

Occasional Papers
OF THE
Boston Society of Natural History.

VII.

FAUNA OF NEW ENGLAND.

5.

LIST OF THE CRUSTACEA.

BY MARY J. RATHBUN.

BOSTON :
PRINTED FOR THE SOCIETY FROM THE
GURDON SALTONSTALL FUND.
JULY, 1905.

CRUSTACEA.

MALACOSTRACA.

THORACOSTRACA.

DECAPODA.

OCYPODIDAE.

1. OCYPODE ALBICANS Bosc.

Sand crab; Ghost crab.

Ocyпода albicans Bosc, Hist. nat. Crust., 1802 [an X], vol. 1, p. 196 (not pl. 4, fig. 1). "LA CAROLINE."

Ocyпода arenaria Milne Edwards, Hist. nat. Crust., 1837, vol. 2, p. 44, pl. 19, figs. 13, 14.

In deep burrows on sandy beaches, above tides. A southern species, the young only having been found in New England.

MASS.—Vineyard Sound (Megalops stage).

R. I.—Block Island.

2. UCA PUGNAX (Smith).

Fiddler crab.

Gelasimus pugnax Smith, Trans. Conn. acad. sci., 1870, vol.

NOTE:—From the accompanying list of recent Crustacea those species are omitted which have been dredged in deep water off the continental slope of southeastern New England, at such a great distance as not properly to be included in the New England fauna.

The compiler is indebted to Dr. S. J. Holmes and Dr. Charles B. Wilson for access to unpublished MSS. on the Amphipoda and the parasitic Copepoda of the Woods Hole region. The arrangement of the Amphipoda is that of Dr. Holmes, except for the Caprellidae where the classification of Dr. Paul Mayer has been followed.

Doubtless some errors have been introduced through the inability of the compiler to reconcile the nomenclature of different authors.

Those references which were inaccessible to Miss Rathbun have been verified through the kindness of Drs. E. L. Bouvier, W. T. Calman, W. Faxon, K. W. Genthe, H. J. Hansen, Witmer Stone and Charles B. Wilson.

THORACOSTRACA.

DECAPODA.

OCYPODIDAE.

2, p. 131, pl. 2, fig. 1, pl. 4, figs. 2-2d. "NEW HAVEN, CONN.;
* * * ST. AUGUSTINE, FLA.; * * * BAHAMAS; * * * HAYTI."

Burrows in salt marshes; also found on muddy or sandy flats,
and beaches.

MASS.—From Provincetown and Barnstable southward.

R. I.

CONN.

3. *UCA PUGILATOR* (Bosc).**Fiddler crab.**

Ocyropa pugilator Bosc, Hist. nat. Crust., 1802 [an X], vol. 1,
p. 197. "CAROLINE."

Gelasimus pugilator Smith, Trans. Conn. acad. sci., 1870,
vol. 2, p. 136, pl. 4, fig. 7.

On muddy and sandy flats and beaches.

MASS.—From Boston Harbor southward.

R. I.

CONN.

4. *UCA MINAX* (Le Conte).**Fiddler crab.**

Gelasimus minax Le Conte, Proc. acad. nat. sci. Phil., 1855,
vol. 7, p. 403. "BEESLEY'S POINT, N. J." Smith, Trans. Conn.
acad. sci., 1870, vol. 2, p. 128, pl. 2, fig. 4, pl. 4, figs. 1-1b.

Salt marshes, frequently where the water is most of the time
nearly fresh.

MASS.

R. I.

CONN.—West River and Mill River, near New Haven.

THORACOSTRACA.

DECAPODA.

OCYPODIDAE.

5. GERYON QUINQUEDENS Smith.

Geryon quinquedens Smith, Trans. Conn. acad. sci., 1879, vol. 5, p. 35, pl. 9, figs. 1-1b, 2. "OFF CASCO BAY AND IN THE GULF OF MAINE, OFF MASSACHUSETTS BAY."

ME.— Off Casco Bay, deep water from stomachs of fishes.

Off Georges Bank, 105 fms.

MASS.— Off Cape Ann, 98 to 160 fms.; off Mass. Bay, 117 to 142 fms.; off Cape Cod, 94 to 118 fms.

R. I.— Off Block Island, 322 to 452 fms.

GRAPSIDAE.

6. GRAPSUS GRAPSUS (Linné).

Rock crab.

Cancer grapsus Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 630, "IN AMERICA, INSULA ADSCENSIONIS."

Grapsus maculatus Milne Edwards, Ann. sci. nat., 1853 (3), vol. 20, p. 167 [133], pl. 6.

A tropical species.

MASS.— Provincetown Harbor, from bottom of whaler just returned from a voyage; one specimen.

7. PACHYGRAPSUS TRANSVERSUS (Gibbes).

Grapsus transversus Gibbes, Proc. Amer. assoc. adv. sci., 1850, vol. 3, p. 181 [17]. "KEY WEST."

Goniograpsus innotatus Dana, Crust. U. S. Expl. Exped., 1852, pt. 1, p. 345; atlas, 1855, pl. 21, fig. 9.

A tropical species.

MASS.— Provincetown Harbor, from bottom of whaler; 4 specimens.

THORACOSTRACA.

DECAPODA.

GRAPSIDAE.

8. PLANES MINUTUS (Linné).

Gulf-weed crab.

Cancer minutus Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 625.
 "IN PELAGI FUCO NATANTE."

Planes clypeatus Bowdich, Excursions in Madeira and Porto Santo, 1825, p. 15, pl. 12, figs. 2a, 2b.

Pelagic, common in gulf stream.

MASS.—Woods Hole, 1 ♂; Wareham, 1.

R. I.—Sakonnet Point, under rocks, 1 ♀ bearing eggs (W. Nye, Jr.).

9. SESARMA RETICULATUM (Say).

Ocypode reticulatus Say, Journ. acad. nat. sci. Phil., 1817, vol. 1, p. 73, pl. 4, fig. 6. "MUDDY SALT MARSHES."

Ocypode (Sesarma) reticulatus Say, *op. cit.*, 1818, p. 442.

On salt marshes in burrows.

MASS.—Wareham; Acushnet River, near New Bedford.
 Long Island Sound.

PINNOTHERIDAE.

10. PINNOTHERES OSTREUM Say.

Oyster crab.

Pinnotheres ostreum Say, Journ. acad. nat. sci. Phil., 1817, vol. 1, p. 67, pl. 4, fig. 5 (♀). "INHABITS THE COMMON OYSTER."

Pinnotheres ostreum DeKay, Nat. Hist. New York, pt. 6, Crust., 1844, p. 12, pl. 7, fig. 16 (♀); Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 546 [252], not pl. 1, fig. 2 (♂).

THORACOSTRACA.

DECAPODA.

PINNOTHERIDAE.

Female in the gill-cavity of oysters; male free-swimming at surface.

MASS. — From Salem southward.

R. I.

CONN.

11. PINNOTHERES MACULATUS Say.

Mussel crab.

Pinnotheres maculatum Say, Journ. acad. nat. sci. Phil. 1818, vol. 1, p. 450. "INHABITS THE MURICATED PINNA OF OUR COAST."

Pinnotheres ostreum Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), pl. 1, fig. 2 (♂).

Female between the gills of *Mytilus edulis* and *Pecten tenuicostatus*; male free-swimming at surface.

MASS.—From Cape Cod southward.

R. I.

CONN.

12. PINNIXA CHAETOPTERANA Stimpson.

Pinnixa cylindrica Stimpson, Ann. lyc. nat. hist. N. Y., 1859, vol. 7, p. 68. Not *P. cylindrica* (Say).

Pinnixa chaetoptera Stimpson, Ann. lyc. nat. hist. N. Y., 1860, vol. 7, p. 235. "IN THE TUBES OF CHAETOPTERUS PERGAMENTACEUS, ON MUDDY OR CLAYEY SHORES OF CHARLESTON HARBOR, S. C."

In tubes of annelids, *Chaetopterus pergamentaceus* and *Amphitrite ornata*.

MASS.—Wellfleet; Woods Hole; Naushon; Vineyard Sound; Buzzards Bay.

CONN.—Noank; Stony Creek.

THORACOSTRACA.

DECAPODA.

PINNOTHERIDAE.

13. PINNIXA SAYANA Stimpson.

Pinnixa sayana Stimpson, Ann. lyc. nat. hist. N. Y., 1860, vol. 7, p. 236. "IN SIX FATHOMS, SANDY MUD, OFF THE MOUTH OF BEAUFORT HARBOR, N. C."

Pinnixa cylindrica Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 546 [252], pl. 1, fig. 1. Not *P. cylindrica* (Say).

In tubes of large annelids.

MASS. — Vineyard Sound; Buzzards Bay.

CONN. — New Haven.

PILUMNIDAE.

14. EUPANOPEUS HERBSTII (Milne Edwards).

Mud crab.

Panopeus herbstii Milne Edwards, Hist. nat. Crust., 1834, vol. 1, p. 403. "CÔTES DE L'AMÉRIQUE SEPTENTRIONALE."

Panopeus herbstii Benedict & Rathbun, Proc. U. S. nat. mus., 1891, vol. 14, p. 358, pl. 19, figs. 1-2, pl. 23, figs. 10-12.

On oyster beds in brackish water.

MASS. — Boston.

R. I. — Newport; Providence River.

Long Island Sound.

15. EURYPANOPEUS DEPRESSUS (Smith).

Mud crab.

Panopeus depressus Smith, Proc. Boston soc. nat. hist., 1869, vol. 12, p. 283. "NEW HAVEN, CONN. * * * EGMONT KEY, FLA." Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 547 [253], pl. 1, fig. 3.

THORACOSTRACA.

DECAPODA.

PILUMNIDAE.

Under stones in mud.

MASS.—From Massachusetts Bay southward.

R. I.

CONN.

16. NEOPANOPE TEXANA SAYI (Smith).

Mud crab.

Panopeus sayi Smith, Proc. Boston soc. nat. hist., 1869, vol. 12, p. 284. "NEW HAVEN, CONN. * * * EASTHAM, CAPE COD."

Panopeus sayi Benedict & Rathbun, Proc. U. S. nat. mus., 1891, vol. 14, p. 363, pl. 22, fig. 4, pl. 23, figs. 7, 8.

Under stones in mud.

MASS.—From Provincetown southward.

R. I.

CONN.

17. HEXAPANOPEUS ANGUSTIFRONS (Benedict & Rathbun).

Mud crab.

Panopeus angustifrons Benedict & Rathbun, Proc. U. S. nat. mus., 1891, vol. 14, p. 373, pl. 22, fig. 3, pl. 24, fig. 18. VINEYARD SOUND TO BRAZIL.

MASS.—Vineyard Sound; Buzzards Bay.

R. I.—Narragansett Bay.

CONN.—Off Milford, Stratford, Bridgeport, Norwalk; on oyster grounds.

18. RHITHROPANOPEUS HARRISII (Gould).

Pilumnus harrisii Gould, Invert. Mass., 1841, p. 326. "CAMBRIDGE MARSHES; * * * CLINGING TO FLOATING SEAWEED IN CHARLES RIVER."

Panopeus harrisii Benedict & Rathbun, Proc. U. S. nat. mus., 1891, vol. 14, p. 378, pl. 21, fig. 2, pl. 24, fig. 16.

THORACOSTRACA.

DECAPODA.

PILUMNIDAE.

Under stones, toward high-water mark. Local.

ME.—Sheepscot River.

MASS.—Massachusetts Bay.

CONN.—East side of New Haven Harbor.

Long Island Sound.

PORTUNIDAE.

19. CARCINIDES MAENAS (Linné).

Green crab; Joe rocker.

Cancer maenas Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 627,
"IN OCEANO EUROPEO, ASIATICO." Fauna Svecica, 1761, p.
492.

Carcinus maenas, De Kay, Nat. hist. New York, pt. 6, Crust.,
1844, p. 8, pl. 5, figs. 5, 6.

Under stones toward high-water mark to a few fathoms, and
in tidal pools.

ME.—Harpswell; New Meadows River, near Harpswell;
Eagle Harbor, Casco Bay; Kittery.

MASS.—Ipswich; Nahant; Lynn; Cohasset; Manomet Point;
and from Cape Cod southward.

R. I.

CONN.

20. PORTUNUS SAYI (Gibbes).

Gulf-weed crab.

Lupa sayi Gibbes, Proc. Amer. assoc. adv. sci., 1850, vol. 3,
p. 178 [14]. "COAST OF SOUTH-CAROLINA."

Neptunus sayi A. Milne Edwards, Arch. mus. hist. nat., Paris,
1861, vol. 10, p. 317, pl. 29, fig. 2.

Surface, on gulf weed.

MASS.—Vineyard Sound.

THORACOSTRACA.

DECAPODA.

PORTUNIDAE.

21. *CALLINECTES SAPIDUS* Rathbun.**Blue crab; Common edible crab.**

Lupa hastata Say, Journ. acad. nat. sci. Phil., 1817, vol. 1, p. 65. "IN BAYS, &c."

Callinectes sapidus Rathbun, Proc. U. S. nat. mus., 1896, vol. 18, p. 352, pl. 12, pl. 24, fig. 1, pl. 25, fig. 1, pl. 26, fig. 1, pl. 27, fig. 1.

Muddy shores to deep water; brackish water of estuaries.

MASS.—Millpond, an inlet of Salem Harbor; Mass. Bay; from Cape Cod southward.

R. I.

CONN.

22. *OVALIPES OCELLATUS* (Herbst).**Lady crab; Sand crab.**

Cancer ocellatus Herbst, Naturg. d. krabben u. krebse, 1799, vol. 3, pt. 1, p. 61, pl. 49, fig. 4. "LONG-EILAND BEY NEW-YORCK."

Platyonichus ocellatus DeKay, Nat. hist. New York, pt. 6, Crust., 1844, p. 9, pl. 1, fig. 1, pl. 5, fig. 7.

In sand at low-water mark and off shore to 10 fathoms.

MASS.—From Provincetown and Barnstable southward.

R. I.

CONN.

CANCRIDAE.

23. *CANCER IRRORATUS* Say.**Rock crab.**

Cancer irroratus Say, Journ. acad. nat. sci. Phil., 1817, vol. 1, p. 59, pl. 4, fig. 2. "INHABITS THE OCEAN. COMMON." R. Rathbun, Fisheries industries of U. S., 1884, sec. 1, p. 766, pl. 260, figs. 1-3.

THORACOSTRACA.

DECAPODA.

CANCRIDAE.

Platycarcinus irroratus DeKay, Nat. hist. New York, pt. 6, Crust., 1844, p. 6, pl. 2, fig. 2.

From under rocks near low-water mark to 314 fathoms.
From Eastport, Me., to Conn.

24. *CANCER BOREALIS* Stimpson.**Jonah crab.**

Cancer borealis Stimpson, Ann. lyc. nat. hist. N. Y., 1859, vol. 7, p. 50. "A NORTHERN SPECIES, NOT FOUND SOUTH OF CAPE COD, ALTHOUGH EXTENDING TO THE NORTHWARD AT LEAST AS FAR AS NOVA SCOTIA." Smith, Trans. Conn. acad. sci., 1879, vol. 5, p. 39, pl. 8.

Rocks near low tide to deep water, 435 fathoms.

ME.— Bay of Fundy; Casco Bay.

N. H.

MASS.— Salem; Manomet Point; Chatham; Vineyard Sound; No Mans Land.

R. I.— Off Watch Hill; off Newport; Narragansett Bay; off north end of Block Island.

CONN.— Off Noank.

INACHIDAE.

25. *CHIONOECETES OPILIO* (O. Fabricius).

Cancer phalangium O. Fabricius, Favna Groenlandica, 1780, p. 234. GREENLAND.

Cancer opilio O. Fabricius, K. Danske vid. selsk. skr., nye saml., 1788, vol. 3, p. 182, plate.

Chionoecetes opilio Kröyer, Naturh. Tidssk., 1838 (1), vol. 2, p. 249.

ME. — Off Casco Bay, in fish stomachs.

THORACOSTRACA.

DECAPODA.

INACHIDAE.

26. *HYAS COARCTATUS* Leach.**Toad crab.**

Hyas coarctatus Leach, Trans. Linn. soc. London, 1815, vol. 11, p. 329. "HABITAT IN MARI BRITANNICO; APUD FRITH OF FORTH, PLYMOUTH SOUND ET SALCOMBE."

Hyas coarctata Milne Edwards, R. Anim. de Cuvier, disciples ed., p. 90, pl. 32, fig. 3.

On sandy and gravelly bottoms, 5½ to 906 fathoms.

ME. — From Bay of Fundy westward.

N. H.

MASS.

R. I. — Cox Ledge; Block Island Sound.

27. *HYAS ARANEUS* (Linné).**Toad crab.**

Cancer araneus Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 628. "IN OCEANO EUROPÆO."

Hyas araneus Leach, Mal. Podoph. Brit., 1816, pl. 21 A, and explanatory text.

5 to 106 fathoms.

ME. — From Bay of Fundy westward.

MASS. — As far south as Cape Cod.

28. *PELIA MUTICA* (Gibbes).

Pisa mutica Gibbes, Proc. amer. assoc. adv. sci., 1850, vol. 3, p. 171 [7]. "CHARLESTON HARBOR, OFF WHITE POINT BATTERY, [S. C.]"

Pelia mutica A. Milne Edwards, Miss. sci. au Mexique, 1875, pt. 5, vol. 1, p. 73, pl. 16, fig. 2.

THORACOSTRACA.

DECAPODA.

INACHIDAE.

On gravelly and shelly bottoms of bays and sounds.

MASS. — From Vineyard Sound westward.

R. I.

CONN.

29. *LIBINIA EMARGINATA* Leach.**Spider crab.**

Libinia emarginata Leach, Zool. Misc., 1815, vol. 2, p. 130, pl. 108. Locality unknown. Rathbun, Proc. U. S. nat. mus., 1892, vol. 15, p. 235, pl. 31, fig. 2.

Muddy shores and flats.

ME. — From Casco Bay southward.

N. H.

MASS.

R. I.

CONN.

30. *LIBINIA DUBIA* Milne Edwards.**Spider crab.**

Libinia dubia Milne Edwards, Hist. nat. Crust., 1834, vol. 1, p. 300, pl. 14 bis, fig. 2. "CÔTES DES ETATS-UNIS." Rathbun, Proc. U. S. nat. mus., 1892, vol. 15, p. 237, pl. 31, fig. 1.

Muddy shores.

MASS. — From Cape Cod southward.

R. I.

CONN.

PARTHENOPIDAE.

31. *HETEROCRYPTA GRANULATA* (Gibbes).**Pentagon crab.**

Cryptopodia granulata Gibbes, Proc. Amer. assoc. adv. sci.,

THORACOSTRACA.

DECAPODA.

PAGURIDAE.

37. *PAGURUS ACADIANUS* Benedict.**Hermit crab.**

Pagurus acadianus Benedict, Proc. U. S. nat. mus., 1901, vol. 23, p. 454, text fig. "FROM THE GRAND BANK OF NEWFOUNDLAND TO THE MOUTH OF CHESAPEAKE BAY."

Sandy and hard bottoms. Abundant.

From Eastport, Me., to eastern part of Long Island Sound. Low water to 150 fathoms.

38. *PAGURUS LONGICARPUS* Say.**Long-wristed hermit crab; Little hermit crab.**

Pagurus longicarpus Say, Journ. acad. nat. sci. Phil., 1817, vol. 1, p. 163. "INHABITS BAY SHORES." DeKay, Nat. hist. New York, pt. 6, Crust., 1844, p. 20, pl. 8, fig. 22.

Eupagurus longicarpus Thompson, Proc. Boston soc. nat. hist., 1903, vol. 31, p. 150, pls. 4-10, figs. 1-29, 31-60, 62-64 d.

ME.—Quahog Bay, Casco Bay; Freeport River, head of Casco Bay.

From Cape Ann, Mass., to western end of Long Island Sound. Shore to 18 fathoms.

39. *PAGURUS PUBESCENS* Kröyer.**Hairy hermit crab.**

Pagurus pubescens Kröyer, K. Danske vid. selsk. natur. og math. afh., 1838, vol. 7, p. 314 [86]. GREENLAND: "FISKEN-OESSET, GODTHAAB, HOLSTEINBORG OG OMENAK." ICELAND. Naturh. tidssk., 1839, vol. 2, p. 251 (part). Benedict, Ann. mag. nat. hist., 1896 (6), vol. 18, p. 99, fig. A (left cheliped).

Common.

Bay of Fundy to off Block Island. Low water mark (rare) to 150 fathoms.

THORACOSTRACA.

DECAPODA.

PAGURIDAE.

40. PAGURUS KROYERI (Stimpson).

Hermit crab.

Eupagurus kroyeri Stimpson, Ann. lye. nat. hist. N. Y., 1859, vol. 7, p. 89. "FOUND AT GRAND MANAN, AND IN MASSACHUSETTS BAY, BY MYSELF, AND ALSO OCCURS IN PUGET SOUND."

Pagurus kroyeri Benedict, Ann. mag. nat. hist., 1896 (6), vol. 18, p. 99, fig. B (left cheliped).

Coast of Maine and southward to Block Island Sound. 8 to 306 fathoms.

41. PAGURUS POLITUS (Smith).

Hermit crab.

Eupagurus politus Smith, Bull. mus. comp. zool., 1882, vol. 10, p. 12, pl. 2, fig. 5. "BLAKE" STATIONS 309, 310, 336, [from Georges Bank to Cape May, 197 to 304 fathoms].

Off Georges Bank, 55-304 fms.

MASS. — Off Marthas Vineyard, 65 to 365 fms.

42. PAGURUS ANNULIPES (Stimpson).

Small hermit crab.

Eupagurus annulipes Stimpson, Ann. lye. nat. hist. N. Y., 1860, vol. 7, p. 243. "BEAUFORT HARBOR, N. C., AND OFF THE COAST ADJACENT, IN FROM TWO TO EIGHT FATHOMS"

MASS.— Off East Chop; Vineyard Sound; Nantucket Sound.

HIPPIDAE.

43. EMERITA TALPOIDA (Say).

Sand bug; Bait bug; Hippa.

Hippa talpoida Say, Journ. acad. nat. sci. Phil., 1817, vol. 1,

THORACOSTRACA.

DECAPODA.

HIPPIDAE.

p. 160. "COAST OF THE UNITED STATES." Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 548 [254], pl. 2, fig. 5.

Sandy beaches. Burrows.
From Cape Cod southward.

CALLIANASSIDAE.

44. *CALLIANASSA STIMPSONI* Smith.

Callianassa stimpsoni Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 549 [255], pl. 2, fig. 8 (larger cheliped). "FROM THE COAST OF THE SOUTHERN STATES NORTH TO LONG ISLAND SOUND."

Burrows in mud. Near low water and in shallow water.
Vineyard Sound to Long Island Sound.

45. *UPOGEBIA AFFINIS* (Say).

Gebia affinis Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 241. "GEORGIA." Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 549 [255], pl. 2, fig. 7.

Burrows on muddy shores.
MASS.— Wellfleet; Woods Hole; head of Buzzards Bay.
CONN.— New Haven.

AXIIDAE.

46. *AXIUS SERRATUS* Stimpson.

Axius serratus Stimpson, Proc. Boston soc. nat. hist., 1852, vol. 4, p. 222. "TWENTY FATHOMS, OFF SCITUATE." Smith, Trans. Conn. acad. sci., 1879, vol. 5, p. 55, pl. 10, figs. 4, 4a.

THORACOSTRACA.

DECAPODA.

AXIIDAE.

MASS.—Off Scituate, 20 fms.; about 5 miles S. E. of Cape Ann, 42 fms., in stomach of flounder.

Georges Bank.

R. I.—Narragansett Bay, 20 fms.

CONN.—Off Stratford Point and Norwalk, 10–15 fms.

47. NAUSHONIA CRANGONOIDES Kingsley.

Naushonia crangonoides Kingsley, Bull. Essex inst., 1895 (1897), vol. 27, p. 96, pl. 3, figs. 8–10. "ISLAND OF NAUSHON." Thompson, Proc. Boston soc. nat. hist., 1903, vol. 31, p. 2, pls. 1–3.

MASS.—Naushon "gutters" in sand, one specimen; Ram Island, Woods Hole Harbor, burrow 10 inches deep in sand, one specimen.

HOMARIDAE.

48. HOMARUS AMERICANUS Milne Edwards.

Lobster.

Homarus americanus Milne Edwards, Hist. nat. Crust., 1837, vol. 2, p. 334. Locality not indicated except by specific name. R. Rathbun, Fisheries & fishery industries of U. S., 1884, sec. 1, p. 781, pl. 271.

From Bay of Fundy to Conn. Rocky shores, 1–20 fms.

ASTACIDAE.

49. CAMBARUS BARTONII (Fabricius).

Crayfish; Crawfish.

Astacus bartonii Fabricius, Suppl. entom. syst., 1798, p. 407. "IN AMERICA BOREALI."

THORACOSTRACA.

DECAPODA.

ASTACIDAE.

Cambarus bartonii Hagen, Ill. cat. mus. comp. zool., 1870, No. III, p. 75, pl. 1, figs. 47-50, pl. 2, figs. 135-139, pl. 3, fig. 166.

ME.—Houlton and Maysville, Aroostook Co.; Madison, Somerset Co.; head of Kennebec River, outlet of Moosehead Lake.

VT.—Burlington, Colchester, and Shelburne, Chittenden Co.

MASS.—North Grafton, Worcester Co.; Williamstown and North Adams, Berkshire Co.; also probably, tributary of Housatonic River, Berkshire Co.

R. I.?—Crayfish are said to have been common 60 years ago at Westerly.

CONN.?—*C. bartonii* introduced into brook at New Haven in 1880, but none have been seen there since.

PENAEIDAE.

50. *PENAEUS BRASILIENSIS* Latreille.**Southern shrimp.**

Penaeus brasiliensis Latreille, Nouv. dict. hist. nat., 1817 vol. 25, p. 156. "BRÉSIL."

Peneus brasiliensis Kröyer, K. Danske vid. selsk. skr., naturv. math. afd., 1856 (5), vol. 4, p. 290, pl. 5, fig. 23 (superior antenna).

A southern species.

MASS.—Katama Bay, Marthas Vineyard, one specimen.

CONN.?—(See Smith, Trans. Conn. acad. sci., 1880, vol. 4, p. 267).

CRAGONIDAE.

51. *CRAGO SEPTEMSPINOSUS* (Say).**Sand shrimp; Grey shrimp.**

Crangon septemspinus Say, Journ. acad. nat. sci. Phil.,

THORACOSTRACA.

DECAPODA.

CRAGONIDAE.

1818, vol. 1, p. 246. "INHABITS BAY SHORES AND INLETS OF THE SEA." "FOUND AS FAR SOUTH AS EAST FLORIDA."

Crangon vulgaris Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 550 [256], pl. 3, fig. 10.

On sandy bottoms.

From Bay of Fundy to Conn. Low water to 60 or 70 fathoms.

52. SCLEROCRANGON BOREAS (Phipps).

Cancer boreas Phipps, Voyage north pole, 1773 (1774), p. 190, pl. 12, fig. 1. "NEAR THE COAST OF SPITSBERGEN * * * IN THE STOMACH OF A SEAL."

Crangon boreas Kröyer, Naturh. tidssk., 1842, vol. 4, p. 218, pl. 4, figs. 1-14.

From Bay of Fundy to Cape Cod, 5-36 fms.

53. PONTOPHILUS NORVEGICUS (M. Sars).

Crangon norvegicus M. Sars, Nyt mag. f. naturvid., 1861, vol. 11, p. 248. "TID SIDEN VED FLORØEN MANGER OG I BUNDEFJORDEN VED CHRISTIANIA, PAA 30-50 F. D."

Pontophilus norvegicus M. Sars, Forh. vid.-selsk. Christiania, 1861 (1862), p. 183; Nyt mag. f. naturvid., 1868, vol. 15, p. 242, pls. 1 and 2, figs. 1-37.

MASS.—Off Cape Ann, 110-115 fms.; off Cape Cod, 94-524 fms.

Georges Bank, 105 fms.

54. SABINEA SEPTEMCARINATA (Sabine).

Crangon septemcarinatus Sabine, Suppl. append. Parry's [first] voy., 1824, p. ccxxxvi, pl. 2, figs. 11-13. "WEST COAST OF DAVIS' STRAIT."

Sabinea (*Crangon*) *septemcarinata* Kröyer, Naturh. tidssk., 1842, vol. 4, p. 244, pl. 4, figs. 34-40, pl. 5, figs. 41-44.

THORACOSTRACA.

DECAPODA.

CRAGONIDAE.

ME.— Casco Bay; off Casco Bay; 8 miles south of Monhegan.

N. H.— Off Isles of Shoals.

MASS.— Off Cape Ann; Mass. Bay; off Cape Cod.

Georges Bank.

15 to 70 fathoms.

55. *SABINEA SARSII* Smith.

Sabinea sarsii Smith, Trans. Conn. acad. sci., 1879, vol. 5, p. 59, pl. 11, figs. 6-8. "ST. GEORGE'S BANKS *** GULF OF MAINE *** LE HAVE BANK *** LOFOTEN ISLANDS."

Gulf of Maine, 112 fms.; off Georges Bank, 83-150 fms.

HIPPOLYTIDAE.

56. *CARIDION GORDONI* (Bate).

Hippolyte gordonii Bate, Nat. hist. review, 1858, vol. 5, p. 51, 4 wood-cuts, (full name in index, p. IV). "MORAY FRITH."

Doryphorus gordonii Norman, Ann. mag. nat. hist., 1861 (3), vol. 8, p. 277, pl. 13, figs. 6 and 7.

From Bay of Fundy to Cape Cod, 27-110 fms.

57. *LATREUTES ENSIFERUS* (Milne Edwards).

Hippolyte ensiferus Milne Edwards, Hist. nat. Crust., 1837, vol. 2, p. 374. "EN HAUTE MER, PRÈS DES AÇORES."

Latreutes ensiferus Bate, Challenger rept., zool., 1888, vol. 24, p. 538, pl. 184, fig. 1.

A gulf stream species.

MASS.— Vineyard Sound, surface.

58. *HIPPOLYTE ZOSTERICOLA* (Smith).

Virbius zostericola Smith, Rept. U. S. commr. of fish & fish-

THORACOSTRACA.

DECAPODA.

HIPPOLYTIDAE.

eries, pt. 1, for 1871-1872 (1873), p. 550 [256], pl. 3, fig. 11.
 "AMONG EEL-GRASS ABOUT VINEYARD SOUND."

MASS.—Davis Neck Beach, Falmouth; Vineyard Sound; Woods Hole; Hadley Harbor, Naushon; Quissett Harbor.

59. SPIRONTOCARIS GROENLANDICA (J. C. Fabricius).

Astacus groenlandicus J. C. Fabricius, Syst. Entom., 1775, p. 416. "IN MARI GROENLANDICO."

Hippolite armata Owen, in Zool. Capt. Beechey's voyage [of the Blossom], Crust., 1839, p. 88, pl. 27, fig. 2 (♀).

Hippolite cornuta Owen, *op. cit.*, 1839, p. 89, pl. 28, fig. 2 (♂).

From Eastport, Me., to Narragansett Bay, R. I. 1-72 fathoms.

60. SPIRONTOCARIS SPINA (Sowerby).

Cancer spinus Sowerby, British Miscellany, 1805, vol. 1, p. 47, pl. 23. "AMONG OYSTERS ON THE SCOTTISH COAST."

Spirontocaris spina Rathbun, Harriman Alaska Exped., 1904, vol. 10, p. 63, pl. 3, fig. 5, text fig. 19.

From Bay of Fundy to Cape Cod. 5-90 fms.

61. SPIRONTOCARIS LILJEBORGHII (Danielssen).

Hippolyte liljeborgii Danielssen, Nyt mag. f. naturvid., 1859, vol. 11, p. 5. "SLOTHOLMEN, (LOFOTEN) * * * 40 FAVNE." Danielssen and Boeck, Nyt mag. f. naturvid., 1872, vol. 19, p. 196 [8], plate, figs. 15-20.

ME.—Off Casco Bay.

Gulf of Maine; Georges Bank.

MASS.—Massachusetts Bay; off Cape Cod; off Marthas Vineyard and Nantucket.

25 to 640 fathoms.

THORACOSTRACA.

DECAPODA.

HIPPOLYTIDAE.

62. SPIRONTOCARIS PHIPPSII (Krøyer).

Hippolyte phipp sii Krøyer, Naturh. tidssk., 1841, vol. 3, p. 575 (♂); K. Danske vid. selsk. naturv. math. afhand., 1842, vol. 9, p. 314, pl. 3, figs. 64-68 (♂). "SPITSBERGEN, NORGES VESTKYST (OG GRØNLAND?)"

Hippolyte turgida Krøyer, Naturh. tidssk., 1841, vol. 3, p. 575 (♀); K. Danske vid. selsk. naturv. math. afhand., 1842, vol. 9, p. 308, pl. 2, figs. 57 and 58, pl. 3, figs. 59-63 (♀).

From Eastport, Maine, to Cape Cod. 8 to 125 fathoms.

63. SPIRONTOCARIS POLARIS (Sabine).

Alpheus polaris Sabine, Suppl. append. Parry's [first] voy., 1824, p. ccxxxviii, pl. 2, figs. 5-8. "FIFTY FATHOMS' DEPTH, ON THE COAST OF MELVILLE ISLAND."

Hippolite borealis James C. Ross, in John Ross, Append. narr. second voyage in search of a north-west passage, 1835, p. lxxxiv, pl. B, fig. 3 (♂).

Hippolite polaris James C. Ross, *op. cit.*, p. lxxxv (♀).

From Bay of Fundy to Cape Cod. 10 to 218 fathoms.

64. SPIRONTOCARIS FABRICII (Krøyer).

Hippolyte fabricii Krøyer, Naturh. tidssk., 1841, vol. 3, p. 571. "GRØNLAND." K. Danske vid. selsk. naturv. math. afhand., 1842, vol. 9, p. 277, pl. 1, figs. 12-20.

From Eastport, Me., to Cape Cod. Low water to 64 fathoms.

65. SPIRONTOCARIS GAIMARDII (Milne Edwards).

Hippolyte gaimardii Milne Edwards, Hist. nat. Crust., 1837, vol. 2, p. 378. "LES MERS D'ISLANDE." Krøyer, K. Danske vid. selsk. naturv. math. afhand., 1842, vol. 9, p. 282, pl. 1, figs. 21-29.

THORACOSTRACA.

DECAPODA.

HIPPOLYTIDAE.

ME.—Eastport; Casco Bay.

MASS.—Massachusetts Bay.

Low water to 30 fathoms.

66. SPIRONTOCARIS PUSIOLA (Kröyer).

Hippolyte pusiola Kröyer, K. Danske vid. selsk. naturv. math. afhand., 1842, vol. 9, p. 319, pl. 3, figs. 69-73. "KRISTIANSUND," FEW FATHOMS.

From Bay of Fundy to Connecticut. 2-90 fms.

PANDALIDAE.

67. PANDALUS BOREALIS Kröyer.

Pandalus borealis Kröyer, Naturh. tidssk., 1838, vol. 2, p. 254. "GROENLANDIA": SYDPRÖVEN, JULIANEHAAB, FISKENAESSET, &c. In Gaimard, Voyages en Scandinavie, en Laponie, au Spitzberg, etc., Zool., Crust., 1846 (?), pl. 6, fig. 2.

From Maine to Cape Cod. 40 to 160 fathoms.

68. PANDALUS MONTAGUI Leach.

Pandalus montagui Leach, Edinb. Encyc., 1814, vol. 7, p. 432. "ZETLAND."

Pandalus annulicornis Leach, Mal. Podoph. Brit., 1815, pl. 40, and accompanying text.

From Bay of Fundy to off Newport, R. I. 10 to 430 fathoms.

69. PANDALUS LEPTOCERUS Smith.

Pandalus leptocerus Smith, Proc. U. S. Nat. Mus., 1881, vol. 3, p. 437. FROM NOVA SCOTIA TO RHODE ISLAND, SHALLOW WATER TO 430 FATHOMS. A. Milne Edwards, Recueil planches expéd. Travailleux, 1883, pl. 22.

THORACOSTRACA.

DECAPODA.

PANDALIDAE.

From Casco Bay, Me., to R. I. Shallow water to 155 fathoms.

70. PANDALUS PROPINQUUS G. O. Sars.

Pandalus propinquus G. O. Sars, Forh. vid.-selsk. Christiania, 1869 (1870), p. 148 [4]. "SKRAAVEN" LOFOTEN, 200-300 FATHOMS. *Op. cit.*, 1871 (1872), p. 259 [16].

MASS.—Off Cape Cod, 116-118 fms.; off Martha's Vineyard and Nantucket, 158-640 fms.

Georges Bank, 122-304 fms.

OPLOPHORIDAE.

71. ACANTHEPHYRA AGASSIZII (Smith).

Miersia agassizii Smith, Bull. mus. comp. zoöl., 1882, vol. 10, p. 67, pl. 11, figs. 5-7, pl. 12, figs. 1-4. "BLAKE" STATIONS 305, 323, 330 [FROM GEORGES BANK TO CAPE HATTERAS, 457-1047 FMS.]

Acanthephyra agassizii Smith, Rept. U. S. commr. of fish & fisheries, pt. 10, for 1882 (1884), p. 372, pl. 8, fig. 1.

Georges Bank, 105-810 fathoms.

PALAEMONIDAE.

72. PALAEMONETES VULGARIS (Say).

Common shrimp or prawn.

Palaemon vulgaris Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 248. "INHABITS BAYS AND ESTUARIES. * * * FOUND AS FAR SOUTH AS EAST FLORIDA."

Palaemonetes vulgaris Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 550 [256], pl. 2, fig. 9.

THORACOSTRACA.

DECAPODA.

PALAEMONIDAE.

Muddy shores and in brackish water among eel-grass.

N. H.—Hampton.

MASS.—From Salem southward.

R. I.

CONN.

PASIPHAEIDAE.

73. PASIPHAEA TARDA Kröyer.

Pasiphaea tarda Kröyer, Naturh. tidssk., 1845 (2), vol. 1, p. 453. "SYDLIGE GRØNLAND." Smith, Trans. Conn. acad. sci., 1879, vol. 5, p. 88, pl. 10, fig. 1.

MASS.—Southeast of Cape Ann, 140–175 fms.; Cape Cod Bay, 14 fms.; off Cape Cod, 116–122 fms.

SCHIZOPODA.

Op ossum shrimps.

EUPHAUSIIDAE.

74. RHODA INERMIS (Kröyer).

Kril.

Thysanopoda inermis Kröyer, in Gaimard, Voyages en Scandinavie, en Laponie, au Spitzberg, etc., Zool., Crust., 1846 (?), pl. 7, fig. 2 a–t. Locality not specified. K. Danske vid. selsk. skr., naturv. math. afd., 1856 (5), vol. 4, p. 294, pl. 5, fig. 24.

From Bay of Fundy to Vineyard Sound. Surface and 40 to 107 fathoms.

75. NYCTIPHANES NORVEGICA (M. Sars).

Thysanopoda norvegica M. Sars, Forh. ved de Skand. naturf. 1856 (1857), vol. 7, p. 169. ISLAND OF FLORÖ IN SÖNDFJORD

THORACOSTRACA.

SCHIZOPODA.

EUPHAUSIIDAE.

SWIMMING ALMOST AT SURFACE; AND AT MANGER FROM MOUTH OF *Sebastes norvegicus* WHICH LIVES BETWEEN 40 TO 50 FATHOMS AND 100 TO 120 FATHOMS.

From Bay of Fundy to Cape Cod. Surface and $26\frac{1}{2}$ to 160 fathoms.

MYSIDAE.

76. *MYSIS MIXTA* Lilljeborg.

Mysis mixta Lilljeborg [Lilljeborg], Öfver. k. vet.-akad. förh., Stockholm, 1852 (1853), vol. 9, pp. 3 and 6. "KULLABERG IN SCANIA."

? *Mysis latitans* Kröyer, Naturh. tidssk., 1861 (3), vol. 1, p. 30, pl. 1, fig. 4.

From Bay of Fundy to Cape Cod Bay. 20 to 90 fathoms.

77. *MYSIS STENOLEPIS* Smith.

Mysis stenolepis Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 551 [257], pl. 3, fig. 12. "(♂) NEW HAVEN, CONN. *** (♀) VINEYARD SOUND *** WOOD'S HOLE."

On muddy shores especially among eel-grass; also from 7 to 30 fathoms.

ME. — Casco Bay.

MASS. — Gloucester; Provincetown; Vineyard Sound; Buzzards Bay.

CONN. — Noank; New Haven.

78. *MYSIS AMERICANA* Smith.

Mysis americana Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 552 [258]. "BEESLEY'S POINT, NEW JERSEY; NEW HAVEN, CONNECTICUT ***; OFF VINEYARD SOUND."

THORACOSTRACA.

SCHIZOPODA.

MYSIDAE.

Among algae and in stomachs of fish. Below low-water mark to 30 fathoms.

ME.—Portland Harbor; Casco Bay.

MASS.—Salem; Vineyard Sound.

R. I.—Block Island Sound.

CONN.—New Haven.

79. HETEROMYSIS FORMOSA Smith.

Heteromysis formosa Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 553 [259]. Locality not specified. Norman, Ann. mag. nat. hist., 1892 (6), vol. 10, p. 158, pl. 9, figs. 6-11.

Rocky bottoms of bays and sounds, sometimes in dead shells.

MASS.—Haste Island, Salem; Nantucket Sound, 18 fms.; Vineyard Sound and Buzzards Bay, surface, and low water to 10 fms.

CONN.—Tide-pool at Thimble Islands; mouth of New Haven Harbor; New Haven.

80. ERYTHROPS GOËSI (G. O. Sars).

Nematopus goësi G. O. Sars, Nyt mag. f. naturvid., 1866, vol. 15, p. 96. "HABITAT IN SINU LANGESUNDENSI IN PROF. 50 ORGYARUM SAT FREQVENS."

Erythrops goësi G. O. Sars, Carcinologiske bidrag til Norges, Fauna, I, Mysider, 1870, pt. 1, p. 24, pl. 1.

MASS.—Off Salem, 20 to 48 fathoms.

81. PARERYTHROPS ROBUSTA (Smith).

Meterythrops robusta Smith, Trans. Conn. acad. sci., 1879 vol. 5, p. 93, pl. 12, figs. 1-2. "OFF SALEM, 33 FATHOMS *** OFF BAY OF CHALEURS, GULF OF ST. LAWRENCE!, 50 AND 70 FATHOMS."

THORACOSTRACA.

SCHIZOPODA.

MYSIDAE.

Parerythropros robusta G. O. Sars, Carcinologiske bidrag til Norges Fauna, I, Mysider, 1879, pt. 3, p. 98, pl. 39.

MASS.—Off Salem, 33 fathoms.

82. *Pseudomma roseum* G. O. Sars.

Pseudomma roseum G. O. Sars, Forh. vid.-selsk. Christiania, 1869 (1870), p. 154 [10]. "SKRAAVEN" 200-300 FMS. Carcinologiske bidrag til Norges Fauna, I, Mysider, 1870, pt. 1, p. 54, pl. 4.

Near Jeffrey's Bank, Gulf of Maine, 105 fathoms, one specimen.

STOMATOPODA.

Mantis shrimps.

CHLORIDELLIDAE.

83. *Lysiosquilla armata* Smith.

Lysiosquilla armata Smith, Proc. U. S. nat. mus. for 1880 (1881) vol. 3, p. 446. [OFF MARTHAS VINEYARD] "STATION 865, 65 FATHOMS * * * 876, 120 FATHOMS * * * STOMACH OF LOPHOLATILUS." Bigelow, Proc. U. S. nat. mus., 1894, vol. 17, p. 507.

MASS.—From stomach of flounder, southwest of Gay Head, 17 to 27 fathoms (determination doubtful); off Marthas Vineyard, 65 and 120 fathoms.

84. *Lysiosquilla scabricauda* (Lamarek).

Squilla scabricauda Lamarek, Hist. nat. anim. sans vert., 1818, vol. 5, p. 188. "L'Océan Indien."

MASS.—Vineyard Sound, surface.

85. *Chloridella empusa* (Say).

Squilla empusa Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 250. "COAST OF RHODEISLAND."

THORACOSTRACA.

STOMATOPODA.

CHLORIDELLIDAE.

Squilla empusa De Kay, Nat. hist. New York, pt. 6, Crust., 1844, p. 32, pl. 13, fig. 54.

Burrows in mud near low-water mark. Beach to 12 fathoms.
MASS.—Woods Hole; Vineyard Sound; Acushnet River;
New Bedford; Buzzards Bay.

R. I. (Say).—Providence River; Narragansett Bay.

CONN.—Stonington; New Haven.

CUMACEA.

LAMPROPIDAE.

86. LAMPROPS QUADRIPLICATA Smith.

Lamprops quadriplicata Smith, Trans. Conn. acad. sci., 1879, vol. 5, p. 118. "GLOUCESTER HARBOR!, MASSACHUSETTS, 7 TO 10 FATHOMS *** CASCO BAY!, *** SURFACE."

ME.—Casco Bay, surface.

MASS.—Gloucester Harbor, 7 to 10 fathoms.

LEUCONIDAE.

87. LEUCON NASICOIDES Lilljeborg.

Leucon nasicoïdes Lilljeborg [Lilljeborg], Öfvers. k. vet.-akad. förh., Stockholm, 1855 (1856), vol. 12, p. 122. "KULLABERG." G. O. Sars, Crust. Norway, 1900, vol. 3, p. 31, pl. 23.

ME.—Eastport.

88. EUDORELLA HISPIDA G. O. Sars.

Eudorella hispida G. O. Sars, Öfvers. k. vet.-akad. förh., Stockholm, 1871 (1872), vol. 28, p. 80. "IN PROF. 30-35 ORGYAR. LATIT. 39° 54' SEPT., LONGIT. 73° 15' OCCID." K. Svenska vet.-akad. handl., 1870 (1871), n. s., vol. 9, no. 13, p. 49, pl. 18, figs. 95-97.

ME.—Bay of Fundy; Casco Bay; off Casco Bay.

MASS.—Off Cape Ann; Salem Harbor.

Surface and 1 to 54 fathoms.

THORACOSTRACA.

CUMACEA.

LEUCONIDAE.

89. EUDORELLA PUSILLA G. O. Sars.

Eudorella pusilla G. O. Sars, Öfvers. k. vet.-akad. förh., Stockholm, 1871 (1872), vol. 28, p. 79. "EXTRA SHINNICOCKBAY AMERICÆ BOREALIS IN PROF. 18 ORGYAR., FUNDO ARGILLACEO." K. Svenska vet.-akad. handl., 1870 (1871), n. s., vol. 9, no. 13, p. 46, pls. 16 and 17, figs. 76-94.

ME.— Bay of Fundy; Casco Bay.

MASS.— Off Gloucester.

R. I.— Block Island Sound.

1 to 25 fathoms.

90. EUDORELLOPSIS DEFORMIS (Kröyer).

Leucon deformis Kröyer, Naturh. tidssk., 1846 (2), vol. 2, pp. 194 and 209, pl. 2, fig. 4. SOUTHERN GREENLAND.

Eudorellopsis deformis G. O. Sars, Crust. Norway, 1900, vol. 3, p. 40, pls. 31 and 32.

MASS.— Off Gloucester, 25 fathoms.

DIASTYLIDAE.

91. DIASTYLIS LUCIFERA (Kröyer).

Cuma lucifera Kröyer, Naturh. tidssk., 1841, vol. 3, pp. 527 and 531, pl. 6, figs. 34-35. "SYDLIGE KATTEGAT."

Diastylis lucifera G. O. Sars, Crust. Norway, 1900, vol. 3, p. 49, pl. 38.

ME.— Bay of Fundy, off Head Harbor. 60 to 77 fathoms.

92. DIASTYLIS SCULPTA G. O. Sars.

Diastylis sculpta G. O. Sars, Öfvers. k. vet.-akad. förh., Stockholm, 1871 (1872), vol. 28, p. 71. "EXTRA SHINNICOCKBAY AMERICÆ BOREALIS IN PROFUNDITATE 18 ORGYARUM FUNDO

THORACOSTRACA.

CUMACEA.

DIASTYLIDAE.

ARGILLACEO." K. Svenska vet.-akad. handl., 1870 (1871), n. s., vol. 9, no. 13, p. 24, pls. 1-9, figs. 1-49.

ME.— Bay of Fundy; Casco Bay.

MASS.— Gloucester Harbor; off Cape Ann; Vineyard Sound.

R. I.— Off Watch Hill; Block Island Sound.

Surface; low water to 60 fathoms.

93. *DIASTYLIS QUADRISPINOSA* G. O. Sars.

Diastylis quadrispinosa G. O. Sars, Öfvers. k. vet.-akad. förh., Stockholm, 1871 (1872), vol. 28, p. 72. "IN PROF. 30-35 ORG. LATITUD. 39° 54' SEPT., LONGIT. 73° 15' OCCID. GREENW., FUNDO ARGILLACEO, NEC NON EXTRA SHINNICOCKBAY IN PROF. 18 ORG." Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 554 [260], pl. 3, fig. 13.

ME.— Bay of Fundy; Casco Bay.

GULF OF MAINE.— Jeffreys Ledge.

MASS.— Between Cape Ann and Isles of Shoals; off Cape Ann; off Salem; Vineyard Sound, off Tarpaulin Cove; off Marthas Vineyard; Southwest Ledge; off Buzzards Bay.

R. I.— Off Watch Hill; Block Island Sound.

2 to 68 fathoms.

94. *DIASTYLIS ABBREVIATA* G. O. Sars.

Diastylis abbreviata G. O. Sars, Öfvers. k. vet.-akad. förh., Stockholm, 1871 (1872), vol. 28, p. 74. "IN PROF. 30-35 ORG. LAT. 39° 54', LONG. 73° 15' FUNDO ARGILLACEO." K. Svenska vet.-akad. handl., 1870 (1871), n. s., vol. 9, no. 13, p. 30, pl. 12, figs. 62-64.

ME.— Casco Bay.

MASS.— Off Cape Ann.

17 to 35 fathoms.

THORACOSTRACA.

CUMACEA.

DIASTYLIDAE.

95. *DIASTYLIS POLITA* Smith.

Diastylis politus Smith, Trans. Conn. acad. sci., 1879, vol. 5, p. 108. "VINEYARD SOUND * * * GLOUCESTER * * * CASCO BAY * * * TRENTON BAY * * * HALIFAX * * * 120 MILES SOUTH OF HALIFAX * * * NORTHUMBERLAND STRAITS, GULF OF ST. LAWRENCE."

ME.—Trenton Bay; Casco Bay.

MASS.—Gloucester; Vineyard Sound.

Surface, and 7 to 10 fathoms.

96. *LEPTOSTYLIS AMPULLACEA* (Lilljeborg).

Cuma ampullacea Lilljeborg [Lilljeborg], Öfvers. k. vet.-akad. förh., Stockholm, 1855 (1856), vol. 12, p. 120. "KULLABERG."

Leptostylis ampullacea G. O. Sars, Crust. Norway, 1900, vol. 3, p. 70, pl. 50, fig. 1.

Gulf of Maine, near Cashes Ledge, 52 to 90 fathoms.

97. *LEPTOSTYLIS LONGIMANA* (G. O. Sars).

Diastylis longimana G. O. Sars, Förh. vid.-selsk. Christiania 1864 (1865), p. 173. "IN SINU CHRISTIANIENSI INQVE FRETU DRØBAKIENSI PROF. 20-30 ORGYAR."

Leptostylis longimana G. O. Sars, Crust. Norway, 1900, vol. 3, p. 68, pl. 48.

ME.—Casco Bay.

CAMPYLASPIDAE.

98. *CAMPYLASPIS RUBICUNDA* (Lilljeborg).

Cuma rubicunda Lilljeborg [Lilljeborg], Öfvers. k. vet.-akad. förh., Stockholm, 1855 (1856), vol. 12, p. 121. "KULLABERG."

Campylaspis rubicunda G. O. Sars, Crust. Norway, 1900, vol. 3, pp. 84 & 108, pls. 56 & 57.

ME.—Casco Bay, in stomach of common flounder.

MASS.—Off Cape Ann, 35 fathoms.

ARTHROSTRACA.

ISOPODA.

TANAIDAE.

99. TANAIIS CAVOLINII Milne Edwards.

Tanais cavolinii Milne Edwards, Hist. nat. Crust., 1840, vol. 3, p. 141, pl. 3, fig. 6. "LE GOLFE DE NAPLES."

Tanais vittatus Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 418, pl. 13, figs. 81-82.

On piles and among algae and eel-grass.

CONN.—Noank.

100. LEPTOGNATHIA COECA (Harger).

Paratanais coeca Harger, Amer. journ. sci., 1878 (3), vol. 15, p. 378. "FORTY-EIGHT FATHOMS. MASSACHUSETTS BAY, OFF SALEM."

Leptocheilia coeca Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 427, pl. 13, fig. 91.

MASS.—Off Salem, 48 fathoms; Provincetown.

101. HETEROTANAIIS LIMICOLA (Harger).

Paratanais limicola Harger, Amer. journ. sci., 1878 (3), vol. 15, p. 378. "FORTY-EIGHT FATHOMS. MASSACHUSETTS BAY, OFF SALEM."

Leptocheilia limicola Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 424, pl. 13, figs. 87 & 88.

MASS.—Off Salem, 48 fathoms.

102. LEPTOCHELIA RAPAX Harger.

Leptocheilia rapax Harger, Proc. U. S. nat. mus., 1879, vol. 2, p. 163. "ANNISQUAM, MASS." Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 424, pl. 13, figs. 89 & 90.

MASS.—Annisquam, 3 feet, on muddy bottom.

ARTHROSTRACA.

ISOPODA.

TANAIDAE.

103. LEPTOCHELIA SAVIGNYI (Kröyer).

Tanais savignyi Kröyer, Naturh. tidssk., 1842, vol. 4, p. 168, pl. 2, figs. 1-12. "MADERA," ABOUT 15 FATHOMS.

Leptochelia algicola Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 421, pl. 12, fig. 80, pl. 13, figs. 83-86.

Among eel-grass, in old piles, etc. Surface to 3 feet.

MASS.—Provincetown; Woods Hole.

CONN.—Noank.

GNATHIIDAE.

104. GNATHIA CERINA (Stimpson).

Praniza cerina Stimpson, Mar. invert. Grand Manan, 1853, p. 42, pl. 3, fig. 31. "20-30 FATHOMS IN THE HAKE BAY," [GRAND MANAN].

Gnathia cerina Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 410, pl. 12, figs. 75-79.

From Bay of Fundy to Massachusetts Bay. 10 to 60 fathoms.

ANTHURIDAE.

105. ANTHURA TENUIS (Harger).

Ptilanthura tenuis Harger, Amer. journ. sci., 1878 (3), vol. 15, p. 377. "NEW ENGLAND COAST FROM NOANK HARBOR, CONN., TO CASCO BAY, MAINE." Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 406, pls. 11 & 12, figs. 71-74.

ME.—Casco Bay.

MASS.—Waquoit.

R. I.—Off Block Island; Watch Hill.

CONN.—Noank Harbor.

Low water to 19½ fathoms.

ARTHROSTRACA.

ISOPODA.

ANTHURIDAE.

106. *CYATHURA CARINATA* (Kröyer).

Anthura carinata Kröyer, Naturh. tidssk., 1847 (2), vol. 2, p. 402. "I ÖRESUNDET VED KJØBENHAVN (KALLEBOD STRAND)." Schioedte, Naturh. tidssk., 1875, (3) vol. 10, p. 211, pl. 4, figs. 1-14.

In eel-grass or mud. Low water to $19\frac{1}{2}$ fathoms.

MASS.— Gloucester; Squam Estuary; Vineyard Sound.

R. I.— Off Block Island; East Providence.

CONN.— Noank Harbor and other localities.

107. *CALATHURA BRACHIATA* (Stimpson).

Anthura brachiata Stimpson, Mar. invert. Grand Manan, 1853, p. 43. "TWENTY FATHOMS OFF THE NORTHERN POINT OF DUCK ISLAND" [GRAND MANAN].

Paranthura brachiata Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 402, pl. 11, fig. 70.

ME.— Bay of Fundy; Casco Bay.

Gulf of Maine; Jeffreys Bank; Georges Bank.

MASS.— Vineyard Sound.

20 to 115 fathoms.

CIROLANIDAE.

108. *CIROLANA CONCHARUM* (Stimpson).

Aega concharum Stimpson, Mar. invert. Grand Manan, 1853, p. 42. "CHARLESTON, S. C., HARBOR."

Cirolana concharum Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 378, pls. 9 & 10, figs. 58-63.

MASS.— Eel-pond, Woods Hole; Vineyard Sound; Muskeget Channel; off Marthas Vineyard.

R. I.— Off Block Island, near eastern end of Long Island Sound.

Shallow water to 45 fathoms.

ARTHROSTRACA.

ISOPODA.

CIROLANIDAE.

109. CIROLANA POLITA (Stimpson).

Aega polita Stimpson, Mar. invert. Grand Manan, 1853, p. 41.
 "LOW-WATER MARK ON HIGH DUCK ISLAND" [GRAND MANAN].

ME.—Eastport.

MASS.—Salem; near Swampscott; Cape Cod Bay.

Georges Bank.

Low-water to 150 fathoms.

AEGIDAE.

110. AEGA PSORA (Linné).

Salve-bug.

Oniscus psora Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 636.
 "HABITAT IN MARI NORVEGICO."

Aega psora Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 384, pl. 10, fig. 64.

On cod, skate and halibut. 40 to 150 fathoms.

MASS.—Beverly; Provincetown; off Marthas Vineyard.

Gulf of Maine; Georges Bank.

111. ROCINELA AMERICANA Schioedte and Meinert.

Rocinela americana Schioedte and Meinert, Naturh. tidssk., 1879 (3), vol. 12, p. 394, pl. 10, figs. 16-18. "IRESTON AMERICAE SEPTENTRIONALIS." Ireston is an error for Trenton. Harger, Bull. mus. comp. zool., 1883, vol. 11, p. 98, pl. 3, figs. 3, 3a, and 4, pl. 4, figs. 2, 2a.

ME.—Trenton.

112. SYSCENUS INFELIX Harger.

Syscenus infelix Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 387. "ABOUT FIFTEEN MILES NORTH-

ARTHROSTRACA.

ISOPODA.

AEGIDAE.

EAST OF CAPE COD!, IN 130 FATHOMS." Bull. mus. comp. zoöl., 1883, vol. 11, p. 100, pl. 3, figs. 5, 5a, pl. 4, figs. 3-3h.

MASS.—15 miles northeast of Cape Cod, 130 fathoms.

CYMOTHOIDAE.

113. AEGATHOA LOLIGINEA Harger.

Aegathoa loliginea Harger, Amer. journ. sci., 1878 (3), vol. 15, p. 376. "SAVIN ROCK, NEAR NEW HAVEN, FROM THE MOUTH OF A SQUID (*Loligo Pealii*).” Rept. U. S. commr. of fish & fisheries, pt. 6 for 1878 (1880), p. 393, pl. 10, fig. 66.

CONN.—Savin Rock, near New Haven.

114. NEROCILA MUNDA Harger.

Nerocila munda Harger, Rept. U. S. commr. of fish and fisheries, pt. 1, for 1871-1872 (1873), p. 571 [277]. "ON THE DORSAL FIN OF *Ceratacanthus aurantiacus*.” [AT WOODS HOLE, VINEYARD SOUND.] Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 392, pl. 10, fig. 65.

MASS.—Vineyard Sound and Woods Hole, on file-fish.

115. CYMOTHOA EXCISA Perty.

Cymothoa excisa Perty, in Spix and Martius, Del. animal. artic. Brasil., 1830-1834, p. 211, pl. 40, fig. 11. "HABITAT PROPE SEBASTIANOPOLIN.” Schioedte and Meinert, Naturh. tidssk., 1884, vol. 14, p. 238, pl. 6, figs. 11-16.

MASS.

116. LIVONECA OVALIS (Say).

Cymothoa ovalis Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 394. "INHABITS THE MOUTHS OF PERCÆ, &C.”

ARTHROSTRACA.

ISOPODA.

CYMOTHOIDAE.

Livoneca ovalis Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 572 [278]; *op. cit.*, pt. 6, for 1878 (1880), p. 395, pl. 11, fig. 67.

From scup and bluefish.

MASS.—Vineyard Sound.

CONN.—Thimble Islands; New Haven.

LIMNORIIDAE.

117. LIMNORIA LIGNORUM (Rathke).

Gribble.

Cymothoa lignorum Rathke, Skrivt. naturh. selsk., 1799, vol. 5, pt. 1, p. 101, pl. 3, fig. 14. [WESTERN COAST OF NORWAY FROM BERGEN TO NORDLAND.]

Limnoria lignorum Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 571 [277], pl. 6, fig. 25.

Burrows in wood.

From Bay of Fundy to western end of Long Island Sound; to a depth of 10 fathoms.

SPHAEROMIDAE.

118. SPHAEROMA QUADRIDENTATUM Say.

Sphaeroma quadridentata Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 400. "COAST OF GEORGIA AND OF EAST FLORIDA." Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 569 [275], pl. 5, fig. 21.

Under stones and rocks and on seaweeds.

MASS.—Provincetown.

Common on southern shore of New England.

ARTHROSTRACA.

ISOPODA.

IDOTHEIDAE.

119. CHIRIDOTEA COECA (Say).

Idotea coeca Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 424. "COAST OF THE UNITED STATES."

Chiridotea coeca Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 338, pl. 4, figs. 16-19.

On sandy beaches, below high tide, or burrows just under the surface; also swims with facility.

MASS.—Nahant; Cohasset; Provincetown; Vineyard Sound; Tarpaulin Cove, Naushon; Nantucket.

CONN.—New Haven and other localities.

120. CHIRIDOTEA TUFTSH (Stimpson).

Idotea tuftsii Stimpson, Mar. invert. Grand Manan, 1853, p. 39. "DREDGED ON A SANDY BOTTOM IN 10 FATHOMS, OFF CHENEY'S HEAD" [GRAND MANAN].

Chiridotea tuftsii Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 340, pls. 4 & 5, figs. 20-23.

ME.—Eastport; Casco Bay.

MASS.—Gloucester Harbor; off Boston Harbor; Stellwagen Bank.

CONN.—Off New London.

Low water to 17 fathoms.

121. IDOTHEA MARINA (Linné).

Oniscus marinus Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 637. "IN OCEANO NORVEGICO."

Idotea irrorata Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 569 [275], pl. 5, fig. 23.

Among algae, stones, etc. Low water to 10 fathoms.

From Bay of Fundy to western end of Long Island Sound.

ARTHROSTRACA.

ISOPODA.

IDOTHEIDAE.

122. IDOTHEA PHOSPHOREA (Harger).

Idotea phosphorea Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 569 [275]. "LONG ISLAND SOUND TO BAY OF FUNDY." *Op. cit.*, pt. 6, for 1878 (1880), p. 347, pl. 5, figs. 27-29.

Among rocks and seaweed. Surface, and from 1 to 30 fathoms. From Bay of Fundy to western end of Long Island Sound.

123. IDOTHEA METALLICA (Bosc).

Idotea metallica Bosc, Hist. nat. Crust., 1802, vol. 2, p. 179, pl. 15, fig. 6. "SE TROUVE DANS LA HAUTE MER."

Idotea robusta Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 569 [275], pl. 5, fig. 24.

Pelagic.

ME.—Between Boon Island and Matinicus Rocks.

Georges Bank.

MASS.—Vineyard Sound; Nantucket Shoals; off Marthas Vineyard and No Mans Land.

R. I.—Off Newport.

124. SYNIDOTEA NODULOSA (Kröyer).

Idothea nodulosa Kröyer, Naturh. tidssk., 1846 (2), vol. 2, p. 100. SOUTHERN GREENLAND.

Synidotea nodulosa Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 351, pl. 6, figs. 33-35.

Georges Bank.

125. ERICHSONELLA ATTENUATA (Harger).

Erichsonia attenuata Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 570 [276], pl. 6 fig. 27. "GREAT EGG HARBOR, NEW JERSEY, * * * NEW HAVEN,¹ CONNECTICUT."

¹ After his original citation, Harger does not mention New Haven but Noank; therefore the former may be an error.

ARTHROSTRACA.

ISOPODA.

IDOTHEIDAE.

On eel-grass.

CONN.—Noank; New Haven.

126. ERICHSONELLA FILIFORMIS (Say).

Stenosoma filiformis Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 424. "EGG-HARBOUR."

Erichsonia filiformis Harger, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 570 [276], pl. 6, fig. 26.

In tide-pools and among algae to 7 fathoms.

ME.—Casco Bay (?).

MASS.—Vineyard Sound; Nantucket Sound.

Long Island Sound.

127. EDOTEA TRILOBA (Say).

Idotea triloba Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 425. "EGG-HARBOUR."

Epelys trilobus Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 571 [277], pl. 6, fig. 28.

ME.—Quahog Bay, about 30 miles northeast of Portland.

MASS.—Gloucester; near Cape Cod; Provincetown; Vineyard Sound.

CONN.—Noank; Savin Rock, near New Haven.

128. EDOTEA MONTOSA (Stimpson).

Idotea montosa Stimpson, Mar. invert. Grand Manan, 1853, p. 40. "TAKEN IN DEEP WATER ON SANDY AND MUDDY BOTTOMS" [AT GRAND MANAN].

Epelys montosus Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 359, pl. 8, figs. 44-47.

From Bay of Fundy to Long Island Sound. 16 to 40 fathoms.

ARTHROSTRACA.

ISOPODA.

ARCTURIDAE.

129. *ASTACILLA GRANULATA* (G. O. Sars).

Leachia granulata G. O. Sars, Arch. math. nat., Kristiania, 1877, vol. 2, p. 351 [251]. LAT. 64° 9' N., LONG. 1° 48' E., 412 FMS., STA. 18; LAT. 64° 36' N., LONG. 10° 21.5' W., 299 FMS., STA. 48.

Astacilla granulata Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 364, pls. 8 & 9, figs. 48-52.

Georges Bank, on *Primnoa*.

Off Marthas Vineyard, 291-640 fathoms.

ASELLIDAE.

130. *ASELLUS COMMUNIS* Say.

Asellus communis Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 427. "A VERY COMMON SPECIES IN OUR FRESH WATERS, PARTICULARLY IN RIVULETS UNDER STONES. IT IS FREQUENTLY INTRODUCED WITH THE SCHUYLKILL WATER INTO PHILADELPHIA." Harger, in Smith, Rept. U. S. commr. of fish & fisheries, pt. 2, for 1872-1873 (1874), p. 657, pl. 1, fig. 4.

MASS.

R. I.—Carolina (determination doubtful).

CONN.—About New Haven.

JANIRIDAE.

131. *JAERA ALBIFRONS* Leach.

Jaera albifrons Leach, Edinb. encyc., 1814, vol. 7, p. 434. "INHABITS THE BRITISH SEA EVERYWHERE, UNDER STONES AND AMONGST FUCL." Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 315, pl. 1, figs. 4-8.

Among rocks, algae and rubbish, along shore.

Whole coast of New England.

ARTHROSTRACA.

ISOPODA.

JANIRIDAE.

132. JANIRA ALTA (Stimpson).

Asellodes alta Stimpson, Mar. invert. Grand Manan, 1853, p. 41, pl. 3, fig. 30. "DREDGED IN SOFT MUD IN 40 F., OFF LONG ISLAND, G. M."

Janira alta Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 321, pls. 2 & 3, figs. 9, 12 & 13.

From Bay of Fundy to Massachusetts Bay. Low water to 190 fathoms.

MUNNIDAE.

133. MUNNA FABRICI Kröyer.

Munna fabricii Kröyer, Naturh. tidssk., 1847 (2), vol. 2, p. 380. GODTHAAB, SOUTHERN GREENLAND, 50 FATHOMS. Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 325, pl. 3, fig. 14.

ME.—South Bay, Eastport; Casco Bay, near Portland.
Low water to 12 fathoms.

MUNNOPSISIDAE.

134. MUNNOPSIS TYPICA M. Sars.

Munnopsis typica M. Sars, Förh. vidensk.-selsk. Christiania, 1860 (1861), p. 84. "50-60 FAVNE VED CHRISTIANSUND." Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 330, pl. 2, fig. 11.

On muddy bottoms.

ME.—Bay of Fundy, between Head Harbor and the Wolves, 60 fathoms.

ARTHROSTRACA.

ISOPODA.

MUNNOPSIDAE.

135. *ILYARACHNA*, species, Harger.

Ilyarachna species, Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 335. "106 FATHOMS, GRAY MUD, 21 MILES EAST OF CAPE COD LIGHT."

Perhaps *I. hirticeps* G. O. Sars.

MASS.—21 miles east of Cape Cod Light, 106 fathoms.

ONISCIDAE.

Sow-bugs; Pill-bugs; Wood-lice.136. *ONISCUS ASELLUS* Linné.

Oniscus asellus Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 637. "HABITAT IN DOMBUS, MURIS, HYBERNACULIS, LIGNIS PUTRIDIS."

Oniscus murarius Cuvier, Journ. hist. nat., Paris, 1792, vol. 2 p. 22, pl. 26, figs. 11-13.

ME.—Freeport.

MASS.—Woods Hole.

R. I.—Providence.

137. *PHILOSCIA VITTATA* Say.

Philoscia vittata Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 429. "UNITED STATES." Harger, Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 306, pl. 1, fig. 1.

Under rubbish and stones.

MASS.—Barnstable; Vineyard Sound; Woods Hole.

CONN.—Stony Creek.

138. *PORCELLIO RATHKII* Brandt.

Porcellio rathkii Brandt, Bull. soc. imp. nat. Moscou, 1833, vol. 6, p. 177. "GERMANIA."

Porcellio trivittatus Lereboullet, Mém. soc. mus. hist. nat.

ARTHROSTRACA.

ISOPODA.

ONISCIDAE.

Strasbourg, 1853, vol. 4, p. 54, pl. 1, figs. 13 & 14, pl. 3, figs. 66-70.

ME.—Freeport.

MASS.—Lawrence; Lanesboro.

R. I.—Providence.

139. PORCELLIO SPINICORNIS Say.

Porcellio spinicornis Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 431. "NORTH AMERICA."

Porcellio pictus Brandt & Ratzeburg, Med. zool., Berlin, 1833, vol. 2, p. 78, pl. 12, figs. 5, 5e, 5f.

In damp cellars, etc.

CONN.—Goshen.

140. PORCELLIO SCABER Latreille.

Porcellio scaber Latreille, Hist. nat. Crust. Ins., an XII (1804), vol. 7, p. 45. "CETTE ESPÈCE SE TROUVE PLUS PARTICULIÈREMENT SUR LES MURS." Lereboullet, Mém. soc. mus. hist. nat. Strasbourg, 1853, vol. 4, p. 34, pl. 1, figs. 4 & 5, pl. 2, figs. 43-47.

ME.—Freeport.

MASS.—Lawrence; Woods Hole.

CONN.—West Haven.

141. PORCELLIO CONVEXUS (De Geer).

Oniscus (convexus) De Geer, Mém. pour servir à l'hist. des Insectes, 1778, vol. 7, p. 553, pl. 35, fig. 11. "DANS MA CHAMBRE."

Porcellio armadilloides Bate and Westwood, Brit. Sessile-eyed Crust., 1868, vol. 2, p. 485, 3 woodcuts.

MASS.—"Hab. in New England circa Mount Lebanon" (Stuxberg).

ARTHROSTRACA.

ISOPODA.

ARMADILLIDIDAE.

Sow-bugs; Pill-bugs; Wood-lice.

142. ARMADILLIDIUM VULGARE (Latreille).

Armadillo vulgare Latreille, Hist. nat. Crust. Ins., an XII (1804), vol. 7, p. 48. "IL EST TRÈS-COMMUN."

Armadillidium commutatum Brandt & Ratzeburg, Med. zool., Berlin, 1833, vol. 2, p. 81, pl. 13, figs. 1, 2, 3, A, B.

Under boards and stones, in gardens and cellars.

MASS.

R. I. — Providence.

LIGYDIDAE.

143. LIGYDA OCEANICA (Linné).

Oniscus oceanicus Linné, Syst. nat., ed. 12, 1767, vol. 1, pt. 2, p. 1061. "HABITAT IN OCEANO."

Ligia oceanica Kinahan, Nat. hist. rev., 1857, vol. 4, p. 279, pl. 20, figs. 7-10.

R. I. — Off Newport.

TRICHONISCIDAE.

144. ACTONISCUS ELLIPTICUS Harger.

Actoniscus ellipticus Harger, Amer. journ. sci., 1878 (3), vol. 15, p. 373. "AT SAVIN ROCK, NEAR NEW HAVEN, AND ALSO AT STONY CREEK." Rept. U. S. commr. of fish & fisheries, pt. 6, for 1878 (1880), p. 309, pl. 1, fig. 3.

CONN. — Savin Rock & Stony Creek.

145. SCYPHACELLA ARENICOLA Smith.

Scyphacella arenicola Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 568 [274]. "SOMERS'S

ARTHROSTRACA.

ISOPODA.

TRICHONISCIDAE.

AND BEESLEY'S POINTS, ON GREAT EGG HARBOR, NEW JERSEY." Harger, Rept. U. S. commr. of fish and fisheries, pt. 6, for 1878 (1880), p. 307, pl. 1, fig. 2.

Burrows in sand just above high-water mark.

MASS.—Nobska Beach, Vineyard Sound; Ram Island, Woods Hole Harbor; Nantucket.

BOPYRIDAE.

146. PHRYXUS ABDOMINALIS (Kröyer).

Bopyrus abdominalis Kröyer, Naturh. tidssk., 1840, vol. 3, pp. 102 & 289, pls. 1 & 2. MANY PLACES ON THE NORTH COAST OF NORWAY, BUT MOST FREQUENTLY AT KRISTIANSSUND (ABOUT 63° N.) ON *Hippolyte* (APPARENTLY *H. gaimardii*).

Phryxus abdominalis G. O. Sars, Crust. Norway, 1898, vol. 2, p. 215, pls. 90 & 91.

Parasitic on shrimps, *Spirontocaris spina*, *S. polaris*, *S. pusilla*, *S. liljeborgii*, *Pandalus borealis*, *P. montagui*, *P. leptocerus*.

ME.—Casco Bay.

Cashes Ledge, Gulf of Maine; Georges Bank.

MASS.—Off Salem; off Cape Cod.

18 to 90 fathoms.

147. STEGOPHRYXUS HYPTIUS Thompson.

Stegophryxus hyptius Thompson, Bull. U. S. fish comm., 1901, vol. 21, p. 53, pls. 9 & 10. "AT WOODS HOLE *** GREAT HARBOR *** HADLEY HARBOR *** EDGARTOWN *** WARWICK, RHODE ISLAND.

On *Pagurus longicarpus*.

MASS.—Great Harbor, Woods Hole; Hadley Harbor, Naushon; Edgartown, Marthas Vineyard.

R. I.—Warwick.

ARTHROSTRACA.

ISOPODA.

BOPYRIDAE.

148. BOPYROIDES HIPPOLYTES (Kröyer).

Bopyrus hippolytes Kröyer, K. Danske vid. selsk. natur. og math. afh., 1838, vol. 7, p. 306 [78], pl. 4, fig. 22. GREENLAND ON *Hippolyte polaris*.

Bopyroides hippolytes G. O. Sars, Crust. Norway, 1898, vol. 2, p. 199, pl. 84, fig. 2.

Parasitic on *Spirontocaris spina*, *S. fabricii*, *S. liljeborgii*, *S. polaris* and *S. pusiola*.

From Bay of Fundy to Cape Cod, 22 to 160 fathoms.

149. PROBOPYRUS PANDALICOLA (Packard).

Bopyrus pandalicola Packard, Zoology for students and general readers, 1879, p. 308, text-fig. 262. Locality not specified.

Probopyrus palaemoneticola Richardson, Proc. U. S. nat. mus., 1904, vol. 27, p. 66, figs. 41-43.

On *Palaemonetes vulgaris*.

Mass.—Acushnet River.

R. I.—East Providence.

150. IONE THOMPSONI Richardson.

Ione thompsoni Richardson, Proc. U. S. nat. mus., 1904, vol. 27, p. 75, text-figs. 64-68. "NORTH FALMOUTH, MASSACHUSETTS, *** ON *Callianassa stimpsoni*."

On *Callianassa stimpsoni*.

Mass.—North Falmouth.

AMPHIPODA.

VIBILIDAE.

151. VIBILIA VIATRIX Bovallius.

Vibilia viatrix Bovallius, K. Svenska vet.-akad. handl., 1886 (1887), vol. 11, p. 9. "ATLANTIC."

ARTHROSTRACA.

AMPHIPODA.

VIBILIDAE.

MASS.— Off Marthas Vineyard, surface. Doubtfully determined by Holmes.

R. I.— Off Newport.

HYPERIIDAE.

152. *HYPERIA GALBA* (Montagu).

Cancer Gammarus galba Montagu, Trans. Linn. Soc. London, 1813, vol. 11, p. 4, pl. 2, fig. 2. SOUTH COAST OF DEVONSHIRE, "APPEARS TO INHABIT THE OPEN SEA, AND IS FREQUENTLY DRAGGED ON SHORE AMONGST MARINE PLANTS AND ZOOPHYTA IN THE NETS, ESPECIALLY AT TORCROSS."

Hyperia galba G. O. Sars, Crust. Norway, 1890, vol. 1, p. 7, pl. 2, pl. 3, fig. 1.

Commonly found in *Aurelia*.

ME.— Eastport.

MASS.— Salem; Woods Hole.

CONN.— Off Fishers Island.

153. *HYPERIA MEDUSARUM* (O. F. Müller).

Cancer medusarum O. F. Müller, Zool. Dan. prod., 1776, p. 196. [SÖNDMÖR.]

Hyperia medusarum G. O. Sars, Crust. Norway, 1890, vol. 1, p. 7, pl. 3, fig. 2.

Often found in *Cyanea* and other jellyfishes.

ME.— Casco Bay.

MASS.— Vineyard Sound and northward.

CONN.— Noank; off New Haven.

154. *EUTHEMISTO COMPRESSA* (Goës).

Themisto compressa Goës, Öfvers. k. vetensk. akad. förh.,

ARTHROSTRACA.

AMPHIPODA.

HYPERIIDAE.

Stockholm, 1865 (1866), vol. 22, p. 533, pl. 41, fig. 34. "IN MARI SEPTENTRIONALI GROENLANDIAM ALLUENTE, DAVIS STRAIT * * * ET IN OCEANO BOREALI-ATLANTICO GRADU LATITUDINIS 58°, 4' ET ALIBI CIRCA."

Euthemisto compressa G. O. Sars, Crust. Norway, 1890, vol. 1, p. 12, pl. 5, fig. 2.

MASS.—Off Marthas Vineyard; off Nantucket Shoals.
Surface to 18 fathoms.

155. EUTHEMISTO BISPINOSA (Boeck).

Themisto bispinosa Boeck, Forh. vid.-selsk. Christiania, 1870 (1871), p. 88. "GROENLANDIA."

Euthemisto bispinosa G. O. Sars, Crust. Norway, 1890, vol. 1, p. 14, pl. 6, fig. 2 (*E. crassicornis* in explanation of plate).

Gulf of Maine.

MASS.—Off Cape Cod; Vineyard Sound; off Martha's Vineyard.

Usually at surface.

PHRONIMIDAE.

156. PHRONIMA SEDENTARIA (Forskäl).

Cancer sedentarius Forskäl, Desc. anim. quæ in itinere orientali observavit, 1775, p. 95. "IN MARI MEDITERRANEO."

Phronima sedentaria Claus, Zeits. wiss. zool., 1872, vol. 22, p. 331, pls. 26 & 27, & 3 figs. in text.

Often found in the tests of *Salpa* and *Pyrosoma*.

MASS.—Off Nantucket Shoals, surface.

OXYCEPHALIDAE.

157. OXYCEPHALUS CLAUSI Bovallius.

Oxycephalus clausi Bovallius, K. Svenska vet.-akad. handl.,

ARTHROSTRACA.

AMPHIPODA.

OXYCEPHALIDAE.

1886 (1887), vol. 11, p. 35. "ATLANTIC, MEDITERRANEAN, INDIAN OCEAN, PACIFIC."

MASS.— Off Marthas Vineyard, surface.

PARASCELIDAE.

158. THYROPUS, sp.

Thyropus sp., Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 567 [273]. "WITH THE *Phronima* AND *Salpa*, OFF GAY HEAD."

MASS.— Off Gay Head.

ORCHESTIIDAE.

159. TALORCHESTIA LONGICORNIS (Say).

Talitrus longicornis Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 384. "THE SEABEACH OF NEW-JERSEY."

Orchestia longicornis De Kay, Nat. hist. New York, pt. 6, Crust., 1844, p. 35, pl. 9, figs. 28 & 28A.

Sandy shores, among weeds, or burrowing in sand.

MASS.— Salem; Provincetown; Barnstable; Woods Hole; Vineyard Sound; Buzzards Bay.

R. I.— Newport.

160. TALORCHESTIA MEGALOPHTHALMA (Bate).

Orchestia megalophtalma Bate, Cat. Amphip. Crust. Brit. mus., 1862, p. 22, pl. 3, fig. 8. Locality unknown.

Talorchestia megalophtalma Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 556 [262].

Sandy shores, among weeds, or burrowing in sand.

ME.— Casco Bay.

ARTHROSTRACA.

AMPHIPODA.

ORCHESTIIDAE.

Gulf of Maine.

MASS.—Provincetown; Race Point; Buzzards Bay at Woods Hole.

161. *ORCHESTIA AGILIS* Smith.**Beach-flea.**

Orchestia agilis Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871–1872 (1873), p. 555 [261], pl. 4, fig. 14. "BAY OF FUNDY TO NEW JERSEY."

Burrows in sand. Under seaweed on rocky shores.

From the Bay of Fundy to Conn.

162. *ORCHESTIA PALUSTRIS* Smith.

Orchestia palustris Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871–1872 (1873), p. 555 [261]. "CAPE COD TO NEW JERSEY."

Salt marshes, under drift-wood, &c.; above high-water mark, in almost dry places.

MASS.—Boston.

From Cape Cod southward.

163. *ALLORCHESTES LITTORALIS* Stimpson.

Allorchestes littoralis Stimpson, Mar. invert. Grand Manan, 1853, p. 49, pl. 3, fig. 36. "OUR WHOLE COAST FROM MASSACHUSETTS BAY TO GRAND MANAN." Bate, Cat. Amphip. Crust. Brit. mus., 1862, p. 48, pl. 8, fig. 2.

Rocky shores, piles of wharves, &c.

ME.—Bay of Fundy; Casco Bay.

MASS.—Mass. Bay; Provincetown.

CONN.—New Haven.

164. *HYALELLA DENTATA* Smith.

Hyalella dentata Smith, Rept. U. S. commr. of fish & fisheries,

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AMPHIPODA.

ORCHESTIIDAE.

pt. 2, for 1872-1873 (1874), p. 645, pl. 2, figs. 8-10. "MADISON, Wis." (Although many localities are mentioned, the figured ♂ is from Madison.)

In fresh water.

ME.—Bangor; Norway.

MASS.—Salem; Cambridge.

CONN.—New Haven.

LYSIANASSIDAE.

165. ANONYX NUGAX (Phipps).

Cancer nugax Phipps, Voyage North Pole, 1773 (1774), p. 192, pl. 12, fig. 2. "IN THE TRAWL NEAR MOFFEN ISLAND."

MASS.—Woods Hole & Vineyard Sound. Surface & bottom.

166. TRYPHOSA PINGUIS (Boeck).

Anonyx pinguis Boeck, Förh. ved de Skand. naturf., 1860 (1861), vol. 8, p. 642. [NORWAY.]

Orchomenella pingvis G. O. Sars, Crust. Norway, 1891, vol. 1, p. 67, pl. 24, fig. 2.

MASS.—Woods Hole; off Gay Head; off Marthas Vineyard.

167. HIPPIMEDON SERRATUS Holmes.

Hippomedon serratus Holmes, Amer. nat., 1903, vol. 37, p. 278. "M. CAPE COD TO HATTERAS."

MASS.—Off Cape Ann, 36 feet (Holmes MS.).

R. I.—Newport (Holmes MS.).

168. HOPLONYX CICADA (O. Fabricius).

Oniscus cicada O. Fabricius, Favna Groenlandica, 1780, p.

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AMPHIPODA.

LYSIANASSIDAE.

258. "HABITAT IN LIBERO MARI, RARO INTER FUCOS, POTISSIMUM AD OSTIA RIUORUM IN FUNDO ARENOSO, NON TAMEN NUMEROSUS."

Hoplonyx cicada G. O. Sars, Crust. Norway, 1891, vol. 1, p. 92, pl. 32, fig. 2.

MASS.—Near Woods Hole (Holmes MS.); off Marthas Vineyard, on trawl line.

169. *LYSIANOPSIS ALBA* Holmes.

Lysianopsis alba Holmes, Amer. nat., 1903, vol. 37, p. 276. "M. CAPE COD TO HATTERAS." Types from WOODS HOLE in U. S. national museum.

MASS.—Woods Hole.

PONTOPOREIIDAE.

170. *PONTOPOREIA FEMORATA* Kröyer.

Pontoporeia femorata Kröyer, Naturh. tidssk., 1842, vol. 4, p. 153. "E MARI GROENLANDIE AUSTRALI" G. O. Sars, Crust. Norway, 1891, vol. 1, p. 123, pl. 41, fig. 1.

MASS.—Salem Harbor, 5 fathoms.

171. *HAUSTORIUS ARENARIUS* (Slabber).

Oniscus arenarius Slabber, Natuurkundige Verlostingingen, etc., 1769, p. 92, pl. 11, figs. 3-4. (*Arenarius* in index, *arenarius* on p. 92.) "DORPE OOST-KAPPELE, OP HET EILAND VAN WALCHEREN."

Haustorius arenarius G. O. Sars, Crust. Norway, 1891, vol. 1, p. 135, pl. 46.

Burrows in sand at low-water mark.

MASS.—Smith's Point, Beverly; Cape Cod; Tarpaulin Cove, Naushon; Vineyard Sound.

R. I.—Newport.

CONN.—New Haven.

ARTHROSTRACA.

AMPHIPODA.

PHOXOCEPHALIDAE.

172. PHOXOCEPHALUS HOLBÖLLI (Kröyer).

Phoxus holbölli Kröyer, Naturh. tidssk., 1842, vol. 4, p. 151.

GREENLAND.

Phoxocephalus holbölli G. O. Sars, Crust. Norway, 1891, vol. 1, p. 144, pl. 49.

ME.— Bay of Fundy; Casco Bay.

Stellwagen Bank; off Georges Bank.

MASS.— In and off Vineyard Sound.

R. I.— Newport.

Low water to 45 fathoms.

173. PARAPHOXUS SPINOSUS Holmes.

Paraphoxus spinosus Holmes, Amer. nat., 1903, vol. 37, p. 276. "M. CAPE COD TO HATTERAS." Types from NEWPORT in U. S. national museum.

R. I.— Off Block Island; Newport.

174. HARPINIA PLUMOSA (Kröyer).

Phoxus plumosus Kröyer, Naturh. tidssk., 1842, vol. 4, p. 152.

GREENLAND.

Harpinia plumosa G. O. Sars, Crust. Norway, 1891, vol. 1, p. 151, pl. 52.

ME.— Bay of Fundy; Casco Bay.

Gulf of Maine.

MASS.— South of Marthas Vineyard.

20 to 428 fathoms.

AMPELISCIDAE.

175. AMPELISCA MACROCEPHALA Lilljeborg.

Ampelisca macrocephala Lilljeborg [Lilljeborg], Öfvers. k. vet.-akad. förh., Stockholm, 1852 (1853), vol. 9, p. 7. "KULLA-

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AMPHIPODA.

AMPELISCIDAE.

BERG IN SCANIA." G. O. Sars, Crust. Norway, 1891, vol. 1, p. 172, pl. 60, fig. 1.

Tube-dwelling, in mud. From 6 to 29 fathoms.

ME. — Casco Bay.

Gulf of Maine.

MASS.— Cape Ann ; Ipswich Bay ; Vineyard Sound ; Buzzards Bay.

R. I. — Newport ; off Newport.

176. *AMPELISCA SPINIPES* Boeck.

Ampelisca spinipes Boeck, Förh. ved. de Skand. naturf., 1860 (1861), vol. 8, p. 653. "FARSUND *** BERGEN." G. O. Sars, Crust. Norway, 1891, vol. 1, p. 173, pl. 60, fig. 2.

MASS. — Woods Hole.

R. I. — Newport ; off Newport, 20 fathoms ; off Block Island.

Long Island Sound. — Off Sea-flower Key ; Fishers Island.

177. *AMPELISCA COMPRESSA* Holmes.

Ampelisca compressa Holmes, Amer. nat., 1903, p. 37, p. 273. "M. CAPE COD TO HATTERAS."

MASS. — Off Chatham ; Vineyard Sound ; South of Nantucket.

R. I. — Block Island Sound ; off Block Island ; Newport ; off Newport.

Long Island Sound.

Surface to 47 fathoms.

178. *AMPELISCA AGASSIZI* (Judd).

Byblis agassizi Judd, Proc. U. S. nat. mus., 1896, vol. 18, p. 599, text figs. 9-11. "SURFACE OF NARRAGANSETT BAY," [OFF NEWPORT].

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AMPHIPODA.

AMPELISCIDAE.

R. I. — Off Newport.¹

179. BYBLIS GAIMARDII (Kröyer).

Ampelisia gaimardii Kröyer, in Gaimard, Voyages en Scandinavie, en Laponie, au Spitzberg, etc., Zool., Crust., 1846 (?), pl. 23, fig. 1a-y. Locality not specified.

Byblis gaimardii G. O. Sars, Crust. Norway, 1891, vol. 1, p. 183, pl. 64 (*gaimardi* on plate).

Tube-dwelling. 10 to 60 fathoms.

ME. — Bay of Fundy; Casco Bay.

MASS. — Off Thatchers Island; off Half-way Rock, Salem.

180. BYBLIS SERRATA Smith.

Byblis serrata Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 561 [267]. "DEEP WATER OFF VINEYARD SOUND AND BUZZARDS BAY." Judd, Proc. U. S. nat. mus., 1896, vol. 18, p. 596, text figs. 4-8.

ME. — Casco Bay.

MASS. — Woods Hole; Vineyard Sound; Buzzards Bay.

R. I. — Newport.

Surface to 16 fathoms.

181. HAPLOOPS TUBICOLA Lilljeborg.

Haploops tubicola Lilljeborg [Lilljeborg], Öfvers. k. vet.-akad. förh., Stockholm, 1855 (1856), vol. 12, p. 135. "KULLABERG." G. O. Sars, Crust. Norway, 1891, vol. 1, p. 192, pl. 67.

Bay of Fundy (off Grand Manan), 97 to 106 fathoms.

Off Georges Bank, 1188 to 1769 fathoms.

¹ *Ampelisca typica* (Bate) and *A. limicola* (Stimpson) recorded by Verrill (without description) from Long Island Sound, Fishers Island Sound, etc., are perhaps two of the species listed above.

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AMPELISCIDAE.

182. HAPLOOPS SETOSA Boeck.

Haploops setosa Boeck, Förh. vid.-selsk. Christiania, 1870 (1871), p. 228. "BERGENSFJORD." G. O. Sars, Crust. Norway, 1891, vol. 1, p. 194, pl. 68, fig. 1.

Bay of Fundy.

Off Georges Bank, 99½ fathoms.

183. HAPLOOPS ROBUSTA G. O. Sars.

Haploops robusta G. O. Sars, Crust. Norway, 1891, vol. 1, p. 195, pl. 68, fig. 2. "OFF THE COAST OF FINMARK."

Bay of Fundy (Holmes MS.).

Off Georges Bank, deep water.

STEGOCEPHALIDAE.

184. STEGOCEPHALUS INFLATUS Krøyer.

Stegocephalus inflatus Krøyer, Naturh. tidssk., 1842, vol. 4, p. 150. "E MARI GROENLANDICO" G. O. Sars, Crust. Norway, 1891, vol. 1, p. 198, pl. 69.

ME.— Eastport; off Head Harbor.

MASS.— Off Cape Ann; off Cape Cod; near Woods Hole.

Jeffreys Ledge; off Georges Bank.

R. I.— South of Block Island.

To a depth of 150 fathoms.

STENOTHOIDAE.

185. METOPA GROENLANDICA Hansen.

Metopa groenlandica Hansen, Vid. meddel. fra den naturh. foren. i Kjöbenhavn, 1887, p. 94, pl. 3, figs. 7-7e. "GODTHAAB *** EGEDESMINDE *** DISCO, NORDEFJORD *** GRÖNLAND."

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AMPHIPODA.

STENOTHOIDAE.

ME.—Eastport (Holmes MS.).
Off Georges Bank, 86 to 150 fathoms.

186. STENOTHOË PELTATA Smith.

Stenothoe peltata Smith, Trans. Conn. acad. sci., 1874, vol. 3, p. 29, pl. 3, figs. 5-8. "NEAR CULTIVATOR SHOAL * * * 30 FATHOMS."

Near Cultivator Shoal, northwestern part of Georges Bank, 30 fathoms; off Cashes Ledge, 110 fathoms.

187. STENOTHOË CYPRIS Holmes.

Stenothoe cypris Holmes, Amer. nat., 1903, vol. 37, p. 278. "M. CAPE COD TO HATTERAS."

MASS.—Woods Hole.

188. STENOTHOË MINUTA Holmes.

Stenothoe minuta Holmes, Amer. nat., 1903, vol. 37, p. 278. "M. CAPE COD TO HATTERAS." Types from WOODS HOLE in U. S. national museum.

MASS.—Woods Hole.

LEUCOTHOIDAE.

189. LEUCOTHOË SPINICARPA (Abildgaard).

Gammarus spinicarpus Abildgaard, in O. F. Müller, Zool. Danica, ed. 3, 1789, vol. 3, p. 66, pl. 119, figs. 1-4. "AD LITTORA SEPTENTRIONALIA INSULAE SIAELANDIAE."

Leucothoe spinicarpa G. O. Sars, Crust. Norway, 1892, vol. 1, p. 283, pl. 100, pl. 101, fig. 1 (*articulosa*).

Cashes Ledge.

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AMPHIPODA.

OEDICERIDAE.

190. PAROEDICEROS LYNCEUS (M. Sars).

Oediceros lynceus M. Sars, Förh. vid. selsk. Christiania, 1858 (1859), p. 143. "VADSØ PAA 60-70 FAVNES."

Paroediceros lynceus G. O. Sars, Crust. Norway, 1892, vol. 1, p. 292, pl. 103, fig. 2, pl. 104, fig. 1.

ME.— Bay of Fundy; Casco Bay.

Gulf of Maine; Cashes Ledge; Georges Bank.

MASS.— Cape Ann.

From 27 to 90 fathoms.

191. MONOCULODES EDWARDSI Holmes.

Monoculodes edwardsi Holmes, Amer. nat., 1903, vol. 37, p. 275. "M. CAPE COD TO HATTERAS." Type from WOODS HOLE, in U. S. national museum.

MASS.— Woods Hole.

R. I.— Newport.

PARAMPHITHOIDAE.

192. PLEUSTES PANOPLUS (Kröyer).

Amphithoë panopla Kröyer, K. Danske vid. selsk. natur. og math. afh., 1838, vol. 7, p. 270 [42], pl. 2, fig. 9. SOUTHERN GREENLAND.

Pleustes panoplus G. O. Sars, Crust. Norway, 1893, vol. 1, p. 344, pl. 121.

ME.— Eastport; Bay of Fundy; Casco Bay.

Cashes Ledge; Stellwagen Bank; Georges Bank.

From 5 to 50 fathoms.

193. PARAMPHITHOË PULCHELLA (Kröyer).

Amphitoe pulchella Kröyer, in Gaimard, Voyages en Scandi-

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PARAMPHITHOIDAE.

navie, en Laponie, au Spitzberg, etc., Zool., Crust., 1846 (?), pl. 10, fig. 2 a-r. Locality not specified.

Paramphithoë pulchella G. O. Sars, Crust. Norway, 1893, vol. 1, p. 346, pl. 122, fig. 1.

ME.— Bay of Fundy; Casco Bay.

Cashes Ledge; Stellwagen Bank; Georges Bank.

From 40 to 142 fathoms.

194. SYMPLEUSTES GLABER (Boeck).

Amphithopsis glaber Boeck, Förh. ved de Skand. naturf., 1860 (1861), vol. 8, p. 662. [NORWAY.]

Parapleustes glaber G. O. Sars, Crust. Norway, 1893, vol. 1, p. 358, pl. 126, fig. 1.

ME.— Eastport.

EPIMERIDAE.

195. EPIMERIA LORICATA G. O. Sars.

Epimeria loricata G. O. Sars, Arch. math. naturv., 1879, vol. 4, p. 450. STATIONS 326, 357 & 363 (LAT. 75° 31.5' TO 80° N., LONG. 8° 15' TO 17° 50' E., 123 TO 260 FMS.). Crust. Norway, 1893, vol. 1, p. 368, pl. 129, fig. 3.

ME.— Off Head Harbor.

Off Jeffreys Ledge.

MASS.— Off Cape Cod; also off Marthas Vineyard, deep water.

From 35 to 106 fathoms.

196. ACANTHOZONE CUSPIDATA (Lepechin).

Oniscus cuspidatus Lepechin, Acta acad. sci. imp. Petropolitanae for 1778 (1780), pt. 1, p. 249, pl. 8, fig. 3. "LOCUS, MARE ALBUM."

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EPIMERIDAE.

Acanthozone cuspidata G. O. Sars, Crust. Norway, 1893, vol. 1, p. 370, pl. 130.

ME.— Bay of Fundy; Casco Bay.
Jeffreys Ledge; Stellwagen Bank.
From 5 to 40 fathoms.

IPHIMEDIDAE.

197. *ACANTHONOTOSOMA SERRATUM* (O. Fabricius).

Oniscus serratus O. Fabricius, Fauna Groenlandica, 1780, p. 262. [GREENLAND] "IN LOCIS PROFUNDIS."
Acanthonotosoma serratum G. O. Sars, Crust. Norway, 1893, vol. 1, p. 374, pl. 131, fig. 1.

ME.— Bay of Fundy; Casco Bay.
Georges Bank.
From 5 to 50 fathoms.

LAFYSTIIDAE.

198. *LAFYSTIUS STURIONIS* Kröyer.

Lafystius sturionis Kröyer, Naturh. tidssk., 1842, vol. 4, p. 157. "GREGATIM SUB PINNIS ACIPENSERIS STURIONIS PECTORALIBUS DEGIT IN SINU CODANO. RARIUS EX SQUALO GALEO CEPI."

Darcinia compressa Bate and Westwood, Brit. sessile-eyed Crust., 1863, vol. 1, p. 184, woodcuts.

Parasitic on fish.
ME.— Bay of Fundy, from the back of a skate.
MASS.— Cape Ann; Vineyard Sound, in the mouth of a goose-fish.

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AMPHIPODA.

SYRRHOIDAE.

199. SYRRHOË CRENULATA Goës.

Syrrhoë crenulata Goës, Öfver. k. vet.-akad. förh., Stockholm, 1865 (1866), vol. 22, p. 527. "AD SPETSBERGIAM FUNDO ARGILLACEO ET ALGOSO, ORG, PROFUNDITATE 20-80 RARA UT IN TREURENBERG BAY, EXTRA VERLEGENHOEK, SHOAL POINT." G. O. Sars, Crust. Norway, 1893, vol. 1, p. 390, pl. 136.

ME.—Johnson's Bay, near Eastport, 12 fathoms.

MASS.—Off Thatcher's Island, 27 to 36 fathoms.

PARDALISCIDAE.

200. PARDALISCA CUSPIDATA Kröyer.

Pardalisca cuspidata Kröyer, Naturh. tidssk., 1842, vol. 4, p. 153. "IN MARI GROENLANDIAM AUSTRALEM ALLUENTE (AD GODTHAAB)" G. O. Sars, Crust. Norway, 1893, vol. 1, p. 403, pl. 141, pl. 142, fig. 1.

Near Jeffreys Ledge, 35 fathoms.

EUSIRIDAE.

201. RHACHOTROPIS ACULEATA (Lepechin).

Oniscus aculeatus Lepechin, Acta acad. sci. imp. Petropolitanae for 1778 (1780), pt. 1, p. 247, pl. 8, fig. 1. "LOCUS MARE ALBUM."

Rhachotropis aculeata G. O. Sars, Crust. Norway, 1893, vol. 1, p. 424, pl. 149.

MASS.—Cape Ann; off Cape Cod.

Cashes Ledge; Jeffreys Ledge; Stellwagen Bank; Georges Bank.

From 45 to 122 fathoms.

CALLIOPHIDAE.

202. CALLIOPHUS LAEVIUSCULUS (Kröyer).

Amphithoe laeviuscula Kröyer, K. Danske vid. selsk. natur.

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CALLIOPIIDAE.

og math. afh., 1838, vol. 7, p. 281 [53], pl. 3, fig. 13. "FISKEN-
AESSET" [GREENLAND].

Calliope laeviuscula Bate & Westwood, Brit. sessile-eyed Crust.,
1863, vol. 1, p. 259, woodcut.

Rocky shores, in tidal pools, among sea-weeds, or at surface.
Coast of Maine to Narragansett Bay.

203. HALIRAGES FULVOCINCTUS (M. Sars).

Amphithoë fulvocincta M. Sars, Förh. vid. selsk. Christiania,
1858 (1859), p. 141. "SLAATHOLMEN I LOFOTEN OG VED
TROMSØ, I LAMINARIABELTET PÅ 1-10 FAVNES."

Halirages fulvocinctus G. O. Sars, Crust. Norway, 1893, vol.
1, p. 436, pl. 154.

MASS.— Ipswich Bay, 27 fathoms.

204. APHERUSA GRACILIS HOLMES.

Apherusa gracilis Holmes, Amer. nat., 1903, vol. 37, p. 287.
"M. CAPE COD TO HATTERAS." Type specimens from OFF GAY
HEAD, in U. S. national museum.

MASS.— Off Gay Head.

205. PONTOGENEIA INERMIS (Krøyer).

Amphithoë inermis Krøyer, K. Danske vid. selsk. natur. og
math. afh., 1838, vol. 7, p. 275 [47], pl. 3, fig. 11. "JULIANE-
HAAB OG GODTHAAB," [GREENLAND].

ME.— Bay of Fundy, in tide pools; Casco Bay.
Georges Bank, 45 fathoms.

MASS.— Salem; Vineyard Sound, surface.

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AMPHIPODA.

ATYLIDAE.

206. *DEXAMINE THEA* Boeck.

Dexamine thea Boeck, Förh. vid.-selsk. Christiania, 1870 (1871), p. 187. "CHRISTIANIAFJORD, FARSUND." G. O. Sars, Crust. Norway, 1893, vol. 1, p. 477, pl. 168, fig. 1.

MASS.— Woods Hole.

CONN.— Noank Harbor, among eel-grass. (Determined with doubt by S. I. Smith.)

BATEIDAE.

207. *BATEA SECUNDA* Holmes.

Batea secunda Holmes, Amer. nat., 1903, vol. 37, p. 284. "M. CAPE COD TO HATTERAS." Types from WOODS HOLE in U. S. national museum.

MASS.— Woods Hole.

GAMMARIDAE.

208. *MELPHIDIPPA SPINOSA* (Goës).

Gammarus spinosus Goës, Öfver. k. vet.-akad. förh., Stockholm, 1865 (1866), vol. 22, p. 530, pl. 40, fig. 30. "AD SPETSBERGIAN RARUS FUNDO ARGILLOSO ORG. 5-30 PROFUNDIT. IN BELL SOUND * * * IN STORFJORD."

Melphidippa spinosa G. O. Sars, Crust. Norway, 1894, vol. 1, p. 483, pl. 169.

ME.— Eastport (Holmes MS.).

209. *GAMMARUS LOCUSTA* (Linné).**Scuds.**

Cancer locusta Linné, Fauna Svecica, ed. 2, 1761, p. 497.

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GAMMARIDAE.

"HABITANTEM VIDI AD MONTEM *Thorsburg* IN MARI JUXTA GOTLANDIAM."

Gammarus locusta Bate and Westwood, Brit. sessile-eyed Crust., 1863, vol. 1, p. 378, woodcut.

Under rocks, in eel-grass, etc. Low water to 21 fathoms.
Entire coast of New England.

210. GAMMARUS ANNULATUS Smith.

Gammarus annulatus Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 557 [263]. "NEW HAVEN, CONNECTICUT, AND EASTPORT, MAINE."

Gammarus natator Smith, *op. cit.*, p. 558 [264].

Under stones and in rock-weed, above low-water mark; surface to 11½ fathoms.

ME.—Eastport.

MASS.—Gloucester; Provincetown; off Chatham; off Cape Cod; Woods Hole; Vineyard Sound; Nantucket.

R. I.—Newport; Carolina; Providence Harbor.

CONN.—Off Fishers Island; New Haven.

211. GAMMARUS MARINUS Leach.

Gammarus marinus Leach, Trans. Linn. Soc. London, 1815, vol. 11, p. 359. "IN DANMONLE AUSTRALIS MARI." Bate and Westwood, Brit. sessile-eyed Crust., 1863, vol. 1, p. 370, woodcut.

ME.—Jones's Cove, Frenchmans Bay; Casco Bay.

MASS.—Cohasset; Wepecket Island; Gull Island; Cuttyhunk; Vineyard Sound; Buzzards Bay.

R. I.—Watch Hill; Newport.

CONN.—New Haven.

212. GAMMARUS FASCIATUS Say.

Gammarus fasciatus Say, Journ. acad. nat. sci. Phil., 1818,

ARTHROSTRACA.

AMPHIPODA.

GAMMARIDAE.

vol. 1, p. 374. "A COMMON INHABITANT OF OUR RIVERS, AND IS FREQUENTLY INTRODUCED INTO PHILADELPHIA, IN THE SCHUYLKILL WATER." Smith, Rept. U. S. commr. of fish & fisheries, pt. 2, for 1872-1873 (1874), p. 653.

Fresh water streams and ponds.

ME.—Eastport.

CONN.—New Haven.

213. CARINOGAMMARUS MUCRONATUS (Say).

Gammarus mucronatus Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 376. "COAST OF THE UNITED STATES." "THIS SPECIES, . . . I CAUGHT IN THE BAY OF EGG-HARBOUR, AND NEAR THE MOUTH OF ST. JOHN'S RIVER, FLORIDA."

Low water and among algae; often in brackish water.

ME.—Quahog Bay, Casco Bay.

MASS.—Provincetown; Woods Hole.

R. I.—Newport.

214. MELITA DENTATA (Kröyer).

Gammarus dentatus Kröyer, Naturh. tidssk., 1842, vol. 4, p. 159. "GROENLANDIA AUSTRALI."

Melita dentata G. O. Sars, Crust. Norway, 1894, vol. 1, p. 513, pl. 181, fig. 1.

ME.—Casco Bay.

Gulf of Maine; Cashes Ledge; off Georges Bank.

MASS.—Off Half-way Rock, Salem; off Race Point; off Cape Cod.

R. I.—Off Watch Hill.

CONN.—Off Fisher's Island.

From $7\frac{1}{2}$ to 430 fathoms.

ARTHROSTRACA.

AMPHIPODA

GAMMARIDAE.

215. MELITA NITIDA Smith.

Melita nitida Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 560 [266]. "NEW JERSEY TO CAPE COD."

On rocky shores, under stones and among rock-weed near low-water mark.

Cape Cod southward.

216. MELITA PARVIMANA Holmes.

Melita parvimana Holmes, Amer. nat., 1903, vol. 37, p. 279. "M. CAPE COD TO HATTERAS." Type from NEWPORT in U. S. national museum.

R. I. — Newport.

217. MAERA DANAE (Stimpson).

Leptothoe danae Stimpson, Mar. invert. Grand Manan, 1853, p. 46, pl. 3, fig. 32. [GRAND MANAN.]

ME. — Eastport (Holmes MS.).

Cashes Ledge; Stellwagen Bank; off Georges Bank, 50 fathoms.

218. ELASMOPUS LEVIS (Smith).

Moera levis Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 559 [265]. "NEW JERSEY, LONG ISLAND SOUND, VINEYARD SOUND."

On rocky shores, under stones and among rock-weed near low-water mark.

MASS. — Provincetown; Woods Hole; Vineyard Sound.

Long Island Sound.

ARTHROSTRACA.

AMPHIPODA

GAMMARIDAE.

219. *GAMMARELLUS ANGULOSUS* (Rathke).

Gammarus angulosus Rathke, Verhandl. K. Leopold.-Carol. akad. naturf., Breslau, 1843, vol. 12 (Nov. actorum, vol. 20), p. 72, pl. 3, fig. 3. "CHRISTIANSUND."

Amathilla angulosa G. O. Sars, Crust. Norway, 1894, vol. 1, p. 492, pl. 173, fig. 2.

ME.—Casco Bay.

MASS.—Nahant.

220. *CRANGONYX TENUIS* Smith.

Crangonyx tenuis Smith, Rept. U. S. commr. of fish & fisheries, pt. 2, for 1872-1873 (1874), p. 656. "WELLS AT MIDDLETOWN, CONN."

In wells.

CONN.—Middletown.

PHOTIDAE.

221. *MICRODEUTOPUS GRYLLOTALPA* Costa.

Microdeutopus gryllotalpa Costa, Rend. soc. reale Borbonica accad. sci., Napoli, 1853, n. s., vol. 2, p. 178. "NAPOLI." G. O. Sars, Crust. Norway, 1894, vol. 1, p. 543, pl. 192, fig. 2.

Low water and on piles and eel-grass.

MASS.—Provincetown; Vineyard Sound; Woods Hole.

Long Island Sound.

222. *MICRODEUTOPUS DAMNONIENSIS* (Bate).

Lembos damnoniensis Bate, Ann. mag. nat. hist., 1857 (2), vol. 19, p. 142. [DEVON.]

Microdeutopus danmoniensis G. O. Sars, Crust. Norway, 1894, vol. 1, p. 542, pl. 192, fig. 1.

ARTHROSTRACA.

AMPHIPODA.

PHOTIDAE.

MASS.— Woods Hole.

R. I.— Providence Harbor.

223. AUTONOË SMITHI Holmes.

Autonoe smithi Holmes, Amer. nat., 1903, vol. 37, p. 290.
"M. CAPE COD TO HATTERAS."

MASS.— Vineyard Sound, living in tubes in masses of a compound Ascidian (*Amouroucium pellucidum* Verrill) in 3 to 8 fathoms (Smith); Woods Hole.

224. PTILOCHEIRUS PINGUIS Stimpson.

Ptilocheirus pinguis Stimpson, Mar. invert. Grand Manan, 1853, p. 56. "ABUNDANT ON THE WHOLE COAST OF NEW ENGLAND, AS WELL AS AT GRAND MANAN."

Protomeleia pinguis Bate, Cat. Amphip. Crust. Brit. mus., 1862, p. 170, pl. 31, fig. 3.

Muddy bottoms down to 150 fathoms.

Whole coast of New England.

225. PODOCEROPSIS NITIDA (Stimpson).

Podocerus nitidus Stimpson, Mar. invert. Grand Manan, 1853, p. 45. "DREDGED IN THIRTY FATHOMS ON A SHELLY BOTTOM IN THE HAKE BAY."

Xenoclea megachir Smith, Trans. Conn. acad. sci., 1874, vol. 3, p. 32, pl. 3, figs. 1-4.

ME.— Eastport.

Georges Bank; near Cultivator Shoal.

R. I.— Off Watch Hill.

To a depth of 60 fathoms.

ARTHROSTRACA.

AMPHIPODA.

PODOCERIDAE.

226. AMPHITHOË RUBRICATA (Montagu).

Cancer Gammarus rubricatus Montagu, Trans. Linn. soc. London, 1808, vol. 9, p. 99, pl. 5, fig. 1. "SOUTH COAST OF DEVONSHIRE."

Amphithoë rubricata Bate, Cat. Amphip. Crust. Brit. mus., 1862, p. 233, pl. 41, fig. 1.

Lives in coarse tubes made of gravel, seaweed, etc.; under rocks at low water.

From Bay of Fundy to Long Island Sound.

227. AMPHITHOË LONGIMANA Smith.

Amphithoë longimana Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 563 [269]. "NEW JERSEY; GREAT SOUTH BAY, LONG ISLAND; VINEYARD SOUND."

Amphithoe longimana Holmes, Biol. Bull., 1901, vol. 2, p. 165, text figs. 1 & 2.

Among eel-grass and at low water.

MASS.—Annisquam; Provincetown; Woods Hole; Vineyard Sound.

R. I.—Newport.

Long Island Sound.

228. ISCHYROCERUS ANGUIPES Kröyer.

Ischyrocerus anguipes Kröyer, K. Danske vid. selsk. natur. og math. afh., 1838, vol. 7, p. 283 [55], pl. 3, fig. 14. "FISKENÆSSET, JULIANEHAAB, GODTHAAB OG HOLSTEINBORG" [GREENLAND].

Ischyrocerus anguipes G. O. Sars, Crust. Norway, 1894, vol. 1, p. 588, pl. 209.

ME.—Bay of Fundy; Casco Bay.

R. I.—Off Watch Hill, 4 to 5 fathoms.

ARTHROSTRACA.

AMPHIPODA.

PODOCERIDAE.

229. *PODOCERUS FALCATUS* (Montagu).

Cancer Gammarus falcatus Montagu, Trans. Linn. soc. London, 1808, vol. 9, p. 100, pl. 5, fig. 2. "TORCROSS."

Podocerus falcatus G. O. Sars, Crust. Norway, 1894, vol. 1, p. 594, pl. 212.

MASS.—Vineyard Sound, surface. Determined with doubt by S. I. Smith.

230. *PODOCERUS MARMORATUS* (Holmes).

Jassa marmorata Holmes, Amer. nat., 1903, vol. 37, p. 289.
"A. N. ARCTIC AMERICA TO HATTERAS."

MASS.—Nahant; Woods Hole.

R. I.—Newport.

231. *GRUBIA COMPTA* (Smith).

Amphithoë compta Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871–1872 (1873), p. 564 [270]. "NORTH CAROLINA TO CAPE COD."

Common among eel-grass.

From Cape Cod southward. Vineyard Sound, surface.

232. *ERICHTHONIUS RUBRICORNIS* (Stimpson).

Cerapus rubricornis Stimpson, Mar. invert. Grand Manan, 1853, p. 46, pl. 3, fig. 33. "DREDGED ABUNDANTLY ON STEMS OF *Boltenia* IN 20 F., ROCKS, OFF MOOSE INLET, TOWARDS THE SEAL ISLANDS. *** OCCURRED SPARINGLY IN 10 F., OFF CHENEY'S HEAD, AND IN 25 F., OFF DUCK ISLAND." Bate, Cat. Amphip. Crust. Brit. mus., 1862, p. 265, pl. 45, fig. 4.

Inhabits flexible tubes of fine mud and animal cement.

ME.—Bay of Fundy; Casco Bay.

ARTHROSTRACA.

AMPHIPODA.

PODOCERIDAE.

MASS.—Off Half-way Rock, Salem; Vineyard Sound.
Jeffreys Ledge; Stellwagen Bank; Georges Bank.
To a depth of 100 fathoms.

233. ERICTHONIUS MINAX (Smith).

Cerapus minax Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 565 [271]. "LONG ISLAND SOUND, VINEYARD SOUND."

MASS.—Woods Hole; Vineyard Sound.
Long Island Sound.

COROPHIIDAE.

234. CERAPUS TUBULARIS Say.

Cerapus tubularis Say, Journ. acad. nat. sci. Phil., 1817, vol. 1, p. 50, pl. 4, figs. 7-11. "AMONGST FUCI ON THE SEA BEACH AT EGG-HARBOUR." Smith, Trans. Conn. acad. sci., 1882, vol. 4, p. 277, pl. 2a.

Constructs a little slender, free tube, which it inhabits and carries about upon its back when it travels.

In eel-grass and among masses of a large compound ascidian (*Amouroucium pellucidum*); to a depth of 10 fathoms.

MASS.—Off Falmouth; off Nobska Point; Vineyard Sound.
CONN.—Noank Harbor.

235. SIPHONOECETES SMITHIANUS Rathbun, nom. nov.

Siphonoecetes cuspidatus Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 566 [272]. "IN DEEP WATER OFF VINEYARD SOUND AND BUZZARDS BAY." Not *S. cuspidatus* Metzger, Jahresb. naturh. ges. Hannover, 1871, vol. 21, p. 30.

Inhabits tubes constructed of grains of sand; on bottoms of fine compact mud and sand.

ARTHROSTRACA.

AMPHIPODA.

COROPHIIDAE.

MASS.— Off Vineyard Sound and Buzzards Bay, 20 to 29 fathoms.

236. *COROPHIUM CYLINDRICUM* (Say).

Podocerus cylindricus Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 387. "EGG-HARBOUR." Not *P. cylindricus* Bate, 1862.

Very abundant among weeds and hydroids about piles of wharves and almost everywhere in shallow water; to a depth of 30 fathoms.

ME.— Casco Bay.

MASS.— Beverly Bridge; Provincetown; Vineyard Sound.

CONN.— Noank.

237. *UNCIOLA IRRORATA* Say.

Unciola irrorata Say, Journ. acad. nat. sci. Phila., 1818, vol. 1, p. 389. "EGGHARBOUR." Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 567 [273], pl. 4, fig. 19.

Tube-dwelling. Low water to 430 fathoms.

From Bay of Fundy to Long Island Sound.

CHELURIDAE.

238. *CHELURA TEREBRANS* Philippi.**Boring amphipod.**

Chelura terebrans Philippi, Arch. f. Naturg., 1839, Jahrg. 5, Bd. 1, p. 120, pl. 3, fig. 5. "TRIEST." G. O. Sars, Crust. Norway, 1894, vol. 1, p. 627; 1895, vol. 1, p. 699.

Bores in timber of piles, etc.

MASS.— Provincetown; Woods Hole.

ARTHROSTRACA.

AMPHIPODA.

DULICHIIDAE.

239. *DULICHIA PORRECTA* (Bate).

Dyopelos porrectus Bate, Ann. mag. nat. hist., 1857 (2), vol. 19, p. 151. "MACDUFF."

Dulichia porrecta G. O. Sars, Crust. Norway, 1894, vol. 1, p. 637, pl. 229.

ME. — Eastport (Holmes MS.).

CAPRELLIDAE.

Skeleton shrimps.240. *LUCONACIA INCERTA* Mayer.

Luconacia incerta Mayer, Caprellidae Siboga-Exped., 1903, p. 49, pl. 2, figs. 11-14, pl. 6, figs. 73-75, pl. 9, figs. 21, 40 and 67. GULF OF MEXICO, 27-32 fms.

MASS. — Woods Hole, one young female, determined with doubt by P. Mayer.

241. *AEGINA LONGICORNIS* Kröyer.

Aegina longicornis Kröyer, Naturh. tidssk., 1843, vol. 4, p. 509, pl. 7, figs. 1-12. NARSALIK, 6 MILES SOUTH OF FREDERIKSHAAB, 12 TO 16 FATHOMS; GODTHAAB, 25 TO 60 FATHOMS. In Gaimard, Voyages en Scandinavie, en Laponie, au Spitzberg, etc., Zool., Crust., 1846 (?), pl. 24, fig. 3a-l.

ME. — Bay of Fundy.

MASS. — Woods Hole; Vineyard Sound; Nantucket.

Surface, and beach to 32 fathoms.

242. *AEGINA LONGICORNIS NODOSA* Mayer.

Aegina longicornis forma β *nodosa* Mayer, Caprelliden Golfes Neapel, nachtrag, 1890, p. 33. "PROVINCETOWN, MASS."

ARTHROSTRACA.

AMPHIPODA.

CAPRELLIDAE.

MASS.— Gloucester Harbor; Essex Bridge, Salem; Provincetown; Nantucket; off Nantucket Shoals.

R. I.— Off Newport.

From 7 to 32 fathoms.

243. *AEGINA LONGICORNIS SPINIFERA* (Bell).

Caprella spinifera Bell, in Belcher's Last of the Arctic voyages, 1855, vol. 2, p. 407, pl. 35, fig. 2. "THROUGHOUT THE STRAIT" [BETWEEN BEECHEY ISLAND AND NORTHUMBERLAND SOUND].

ME.— Eastport; Portland.

N. H.— Jeffreys Ledge, near Portsmouth.

MASS.— Essex Bridge, Salem.

From 6 to 33 fathoms.

244. *AEGINA LONGICORNIS SPINOSISSIMA* Stimpson.

Aegina spinosissima Stimpson, Mar. invert. Grand Manan, 1853, p. 44. "ADHERING TO *Gemellaria dumosa* IN TEN FATHOMS, OFF CHENEY'S HEAD."

ME.— Eastport; West Penobscot Bay.

MASS.— Ipswich.

CONN.— Off Fisher's Island.

Specimens all determined by Dr. S. J. Holmes.

245. *PARACAPRELLA TENUIS* Mayer.

Paracaprella tenuis Mayer, Caprellidae Siboga-Exped., 1903, p. 68, pl. 2, figs. 34 & 35, pl. 7, figs. 51 & 58. "WOOD'S HOLL" [MASS.].

MASS.— Woods Hole.

246. *CAPRELLA ACUTIFRONS* Latreille.

Caprella acutifrons Latreille, Nouv. dict. hist. nat., 1816, nouv. éd., vol. 6, p. 433. "LES CÔTES D'ANGLETERRE."

ARTHROSTRACA.

AMPHIPODA.

CAPRELLIDAE.

Caprella geometrica Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 567 [273], pl. 5, fig. 20.

Surface to 3 feet, especially among eel-grass.

ME.—Quahog Bay.

MASS.—Nahant; Provincetown; Woods Hole; Vineyard Sound; Wepecket; off Marthas Vineyard.

247. CAPRELLA LINEARIS (Linné).

Cancer linearis Linné, Syst. nat., ed. 12, 1767, vol. 1, pt. 2, p. 1056. "IN OCEANO EUROPEO."

Caprella linearis G. O. Sars, Crust. Norway, 1894, vol. 1, p. 657, pl. 236.

From 15 to 32 fathoms, often on hydroids.

ME.—Eastport; off Head Harbor; Casco Bay.

N. H.—Portsmouth.

MASS.—Salem; off Cape Cod; off Nantucket Shoals.

248. CAPRELLA SEPTENTRIONALIS Kröyer.

Caprella septentrionalis Kröyer, Naturh. tidssk., 1843, vol. 4, p. 590, pl. 8, figs. 10-19. BELSUND, IN LAMINARIA, 10 FATHOMS OR A LITTLE MORE; GREENLAND; KATTEGAT AND WESTERN OCEAN. G. O. Sars, Crust. Norway, 1894, vol. 1, p. 659, pl. 237, fig. 1.

ME.—Eastport; Casco Bay. Low water to 15 fathoms.

249. CAPRELLA SEPTENTRIONALIS LONGICORNIS Boeck.

Caprella longicornis Boeck, Forh. vid.-selsk. Christiania, 1870 (1871), p. 274. "AD ORAS OCCIDENTALES NORVEGIE."

Caprella septentrionalis forma β *longicornis* Mayer, Caprelliden Golfes Neapel, nachtrag, 1890, p. 66, pl. 2, figs. 26, 27 & 33, pl. 4, fig. 31.

ARTHROSTRACA.

AMPHIPODA.

CAPRELLIDAE.

ME.—Eastport, on *Diphasia fallax*; Portland.

250. CAPRELLA SEPTENTRIONALIS POLYCEROS Mayer.

Caprella septentrionalis polyceros Mayer, Caprelliden Golfes Neapel, nachtrag, 1890, pp. 66 & 68, pl. 2, fig. 32. "EASTPORT (44° 54' N. BR.) * * * ANTICOSTI EXPEDITION."

ME.—Bay of Fundy, from stomach of pollock; Eastport, on *Diphasia fallax*.

251. CAPRELLA SEPTENTRIONALIS STIMPSONI Bate.

Caprella stimpsoni Bate, Cat. Amphip. Crust. Brit. mus., 1862, p. 361. "12 FATHOMS, BACK OF DUCK ISLAND LEDGE, GRAND MANAN."

ME.—Eastport. (Determined by S. J. Holmes.)

252. CAPRELLA UNICA Mayer.

Caprella unica Mayer, Caprellidae Siboga-Exped., 1903, p. 127, pl. 5, fig. 39, pl. 8, figs. 28 & 29. "40° 34' 30" N., 69° 50' 45" W. 32 FADEN" [OFF NANTUCKET SHOALS].

MASS.—Off Nantucket Shoals, 32 fathoms.

ENTOMOSTRACA.

CIRRIPEDIA.

Barnacles.

TRYPETESIDAE.

253. TRYPETESA LAMPAS (Hancock).

Alcippe lampas Hancock, Ann. mag. nat. hist., 1849 (2), vol.

CIRRIPEDIA.

TRYPETESIDAE.

4, p. 314, pls. 8 & 9. IN "*Fusus antiquus* * * * FROM THE FISHING BOATS AT WHITBURN, IN THE COUNTY OF DURHAM, * * * BOATS AT CULLERCOATS, * * * IN *F. antiquus* [AND] *Buccinum undatum*." Darwin, Mon. Cirrip., Balanidae, 1854, p. 530, pls. 22 & 23.

Bores in dead shells of *Lunatia heros* and *Neverita duplicata*, which are inhabited by hermit crabs (Genthe).

MASS.—Woods Hole.

CORONULIDAE.

254. CORONULA DIADEMA (Linné).

Lepas diadema Linné, Syst. nat., ed. 12, 1767, vol. 1, pt. 2, p. 1108. "AD MARE MEDITERRANEUM & INDICUM."

Coronula diadema Darwin, Mon. Cirrip., Balanidae, 1854, pp. 417 & 623, pl. 15, figs. 3, 3a, 3b, pl. 16, figs. 1, 2 & 7.

Attached to whales taken on the coast, both north and south of Cape Cod. Provincetown, on whale.

BALANIDAE.

Acorn shells.

255. BALANUS TINTINABULUM (Linné).

Lepas tintinabulum Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 668. Locality not given until ed. 12, 1767, where it is "IN O. EUROPAEO."

Balanus tintinnabulum, Darwin, Mon. Cirrip., Balanidae, 1854, pp. 194 & 611, pl. 1, figs. a-l, pl. 2, figs. 1a-1o.

Inhabits warmer seas. Often found on bottoms of ships on New England coast, but not living.

MASS. (Gould).

CIRRIPIEDIA.

BALANIDAE.

256. *BALANUS TINTINABULUM ZEBRA* Darwin.

Balanus tintinabulum var. (4) *zebra* Darwin, Mon. Cirrip., Balanidae, 1854, p. 195, pl. 1, fig. g. "SHIPS ARRIVING FROM BENGAL AND CHINA."

MASS.—Boston on vessel.

257. *BALANUS AMPHITRITE* Darwin.

Balanus amphitrite Darwin, Mon. Cirrip., Balanidae, 1854, pp. 240 & 614, pl. 5, figs. 2a-2o. Enumerates many localities in warmer temperate and tropical seas.

On whales and bottoms of ships, but probably does not live long after arriving on New England coast.

MASS.—Cape Cod; Vineyard Sound.

258. *BALANUS EBURNEUS* Gould.**Ivory barnacle.**

Balanus eburneus Gould, Invert. Mass., 1841, p. 15, pl. 1, fig. 6. [MASSACHUSETTS.] Darwin, Mon. Cirrip., Balanidae, 1854, pp. 248 & 614, pl. 5, figs. 4a-4d.

In brackish and fresh water as well as salt.

From Salem, Mass., southward; Long Island Sound.

259. *BALANUS PORCATUS* Costa.

Balanus porcatus Costa, Hist. nat. Test. Brit., 1778, p. 249. "BRITISH COASTS."

Balanus porcatus Darwin, Mon. Cirrip., Balanidae, 1854, pp. 256 & 615, pl. 6, figs. 4a-4e.

Shallow water to 150 fathoms.

ME.—Eastport; Bay of Fundy; off Seguin Island; Casco Bay. Gulf of Maine; Jeffreys Bank; Cashes Ledge; Stellwagen Bank; Georges Bank.

CIRRIPEDIA.

BALANIDAE.

MASS.—Off Cape Ann; off Race Point; off Chatham; off Nobska.

R. I.—Off Watch Hill.

Long Island Sound.

260. *BALANUS CRENATUS* Bruguière.

Balanus crenatus Bruguière, Encyc. méth., hist. nat., vers, 1789, vol. 6, p. 168. "LES CÔTES DE L'ANGLETERRE & DANS LES MERS DU NORD." Darwin, Mon. Cirrip., Balanidae, 1854, pp. 261 & 615, pl. 6, figs. 6a-6g.

ME.—Casco Bay, 8-30 fathoms.

Georges Bank.

MASS.—East Boston; Vineyard Sound.

CONN.—Noank.

261. *BALANUS BALANOIDES* (Linné).**Rock barnacle; Common barnacle.**

Lepas balanoides Linné, Fauna Svecica, ed. 2, 1761, p. 515. "IN MARI ATLANTICO."

Balanus balanoides Darwin, Mon. Cirrip., Balanidae, 1854, pp. 267 & 615, pl. 7, figs. 2a-2d.

The most common barnacle; abundant between tides. Inhabits the whole North Atlantic.

ME. — Casco Bay.

MASS. — Provincetown.

R. I. — Providence River.

CONN. — New Haven; Savin Rock.

262. *BALANUS HAMERI* (Ascanius).

Lepas hameri Ascanius, Icones rerum naturalium, Kjöbenhavn, 1767, ed. 1, vol. 1, col. 53, pl. 10. FINMARK.

CIRRIPEDIA.

BALANIDAE.

Balanus hameri Darwin, Mon. Cirrip., Balanidae, 1854, pp. 277 & 616, pl. 7, figs. 5a-5c.

From 16 to 141 fathoms.

Georges Bank.

MASS. — Off Chatham; off Marthas Vineyard.

263. TETRACLITA SQUAMOSA (Bruguère).¹

Balanus squamosus Bruguère, Encyc. méth., hist. nat., vers, 1789, vol. 6, p. 170. "TRANQUEBAR."

Tetraclita porosa Darwin, Mon. Cirrip., Balanidae, 1854, p. 329 & 619, pl. 10, figs. 1a-1m.

MASS. — Boston, taken from bottom of ship.

POLLICIPEDIDAE.

264. SCALPELLUM STROEMII M. Sars.

Scalpellum stroemii M. Sars, Forh. vid.-selsk. Christiania, 1858 (1859), p. 158. SÖNDMÖR ON *Muricea placomus*. BERGEN, 80 TO 150 FATHOMS, ON *Cidaris papillata* LESKE. FINMARK, NEAR HAMMERFAEST, 40 TO 50 FATHOMS, ON *Eudendrium ramosum*. G. O. Sars, Some remarkable forms of animal life, 1872, pt. 1, p. 79, pl. 5, fig. 2.

Scalpellum stroemi Verrill, Amer. journ. sci., 1874 (3), vol. 7, p. 498, pl. 8, fig. 7.

Scalpellum stroemi Smith, Trans. Conn. acad. sci., 1874, vol. 3, p. 35, pl. 3, fig. 9.

On stems of hydroids; 50 to 430 fathoms.

MASS. — Off Cape Race, Cape Cod.

Near Cashes Ledge; off Georges Bank.

¹As *Lepas porosa* Gmelin was described in 1790, not 1789, the earlier name of *squamosa* Bruguère must be substituted.

CIRRIPIEDIA.

LEPADIDAE.

Goose barnacles.

265. LEPAS ANATIFERA Linné.

Lepas anatifera Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 668.
 "HABITAT IN PELAGO." Darwin, Mon. Cirrip., Lepadidae, 1851,
 p. 73, pl. 1, fig. 1.

MASS. — On a Swedish vessel (Gould); Gloucester, from Bark Richard after voyage from Cadiz; Boston, from vessel; Woods Hole, from German bark 73 days after cleaning hull; Gulf Stream, off Marthas Vineyard.

R. I. — Off Newport.

266. LEPAS HILLII (Leach).

Pentalasmis hillii Leach, Narr. exped. River Zaire, 1818, p. 413. Locality not given.

Lepas hillii Darwin, Mon. Cirrip., Lepadidae, 1851, p. 77, pl. 1, fig. 2.

MASS. — Gloucester, from Bark Richard after voyage from Cadiz; Woods Hole, from German bark 73 days after cleaning hull.

267. LEPAS ANSERIFERA Linné.

Lepas anserifera Linné, Syst. nat., ed. 12, 1767, vol. 1, pt. 2, p. 1109. "IN PELAGO AMERICANO." Darwin, Mon. Cirrip., Lepadidae, 1851, p. 81, pl. 1, fig. 4.

MASS. — On a Swedish vessel (Gould); Boston, on vessel; Cape Cod, on whales; Nobska beach.

268. LEPAS PECTINATA Spengler.

Lepas pectinata Spengler, Skrivt. naturh. selsk., 1793, vol. 2, pt. 2, p. 106, pl. 10, fig. 2. "MEDITERRANEAN SEA NEAR

CIRRIPIEDIA.

LEPADIDAE.

CADIZ, ON A CURLY *Fucus*." Darwin, Mon. Cirrip., Lepadidae, 1851, p. 85, pl. 1, fig. 3.

Attached to ships' bottoms, but probably does not live long after arriving on our coast. Common in tropics.

MASS. (Gould).

269. *LEPAS FASCICULARIS* Ellis and Solander.

Lepas fascicularis Ellis and Solander, Nat. hist. zoophytes, 1786, p. 197, pl. 15, fig. 5. "ST. GEORGE'S CHANNEL." Darwin Mon. Cirrip., Lepadidae, 1851, p. 92, pl. 1, fig. 6.

On floating seaweeds and other small objects.

ME.—Bay of Fundy; Casco Bay.

MASS.—Long Point, Provincetown; Provincetown Harbor; Vineyard Sound.

270. *CONCHODERMA AURITA* (Linné).

Lepas aurita Linné, Syst. nat., ed. 12, 1767, vol. 1, pt. 2, p. 1110. "IN O. SEPTENTRIONALIS."

Conchoderma aurita Darwin, Mon. Cirrip., Lepadidae, 1851, p. 141, pl. 3, fig. 4.

MASS.—(Gould); Gloucester, from Bark Richard after voyage from Cadiz; Provincetown, on *Coronula diadema* from hump-backed whale; Woods Hole, from German bark 73 days after cleaning hull.

271. *CONCHODERMA VIRGATA* (Spengler).

Lepas virgata Spengler, Skrivt. naturh. selsk., 1790, vol. 1, pt. 1, p. 207, pl. 6, fig. 9. Locality not given.

Conchoderma virgata Darwin, Mon. Cirrip., Lepadidae, 1851, p. 146, pl. 3, fig. 2, pl. 9, fig. 4.

On bottoms of vessels and on large sluggish fishes.

CIRRIPEDIA.

LEPADIDAE.

MASS.—Gloucester, from Bark Richard after voyage from Cadiz; Woods Hole, from German bark 73 days after cleaning hull.

COPEPODA.

BRANCHIURA.

ARGULIDAE.

Fish lice.

272. ARGULUS LATUS Smith.

Argulus latus Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871–1872 (1873), p. 574 [280]. “AT THE SURFACE, IN VINEYARD SOUND.” Wilson, Proc. U. S. nat. mus., 1902, vol. 25, p. 704, pl. 9.

ME.—Casco Bay; Quahog Bay.

MASS.—Vineyard Sound, surface.

273. ARGULUS LATICAUDA Smith.

Argulus laticauda Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871–1872 (1873), p. 574 [280]. “AMONG ALGAE IN VINEYARD SOUND.” Wilson, Proc. U. S. nat. mus., 1902, vol. 25, p. 705, pl. 10, pl. 26, fig. 79.

Parasitic on skate, bonnet skate, eel, sculpin, blenny, tomcod flatfish, summer flounder, winter flounder; and among algae.

MASS.—Waquoit Harbor, Falmouth; Woods Hole; Vineyard Sound; Katama Bay; Buzzards Bay.

CONN.—Noank.

274. ARGULUS MEGALOPS Smith.

Argulus megalops Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871–1872 (1873), p. 575 [281]. “VINEYARD SOUND *** SURFACE.” Wilson, Proc. U. S. nat. mus., 1902, vol. 25, p. 706, pl. 11, pl. 26, fig. 81.

COPEPODA.

BRANCHIURA.

ARGULIDAE.

Parasitic on skate, minnow, sculpin, sea-robin, tomcod, flatfish, sand dab, summer flounder, winter flounder, spotted sand flounder, common flounder, orange file-fish, goosefish; also at surface.

MASS.—Provincetown; off Cape Cod; Woods Hole; Vineyard Sound; Menemsha Bight; Quicks Hole.

R. I.—Off Point Judith.

275. ARGULUS ALOSÆ Gould.

Argulus alosæ Gould, Invert. Mass., 1841, p. 340. "FROM THE GILLS OF THE ALEWIFE, (*Alosa vulgaris*)."
[MASS. BAY, teste Smith.] Wilson, Proc. U. S. nat. mus., 1902, vol. 25, p. 707, pl. 12, pl. 26, fig. 80.

Parasitic on alewife, smelt, and cunner.

ME.—Casco Bay.

MASS.—Massachusetts Bay; Woods Hole.

276. ARGULUS CATOSTOMI Dana and Herrick.

Argulus catostomi Dana and Herrick, Amer. journ. sci., 1837, vol. 31, p. 298, plate. "MILL RIVER, NEAR WHITNEYVILLE," ON SUCKER, BRACKISH WATER.

Argulus catostomi Wilson, Proc. U. S. nat. mus., 1902, vol. 25, p. 709, pl. 13.

From sucker and chub sucker.

MASS.—Warren and Chicopee.

CONN.—Mill River, near Whitneyville.

277. ARGULUS FUNDULI Kröyer.

Argulus funduli Kröyer, Naturh. tidssk., 1863 (3), vol. 2, p. 94, pl. 2, figs. 1a-e. "UBESKREVEN FUNDULUS FRA OMEGNEN AF NY-ORLEANS." Wilson, Proc. U. S. nat. mus., 1902, vol. 25, p. 710, pl. 14.

COPEPODA.

BRANCHIURA.

ARGULIDAE.

On *Fundulus*.

MASS.— Waquoit; Woods Hole.

Long Island Sound.

278. ARGULUS VERSICOLOR Wilson.

Argulus versicolor Wilson, Proc. U. S. nat. mus., 1902, vol. 25, p. 716, pl. 20, pl. 26, fig. 83. "UPON SOME COMMON PICKEREL * * * POWDERMILL POND, WARREN, MASSACHUSETTS."

On pickerel.

MASS.— Powder-mill Pond, Warren; Wickaboag and Podunk Ponds, Brookfield; Lake Lashaway, between Brookfield and Spencer; Ashley Ponds, Holyoke; Congamon Ponds, Southwick.

EUCOPEPODA.

ERGASILIDAE.

Parasitic copepods.

279. BOMOLOCHUS SCOMBERESOCIS Kröyer.

Bomolochus scomberesocis Kröyer, Naturh. tidssk., 1863, (3), vol. 2, pp. 291 & 300, pl. 10, fig. 5a-f. "EN *Scomberesox* FRA DET VARMERE ATLANTERHAV."

On *Scomber esox*.

MASS.— Woods Hole region (Wilson MS.).

280. ERGASILUS FUNDULI Kröyer.

Ergasilus funduli Kröyer, Naturh. tidssk., 1863, (3), vol. 2, pp. 302 & 312, pl. 11, fig. 1a-f. "EN *Fundulus* (*F. limbatus mihii*) FRA OMEGNETEN AF NEW ORLEANS."

On *Fundulus heteroclitus*.

MASS.— Woods Hole region (Wilson MS.).

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

Parasitic copepods.

281. CALIGUS RUFIMACULATUS Wilson.

Caligus rufimaculatus Wilson, Proc. U. S. nat. mus., 1905, vol. 28, p. 561, pl. 5. "FROM *Fundulus majalis* AND *F. heteroclitus*."

On *Fundulus majalis*, *F. heteroclitus*, *Mugil cephalus* and also at surface.

MASS.—Woods Hole region.

282. CALIGUS SCHISTONYX Wilson.

Caligus schistonyx Wilson, Proc. U. S. nat. mus., 1905, vol. 28, p. 564, pl. 6. "COMMON MENHADEN (*Brevoortia tyrannus*) * * * OUTSIDE OF THE BODY * * * A SINGLE FEMALE * * * FROM THE OUTSIDE SURFACE OF THE BLUE-FISH (*Pomatomus saltatrix*), AND NINE LOTS OBTAINED FROM THE TOW." [WOODS HOLE REGION.]

On menhaden and bluefish and in tow-net.

MASS.—Waquoit Harbor, Vineyard Sound and Woods Hole.

283. CALIGUS BONITO Wilson.

Caligus bonito Wilson, Proc. U. S. nat. mus., 1905, vol. 28, p. 589, pl. 13, figs. 151-153; figs. 5, 6d, 12, 13, 14, 15, 29, 30, 35, 37, 38, 40-45 in text. "COMMON BONITO (*Gymnosarda pelamys* LINNAEUS) * * * WOODS HOLE * * * VINEYARD SOUND * * * WOODS HOLE AND VICINITY."

On bonito.

MASS.—Woods Hole and vicinity; Vineyard Sound.

284. CALIGUS RAPAX Milne Edwards.

Caligus rapax Milne Edwards, Hist. nat. Crust., 1840, vol. 3, p. 453, pl. 38, figs. 9-12. "SUR LA PEAU D'UN SQUALE."

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

Parasitic on sand shark, spiny dogfish, skate, big skate, barn-door skate, peaked-nosed skate, sting ray, sharp-nosed sturgeon, blunt-nosed sturgeon, long-nosed sturgeon, alewife, shad, sand lance, mackerel, cutlass fish, swordfish, rudderfish, crevalle, striped bass, scup, sculpin, lumpfish, remora, whiting, cod, pollock, haddock, hake, codling, flounder, 4-spotted flounder; also taken at surface and in trawl wings.

ME. — Treats Island, Eastport; Casco Bay.

MASS. — Off Cape Ann; off Cape Cod; Vineyard Sound; Woods Hole; off Nantucket and Nantucket Shoals; off Marthas Vineyard.

R. I. — Cox Ledge.

CONN. — Noank.

285. *CALIGUS MUTABILIS* Wilson.

Caligus mutabilis Wilson, Proc. U. S. nat. mus., 1905, vol. 28, p. 573, pl. 8; fig. 2 in text. "FROM THE MOUTH OF *Centropristes striatus*," [WOODS HOLE].

On sea-bass, *Centropristes striatus*, pollock and bonito, Woods Hole region.

MASS. — Woods Hole region.

286. *CALIGUS CURTUS* O. F. Müller.

Caligus curtus O. F. Müller, Entomostraca, 1785, p. 130, pl. 21, figs. 1 & 2. "PLURES GADO *Merlango* INHAERENTES REPERI, * * * STRÖM & MARTIN IN *Gadis & salmonibus*, OTHO FABRICIUS IN *Pleuronecte*, BAXTER IN GADO REPERERE." NO locality given.

Caligus americanus Pickering & Dana, Amer. journ. sci., 1838, vol. 34, p. 225, pls. 3-5.

Parasitic on barn-door skate, cod, hake, pollock, haddock and halibut; also at surface.

ME. — Casco Bay; Harpswell; Brunswick.

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

MASS.—Off Cape Ann; Vineyard Sound; Woods Hole; off Marthas Vineyard; Cox Ledge, lat. $41^{\circ} 11' 30''$ N., long. $71^{\circ} 02'$ W.; near lat. $40^{\circ} 01' 50''$ N., long. $70^{\circ} 59'$ W., 117 fathoms.

287. CALIGUS CHELIFER Wilson.

Caligus chelifer Wilson, Proc. U. S. nat. mus., 1905, vol. 28, p. 582, pl. 11. "EXTERNAL SURFACE OF A MENHADEN AT WOODS HOLE."

On menhaden, cutlass fish and swordfish.

MASS.—Woods Hole and off Gay Head.

288. CALIGUS BELONES Kröyer.

Caligus belones Kröyer, Naturh. tidssk., 1863, (3), vol. 2, pp. 155 & 178, pl. 7, fig. 1a-e. "HORNFIISK VED NYMINDEGAB."

On dolphin.

MASS.—Woods Hole region.

289. CALIGUS PELAMYDIS Kröyer.

Caligus pelamydis, Kröyer, Naturh. tidssk., 1863, (3), vol. 2, pp. 124 & 171, pl. 4, fig. 4a-g. "*Pelamys sarda*."

On *Scomber scomber*.

MASS.—Woods Hole region.

290. CALIGODES MEGACEPHALUS Wilson.

Caligodes megacephalus Wilson, Proc. U. S. nat. mus., 1905, vol. 28, p. 609, pl. 16. "UNDERSIDE OF THE MOUTH OF A SILVER GAR (*Lepisosteus osseus*) AT WOODS HOLE."

On *Lepisosteus osseus*.

MASS.—Woods Hole.

291. LEPEOPHTHEIRUS NORDMANNII (Milne Edwards).

Caligus nordmannii Milne Edwards, Hist. nat. Crust., 1840, vol. 3, p. 455. "À NICE SUR LA PEAU D'UNE MOLE."

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

Lepeoptheirus nordmannii Baird, Nat. hist. Brit. Entomotraca, 1850, p. 275, pl. 33, fig. 1.

On sunfish.

ME.—Casco Bay.

MASS.—Vineyard Sound; Woods Hole.

292. LEPEOPHTHEIRUS HIPPOGLOSSI (Kröyer).

Caligus hippoglossi Kröyer, Naturh. tidssk., 1837, vol. 1, p. 625, pl. 6, fig. 3. "HAVET OMKRING GRØNLAND PAA HELLEFLYDEREN * * * NORDLIGE KATTEGAT, OM JEG MINDES RET PAA EN HELLEFLYNDER."

On halibut.

MASS.—Off Cape Ann.

293. LEPEOPHTHEIRUS EDWARDSI Wilson.

Lepeoptheirus edwardsi Wilson, Proc. U. S. nat. mus., 1905, vol. 28, p. 627, pl. 21, pl. 22, fig. 258; figs. 1, 4a, 4b, 11, 31, 34, 39 in text. "WOODS HOLE, [ON 5 SPECIES OF FISH] GREAT EGG HARBOR, NEW JERSEY."

On summer skate, summer flounder, four-spotted flounder, horse crevalle, and garfish.

MASS.—Woods Hole.

294. LEPEOPHTHEIRUS THOMPSONI Baird.

Lepeoptheirus thompsoni Baird, Nat. hist. Brit. Entomotraca, 1850, p. 278, pl. 33, fig. 2. "FROM THE TURBOT."

On goosefish.

MASS.—Woods Hole.

295. LEPEOPHTHEIRUS SALMONIS (Kröyer).

Caligus salmonis Kröyer, Naturh. Tidssk., 1837, vol. 1, pl. 6, fig. 7 a-e; 1838, vol. 2, p. 13. ["DANSKE FAUNA"] * * * PAA LAXEN."

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

Lepeophtheirus salmonis Kröyer, Naturh. tidssk., 1863, (3), vol. 2, p. 211, pl. 17, fig. 1 a-b.

On salmon.

ME.— East Orland.

296. *GLOIOPOTES ORNATUS* Wilson.

Gloiopotes ornatus Wilson, Proc. biol. soc. Wash., 1905, vol. 18, p. 127. "WOODS HOLL, MASSACHUSETTS. * * * OUTSIDE SURFACE OF SWORDFISH."

On swordfish.

MASS.— Woods Hole.

297. *ALEBION GRACILE* Wilson.

Alebion gracile Wilson, Proc. biol. soc. Wash., 1905, vol. 18, p. 128. "VINEYARD SOUND, MASSACHUSETTS. * * * OUTSIDE SURFACE OF THE SMOOTH DOG-FISH."

On smooth dog-fish.

MASS.— Woods Hole region.

298. *ALEBION GLABRUM* Wilson.

Alebion glabrum Wilson, Proc. biol. soc. Wash., 1905, vol. 18, p. 129. "WOODS HOLL, MASSACHUSETTS. * * * ON THE OUTSIDE SURFACE OF THE SAND SHARK * * * ON THE SMOOTH DOG-FISH."

On sand shark and smooth dog-fish.

MASS.— Woods Hole.

299. *TREBIUS TENUIFURCATUS* R. Rathbun.

Trebius tenuifurcatus R. Rathbun, Proc. U. S. nat. mus., 1887, vol. 10, p. 559, pl. 29, figs. 1-3. "FROM A STING RAY * * * VINEYARD SOUND."

From sting ray.

MASS.— Vineyard Sound.

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

300. NESIPPUS ALATUS Wilson.

Nesippus alatus Wilson, Proc. biol. soc. Wash., 1905, vol. 18, p. 130. "BUZZARDS BAY, MASSACHUSETTS. * * * FEMALES * * * UPON THE GILL ARCHES OF THE COMMON SAND-SHARK, RARELY ON THE FLOOR OR ROOF OF THE MOUTH. * * * MALE * * * ON THE OUTSIDE SURFACE OF THE BODY."

On sand shark.

MASS.— Buzzards Bay.

301. ECHTHROGALEUS COLEOPTRATUS (Guérin).

Dinemoura coleoptrata Guérin, Icon. règne Anim., Crust., 1829-45, p. 42, pl. 35, fig. 6. "DANS LA MER ÎLES MARIANNES."

Echthrogaleus coleoptratus Steenstrup & Lütken, K. Danske vid. selsk. skrift., 1861 (5), vol. 5, p. 380, pl. 8, fig. 15.

From dorsal fin of mackerel shark.

MASS.— Vineyard Sound.

302. ECHTHROGALEUS DENTICULATUS Smith.

Echthrogaleus denticulatus Smith, Rept. U. S. commr. of fish & fisheries, pt. 1, for 1871-1872 (1873), p. 576 [282]. "VINEYARD SOUND, ON ATWOOD'S SHARK, (*Carcharias atwoodi*)."

On Atwood's shark.

MASS.— Vineyard Sound.

303. PERISSOPUS COMMUNIS R. Rathbun.

PERISSOPUS COMMUNIS R. Rathbun, Proc. U. S. nat. mus., 1887, vol. 10, p. 560, pl. 29, figs. 6-7, pl. 30, figs. 1-6. ON "DUSKY SHARK * * * BLUE SHARK * * * SHOVEL-HEAD SHARK * * * SHARP-NOSED SHARK * * * VINEYARD SOUND * * * NOANK * * * MOUTH OF ST. MARY'S RIVER, FLORIDA * * * PENSACOLA, FLA."

From blue shark and dusky shark.

MASS.— Woods Hole; Vineyard Sound.

CONN.— Noank.

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

304. PANDARUS CRANCHII Leach.

Pandarus cranchii Leach, Dict. sci. nat., 1819, vol. 14, p. 535.
LAT. 1° S., LONG. 4° E. Milne Edwards, Règne anim. de Cuvier,
disciples ed., pl. 78, fig. 2.

On *Carcharias obscurus*.

MASS.—Woods Hole region (Wilson, MS.).

305. PANDARUS SINUATUS Say.¹

Pandarus sinuatus Say, Journ. acad. nat. sci. Phil., 1818, vol. 1, p. 436. "INHABITS DOG FISH, (*Squalus canis*? MITCHILL.)"
R. Rathbun, Proc. U. S. nat. mus., 1886, vol. 9, p. 310, pl. 5, fig. 2, pl. 6, figs. 1-8, pl. 7, figs. 1-8.

On dogfish, smooth dogfish, Atwoods shark, and sand shark.

MASS.—Muskeget Channel; Woods Hole; Vineyard Sound.
Long Island Sound.

306. PANDARUS SMITHII R. Rathbun.

Pandarus smithii R. Rathbun, Proc. U. S. nat. mus., 1886, vol. 9, p. 315, pl. 5, fig. 3, pl. 7, fig. 9. "FROM A DUSKY SHARK, *Carcharinus obscurus* *** OFF NOANK, CONN."

On dusky shark and sand shark.

MASS.—Woods Hole; Vineyard Sound.

CONN.—Off Noank.

Long Island Sound.

307. DINEMATURA LAMNAE (Johnston).

Pandarus lamnae Johnston, Mag. nat. hist., 1835, vol. 8, p.

¹The species referred by authors to the genus *Nogagus* Leach (*Nogagus* Milne Edwards) are omitted, because, according to Dr. Wilson, they prove to be males of other genera and species, as *e. g.*, of *Pandarus sinuatus* and *Echthrogaleus denticulatus*.

COPEPODA.

EUCOPEPODA.

CALIGIDAE.

203, fig. 22a, b. "FROM A BEAUMARIS SHARK * * * BERWICK BAY."

Dinemoura lamnae Baird, Nat. hist. Brit. Entomostraca, 1850, p. 286, pl. 33, fig. 8.

ME.—Casco Bay.

308. *DINEMATURA LATIFOLIA* Steenstrup & Lütken.

Dinematura latifolia Steenstrup & Lütken, K. Danske vid. selsk. skrift., 1861 (5), vol. 5, p. 378, pl. 8, fig. 16. "*Oxyrhina glauca* Müll. *Henl.* (ELLER I ALT FALDEN DENNE HAI OVERMAADE NÆRSTAAENDE ART), TAGET PAA 27° NB. OG 23° VL."

On *Lamna cornubica*.

R. I. — Cox Ledge.

309. *CECROPS LATREILLII* LEACH.

Cecrops latreillii Leach, Encyc. Brit., suppl., 1816, vol. 1, p. 405, pl. 20, figs. 1-8. History unknown. Baird, Nat. hist. Brit. Entomostraca, 1850, p. 293, pl. 34, figs. 1 & 2.

On sunfish.

MASS.—Off Gay Head. Mass. (Gould).

310. *LAEMARGUS MURICATUS* (Krøyer).

Cecrops (? *Laemargus*) *muricatus* Krøyer, Naturh. tidssk., 1837, vol. 1, p. 487, pl. 5, figs. A-D. "(? *Orthagoriscus mola*?) I ATLANTERHAVET."

On sunfish.

Jeffrey's Bank.

MASS.—Massachusetts Bay; Woods Hole.

COPEPODA.

EUCOPEPODA.

DICHELESTHIIDAE.

Parasitic copepods.

311. EUDACTYLINA NIGRA Wilson.

Eudactylina nigra Wilson, Proc. biol. soc. Wash., 1905, vol. 18, p. 131. "BUZZARDS BAY, MASSACHUSETTS. * * * ON THE GILLS OF THE SAND SHARK."

On sand shark.

MASS.— Buzzards Bay.

312. DICHELESTHIUM STURIONIS Hermann.

Dichelesthium sturionis Hermann, Mémoire aptérologique 1804, p. 125, pl. 5, figs. 7 & 8. "SUR DES ESTURGEONS * * * DANS LE RHIN."

Dichelesthium sturionis Milne Edwards, Hist. nat. Crust., 1840, vol. 3, p. 485, pl. 39, fig. 4.

On sturgeon, blunt-nosed sturgeon, sharp-nosed sturgeon.

MASS.— Vineyard Sound; Woods Hole.

CONN.— Fishers Island Sound; off Noank.

313. ANTHOSOMA CRASSUM (Abildgaard).

Caligus crassus Abildgaard, Skrivt. naturh. selsk., 1794, vol. 3, pt. 2, p. 49, pl. 5, figs. 1-3. "PAA GIJELLERNE AF EN HAI VED HELGOLAND."

Anthosoma crassum Steenstrup & Lütken, K. Danske vid. selsk. skr., 1861 (5), vol. 5, p. 397, pl. 12, fig. 24.

From sand shark, mackerel shark, and spiny dog-fish.

MASS.— Vineyard Sound, 125 miles south of Marthas Vineyard. Mass. (Gould).

314. LERNANTHROPUS BREVOORTIAE R. Rathbun.

Lernanthropus brevoortiae R. Rathbun, Proc. U. S. nat. mus.,

COPEPODA.

EUCOPEPODA.

DICHELESTHIDAE.

1887, vol. 10, p. 563, pl. 30, figs. 7-8, pls. 31-32. "GILLS OF THE MENHADEN, *Brevoortia tyrannus* * * * VINEYARD SOUND."

Gills of menhaden.

MASS.—Waquoit Harbor; Vineyard Sound; Woods Hole.

315. *LERNANTHROPUS POMATOMI* R. Rathbun.

Lernanthropus pomatomi R. Rathbun, Proc. U. S. nat. mus. 1887, vol. 10, p. 567, pls. 33-35. "GILLS OF BLUEFISH (*Pomatomus saltator*), * * * VINEYARD SOUND."

Gills of bluefish.

MASS.—Vineyard Sound; Woods Hole.

PHILICHTHYIDAE.

Parasitic copepods.

316. *PHILICHTHYS XIPHIAE* Steenstrup.

Philichthys xiphiae Steenstrup, Overs. k. Dansk. vid. selsk. forh., 1861 (1862), p. 295, pl. 2, figs. A-E. "FLERE AF HOVEDETS KNOKLER HOS SVÆRDFISKEN (*Xiphias gladius* Linn.) * * * KULEN." Bergsøe, *Philichthys xiphiae* Stp. Monographisk Fremstillet, Kjöbenhavn, 1864, 90 pp., 1 pl.; Ann. sci. nat., 1865 (5), Zool., vol. 3, pp. 213 & 252, pl. 1.

On *Xiphias gladius*.

MASS.—Woods Hole region (Wilson, MS.).

317. *SPHAERIFER LINTONI* Wilson, MS.

[Parasitic copepod], Linton, Bull. U. S. fish comm. for 1899 (1901), vol. 19, p. 285, pl. 33, figs. 1-5. "UNDER THE SKIN ON THE PREOPERCULAR BONE OF A SQUETEAGUE (*Cynoscion regalis*)", [WOODS HOLE].

On squeteague.

MASS.—Woods Hole.

COPEPODA.

EUCOPEPODA.

LERNÆIDÆ.

Parasitic copepods.

318. PENELLA FILOSA (Linné).

Pennatula filosa Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 819.
 "IN M. MEDITERRANEI XIPHIUS." Guérin, Icon. règne Anim.,
 Zooph., pl. 9, fig. 3.

On sunfish.

MASS.

319. PENELLA COSTAI Brian.

Pennella costai [sp. n.] Richiardi, Catal. sez. Ital. esposiz.
 Berlino, Firenze, 1880, p. 150. "NELLE MASSE MUSCOLARI DEL
Xiphias gladius" [ITALIA]. No description.

Penella costai Brian, Atti soc. Ligustica sci. nat. e geogr., 1898,
 vol. 9, p. 218. "SOPRA LO *Xiphias gladius* LIN. * * * GENOVA."

On swordfish.

MASS.— Woods Hole region (determined with doubt by C. B.
 Wilson).

320. LERNAENICUS RADIATUS (Lesueur).

Lerneocera radiata Lesueur, Journ. acad. nat. sci. Phil., 1824,
 vol. 3, p. 288, pl. 11, fig. 1. "MENHADEN OR BAY ALEWIFE
CLUPEA tyrannus, LATROBE."

Lerneonema radiata Smith, Rept. U. S. commr. of fish &
 fisheries, pt. 1, for 1871-1872 (1873), p. 578 [284], pl. 7, fig. 30.

From menhaden.

MASS.— Vineyard Sound; Buzzard's Bay.

321. LERNEONEMA?, sp., Smith.

Lerneonema?, sp., Smith, Rept. U. S. commr. of fish & fish-
 eries, pt. 1, for 1871-1872 (1873), p. 578 [284]. "UPON A SPE-
 CIES OF *Carangus* * * * VINEYARD SOUND."

COPEPODA.

EUCOPEPODA.

LERNAEIDAE.

On a species of *Carangus*.

MASS. — Vineyard Sound.

322. *LERNAEOLOPHUS SULTANUS* (Milne Edwards).

Penellus sultana Milne Edwards, Hist. nat. Crust., 1840, vol. 3, p. 523. "DANS LA BOUCHE DU *Carenx ascensionis*."

Lernaelophus sultanus Heller, Reise Novara, Crust., 1865, p. 251, pl. 25, fig. 7.

From orange file fish.

MASS. — Vineyard Sound.

323. *LERNAEA BRANCHIALIS* Linné.

Lernaea branchialis Linné, Syst. nat., ed. 12, 1767, vol. 1, pt. 2, p. 1092. "IN OCEANI NORVEGICI GADIS, AD BRANCHIAS." Steenstrup & Lütken, K. Danske vid. selsk. skr., 1861 (5), vol. 5, p. 403, pl. 13, fig. 28; & var. *sigmoidea*, p. 404, pl. 13, fig. 29.

From cod.

ME. — Bay of Fundy; Harpswell; Casco Bay.

MASS. — Cohasset.

Georges Bank; Browns Bank.

CHONDRACANTHIDAE.

Parasitic copepods.324. *CHONDRACANTHUS CORNUTUS* (Müller).

Lernaea cornuta Müller, Zool. Dan. prod., 1776, p. 227. Locality not given.

Chondracanthus cornutus Nordmann, Mikroskopische beiträge, 1832, vol. 2, p. 111, pl. 9, figs. 5-10.

On Pleuronectidae (Wilson, MS.).

MASS.

COPEPODA.

EUCOPEPODA.

CHONDRACANTHIDAE.

325. CHONDRACANTHUS COTTUNCULI R. Rathbun.

Chondracanthus cottunculi R. Rathbun, Proc. U. S. nat. mus., 1886, vol. 9, p. 322, pl. 11, figs. 1-7. "FROM *Cottunculus torvus* * * * *Cottunculus microps* * * * *Cottunculus?*, sp.?" [OFF GEORGES BANK, OFF MARTHAS VINEYARD AND SOUTH OF BLOCK ISLAND.]

On *Cottunculus*.

MASS.—Wood's Hole region (Wilson, MS.).

326. CHONDRACANTHUS GALERITUS R. Rathbun.

Chondracanthus galeritus R. Rathbun, Proc. U. S. nat. mus., 1886, vol. 9, p. 317, pl. 8, figs. 1-7, pl. 10, figs. 1-7, & 1 text-fig. "MOUTH OF THE COMMON FLOUNDER, *Paralichthys dentatus*. * * * WOOD'S HOLL."

Mouth of common flounder.

MASS.—Woods Hole; Menemsha Bight.

327. CHONDRACANTHUS PHYCIDIS R. Rathbun.

Chondracanthus phycidis R. Rathbun, Proc. U. S. nat. mus., 1886, vol. 9, p. 320, pl. 9, figs. 1-6, pl. 10, figs. 8-13. ON GILLS "OF THE COMMON HAKE, *Phycis tenuis* * * * OFF MARTHA'S VINEYARD."

On gills of hake.

MASS.—Off Marthas Vineyard.

328. CHONDRACANTHUS MERLUCCII (Holten).

Lernaea merluccii Holten, Skrivt. naturh.-selsk., 1802, vol. 5, heft 2, p. 135, pl. 3, fig. 2. "IN ORE GADI MERLUCCII" [DENMARK].

On *Merluccius*, sp.

MASS.—Woods Hole region (Wilson, MS.).

COPEPODA.

EUCOPEPODA.

LERNAEOPODIDAE.

Parasitic copepods.

329. LERNAEOPODA FONTINALIS Smith.

Lernaeopoda fontinalis Smith, Rept. U. S. commr. of fish & fisheries, pt. 2, for 1872-1873 (1874), p. 663, pl. 3, figs. 12-14. "FOUND UPON THE BROOK-TROUT, (*Salmo fontinalis*), AT NORWAY, ME."

On brook-trout.
ME. — Norway.

330. BRACHIELLA RAMOSA Richiardi.

Brachiella ramosa Richiardi, Proc. verb. soc. Tosc. sc. nat. Pisa, Jan. 1880, p. 26. "ADERENTE ALLE ARCADE BRANCHIALI DEL PESCE SPADA." Zool. anz., 1880, vol. 3, p. 69.

On swordfish.
MASS. — Woods Hole region (Wilson, MS.).

331. BRACHIELLA ROSTRATA Krøyer.

Brachiella rostrata Krøyer, Naturh. tidssk., 1837, vol. 1, p. 207, pl. 2, fig. 1. "AF EN HELLEFLYNDER FRA KATTEGATTET. DE SAD PAA GJAEELLERNE. * * * GRØNLAND * * * AF *Pleuronectes pinguis*." Naturh. tidssk., 1863 (3), vol. 2, p. 364, pl. 17, fig. 8 a-f.

On Pleuronectidae.
MASS. — Woods Hole region (Wilson, MS.).

332. BRACHIELLA THYNNI Cuvier.

Brachiella thynni Cuvier, Règne Anim., ed. 2, 1830, vol. 3, p. 257, pl. 15, fig. 5. Locality not given. Steenstrup & Lütken, K. Danske vid. selsk. skr., 1861, (5), vol. 5, p. 420, pl. 15, fig. 36.

On *Thynnus vulgaris* (Wilson, MS.).
MASS.

COPEPODA.

EUCOPEPODA.

LERNAEOPODIDAE.

333. CLAVELLA UNCINATA (O. F. Müller).

Lernaea uncinata O. F. Müller, Zool. Dan. prod., 1776, p. 226.
 "GROENLANDIA."

Ancorella uncinata Nordmann, Mikrographische beiträge,
 1832, vol. 2, p. 102, pl. 8, figs. 8-12, pl. 10, figs. 1-5 (*Anchorella*
 in explanation of plates).

On cod and haddock.

ME.—Casco Bay; Harpswell.

Georges Bank.

R. I.—Cox Ledge.

CONN.—New London.

CALANIDAE.

Free-swimming copepods.

334. CALANUS FINMARCHICUS (Gunnerus).

Brit; Food of pollock whale.

Monoculus finmarchicus Gunnerus, K. Danske vid. selsk.
 skrift., 1770. vol. 10, p. 175, plate, figs. 20-23. REENSHOLM,
 NEAR HAMMERFEST [VEST-FINMARKEN].

Calanus finmarchicus G. O. Sars, Crust. Norway, 1901, vol.
 4, p. 9, pls. 1-3.

MASS.—Vineyard Sound, near Gay Head.

335. HETEROCOPE, sp.

Fresh water.

MASS.—Watertown (Cragin).

336. DIAPTOMUS LEPTOPUS S. A. Forbes.

Diaptomus leptopus S. A. Forbes, Amer. nat., 1882, vol. 16, p.

COPEPODA.

EUCOPEPODA.

CALANIDAE.

646, pl. 8, figs. 17-19. "POOLS * * * NEAR WOOD'S HOLE,
[MASS.] * * * AND * * * NORMAL, ILLINOIS."

MASS.—Pools near Woods Hole.

CENTROPAGIDAE.

Free-swimming copepods.

337. CENTROPAGES TYPICUS Kröyer.

Centropages typicus Kröyer, Naturh. tidssk., 1849 (2), vol. 2, pp. 588 & 603, pl. 6, figs. 22-26. "ATLANTERHAVET, NOGLE MILE FRA KAP FINISTERRE." G. O. Sars, Crust. Norway, 1902, vol. 4, p. 75, pls. 49-51.

MASS.—Plymouth Harbor; Vineyard Sound; Woods Hole Harbor; Gulf Stream, 70 miles south of Marthas Vineyard.

338. CENTROPAGES HAMATUS (Lilljeborg).

Ichthyophorba hamata Lilljeborg [Lilljeborg], De Crustaceis ex ordinibus tribus, 1853, p. 185, pl. 21, figs. 1-5 & 7-9, pl. 26, figs. 9-12. "KULLABERG."

Centropages hamatus G. O. Sars, Crust. Norway, 1902, vol. 4, p. 76, pl. 52.

MASS.—Woods Hole and elsewhere in vicinity.

339. TEMORA LONGICORNIS (O. F. Müller).

Cyclops longicornis O. F. Müller, Entomotraca, 1785, p. 115, pl. 19, figs. 7-9. "IN MARI FINMARCHIAM ALLUENTE REPERIT IMMORTALIS GUNNERUS,¹ EGO POSTEA IN SINU DRÖBACHIENSI, AC IN VENTRICULO *Clypeae* CONGLOMERATOS ABSQUE INSTITUTO EXAMINE VIDI."

¹ As Müller in his synonymy of this species quotes *Cyclops finmarchicus*, which is in reality a *Calanus*, the locality "In mari Finmarchiam alluente" can hardly be considered as belonging to *Temora longicornis*.

COPEPODA.

EUCOPEPODA.

CENTROPAGIDAE

Temora longicornis G. O. Sars, Crust. Norway, 1902, vol. 4, p. 97, pls. 65 & 66.

MASS.— Woods Hole. Common.

340. METRIDIA LUCENS Boeck.

Metridia lucens Boeck, Forh. vid.-selsk., Christiania, 1864 (1865), p. 238. "VED KARMØEN," [NORWAY]. G. O. Sars, Crust. Norway, 1902, vol. 4, p. 113, pl. 77.

MASS.— Plymouth Harbor; Woods Hole.

PONTELLIDAE.

Free-swimming copepods.

341. LABIDOCERA AESTIVA Wheeler.

Labidocera aestiva Wheeler, Bull. U. S. fish comm. for 1899 (1900), vol. 19, p. 178, text fig. 16. "WOODS HOLE."

MASS.— Woods Hole, at Fish commission wharf.

342. PONTELLA MEADII Wheeler.

Pontella meadii Wheeler, Bull. U. S. fish comm. for 1899 (1900), vol. 19, p. 180, text fig. 17. "WOODS HOLE."

MASS.— Woods Hole, at Fish commission wharf.

343. ANOMALOCERA PATTERSONII Templeton.

Anomalocera patersonii Templeton, Trans. entom. soc. London, 1837, vol. 2, p. 35, pl. 5, & figs. 13, 18 in text. (Name corrected to *pattersonii* in explanation of plate.) "MOUTH OF LARNE LOUGH, COUNTY ANTRIM," [IRELAND].

Anomalocera patersoni G. O. Sars, Crust. Norway, 1902, vol. 4, p. 139, pls. 92-94.

MASS.— Woods Hole; Gulf Stream about 70 miles south of Marthas Vineyard.

COPEPODA.

EUCOPEPODA.

PONTELLIDAE.

344. ACARTIA TONSA Dana.

Acartia tonsa Dana, Crust. U. S. expl. exped., 1853, pt. 2, p. 1122; atlas, 1855, pl. 79, fig. 4. "PORT JACKSON, NEW SOUTH WALES." Wheeler, Bull. U. S. fish comm. for 1899 (1900), p. 183, text fig. 20.

MASS. — Plymouth Harbor; Woods Hole, at Fish Commission wharf; Gulf Stream 70 miles south of Marthas Vineyard.

345. TORTANUS BUMPUSH (Wheeler).

Corynura bumpusii Wheeler, Bull. U. S. fish comm. for 1899 (1900), vol. 19, p. 184, text fig. 21. "VINEYARD SOUND, NEAR GAY HEAD *** WOODS HOLE."

MASS. — Woods Hole; Vineyard Sound near Gay Head.

CYCLOPIDAE.

Free swimming copepods.

343. OITHONA SIMILIS Claus.

Oithona similis Claus, Die Copepoden-Fauna von Nizza, 1866, p. 14. [NIZZA.] Wheeler, Bull. U. S. fish comm. for 1899 (1900), vol. 19, p. 186, text fig. 23.

MASS. — Woods Hole at Fish commission wharf.

347. CYCLOPS VIRIDIS INSECTUS S. A. Forbes.

Cyclops insectus S. A. Forbes, Amer. nat., 1882, vol. 16, p. 649, pl. 9, fig. 6. "NORTHERN ILLINOIS."

Cyclops viridis var. *insectus* E. B. Forbes, Bull. Ill. state lab. nat. hist., 1897, vol. 5, p. 41, pl. 11, figs. 3-6.

MASS. — Cambridge, from the pond in Botanic Garden, and pool near Museum of Comparative Zoölogy.

348. CYCLOPS BICUSPIDATUS Claus.

Cyclops bicuspidatus Claus, Arch. f. Naturg., 1857, vol. 23, pt.

COPEPODA.

EUCOPEPODA.

CYCLOPIDAE.

1, p. 209, pl. 11, figs. 6-7. "DIE EINHEIMISCHEN CYCLOPIDEN."
E. B. Forbes, Bull. Ill. state lab. nat. hist., 1897, vol. 5, p. 44, pl.
12, figs. 1-4.

MASS. — Boston and Cambridge in the water-supplies, easily obtainable from the faucets in any house; Cambridge, in rain-pool near Museum of Comparative Zoölogy; Woods Hole.

349. *CYCLOPS ALBIDUS* (Jurine).

Monoculus quadricornis albidus Jurine, Histoire des Monocles, qui se trouvent aux environs de Genève, 1820, p. 44, pl. 2, figs. 10 & 11. "SURTOUT DANS LES MARES VOISINES DU CHÂTEAU-BLANC."

Cyclops albidus (subgenus *Macrocylops*) E. B. Forbes, Bull. Ill. state lab. nat. hist., 1897, vol. 5, p. 47, pl. 13.

MASS. — About Cambridge. Quite common.

350. *CYCLOPS SERRULATUS* Fischer.

Cyclops serrulatus Fischer, Bull. soc. imp. nat. Moscou, 1851, vol. 24, no. 4, p. 423, pl. 10, figs. 22-23. "SERGIEFSKOJE," NEAR ST. PETERSBURG.

Cyclops serrulatus (subgenus *Eucyclops*) E. B. Forbes, Bull. Ill. state lab. nat. hist., 1897, vol. 5, p. 54, pls. 17 & 18, figs. 1-3.

ME.

MASS. — About Cambridge, common in ponds, ditches and rain-pools; Woods Hole.

351. *CYCLOPS PRASINUS* Fischer.

Cyclops prasinus Fischer, Abh. k. bayerisch. akad. wiss., 1860, vol. 8, p. 652, pl. 20, figs. 19-25, 26a. "FUNCHAL (MADEIRA), *** BADEN-BADEN." E. B. Forbes, Bull. Ill. state lab. nat. hist., 1897, vol. 5, p. 57, pl. 19, figs. 1 & 2, pl. 20, figs. 1 & 2.

COPEPODA.

EUCOPEPODA.

CYCLOPIDAE.

MASS. — Cambridge. Very abundant in the blind ditches connected with Glacialis Pond.

352. *CYCLOPS PHALERATUS* Koch.

Cyclops phaleratus Koch, Deutschlands Crustaceen, Myriapoden und Arachniden, 1838, Heft 21, pl. 9 and corresponding text. "REGENSBURG."

Cyclops phaleratus (subgenus *Paracyclops*) E. B. Forbes, Bull. Ill. state lab. nat. hist., 1897, vol. 5, p. 59, pl. 20, fig. 3.

MASS. — Glacialis Pond, Cambridge. Abundant.

353. *CYCLOPS ELONGATUS* Claus.¹

Cyclops elongatus Claus, Die freilebenden Copepoden, 1863, p. 97, pl. 11, figs. 1 & 2. NEIGHBORHOOD OF CASSEL.

MASS. — Cambridge, sparingly in a rain-pool near the Museum of Comparative Zoölogy (Cragin).

CORYCAEIDAE.

Free-swimming copepods.354. *SAPPHIRINA GEMMA* Dana.

Sapphirina gemma Dana, Crust. U. S. expl. exped., 1853, pt. 2, p. 1252; atlas, 1855, pl. 88, figs. 1 & 2. "LAGULHAS BANK, SOUTH OF CAPE OF GOOD HOPE." Wheeler, Bull. U. S. fish comm. for 1899 (1900), vol. 19, p. 191, text fig. 28.

MASS. — Off Gay Head; Gulf Stream, 70 miles south of Martha's Vineyard, with chains of *Salpa cordiformis*.

¹ Not listed in E. B. Forbes's Revision, 1897, nor given in synonymy.

STRACODA.

EUCOPEPODA.

CYPRIDIDAE.

355. CYPRIS SCABRA Haldeman.

Cypris scabra Haldeman, Proc. acad. nat. sci. Phil., 1842, vol. 1, p. 184. "A SMALL POND NEAR CAMBRIDGE, MASS."

MASS.—Near Cambridge.

PHYLLOPODA.

CLADOCERA.

Water fleas.

SIDIDAE.

356. SIDA CRYSTALLINA (O. F. Müller).

Daphne crystallina O. F. Müller, Zool. Dan. prod., 1776, p. 200. Exact locality not given.

Sida crystallina Herrick, Twelfth ann. rept. geol. & nat. hist. sur. Minnesota, 1883 (1884), p. 20, pl. N, figs. 13-15.

MASS.—Cambridge and Southampton. Quite plenty everywhere.

357. DAPHNELLA BRACHYURA (Liévin).

Sida brachyura Liévin, Neueste schriften naturf. gesell. Danzig, 1848, vol. 4, heft 2, p. 20, pl. 4, figs. 3-9. ["DANZIGER GEGEND."]

Daphnella exspinosa Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 79 [3], pl. 2, figs. 1-4.

MASS.—Southampton. Common.

358. LATONA SETIFERA (O. F. Müller).

Daphne setifera O. F. Müller, Zool. Dan. prod., 1776, p. 200. Exact locality not given.

Latona setifera Herrick, Twelfth ann. rept. geol. & nat. hist. sur. Minnesota, 1883 (1884), p. 22, pl. N, fig. 8.

MASS.—In Cochituate water.

PHYLLOPODA.

CLADOCERA.

DAPHNIDAE.

359. CERIODAPHNIA DENTATA Birge.

Ceriodaphnia dentata Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 80 [4], pl. 1, figs. 1-2. "CAMBRIDGE. SOUTHAMPTON AND VICINITY, MASS.; MADISON, WIS."

MASS.— Cambridge; Southampton and vicinity.

360. CERIODAPHNIA CRISTATA Birge.

Ceriodaphnia cristata Birge, Trans. Wisconsin acad. sci., 1876-77 (1878) vol. 4, p. 82 [6], pl. 2, figs. 8 & 9. "SOUTHAMPTON, MASS."

MASS.— Southampton. Rare.

361. SCAPHOLEBERIS MUCRONATA (O. F. Müller).

Daphne mucronata O. F. Müller, Zool. Dan. prod., 1776, p. 200. Exact locality not given.

Scapholeberis mucronata Herrick, Twelfth ann. rept. geol. & nat. hist. sur. Minnesota, 1884, p. 42, pl. J, fig. 5.

Ranges over all Europe and eastern United States (Herrick).

362. DAPHNIA PULEX DENTICULATA Birge.

Daphnia pulex var. *denticulata* Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 87 [11], pl. 1, fig. 11. "CAMBRIDGE, MASS.; MADISON, WIS."

MASS.— Cambridge.

363. DAPHNIA LAEVIS Birge.

Daphnia laevis Birge, Trans. Wisconsin acad. sci., 1876-77. (1878), vol. 4, p. 88 [12], pl. 2, figs. 5-7. "IN A SMALL, MUDDY POOL NEAR MT. AUBURN STATION, WATERTOWN, MASS."

MASS.— Near Mt. Auburn Station, Watertown. In great numbers.

PHYLLOPODA.

CLADOCERA.

MACROTHRICIDAE.

364. LATHONURA RECTIROSTRIS (O. F. Müller).

Daphne recti-rostris O. F. Müller, Zool. Dan. prod., 1776, p. 199. Exact locality not given.

Lathonura rectirostris Liljeborg [Lilljeborg], De Crustaceis ex ordinibus tribus, 1853, p. 57, pl. 4, figs. 8-11, pl. 5, fig. 2, pl. 23, figs. 12-13.

MASS. — Cambridge. Rare.

335. STREBLOCERUS SERRICAUDATUS (Fischer).

Daphnia serricaudata Fischer, Bull. soc. imp. nat. Moscou, 1849, vol. 22, pt. 2, p. 46. "IM BEREICHE VON SERGIEFSKOJE BEI PETERHOF."

Streblocerus serricaudatus Matile, Bull. soc. imp. nat. Moscou, 1890, n. s., vol. 4, p. 137, pl. 4, figs. 23 & 23a.

MASS. — Quissett.

BOSMINIDAE.

366. BOSMINA LONGIROSTRIS (O. F. Müller).

Lynceus longirostris O. F. Müller, Zool. Dan. prod., 1776, p. 199. Exact locality not given.

Bosmina longirostris Herrick, Twelfth ann. rept. geol. & nat. hist. sur. Minnesota, 1883 (1884), p. 65, pl. J, fig. 2, pl. J1, fig. 2.

MASS. — Cambridge; Southampton. Rather rare.

367. BOSMINA CORNUTA (Jurine).

Monoculus cornutus Jurine, Histoire des Monocles, qui se trouvent aux environs de Genève, 1820, p. 142, pl. 14, figs. 8-10. "DANS LES MARES DE CH[^]TELAINÉ."

Bosmina cornuta Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 91 [15], pl. 2, fig. 10.

MASS. — Easthampton.

PHYLLOPODA.

CLADOCERA.

BOSMINIDAE.

368. BOSMINA OBTUSIROSTRIS G. O. Sars.

Bosmina obtusirostris G. O. Sars, Forh. vid.-selsk. Christiania, 1861 (1862), p. 153. "I OMEGNEN AF CHRISTIANIA." Birge, Trans. Wisconsin acad. sci., 1893, vol. 9, p. 300, pl. 12, figs. 10 & 11.

MASS. — Near Woods Hole, in a pool in Fay's Wood. Determined with doubt by Birge.

LYNCEIDAE.

369. PLEUROXUS PROCURVUS Birge.

Pleuroxus procurvus Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 92 [16], pl. 1, figs. 19-20. "GLACIALIS, CAMBRIDGE, MASS. * * * SOUTHAMPTON, MASS. * * * MADISON, WIS."

MASS. — Glacialis, Cambridge; Southampton.

370. PLEUROXUS STRAMINIUS Birge.

Pleuroxus straminius Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 94 [18], pl. 2, fig. 11. "CAMBRIDGE, MASS."

MASS. — Cambridge. Common.

371. PLEUROXUS INSCULPTUS Birge.

Pleuroxus insculptus Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 95 [19], pl. 2, fig. 12. "CAMBRIDGE, MASS. GLACIALIS, * * * SOUTHAMPTON, MASS."

MASS. — Glacialis, Cambridge (rather scarce); Southampton (not uncommon).

PHYLLOPODA.

CLADOCERA.

LYNCEIDAE.

372. *PLEUROXUS DENTICULATUS* Birge.

Pleuroxus denticulatus Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 96 [20], pl. 1, fig. 21. "GLACIALIS, CAMBRIDGE, MASS.; MADISON, WIS."

MASS. — Glacialis, Cambridge.

373. *PLEUROXUS HAMATUS* Birge.

Pleuroxus hamatus Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 98 [22], pl. 2, figs. 13 & 14. "SOUTHAMPTON, MASS."

MASS. — Southampton. Not rare.

374. *CHYDORUS SPHAERICUS* (O. F. Müller).

Lynceus sphaericus O. F. Müller, Zool. Dan. prod., 1776, p. 199. Exact locality not given.

Chydorus sphaericus Herrick, Twelfth ann. rept. geol. & nat. hist. sur. Minnesota, 1884, p. 116, pl. F, figs. 4, 7, 8 & 10.

Common wherever I have collected (Birge).

[Mass.]

375. *GRAPTOLEBERIS TESTUDINARIA* (Fischer).

Lynceus testudinarius Fisher, Mém. acad. Impér. sci. St.-Pétersbourg par divers savants, 1848, vol. 6, p. 191, pl. 9, fig. 12. "SERGIEFSKOJE BEI PETERHOF."

Graptoleberis inermis Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 102 [26], pl. 1, fig. 17.

MASS. — Cambridge and Southampton.

376. *ALONA ANGULATA* Birge.

Alona angulata Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 104 [28], pl. 2, fig. 16. "CAMBRIDGE, MASS."

MASS. — Cambridge. Not rare.

PHYLLOPODA.

CLADOCERA.

LYNCEIDAE.

377. ALONA PORRECTA Birge.

Alona porrecta Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 105 [29], pl. 1, fig. 16. "CAMBRIDGE, MASS. *** MADISON, WIS."

MASS.—Cambridge. Not common.

378. ALONA GLACIALIS Birge.

Alona glacialis Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 106 [30]. "GLACIALIS, CAMBRIDGE, MASS."

Alona glacialis Herrick, Twelfth ann. rept. geol. & nat. hist. sur. Minnesota, 1883 (1884), p. 100, pl. G, figs. 2, 3, & 8.

MASS.—Glacialis, Cambridge. Rare.

379. ALONA SPINIFERA Schödler.

Alona spinifera Schödler, Neue beitrage z. naturgesch. d. Cladoceren, Berlin, 1863, p. 18, pl. 1, figs. 17-22. "IN DER SPREE BEI TREPTOW; . . . AUCH IM CHARITI-GRABEN."

MASS.—Southampton. Quite common.

380. ALONA TUBERCULATA Kurz.

Alona tuberculata Kurz, SB. math.-naturw. cl. k. akad. wiss., Wien, 1874, vol. 70, pt. 1, p. 51, pl. 2, fig. 3. "IN DAS SEITENTHAL OBER DEUTSCHBROD UND IN EINER BUCHT DES SAZAVA-FLUSSES" [BOHEMIA].

MASS.—Southampton. Rather common.

381. ALONELLA ROSTRATA (Koch).

Lynceus rostratus Koch, Deutschlands Crustaceen, Myriapoden und Arachniden, 1841 (?), heft 36, pl. 12 and corresponding text. "IN KLEINEN WEIHERN DER HIESIGEN GEGEND KEINE SELTENHEIT."

PHYLLOPODA.

CLADOCERA.

LYNCEIDAE.

Pleuroxus acutirostris Birge, Trans. Wisconsin acad. sci., 1876-77 (1878), vol. 4, p. 99 [23], pl. 2, fig. 15.

MASS.—Southampton; Easthampton. Very rare.

382. *MONOSPILUS TENUIROSTRIS* (Fischer).

Lynceus tenuirostris Fischer, Mém. acad. Impér. sci. St.-Pétersbourg par divers savants, 1848, vol. 6, p. 193, pl. 10, fig. 3. "IN DEM BEREICHE VON SERGIEFSKOJE." Bull. soc. nat. imp. Moscou, 1854, vol. 27, pt. 1, p. 427, pl. 3, figs. 7-10.

MASS.—Easthampton.

383. *ACROPERUS LEUCOCEPHALUS* (Koch).

Lynceus leucocephalus Koch, Deutschlands Crustaceen, Myriapoden und Arachniden, 1841 (?), heft 36, pl. 10 and corresponding text. "IN DEM GRABEN DES BRUDERWEHR NAHE BEI REGENSBURG."

Acroperus leucocephalus Herrick, Twelfth ann. rept. geol. & nat. hist. sur. Minnesota, 1884, p. 81, pl. E, fig. 5, pl. I, fig. 9.

MASS.—Cambridge (common); Easthampton.

384. *CAMPTOCERCUS MACRURUS* (O. F. Müller).

Lynceus macrourus O. F. Müller, Zool. Dan. prod., 1776, p. 199. Exact locality not given.

Camptocercus macrourus Baird, Nat. hist. Brit. Entomostraca, 1850, p. 128, pl. 16, fig. 9.

MASS.—Cambridge. Not common.

POLYPHEMIDAE.

385. *POLYPHEMUS PEDICULUS* (Linné).

Monoculus pediculus Linné, Syst. nat., ed. 10, 1758, vol. 1, p. 635. "HABITAT IN EUROPÆ AQUIS DULCIBUS."

PHYLLOPODA.

CLADOCERA.

LYNCEIDAE.

Polyphemus pediculus Baird, Nat. hist. Brit. Entomostraca, 1850, p. 111, pl. 17, fig. 1.

MASS.—Cambridge. One specimen.

BRANCHIOPODA.

ESTHERIIDAE.

386. LIMNETIS GOULDII Baird.

Limnetis gouldii Baird, Ann. mag. nat. hist., 1862, (3), vol. 10, p. 393. "FRESH WATER AT ST. ANN'S, TWENTY MILES FROM MONTREAL, CANADA."

Limnetis gouldii Packard, Twelfth ann. rept. U. S. geol. & geogr. sur. for 1878 (1883), pt. 1, p. 299, text fig. 1.

In ponds.

N. H.—Hanover.

MASS.—Near Boston.

R. I.—Near Providence.

387. LIMNADIA AMERICANA Morse.

Limnadia americana Morse, Proc. Boston soc. nat. hist., 1868, vol. 11, p. 404. "IN THIS VICINITY."

[*Limnadia americana*] Morse, First book of Zoölogy, 1875, p. 148, fig. 138, L. "LYNN, MASS."

MASS.—Lynn; Woods Hole (determined with doubt).

388. EULIMNADIA AGASSIZII (Packard).

Limnadia agassizii Packard, Sixth ann. rept. Peabody acad. sci., Salem, 1874, p. 54. "POOL OF FRESH WATER ON PENIKESE ISLAND, BUZZARD'S BAY."

Eulimnadia agassizii Packard, Twelfth ann. rept. U. S. geol. & geogr. sur. for 1878 (1883), pt. 1, p. 311, pl. 7, figs. 5 & 6, text fig. 14.

Fresh-water pools.

MASS.—Woods Hole (determined with doubt); Penikese.

PHYLLOPODA.

BRANCHIOPODA.

BRANCHIPODIDAE.

389. ARTEMIA GRACILIS Verrill.

Artemia gracilis Verrill, Amer. journ. sci., 1869, (2), vol. 48, p. 248. "NEAR NEW HAVEN, IN TUBS OF WATER FROM SALT MARSH." Proc. Amer. assoc. adv. sci., 1869 (1870), vol. 18, p. 235 [6], text figs. 1 & 2. Packard, Twelfth ann. rept. U. S. geol. & geogr. sur. for 1878 (1883), pt. 1, p. 330, pl. 8, pl. 22, figs. 1, 2, 2a, 2b, pl. 23, text figs. 17 & 18.

In salt and alkaline lakes, and in artificial bodies of salt water.
 MASS.—Charlestown; Cape Cod; Falmouth.
 CONN.—New Haven.

390. EUBRANCHIPUS VERNALIS (Verrill).

Branchipus vernalis Verrill, Amer. journ. sci., 1869, (2), vol. 48, p. 251. "NEW HAVEN, IN STAGNANT POOLS * * * SALEM * * * CAMBRIDGE." Packard, Twelfth ann. rept. U. S. geol. & geogr. sur. for 1878 (1883), pt. 1, p. 342, pl. 11, figs. 2-6; pl. 22, figs. 3-6.

Eubbranchipus vernalis Verrill, Proc. Amer. assoc. adv. sci., 1869 (1870), vol. 18, p. 241 [12], text figs. 5 & 6.

In ponds and stagnant pools.
 MASS.—Danvers; Salem; Waltham; Cambridge; Brookline;
 Dorchester; Seekonk.
 R. I.—Pawtucket; Newport.
 CONN.—New Haven.

CRUSTACEA.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Ocypode albicans</i>							
<i>Uca pugnax</i>				+			
<i>pugilator</i>				+			
<i>minax</i>							
<i>Geryon quinquedens</i>	—						—
<i>Grapsus grapsus</i>							
<i>Pachygrapsus transversus</i>							
<i>Planes minutus</i>							
<i>Sesarma reticulatum</i>							
<i>Pinnotheres ostreum</i>							
<i>maculatus</i>				+			
<i>Pinnixa chaetoptera</i>							
<i>sayana</i>							
<i>Eupanopeus herbstii</i>							
<i>Eurypanopeus depressus</i>				+			
<i>Neopanope texana sayi</i>				+			
<i>Hexapanopeus angustifrons</i>						+	
<i>Rhithropanopeus harrisi</i>						+	
<i>Carcinides maenas</i>	—			+			
<i>Portunus sayi</i>							
<i>Callinectes sapidus</i>							
<i>Ovalipes ocellatus</i>				+			
<i>Cancer irroratus</i>				+			
<i>borealis</i>	—	—		+			—
<i>Chionoecetes opilio</i>	—						—
<i>Hyas coarctatus</i>	+	—		+			—
<i>araneus</i>	—			+			—
<i>Pelia mutica</i>				+			
<i>Libinia emarginata</i>	—	—		+		+	
<i>dubia</i>				+			
<i>Heterocrypta granulata</i>							
<i>Calappa flammea</i>				—			
<i>Petrolisthes armatus</i>							
<i>Polyonyx macrocheles</i>							
<i>Lithodes maja</i>	—						—
<i>Pagurus pollicaris</i>				+			

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Pagurus acadianus</i>	+	—	—	+	—	—	—
<i>longicarpus</i>		—	—	+	—	—	—
<i>pubescens</i>	+	—	—	—	—	+	—
<i>kroyeri</i>	—	—	—	—	—	—	+
<i>politus</i>	—	—	—	+	—	—	—
<i>annulipes</i>	—	—	—	—	—	—	—
<i>Emerita talpoida</i>	—	—	—	+	—	—	—
<i>Callinassa stimpsoni</i>	—	—	—	+	—	—	—
<i>Upogebia affinis</i>	—	—	—	+	—	—	—
<i>Axius serratus</i>	—	—	—	—	—	—	—
<i>Naushonia crangonoides</i>	—	—	—	—	—	—	—
<i>Homarus americanus</i>	—	—	+	+	—	—	—
<i>Cambarus bartonii</i>	—	—	+	—	—	—	—
<i>Penaeus brasiliensis</i>	—	—	—	—	—	—	—
<i>Crago septemspinus</i>	+	—	—	+	—	+	—
<i>Sclerocrangon boreas</i>	+	—	—	—	—	—	—
<i>Pontophilus norvegicus</i>	—	—	—	+	—	—	—
<i>Sabinea septemcarinata</i>	—	—	—	—	—	—	—
<i>sarsii</i>	—	—	—	—	—	—	+
<i>Caridion gordonii</i>	—	—	—	—	—	—	—
<i>Latreutes ensiferus</i>	—	—	—	—	—	—	—
<i>Hippolyte zostericola</i>	—	—	—	+	—	—	—
<i>Spirontocaris groenlandica</i>	—	—	—	—	—	—	—
<i>spina</i>	+	—	—	—	—	—	—
<i>liljeborgii</i>	—	—	—	+	—	—	—
<i>phippisii</i>	—	—	—	—	—	—	—
<i>polaris</i>	—	—	—	—	—	—	—
<i>fabricii</i>	—	—	—	+	—	—	—
<i>gaimardii</i>	—	—	—	—	—	—	—
<i>pusiola</i>	+	—	—	—	—	—	—
<i>Pandalus borealis</i>	+	—	—	—	—	—	—
<i>montagui</i>	+	—	—	—	—	—	—
<i>leptocerus</i>	—	—	—	+	—	—	—
<i>propinquus</i>	—	—	—	—	—	—	+
<i>Acanthephyra agassizii</i>	—	—	—	—	—	—	—
<i>Palaemonetes vulgaris</i>	—	—	—	+	—	—	—
<i>Pasiphaea tarda</i>	—	—	—	—	—	—	—
<i>Rhoda inermis</i>	—	—	—	—	—	—	—

<i>Nyctiphanes norvegica</i>	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Mysis mixta</i>							
<i>stenolepis</i>							
<i>americana</i>				+			
<i>Heteromysis formosa</i>							
<i>Erythrops goeessi</i>							
<i>Parerythrops robusta</i>							
<i>Pseudomma roseum</i>							
<i>Lysiosquilla armata</i>							
<i>scabricauda</i>							
<i>Chloridella empusa</i>				+	+		
<i>Lamprops quadruplicata</i>							
<i>Leucon nascooides</i>							
<i>Eudorella hispida</i>							
<i>pusilla</i>							
<i>deformis</i>							
<i>Diastylis lucifera</i>							
<i>sculpta</i>							
<i>quadrispinosa</i>							
<i>abbreviata</i>							
<i>polita</i>							
<i>Leptostylis ampullacea</i>							
<i>longimana</i>							
<i>Campylaspis rubicunda</i>							
<i>Tanais cavolinii</i>							
<i>Leptognathia coeca</i>							
<i>Heterotamais limicola</i>							
<i>Leptochelia rapax</i>							
<i>SAVIGNYI</i>							
<i>Gnathia cerina</i>							
<i>Anthurus tenuis</i>							
<i>Cyathura carinata</i>							
<i>Galathura brachiatra</i>							
<i>Cirrolana concharum</i>				+			
<i>polita</i>							
<i>Aega psora</i>							

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
Rocinela americana	—						
Syscenus infelix							
Aegathoa loliginea							
Nerocila munda							
Cymothoa excisa							
Livoneca ovalis							
Linnoria lignorum	+			+	—	—	—
Sphaeroma quadridentatum				—	—	—	—
Chiridotea coeca				+		+	
tuftsii	+			—	—	—	—
Idothea marina	—			+	—	—	—
phosphorea	—			—	—	—	—
metallica	—			—	—	—	—
Synidotea nodulosa				—	—	—	—
Erichsonella attenuata				—	—	—	—
filiformis	—			—	—	—	—
Edotea triloba	—			—	—	—	—
montosa	—			—	—	—	—
Astacilla granulata				—	—	—	—
Asellus communis				—	—	—	—
Jaera albifrons				+	—	—	—
Janira alta	—			—	—	—	—
Munna fabricii	—			—	—	—	—
Munnopsis typica	—			—	—	—	—
Ilyarachna, sp.				—	—	—	—
Oniscus asellus	—			—	—	—	—
Philoscia vittata	—			—	—	—	—
Porcellio rathkei	—			—	—	—	—
spiniornis	—			—	—	—	—
scaber	—			—	—	—	—
convexus	—			—	—	—	—
Armadillidium vulgare				—	—	—	—
Ligyda oceanica				—	—	—	—
Actoniscus ellipticus				—	—	—	—
Scyphacella arenicola				—	—	—	—
Phryxus abdominalis	—			—	—	—	—
Stegophryxus hyptius	—			—	—	—	—
Bopyroides hippolytes	+			—	—	—	—
Probopyrus pandalicola	—			—	—	—	—

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Ione thompsoni</i>							
<i>Vibilia viatrix</i>							
<i>Hyperia galba</i>	+			+		+	
<i>medusarum</i>	—			—		—	
<i>Euthemisto compressa</i>				—			
<i>bispinosa</i>				—			—
<i>Phronima sedentaria</i>				—			
<i>Oxycephalus clausi</i>				—			
<i>Thyropus</i> , sp.				—			
<i>Talorchestia longicornis</i>				+	—		
<i>megalophthalma</i>	—			—			+
<i>Orchestia agilis</i>	+			—	—	+	
<i>palustris</i>				+			
<i>Allorchestes littoralis</i>	—			—		—	
<i>Hyalella dentata</i>	—			—		—	
<i>Anonyx nugax</i>				+			
<i>Tryphosa pinguis</i>				+			
<i>Hippomedon serratus</i>				—			
<i>Hoplonyx cicada</i>				—			
<i>Lysianopsis alba</i>				—			
<i>Pontoporeia femorata</i>				—			
<i>Haustorius arenarius</i>				—		—	
<i>Phoxocephalus holbölli</i>	—			—			—
<i>Paraphoxus spinosus</i>				—			
<i>Harpinia plumosa</i>	—			—			—
<i>Ampelisca macrocephala</i>	—			+	—		—
<i>spinipes</i>				—	+	+	
<i>compressa</i>				+	+	+	
<i>agassizi</i>				—	—		
<i>Byblis gaimardii</i>	+			—			
<i>serrata</i>	—			—			
<i>Haploops tubicola</i>	—			—			—
<i>setosa</i>	—			—			—
<i>robusta</i>	—			—			—
<i>Stegocephalus inflatus</i>	+			+	—		—
<i>Metopa groenlandica</i>	—			—			—
<i>Stenothoe peltata</i>				—			—
<i>cypris</i>				—			—

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges BK., etc.
<i>Stenothoë minuta</i>				—			
<i>Leucothoë spinicarpa</i>							—
<i>Paroediceros lynceus</i>	+			+			—
<i>Monoculodes edwardsi</i>				—	—		
<i>Pleustes panoplus</i>	—						
<i>Paramphithoë pulchella</i>	—						
<i>Sympleustes glaber</i>	+						
<i>Epimeria loricata</i>	+			—			—
<i>Acanthozone cuspidata</i>	—						—
<i>Acanthonotosoma serratum</i>	—						—
<i>Lafystius sturionis</i>	—						
<i>Syrrhoë crenulata</i>	—			+			
<i>Pardalisca cuspidata</i>	—			—			
<i>Rhachotropis aculeata</i>	—			+			—
<i>Calliopius laeviusculus</i>	—			+	—		
<i>Halirages fulvocinctus</i>	—			+			
<i>Apherusa gracilis</i>	—			+			
<i>Pontogeneia inermis</i>	—			+			—
<i>Dexamine thea</i>	—			—		—	
<i>Batea secunda</i>	—			—			
<i>Melphidippa spinosa</i>	—						
<i>Gammarus locusta</i>	+	—		+	—	+	
<i>annulatus</i>	—			—	—	+	
<i>marinus</i>	—			—	—	—	
<i>fasciatus</i>	—			—	—	—	
<i>Carinogammarus mucronatus</i>	—			+	—		
<i>Melita dentata</i>	—			—	—		—
<i>nitida</i>	—			—	—		
<i>parvimana</i>	—			—	—		
<i>Maera danae</i>	+			—	—		—
<i>Elasmopus levis</i>	—			—	—		
<i>Gammarellus angulosus</i>	—			—	—		
<i>Crangonyx tenuis</i>	—			—	—		
<i>Microdeutopus gryllotalpa</i>	—			—	—		
<i>damnoniensis</i>	—			—	—		
<i>Autonoë smithi</i>	—			+	—		
<i>Ptilocheirus pinguis</i>	+	—		+	+	+	—
<i>Podoceropsis nitida</i>	+			—	—	—	—
<i>Amphithoë rubricata</i>	+			+	—	+	

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Amphithoë longimana</i>				+			
<i>Ischyrocerus anguipes</i>	—						
<i>Podocerus falcatus</i>							
<i>marmoratus</i>							
<i>Grubia compta</i>							
<i>Eriethonius rubricornis</i>							
<i>minax</i>							
<i>Cerapus tubularis</i>							
<i>Siphonocetes smithianus</i>							
<i>Corophium cylindricum</i>	—			+		+	
<i>Unciola irrorata</i>	+			+	+	—	—
<i>Chelura terebrans</i>							
<i>Dulichia porrecta</i>	—						
<i>Luconacia incerta</i>							
<i>Aegina longicornis</i>	—						
<i>longicornis nodosa</i>					—		
<i>spinifera</i>		—					
<i>spinosissima</i>	+			+		+	
<i>Paracaprella tenuis</i>							
<i>Caprella acutifrons</i>	—			+			
<i>linearis</i>	+	—		+			
<i>septentrionalis</i>	—						
<i>septentrionalis longicornis</i>	—						
<i>polyceros</i>	—						
<i>stimpsoni</i>	+						
<i>unica</i>							
<i>Trypetesa lampas</i>							
<i>Coronula diadema</i>				+			
<i>Balanus tintinabulum</i>							
<i>tintinabulum zebra</i>				+			
<i>amphitrite</i>				+			
<i>eburneus</i>						+	
<i>porcatus</i>	+				—	—	—
<i>crenatus</i>	—					+	—
<i>balanoides</i>	—				+	—	—
<i>hameri</i>							—
<i>Tetraclita squamosa</i>							—
<i>Scalpellum stroemii</i>							—

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Lepas anatifera</i>				+	—		
<i>hillii</i>				—	—		
<i>anserifera</i>				+			
<i>pectinata</i>				—			
<i>fascicularis</i>				—			
<i>Conchoderma aurita</i>				+			
<i>virgata</i>				—			
<i>Argulus latus</i>				—			
<i>laticauda</i>				—			
<i>megalops</i>				—			
<i>alosa</i>				—	—		
<i>catostomi</i>				—			
<i>funduli</i>				—		—	
<i>versicolor</i>				—		—	
<i>Bomolochus scomberesocis</i>				—			
<i>Ergasilus funduli</i>				—			
<i>Caligus rufimaculatus</i>				—			
<i>schistonyx</i>				—			
<i>bonito</i>				—			
<i>rapax</i>				—		—	
<i>mutabilis</i>				—			
<i>curtus</i>				—			
<i>chelifer</i>				—			
<i>belones</i>				—			
<i>pelamydis</i>				—			
<i>Caligodes megacephalus</i>				—			
<i>Lepeophtheirus nordmannii</i>				—			
<i>hippoglossi</i>				—			
<i>edwardsi</i>				—			
<i>thompsoni</i>				—			
<i>salmonis</i>				—			
<i>Gloiopotes ornatus</i>				—			
<i>Alebion gracile</i>				—			
<i>glabrum</i>				—			
<i>Trebins tenuifurcatus</i>				—			
<i>Nesippus alatus</i>				—			
<i>Echthrogaleus coleoptratus</i>				—			

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Echthrogaleus denticulatus</i>							
<i>Perissopus communis</i>							
<i>Pandarus cranchii</i>							
<i>sinuatus</i>							
<i>smithii</i>							
<i>Dinematura lamnae</i>	—						
<i>latifolia</i>					—		
<i>Cecrops latreillii</i>				+			
<i>Laemargus muricatus</i>							—
<i>Eudactylina nigra</i>							
<i>Dichelesthium sturionis</i>							
<i>Anthosoma crassum</i>							
<i>Lernanthropus brevoortiae</i>							
<i>pomatomi</i>							
<i>Philichthys xiphiae</i>							
<i>Sphaerifer lintoni</i>							
<i>Penella filosa</i>							
<i>costai</i>							
<i>Lernaeenicus radiatus</i>							
<i>Lerneonema</i> ? , sp.							
<i>Lernaeolophus sultanus</i>							
<i>Lernaea branchialis</i>	—			+			—
<i>Chondracanthus cornutus</i>							
<i>cottunculi</i>							
<i>galeritus</i>							
<i>phyeidis</i>							
<i>merluccii</i>							
<i>Lernaeopoda fontinalis</i>	—						
<i>Brachiella ramosa</i>							
<i>rostrata</i>							
<i>thynni</i>							
<i>Clavella uncinata</i>	—				—	—	—
<i>Calanus finmarchicus</i>							
<i>Hetercope</i> , sp.							
<i>Diaptomus leptopus</i>							
<i>Centropages typicus</i>							
<i>hamatus</i>							
<i>Temora longicornis</i>							

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Metridia lucens</i>							
<i>Labidocera aestiva</i>							
<i>Pontella meadii</i>							
<i>Anomalocera pattersonii</i>							
<i>Acartia tonsa</i>							
<i>Tortanus bumpusii</i>							
<i>Oithona similis</i>							
<i>Cyclops viridis insectus</i>							
<i>bicuspidatus</i>							
<i>albidus</i>							
<i>serrulatus</i>							
<i>prasinus</i>							
<i>phaleratus</i>							
<i>elongatus</i>							
<i>Sapphirina gemma</i>							
<i>Cypris scabra</i>							
<i>Sida crystallina</i>							
<i>Daphnella brachyura</i>							
<i>Latona setifera</i>							
<i>Ceriodaphnia dentata</i>							
<i>cristata</i>							
<i>Scapholeberis mucronata</i>							
<i>Daphnia pulex denticulata</i>							
<i>laevis</i>							
<i>Lathonura rectirostris</i>							
<i>Streblocerus serricaudatus</i>							
<i>Bosmina longirostris</i>							
<i>cornuta</i>							
<i>obtusirostris</i>							
<i>Pleuroxus procurvus</i>							
<i>straminius</i>							
<i>insculptus</i>							
<i>denticulatus</i>							
<i>hamatus</i>							
<i>Chydorus sphaericus</i>							
<i>Graptoleberis testudinaria</i>							
<i>Alona angulata</i>							

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Gulf of Me., Georges Bk., etc.
<i>Alona porrecta</i>							
<i>glacialis</i>							
<i>spinifera</i>							
<i>tuberculata</i>							
<i>Alonella rostrata</i>							
<i>Monospilus tenuirostris</i>							
<i>Acroperus leucocephalus</i>							
<i>Camptocercus macrurus</i>							
<i>Polyphemus pediculus</i>							
<i>Limnetis gouldii</i>		—					
<i>Limnadia americana</i>							
<i>Eulimnadia agassizii</i>							
<i>Artemia gracilis</i>							
<i>Eubranchipus vernalis</i>						—	

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, with record of locality; 3d, reference to an authentic description and illustration, and 4th, habitat and occurrence.

The Committee considers these lists a necessary preliminary to a series of comprehensive, illustrated monographs, the publication of which it is hoped the Society will at some later time take upon itself.

The Committee also believes that these lists will aid in the accumulation of valuable material for the New England collection of the Society. With this in view a separate check list of names will be issued with each part. In this check list the + indicates a specimen in the Society's Museum; the - that a trustworthy record exists.

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" (Samuel Henshaw).

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