBOSCIDAE.

Lipoptena Nitsch.

L. subulata Coquillett, 07-290. See Ferris and Cole, 22-187. N. H.-Woodstock, on deer, Nov., 1905 (J. P. Long); Corbin Park, from elk, Sept. 17, and from deer, Sept. 19, 1923 (T. Barbour and W. S. Brooks).

MASS.—Naushon Isl., Oct. 25, 1924 (Bequaert).

Ornithoica Rondani.

O. confluenta (Say) (O. confluens as emended; Ferris, 24-234).

ME.-Wilson's Mills, Oxford Co., Nov. 4, 1921, from the Canada Jay (W. S. Brooks). N. H.—Peterboro, Aug. 11 and 16, 1924, from Song Sparrow (C. L. Whittle).

MASS.—Braintree, Sept. 4, 1922, from Crow (J. D. Smith).

Ornithomyia Latreille.

- O. anchineura Speiser, 05-348 (O. pallida Say, not Latreille; O. avicularia (Linné); see Ferris and Cole, 22-199).
- ME.—Bar Harbor, July (Moore). N. H.—Peterboro, Aug. 11, from Song Sparrow (C. L. Whittle). VT.—Woodstock, Aug., 1911, from a young Junco (A. P. Morse); Chittenden, Aug. 1 and Aug. 16, from Chipping Sparrow (Bequaert).
- MASS.—Southbridge, Aug. 18, from Robin (S. W. Bromley); Essex, Aug. 29, from Savanna Sparrow (A. B. Fuller); Worthington, from Catbird; Chilmark, July 16, from Song Sparrow (S. Harris).

Ornithoctona Speiser.

O. erythrocephala (Leach).

ME.—Two specimens without locality in the collection of the Maine Agricultural Experiment Station. This species has been taken near Montreal and in Quebec on the American Bittern and Pigeon Hawk (see Johnson, 22-84).

Ornithoponus Aldrich, 23-77.

O. americanus (Leach) (Olfersia americana of authors). ME.—10. N. H.—15. VT.—19. Mar. 29-Apr. 9.

MASS.-26, 27, 28, 29, 32. CONN.-35. Aug. 14-Nov. 1. Frequents the Barred, Great Horned and Long-eared Owls, Red-shouldered Hawk and Ruffed Grouse (see Johnson, 22-83).

O. albipennis (Say) (Olfersia albipennis of authors).

MASS.—Boston (Allston), Aug. 1, 1912, from a young Blackcrowned Night Heron.

O. angustifrons Van der Wulp. N. H.—Hampton, May 31, 1917 (Shaw).

Olfersia Wiedemann (Pseudolfersia Coquillett).

O. fumipennis Sahlberg (P. maculata Coquillett).

N. H.-Hampton, May 17, 1905, from Bald Eagle (S. A. Shaw).

Malophagus Latreille.

M. ovinus (Linné). The "Sheep Tick." ME.—Orono; Mt. Desert. N. H.—Durham. MASS.—West Newbury; Amherst; Chester. CONN.—Ashford.



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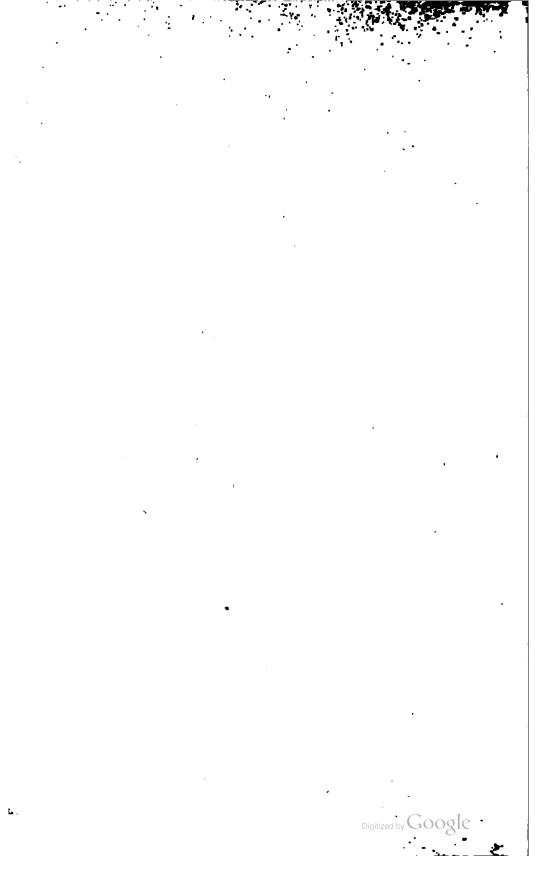
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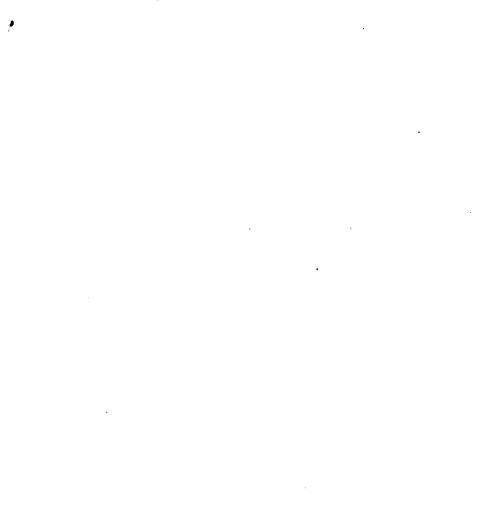
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