Prodrome for a distributional check-list and bibliography of the recent marine mollusca of the west coast of Canada

by F. Bernard

FISHERIES RESEARCH BOARD OF CANADA

TECHNICAL REPORT NO. 2

1967

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FISHERIES RESEARCH BOARD OF CANADA

TECHNICAL REPORT NO. 2

PRODROME FOR A DISTRIBUTIONAL CHECK-LIST AND BIBLIOGRAPHY OF THE RECENT MARINE MOLLUSCA OF THE WEST COAST OF CANADA

by

F. Bernard

FISHERIES RESEARCH BOARD OF CANADA

Biological Station, Nanaimo, B. C.

1967

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INTRODUCTION

Marine malacology in western Canada has a history of little more than one hundred years. The first attempted complete summary was made by Philip P. Carpenter in 1857. This survey listed 86 species, the majority of which were either south Californian or Arctic. In 1864 Carpenter extended the list to 200 species (including Brachiopoda). These two papers reviewed the existing literature and noted the distributional data. The next major contributor to the knowledge of the northeastern Pacific molluscan fauna was Whiteaves who, in the period 1879-1886, authored three catalogues of the shells of the Queen Charlotte Islands and adjacent Hecate Strait, adding 47 species to the west Canadian fauna.

G. W. Taylor of Nanaimo, B. C., was one of the first workers to assemble systematic local collections, and in 1895 published an important check-list dealing solely with British Columbia. He listed 279 species as indigenous.

Modern knowledge of the molluscan fauna of the coast of northwestern America is based upon William H. Dall's monumental "Summary of the marine shell-bearing mollusks of the northwest coast of America, from San Diego, California, to the Polar Sea" (1921, Bulletin 112, U. S. National Museum). This work lists 371 British Columbian species exclusive of Cephalopoda and Nudibranchiata. Each species has a reference to the original description, to an illustration (if available) and the geographic range.

W. A. Clemens (1933) compiled a check-list of the marine fauna of British Columbia, including 529 molluscs.

In 1937 A. M. Keen presented a paper listing the bibliography and geographical ranges of west North American Mollusca. This important work put forward the first true statistical attempt to define molluscan provinces. Careful consideration was given to this biometrical analysis by Schenck and Keen (1936) and it has been criticized by Newell (1948). It appears that the Schenck and Keen "midpoint method" for determining faunistic provinces has little relation to actual distributional patterns. Such an analytical technique would lend itself to vertical determination of palaeontological series (if abundance is also considered), but not to existing horizontal patterns which are acted upon by irregular modifying environmental influences. Indeed, the conception of a province as a "block" consisting of species with restricted ranges at the centre, bounded by species of wider distribution, is highly speculative. In consideration of these objections, this prodrome merely lists the southernmost and northernmost known distribution, to the nearest degree of latitude; no mid-point inferences are drawn.

Since 1930 the Fisheries Research Board of Canada's Nanaimo Station has been retaining marine invertebrate specimens collected incidentally during regular sampling and dragging programs. In 1950, under the direction of Dr. D. B. Quayle, a systematic coverage of the littoral and offshore

waters of British Columbia and Alaska was instituted. This continuing programme places emphasis on the invertebrate fauna, particularly Mollusca, and a considerable representative collection has been assembled.

The geographical distribution of the stations is plotted in text charts A and B. Beach collecting stations and those taken close to shore have been omitted.

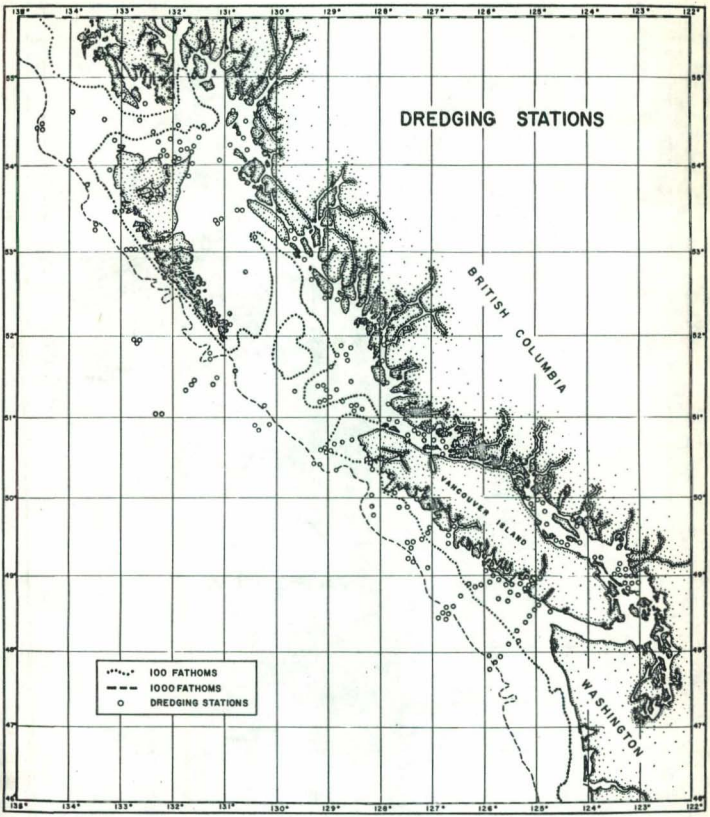
This paper is based upon these stations, distributional data being extracted from over 522 localities, not including many beach collections. The programme has greatly increased knowledge of the fauna of the eastern part of the North Pacific.

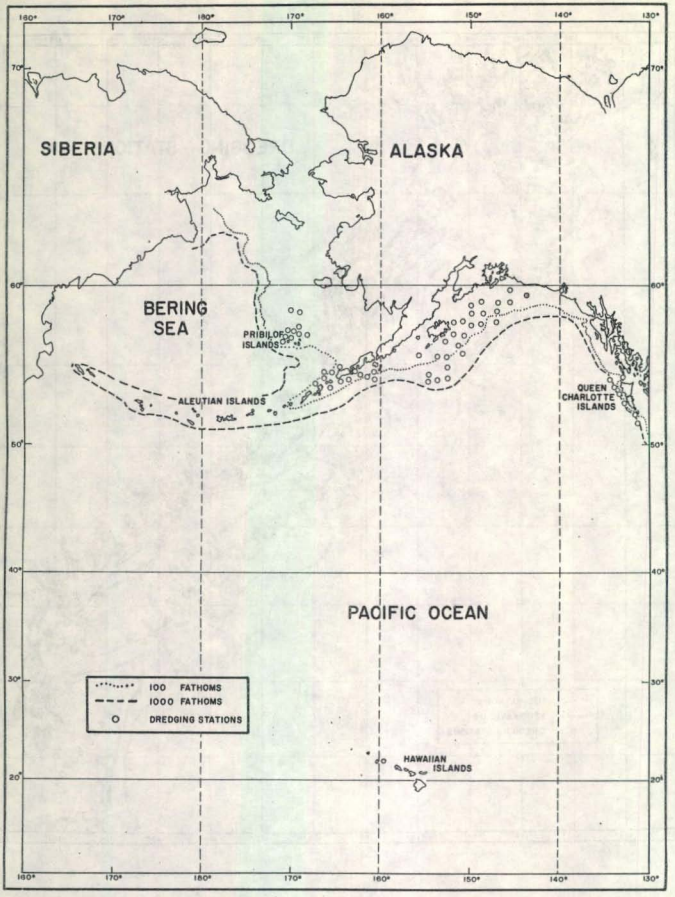
As more data are added it is intended that this paper will provide the basis of a statistical study of the zoographical distribution of molluscs in the Eastern Pacific. Primary evaluation of the bathymetric ranges was attempted and yielded discontinuities at 20, 400, and 800 fathoms. Review of all collecting stations demonstrated a lack of sampling at 350-450 fathoms and 800-900 fathoms. Such interruptions, due in most part to extensive rocky areas at these depths, would generate statistical artifacts. The situation will be rectified in 1966-1967 by further dredging and all data will be placed on IBM cards.

This catalogue lists 23 species not previously included in the western Canadian faunal lists. Taxonomically there are many unresolved points. Little attention has been paid to latter nomenclatural changes, the main objective being to obtain a working list with distributional data for each species, this very information being of aid to systematic evaluation. Grant and Gale (1931) give excellent synonymies for those species extending from the Pleistocene. Palmer (1958) covers the Carpenter species in detail. Apart from these important papers, few recent workers have given extensive synonymies. It is likely that a good number of synonyms remain in the west Canadian molluscan fauna, the legacy of the proclivity of some early workers who attached new names at the slightest provocation to every variant not previously catalogued.

Ranges are expressed to the nearest degree of latitude. For the purposes of this prodrome the coastline of British Columbia is considered to extend from 48°N to 55°N. Due to the relative location of the Aleutian archipelago there are a number of species occupying the same latitude as British Columbia but not of its fauna. Such occurrences have been ignored as they belong to the Aleutian fauna. Depths are in fathoms and apply to British Columbia waters only. Many species have a shallower and deeper range in Alaska and California respectively.

In the bathymetric notes "littoral" is used for species that are found in shallow waters as well as on the beach. "Intertidal" is used for those species which are predominantly limited to areas that have some degree of exposure.


DREDGING STATIONS
BRITISH COLUMBIA
VANCOUVER ISLAND
WASHINGTON
100 FATHOMS
1000 FATHOMS
DREDGING STATIONS


160°
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SIBERIA
ALASKA
BERING SEA
PRIBILOF ISLANDS
ALEUTIAN ISLANDS
QUEEN CHARLOTTE ISLANDS
PACIFIC OCEAN
100 FATHOMS
1000 FATHOMS
DREDGING STATIONS
HAWAIIAN ISLANDS

For clarity and ease of reference the fauna has been divided into 7 taxa. To avoid confusion generic authors and full references are given. Table A lists the taxa with generic and specific totals.

Table A.

Taxon	Genera	Species
Amphineura	15	44
Pelecypoda	89	251
Gastropoda	112	323
Opisthobranchiata	44	137
Pulmonata	3	3
Scaphopoda	2	11
Cephalopoda	9	11
Totals	274	780

Thanks are extended to Dr. I. McTaggart Cowan for his encouragement and assistance. Many of the range extensions that are listed here are based on Dr. Cowan's identifications. Grateful acknowledgments are made to Dr. G. C. Carl, Director of the Provincial Museum, Victoria, for permission to examine collections. Dr. A. M. Keen, Stanford University, provided helpful information on obscure references. Dr. J. H. McLean of the Los Angeles County Museum was of great assistance with comparative material. Messrs. R. R. Talmage and W. J. Eyerdam were unstinting in their help, provided many northern range extensions and reviewed the paper. Mrs. V. Whittaker interpreted the rough notes with great patience and thanks are expressed for her many helpful suggestions.

This prodrome was prepared under the supervision and direction of Dr. D. B. Quayle. Warmest appreciation is expressed to Dr. Quayle for giving me the opportunity to work on this material and for all his encouragement and help with taxonomical matters and literature.

Systematic list of Genera

Class AMPHINEURA

Subclass POLYPLACOPHORA

Order Neoloricata

Superfamily Acanthochitonina

Superfamily Ischnochitonina

Superfamily Lepidopleurina

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Superfamily Cocculinacea

Superfamily Trochacea

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Superfamily Pyramidellacea

Superfamily Scaphandracea

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Check-List of Marine Species

Class AMPHINEURA

AMICULA Gray 1847, Proc. Zool. Soc. London, p. 192.

Amicula amiculata Pallas 1786, Nova Acta Acad. Sci. Imp. Petrop., 2: 235.

Type locality. Kuril Islands.

Range. 32-53 Depth. Littoral.

CALLISTOCHITON Carpenter 1882, in Dall Proc. U.S. Nat. Mus., 1: 26-30.

Callistochiton aepynotus Dall 1919, Proc. U.S. Nat. Mus., 55: 511.

Type locality. Puget Sound in 37 fathoms.

Range. Type locality. Depth. 37 fathoms.

Callistochiton crassicostatus Pilsbry 1892, Man. Conch., 14: 264.

Type locality. Monterey, California.

Range. 32-58 Depth. Littoral.

CHAETOPLEURA Shuttleworth 1853, Mitt. natur. f. Ges. Bern.: 190.

Chaetopleura beanii Carpenter 1857, Mazatlan Catalogue, p. 197.

Type locality. Mazatlan, Mexico.

Range. 23-52 Depth. 85 fathoms.

Chaetopleura gemma Carpenter 1892, in Pilsbry's Man. of Conch., 14: 31, pl. 13.

Type locality.

Range. 36-54 Depth. 120 fathoms.

Chaetopleura thamnopora Berry 1911, Proc. Acad. Nat. Sci. Phila., p. 487.

Type locality. Monterey, California.

Range. 36-48 Depth. 40 fathoms.

CRYPTOCHITON Middendorff and Gray 1847,

Cryptochiton stelleri Middendorff 1846, Acad. Sci. St. Petersb., No. 8, 7: 116.

Type locality. Kamchatka.

Range. 38-60 Depth. Littoral.

CYANOPLAX Pilsbry 1892, (in Tryon) Man. Conch., 14, XXV: 44.

Cyanoplax dentiens Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 145.

Type locality. Puget Sound, Washington.

Range. 25-50 Depth. Intertidal.

Synonym. Lepidochiton dentiens Gould.

HANLEYA Gray 1857, Guide Syst. Dist. Moll. Brit. Mus.: 186.

Hanleya hanleyi Bean 1844, Suppl. Thorpe's Brit. Mar. Conch., p. 263.

Type locality. Scarborough, England.

Range. 36-57 Depth. 50 fathoms.

ISCHNOCHITON Gray 1847, Proc. Zool. Soc. London, 15: 126.

Ischnochiton abyssicula A.G. Smith and I. Cowan 1966, Occ: Papers, Cal. Acad. Sci., 56: 4.
Type locality. Triangle Island, Queen Charlotte Islands, B.C.

Range. 44-55 Depth. 470-534 fathoms.

Ischnochiton fallax Carpenter 1892, Pilsbry Man. of Conch., 14: 59.

Type locality. Monterey, California.

Range. 28-49 Depth. 85 fathoms.

Ischnochiton golischi Berry 1919, Lorquinia, p. 5.

Type locality. Off Santa Monica, California, in 100 fathoms.

Range. 36-48 Depth. 60-120 fathoms.

Ischnochiton interstinctus Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 145.

Type locality. Not given.

Range. 36-57 Depth. 50-100 fathoms.

Ischnochiton mertensii Middendorff 1846, Bull. Imp. Acad. Sci. St. Petersb., 6: 118.

Type locality. California.

Range. 34-57 Depth. Intertidal.

Ischnochiton radians Carpenter 1892, in Pilsbry's Man. of Conch., 14: 121.

Type locality. Monterey, California.

Range. 33-58 Depth. 100 fathoms.

Ischnochiton retiporosus Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 649.

Type locality. Puget Sound.

Range. 33-53 Depth. 40 fathoms.

Synonym. I. retiporosus punctatus Whiteaves.

Ischnochiton trifidus Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 649.

Type locality. Not listed.

Range. 48-57 Depth. 76 fathoms.

KATHERINA Gray 1847, Proc. Zool. Soc. London, 15: 65.

Katherina tunicata Wood 1815, Gen. Conch., p. 11.

Type locality. West coast of North America.

Range. 33-57 Depth. Littoral.

LEPIDOCHITON Gray 1821, London Med. Reposit., 15: 234.

Lepidochiton alba Linnaeus 1767, Syst. Nat. 12: 1107.

Type locality. Iceland.

Range. 32-60 Depth. 90-100 fathoms.

Lepidochiton flectens Carpenter 1864, Supp. Rept. Brit. Assoc. Adv. Sci. for 1863, p. 649.

Type locality. Puget Sound.

Range. 32-49 Depth. 60 fathoms.

Lepidochiton hartwegii Carpenter 1855, Proc. Zool. Soc. London, p. 231.

Type locality. Monterey, California.

Range. 33-55 Depth. 25 fathoms.

Synonym. L. hartwegii nuttalli Carpenter.

Lepidochiton raymondi Pilsbry 1894, Nautilus, 8: 46.

Type locality. San Francisco, California.

Range. 32-60 Depth. 120 fathoms.

Lepidochiton sharpei Pilsbry 1896, Nautilus, 10: 50.

Type locality. Unalaska, Alaska.

Range. 55-57 Depth. 80 fathoms.

LEPIDOPLEURUS Risso 1826, (Leach MS) H.N. Europe, 4: 267.

Lepidopleurus belknapi Dall 1878, Proc. U.S. Nat. Mus., 1: 1.

Type locality. North Pacific Ocean in 1006 fathoms.

Range. 51-57 Depth. 450 fathoms.

Lepidopleurus cancellatus Sowerby 1839, Conch. Illus., Chiton, figs. 104, 105.

Type locality. England.

Range. 43-57 Depth. 50-70 fathoms.

Lepidopleurus internexus Carpenter 1892, in Pilsbry's Man. Conch., 14: 12.

Type locality. Santa Barbara, California.

Range. 32-60 Depth. 100 fathoms.

Lepidopleurus luridus Dall 1902, Proc. U.S. Nat. Mus., 24: 556.

Type locality. Panama Bay in 1270 fathoms.

Range. 8-48 Depth. 40-300 fathoms.

Lepidopleurus mesoqonus Dall 1902, Proc. U.S. Nat. Mus., 24: 555.

Type locality. Off Queen Charlotte Islands, B.C., in 1588 fathoms.

Range. 53-58 Depth. 700 fathoms.

MOPALIA Gray 1847, Proc. Zool. Soc. London, 15: 65.

Mopalia ciliata Sowerby 1840, Ann. Mag. Nat. Hist., 4: 289.

Type locality. Not listed.

Range. 32-54 Depth. Intertidal.

Mopalia egretta Berry 1919, Lorquinia, p. 5.

Type locality. Forrester Island, Alaska, in 20 fathoms.

Range. 48-57 Depth. Littoral.

Mopalia goniura Dall 1919, Proc. U.S. Nat. Mus., 55: 513.

Type locality. Port Althorp, Alaska.

Range. 47-64 Depth. Littoral.

Remarks. Status dubius.

Mopalia hindsii Reeve 1847, Conch. Iconica, Chiton, pl. 12, figs. 67a, b.

Type locality. Not listed.

Range. 33-60 Depth. Intertidal.

Mopalia imporcata Carpenter 1864, Supp. Rept. Brit. Assoc. Adv. Sci. for 1863, p. 648.

Type locality. Puget Sound.

Range. 32-58 Depth. 10-50 fathoms.

Mopalia lignosa Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 142.

Type locality. Puget Sound.

Range. 23-57 Depth. Intertidal.

Mopalia muscosa Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 145.

Type locality. Puget Sound, Washington.

Range. 32-58 Depth. Littoral.

Synonym. M. muscosa kennerlyi Carpenter.

Mopalia sinuata Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 648.

Type locality. Puget Sound.

Range. 37-55 Depth. 50 fathoms.

NUTTALLINA Dall 1871, Amer. Journ. Conch., 7: 135.

Nuttallina californica Reeve 1847, Conch. Iconica, Chiton, pl. 16, fig. 89.

Type locality. California.

Range. 32-44 Depth. Littoral.

PLACIPHORELLA Dall 1874, Proc. U.S. Nat. Mus., 1: 298.

Placiphorella pacifica Berry 1919, Lorquinia, p. 6.

Type locality. Kasa-an-Bay, Alaska, in 95 fathoms.

Range. 54-63 Depth. 400 fathoms.

Placiphorella stimpsoni Gound 1859, Proc. Boston Soc. Nat. Hist., 7: 165.

Type locality. Hakodadi Bay, Japan.

Range. 28-58 Depth. Intertidal.

SCHIZOPLAX Dall 1878, Proc. U.S. Nat. Mus., 1: 2.

Schizoplax multicolor Dall 1920, N. autilus, 34: 22.

Type locality. St. Paul Island, Bering Sea.

Range. 54-55 Depth. 40 fathoms.

TONICELLA Carpenter 1873, Bull. Essex Inst., No. 5, 5: 154.

Tonicella lineata Wood 1815, Gen. Conch., p. 15.

Type locality. Not listed.

Range. 32-56 Depth. Intertidal.

Tonicella ruber Linnaeus 1767, Syst. Nat. 12: 1107.

Type locality. Unknown.

Range. 36-60 Depth. 2-10 fathoms.

Tonicella saccharina Dall 1878, Proc. U.S. Nat. Mus., 1: 2.

Type locality. Aleutians.

Range. 32-57 Depth. 60 fathoms.

Tonicella submarmorea Middendorff 1848, Bull. Imp. Acad. Sci. St. Petersb., 6: 120.

Type locality. Not listed.

Range. 48-60 Depth. 80-100 fathoms.

Class PELECYPODA

ACILA H. and A. Adams 1858, Gen. Rec. Moll., 2: 545.

Acila castrensis Hinds 1843, Proc. Zool. Soc. London, p. 98.

Type locality. Sitka, Alaska.

Range. 28-64 Depth. 30-300 fathoms.

ALIGENA Lea 1843, Proc. Amer. Philo. Soc., 3: 163.

Aligena (Odontogena) borealis Cowan 1964, Veliger, No. 2, 7: 108.

Type locality. Straits of Georgia, British Columbia.

Range. Type locality. Depth. 190 fathoms.

ASTARTE Sowerby 1816, Min. Conch. of Gt. Brit., 2: 85.

Astarte alaskensis Dall 1903, Proc. U.S. Nat. Mus., 26: 946.

Type locality. N.W. of Unimak Island, Bering Sea.

Range. 48-74 Depth. 10-120 fathoms.

Astarte arctica Gray 1824, Appen. Parry's Voyage, p. 243.

Type locality. Northern seas.

Range. 54-74 Depth. 10-60 fathoms.

Astarte borealis Schumacher 1817, Essai Nouv. Syst. Hab. Vers Test., p. 47.

Type locality. Unknown.

Range. 55-75 Depth. 15-100 fathoms.

Astarte compacta Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 642.

Type locality. Puget Sound.

Range. 48-57 Depth. 10-70 fathoms.

Astarte esquimalti Baird 1863, Proc. Zool. Soc. London, p. 70.

Type locality. Esquimalt Harbour, Vancouver Island, British Columbia.

Range. 48-60 Depth. 10-40 fathoms.

Astarte vernicosa Dall 1903, Proc. U.S. Nat. Mus., 26: 948.

Type locality. Icy Cape, Arctic Ocean.

Range. 54-72 Depth. 30-60 fathoms.

Astarte willetti Dall 1917, Nautilus, 31: 10.

Type locality. Forrester Island, Alaska.

Range. 48-54 Depth. 20-50 fathoms.

AXINOPSIDA Keen and Chavan 1951, Som. Soc. Geol. France for 1951, 12: 210.

Axinopsida serricata Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 643.

Type locality. Catalina Island, California.

Range. 23-56 Depth. 5-60 fathoms.

Axinopsida viridis Dall 1901, Proc. U.S. Nat. Mus., 23: 819.

Type locality. Plover Bay, Bering Sea.

Range. 32-72 Depth. 80-200 fathoms.

BANKIA Gray 1842, Syn. Brit. Mus., ed. 44, p. 76.

Bankia setacea Tryon 1863, Proc. Acad. Nat. Sci. Phila., p. 144.

Type locality. San Francisco, California.

Range. 23-61 Depth. Intertidal - 80 fathoms.

BORNIA Philippi 1863, Enum. Moll. Siciliae, 1: 13.

Bornia retifera Dall 1899, Proc. U.S. Nat. Mus., 21: 889.

Type locality. Santa Rosa Island, California.

Range. 34-50 Depth. Intertidal - 10 fathoms.

BOTULA Morch 1853, Cat. Conch. Yoldi., fasc. 2, p. 55.

Botula californiensis Philippi 1847, Zeitschr. Mal., p. 113.

Type locality. Vancouver Island, British Columbia.

Range. 32-54 Depth. Intertidal - 2 fathoms.

Botula diegensis Dall 1911, Nautilus, No. 10, 24: 110.

Type locality. San Diego, California.

Range. 23-48 Depth. Intertidal.

Botula falcata Gould 1851, Proc. Boston Soc. Nat. Hist., 4: 92.

Type locality. Monterey, California.

Range. 36-52 Depth. Littoral.

CALYPTOGENA Dall 1891, Proc. U.S. Nat. Mus., 14: 189.

Calyptogena pacifica Dall 1891, Proc. U.S. Nat. Mus., 14: 190.

Type locality. Dixon Entrance, Alaska, in 322 fathoms.

Range. 34-56 Depth. 300-500 fathoms.

CARDIOMYA A. Adams 1864, Ann. Mag. Nat. Hist., Ser. 3, 13: 330.

Cardiomya balboae Dall 1916, Proc. U.S. Nat. Mus., No. 52, p. 407.

Type locality. Cortez Bank, British Columbia.

Range. Type locality. Depth. 534 fathoms.

Cardiomya beringensis Lecke 1886, Vega Exped., Vet. Arb., 3: 438.

Type locality. Bering Sea.

Range. 8-60 Depth. 10-400 fathoms.

Cardiomya californica Dall 1886, Bull. Mus. Comp. Zool., No. 12, p. 296.

Type locality. Catalina Island, California.

Range. 32-49 Depth. 20-300 fathoms.

Cardiomya oldroydi Dall 1924, Pbl. Puget Sound Biol. Sta., 4: 33.

Type locality. Puget Sound.

Range. 48-49 Depth. 40 fathoms.

Cardiomya pectinata Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 637.

Type locality. Puget Sound.

Range. 8-49 Depth. 10-15 fathoms.

Cardiomya planetica Dall 1908, Bull. Mus. Comp. Zool., 12: 296.

Type locality. Off San Diego, California.

Range. 32-60 Depth. 50-80 fathoms.

CARDITA Bruguiere 1792, Encycl. Meth. Vers, Pt. 2, 1: 401.

Cardita crassidens Broderip and Sowerby 1829, Zool. Jour., 4: 365.

Type locality. Ice Cape, Arctic Ocean.

Range. 55-72 Depth. 150 fathoms.

Cardita crebricostata Krause 1885, Archiv. für Naturg., 51: 30.

Type locality. St. Paul Island, Alaska.

Range. 37-72 Depth. Intertidal - 20 fathoms.

Cardita paucicostata Krause 1885, Archiv. für Naturg., 51: 30.

Type locality. "Emmahafen".

Range. 48-72 Depth. Unknown.

Cardita prolongata Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 642.

Type locality. Neah Bay, Washington.

Range. 33-59 Depth. 3-40 fathoms.

Cardita stearnsii Dall 1902, Proc. Acad. Nat. Sci. Phila., p. 709.

Type locality. Puget Sound, Washington.

Range. Type locality. Depth. 60 fathoms.

Cardita ventricosa Gould 1850, Proc. Boston Soc. Nat. Hist., 3: 276.

Type locality. Puget Sound.

Range. 32-57 Depth. 10-100 fathoms.

CHIRONIA Deshayes 1839, Rev. Zool. Soc. Cuv., p. 356.

Chironia suborbicularis Montagu 1803, Test. Brit., pp. 39, 564.

Type locality. "England".

Range. 8-60 Depth. 10-150 fathoms.

Synonym. C. laperousii Deshayes.

CHLAMYS Roding 1798, Mus. Bolthenium, p. 161.

Chlamys hericius Gould 1850, Proc. Boston Soc. Nat. Hist., 3: 345.

Type locality. Juan de Fuca Straits.

Range. 42-58 Depth. 20-60 fathoms.

Chlamys hindsii Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 645.

Type locality. Vancouver Island, British Columbia.

Range. 34-60 Depth. 10-60 fathoms.

Chlamys islandicus Müller 1776, Prodr. Zool. Danica, p. 248.

Type locality. "Northern Seas".

Range. 48-60 Depth. 60-200 fathoms.

Chlamys jordani Arnold 1903, Mem. Calif. Acad. Sci., 3: 111.

Type locality. San Pedro, California. (Fossil specimen.)

Range. 49-60 Depth. 80 fathoms.

Chlamys kincaidi Oldroyd 1919, Nautilus, 33: 135.

Type locality. Off San Juan Island, Washington.

Range. 49-57 Depth. 25 fathoms.

Chlamys pugetensis Oldroyd 1919, Nautilus, 33: 136.

Type locality. Off San Juan Island, Washington.

Range. Type locality. Depth. Unknown.

Remarks. A variety of Pecten hastatus Sowerby, according to Grant and Gale (1931).

Chlamys rubida Hinds 1845, Voyage of the Sulphur, p. 61.

Type locality. Alaska.

Range. 36-60 Depth. 30-50 fathoms.

CLINOCARDIUM Keen 1936, Trans. San Diego Nat. Hist. Soc., No. 17, 8: 119.

Clinocardium blandum Gould 1850, Proc. Boston Nat. Hist. Soc., 3: 276.

Type locality. Puget Sound.

Range. Type locality. Depth. Intertidal - 10 fathoms.

Synonym. Cardium californiense Deshayes.

Clinocardium californiense Deshayes 1841, Guerin. Mag. de Zool., Moll., pl. 47.

Type locality. Puget Sound.

Range. 32-71 Depth. Intertidal - 120 fathoms.

Clinocardium ciliatum Fabricius 1780, Fauna Gronl., p. 410.

Type locality. Greenland.

Range. 48-72 Depth. 10-80 fathoms.

Clinocardium fucanum Dall 1907, Nautilus, 20: 112.

Type locality. Straits of Juan de Fuca.

Range. 36-58 Depth. 25-90 fathoms.

Remarks. Synonym C. californiense Deshayes.

Clinocardium nuttallii Conrad 1837, Jour. Acad. Nat. Sci. Phila., 7: 229.

Type locality. Near estuary of the Columbia River.

Range. 33-60 Depth. Intertidal - 20 fathoms.

Synonym. Cardium corbis non Martyn.

COMPSOMYAX Stewart 1930, Spec. Publ. No. 3, Acad. Nat. Sci. Phila., p. 224.

Compsomyax subdiaphana Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 640.

Type locality. Puget Sound.

Range. 23-60 Depth. 10-220 fathoms.

COOPERELLA Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 639.

Cooperella subdiaphana Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 639.

Type locality. San Diego, California.

Range. 24-55 Depth. 5-20 fathoms.

CRASSOSTREA Sacco 1897, Moll. Terr. Terz. d. Piemonte e d. Lijoria, Vol. 8.

Crassostrea gigas Thunberg 1793, auctt

Type locality. Hakodate, Japan.

Range. W. Pacific. Depth. Intertidal.

Remarks. Introduced from Japan.

Synonym. Ostrea laperousi Schrenck.

Crassostrea virginica Gmelin 1790, Syst. Nat., Pt. 6, 1: 3336.

Type locality. "Oceano americo et indico".

Range. Atlantic. Depth. Intertidal.

Remarks. Introduced. Small population present in Boundary Bay, B.C.

CRENELLA Brown 1827, Ill. Conch. Gt. Brit., Vol. 1, Pl. 31.

Crenella columbiana Dall 1897, Bull. Nat. Hist. Soc. Brit. Col., No. 2, p. 4.

Type locality. Off Chernoffski, Aleutians, in 109 fathoms.

Range. 33-55 Depth. 60-90 fathoms.

Crenella decussata Montagu 1808, Test. Brit., Suppl., p. 69.

Type locality. Coast of Scotland.

Range. 33-60 Depth. 5-50 fathoms.

CRYPTOMYA Conrad 1848, Proc. Acad. Nat. Sci. Phila., 4: 121.

Cryptomya californica Conrad 1837, Jour. Acad. Nat. Sci. Phila., 7: 234.

Type locality. Santa Barbara, California.

Range. 11-60 Depth. Intertidal - 30 fathoms.

CUSPIDARIA Nardo 1840, Atti. Riun. Sci. Ital., 1: 175, 1839 (1940).

Cuspidaria apodema Dall 1916, Proc. U.S. Nat. Mus., 52: 407.

Type locality. S.W. Sitka Bay, Alaska.

Range. 8-60 Depth. 1020-1250 fathoms.

CYCLOPECTEN Verrill 1897, Trans. Conn. Acad. Arts and Sci., No. 10, pp. 41-95.

Cyclopecten randolphi Dall 1897, Nat. Hist. Soc. Brit. Coll., No. 2, p. 559.

Type locality. Off Destruction Island, Washington, in 516 fathoms.

Range. 28-60 Depth. 400-1200+ fathoms.

Synonym. Pecten pedroanus Trash.

Cyclopecten randolphi tillamookensis Arnold 1906, U.S. Geol. Surv. Prof. Paper, No. 47, p. 139.

Type locality. Off Tillamook Bay, Oregon, in 786 fathoms.

Range. 27-58 Depth. 400-1000 fathoms.

Remarks. Synonym of Pecten randolphi fide Grant and Gale (1931).

Cyclopecten vancouverensis Whiteaves 1893, Ottawa Naturalist, 7: 133.

Type locality. Quatsino Sound, Vancouver Island, British Columbia.

Range. 33-58 Depth. 10-200 fathoms.

DACRYDIUM Torell 1859, Bidr. Spitzberg. Moll., 138.

Dacrydium pacificum Dall 1916, Proc. U.S. Nat. Mus., 52: 405.

Type locality. Bering Sea in 1401 fathoms.

Range. Unknown. Depth. Deep water.

Remarks. Two specimens at 48°N in 534 fathoms.

ERYCINA Lamarck 1805, Ann. Mus. Hist. Nat. Paris, 6: 413.

Erycina meroeum Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. 1863, 519.

Type locality. San Pedro-San Diego, California.

Range. 33-48 Depth. Unknown.

Remarks. Range probably south of B.C.

GARI Schumacher 1817, Essai Nouv. Syst. Habit. Vers Test., pp. 44, 131.

Gari californica Conrad 1849, Proc. Acad. Nat. Sci. Phila., 4: 121.

Type locality. California.

Range. 32-60 Depth. Intertidal - 20 fathoms.

GEMMA Deshayes 1853, Cat. Conch. Coll. Brit. Mus., Pt. 1, p. 112.

Gemma gemma Totten 1834, Amer. Jour. Sci., 26: 367.

Type locality. New England, Atlantic.

Range. 38-48 Depth. Littoral.

Remarks. Introduced from Atlantic coast.

GLANS von Mublfeld 1811, Gesell. naturf. Freunde zu Berlin, Mag. J. 5, p. 68.

Glans carpenteri Lamy 1922, Journ. Conchyl., 60:

Type locality. Santa Barbara, California.

Range. 32-55 Depth. Intertidal - 80 fathoms.

Synonyms. G. minuscula Grant and Gale; G. subquadrata Carpenter.

GLYCYMERIS DaCosta 1778, Hist. Nat. Test. Brit., p. 168.

Glycymeris corteziana Dall 1916, Proc. U.S. Nat. Mus., 52: 402.

Type locality. Cortez Bank, California.

Range. 33-55 Depth. 10-60 fathoms.

Glycymeris miqueliana Dall 1916, Proc. U.S. Nat. Mus., 52: 402.

Type locality. California.

Range. 25-55 Depth. Unknown.

Glycymeris septentrionalis Middendorff 1849, Malac. Rossica., 3: 67.

Type locality. Arctic Ocean.

Range. 50-55 Depth. Unknown.

Glycymeris subobsoleta Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 644.

Type locality. Neah Bay, Washington.

Range. 33-56 Depth. 1-35 fathoms.

HALICARDISSA Dall 1913, Proc. U.S. Nat. Mus., 45: 594.

Halicardissa perplicata Dall 1890, Proc. U.S. Nat. Mus. 12, 773: 278.

Type locality. Galapagos Islands.

Range. -53 Depth. 600 fathoms.

Remarks. Two specimens from 53°N in 600 fathoms.

HIATELLA Bosc 1801, Hist. Nat. de Buffon, Coquilles, 3: 120.

Hiatella arctica Linnaeus 1767, Syst. Nat., Ed. 12, p. 1113.

Type locality. "Oceano Norvegio".

Range. 8-72. Depth. 30-250 fathoms.

Hiatella pholadis Linnaeus 1767, Mantissa, 2: 548.

Type locality. Greenland.

Range. 8-72. Depth. Intertidal - 100 fathoms.

HINNITES Defrance 1821, Dict. Sci. Nat., 21: 169.

Hinnites multirugosus Gray 1825, Ann. Phil. New Series, 9: 139.

Type locality. San Diego, California.

Range. 25-60. Depth. Subtidal - 20 fathoms.

Synonym. H. (Pecten) giganteus.

KELLIA Turton 1822, Conch. Insul. Brit., pp. XIX, 56.

Kellia cistula Keen 1938, Proc. Malac. Soc. London, Pt. 1, Pl. 2, 23: 25.

Type locality.

Range. 30-54. Depth. 8-10 fathoms.

Synonym. Lasaea cistula.

Kellia rubra Montagu 1804, Test. Brit., p. 83.

Type locality. British coast.

Range. 12-54 Depth. Intertidal.

Synonym. K. suborbicularis Montagu, 1804

LIMA Bruguiere 1797, Encycl. Meth. Tabl. Vers, Pl. 206.

Lima attenuata Dall 1916, Proc. U.S. Nat. Mus., 52: 404.

Type locality. Nazan Bay, Atka Island, Aleutians.

Range. 48-58 Depth. 700-1300 fathoms.

Lima subauriculata Montagu 1808, Test. Brit. Suppl., p. 63.

Type locality. Great Britain.

Range. 30-65 Depth. 1000-1300 fathoms.

LIMOPSIS Sassi 1827, Giorn. Ligustico, Pt. 5, 1: 476.

Limopsis vaginatus Dall 1891, Proc. U.S. Nat. Mus., 14: 190.

Type locality. Unalaska, Bering Sea, in 351 fathoms.

Range. 55-61 Depth. 400-900 fathoms.

LIOCYMA Dall 1870, Proc. Boston Soc. Nat. Hist., 13: 256.

Liocyma scammoni Dall 1871, Am. Jour. Conch., 7: 145.

Type locality. Port Simpson, British Columbia.

Range. Type locality. Depth. 8 fathoms.

LUCINOMA Dall 1901, Proc. U.S. Nat. Mus., 23: 806.

Lucinoma annulata Reeve 1850, Conch. Iconica., Vol. 6, Pl. 4.

Type locality. California.

Range. 35-60 Depth. 10-280 fathoms.

Synonym. Lucina acutilineata Conrad.

Lucinoma tenuisculpta Carpenter 1864, Suppl. Rep. Brit. Assoc. Adv. Sci. for 1863, p. 642.

Type locality. Vancouver Island, B.C.

Range. 30-60 Depth. 10-100 fathoms.

LYONSIA Turton 1822, Conch. Ins. Brit., pp. XVII, 34.

Lyonsia arenosa Müller 1842, Index Moll. Gronl., p. 20.

Type locality. Greenland.

Range. 55-72 Depth. 150 fathoms.

Lyonsia californica Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 248.

Type locality. Near Santa Barbara, California.

Range. 24-56 Depth. 20-100 fathoms.

Lyonsia inflata Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 248.

Type locality. Guayaquil, Ecuador.

Range. -2-55 Depth. 20-100 fathoms.

Lyonsia puqetensis Dall 1913, Proc. U.S. Nat. Mus., 45: 595.

Type locality. Washington.

Range. 42-55 Depth. 5-90 fathoms.

Lyonsia saxicola Baird 1863, Proc. Zool. Soc. London, p. 70.

Type locality. Esquimalt Harbour, Vancouver Island, British Columbia.

Range. 30-57 Depth. Intertidal - 10 fathoms.

Lyonsia scammoni Dall 1871, Amer. Journ. Conch., 7: 142.

Type locality. Port Simpson, British Columbia.

Range. 33-55 Depth. 2-8 fathoms.

Lyonsia striata Montagu 1815, Trans. Linn. Soc., 2: 188.

Type locality. "Atlantic".

Range. 48-72 Depth. 5-30 fathoms.

LYONSIELLA G. Sars 1868, Fork. Selsk. Christiana 1867, 257.

Lyonsiella alaskana Dall 1894, Proc. U.S. Nat. Mus., 17: 703.

Type locality. S.W. of Sitka, Alaska, in 1659 fathoms.

Range. 34-45 Depth. 700-1200+ fathoms.

MACOMA Leach 1819, Ross' Voy. of Discovery in HMS Isabella and Alexander, App. 2, p. LXII.

Macoma alaskana Dall 1900, Proc. U.S. Nat. Mus., 23: 323.

Type locality. Lituya Bay, Alaska.

Range. 48-60 Depth. 20-80 fathoms.

Macoma balthica Linnaeus 1758, Syst. Nat., Ed. 10, p. 677.

Type locality. Baltic Ocean.

Range. 33-72. Depth. Intertidal - 5 fathoms.

Synonym. M. inconspicua fide Keen (1937).

Note. M. balthica is an Atlantic species.

Macoma brota Dall 1916, Proc. U.S. Nat. Mus., 52: 413.

Type locality. Puget Sound.

Range. 48-64. Depth. 30-80 fathoms.

Synonym. M. lipare Dall.

Macoma calcarea Gmelin 1792, Syst. Nat., 6: 3236.

Type locality. Iceland or Faroe Islands.

Range. 37-72. Depth. 20-100 fathoms.

Macoma carlottensis Whiteaves 1880, Rept. Prog. Geol. Surv. Can., 1879-1880, p. 196b.

Type locality. Virago Sound, Queen Charlotte Islands, B. C.

Range. 27-72. Depth. 15-100 fathoms.

Synonym. M. inflata Dall.

Macoma expansa Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 56.

Type locality. Puget Sound.

Range. 33-49. Depth. Intertidal - 10 fathoms.

Macoma incongrua Martens 1865, Ann. Mag. Nat. Hist., 16: 430.

Type locality. Yokohama, Japan.

Range. 33-72. Depth. Intertidal - 20 fathoms.

Synonym. M. arnheimi Dall.

Macoma indentata Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 639.

Type locality. San Pedro, California.

Range. 28-50 Depth. 5-30 fathoms.

Macoma irus Hanley 1845, Proc. Zool. Soc. for 1845, p. 166.

Type locality. Not listed.

Range. 37-58 Depth. Intertidal - 50 fathoms.

Synonym. M. inquinata Deshayes.

Macoma kelseyi Dall 1900, Trans. Wagner Free Inst., 3: 1052.

Type locality. Puget Sound.

Range. 47-48 Depth. Unknown.

Remarks. Probably not a recent species.

Macoma liotricha Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., Vol. 2, No. 12, Pl. 1.

Type locality. Atka Island, Aleutians.

Range. 49-56 Depth. Intertidal - 5 fathoms.

Macoma moesta Deshayes 1854, Proc. Zool. Soc., p. 361.

Type locality. "Northern Oceans".

Range. 55-60 Depth. 20-80 fathoms.

Synonym. M. krausei Dall.

Macoma nasuta Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 258.

Type locality. Near San Diego, California.

Range. 28-60 Depth. Intertidal - 40 fathoms.

Macoma planiuscula Grant and Gale 1931, San Diego Soc. Nat. Hist., Mem. 1, p. 372.

Type locality. Nunivak Island, Alaska.

Range. 55-72 Depth. 30-80 fathoms.

Macoma quadrana Dall 1916, Proc. U.S. Nat. Mus., 52: 414.

Type locality. Off Point Conception, California, in 284 fathoms.

Range. 32-60 Depth. 10-150 fathoms.

Macoma secta Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 257.

Type locality. San Diego, California.

Range. 23-55 Depth. Intertidal - 20 fathoms.

Macoma yoldiformis Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 630.

Type locality. "Boreal, Pacific".

Range. 33-56 Depth. Intertidal - 10 fathoms.

MACTRA Linnaeus 1767, Syst. Nat., Ed. 12, p. 1125.

Mactra californica Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 240.

Type locality. Santa Barbara, California.

Range. 24-49 Depth. 10 fathoms.

MALLETIA Desmoulins 1832, Act. Soc. Linn. Bord., 5: 85.

Malletia faba Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 10.

Type locality. Off Sea Lion Rock, Washington.

Range. 30-56 Depth. 500-600 fathoms.

Malletia fiora Dall 1916, Proc. U.S. Nat. Mus., 52: 400.

Type locality. S.W. Sitka Bay, Alaska, in 1569 fathoms.

Range. 49-57 Depth. 1200 fathoms.

Malletia pacifica Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 11.

Type locality. Clarence Strait, Alaska.

Range. 34-55 Depth. 700-1300 fathoms.

Malletia talama Dall 1916, Proc. U.S. Nat. Mus., 52: 400.

Type locality. Off Pribiloff Islands, Bering Sea, in 1771 fathoms.

Range. 45-65 Depth. 700-1200 fathoms.

MODIOLARIA Beck 1838, in E. Robert, Zool. Voy. Recherche en Isl. et en Grönl., Pl. 17.

Modiolaria corrugata Stimpson 1851, Shells of New England, p. 12.

Type locality. Massachusetts.

Range. 48-72 Depth. 5-20 fathoms.

Modiolaria marmorata Forbes 1838, Malac. Monensis, p. 44.

Type locality. Puget Sound.

Range. 49-60 Depth. Unknown.

Modiolaria nigra Gray 1824, Parry's First Voy., p. 244.

Type locality. Orsund Bay, Sweden.

Range. 44-72 Depth. Intertidal - 50 fathoms.

Synonym. M. nigra obessa

Modiolaria olivacea Dall 1916, Proc. U.S. Nat. Mus., 52: 405.

Type locality. Off Bering Island, in 10 fathoms.

Range. 34-60 Depth. 10-100 fathoms.

Modiolaria protracta Dall 1916, Proc. U.S. Nat. Mus., 52: 405.

Type locality. N. of Nunivak Island, Bering Sea, in 9 fathoms.

Range. 50-60 Depth. 2-10 fathoms.

Modiolaria substriata Gray 1824, Parry's First Voy., Appen., p. 243.

Type locality. Not listed.

Range. 48-72 Depth. Subtidal - 80 fathoms.

Modiolaria taylori Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 5.

Type locality. Victoria, British Columbia.

Range. 48-54 Depth. Intertidal - 5 fathoms.

MODIOLUS Lamarck 1799, Mem. Soc. Hist. Nat. Paris, p. 87.

Modiolus fornicatus Carpenter 1865, Ann. and Mag. Nat. Hist., Ser. 3, 15: 17-18.

Type locality. Santa Barbara, California.

Range. 32-52 Depth. 10-80 fathoms.

Modiolus modiolus Linnaeus 1758, Syst. Nat., Ed. 10, p. 706.

Type locality. Mediterranean.

Range. 27-72 Depth. 2-60 fathoms.

Modiolus rectus Conrad 1837, Jour. Acad. Nat. Sci. Phila., 7: 243.

Type locality. Santa Barbara, California.

Range. 28-55 Depth. Intertidal - 50 fathoms.

MYA Linnaeus 1758, Syst. Nat., Ed. 10, p. 670.

Mya arenaria Linnaeus 1758, Syst. Nat., Ed. 10, p. 670.

Type locality. Scheldt River, Netherlands.

Range. 37-55 Depth. Intertidal - 15 fathoms.

Remarks. Possibly introduced from Atlantic.

Mya japonica Jay 1857, Parry's U.S. Japan Exped., 2: 292.

Type locality. Volcano Bay, Yedo, Japan.

Range. 37-72 Depth. Intertidal - 10 fathoms.

Remarks. Grant and Gale (1931) place this species as a variety of M. arenaria Linnaeus.

Synonym. M. intermedia Dall.

Mya pseudoarenaria Schlesch 1931, Arch. Moll., 63: 136.

Type locality.

Range. 47-72 Depth. Intertidal - 60 fathoms.

Synonym. M. japonica Jay?

Mya truncata Linnaeus 1758, Syst. Nat., Ed. 10, p. 670.

Type locality. Liverpool, England. (Designated by Foster, 1946.)

Range. 48-72 Depth. Subtidal - 40 fathoms.

MYONERA Dall and Smith 1886, Bull. Mus. Comp. Zool. Harvard, 12: 302.

Myonera tillamookensis Dall 1916, Proc. U.S. Nat. Mus., 52: 407.

Type locality. Tillamook Bay, Oregon, in 786 fathoms.

Range. 46-50 Depth. 700-1200 fathoms.

MYSELLA Angas 1877, Proc. Zool. Soc. London, 176.

Mysella aleutica Dall 1899, Proc. U.S. Nat. Mus., 21: 892.

Type locality. Bering Sea.

Range. 32-60 Depth. 10-100 fathoms.

Mysella compressa Dall 1913, Proc. U.S. Nat. Mus., 45: 596.

Type locality. Gulf of California.

Range. 23-60 Depth. 20-80 fathoms.

Mysella planata Dall 1885, Arch. für Naturg., 51: 34.

Type locality. Arctic Ocean.

Range. 55-71 Depth. 5-50 fathoms.

Mysella tumida Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 129.

Type locality. Vancouver Island, British Columbia.

Range. 28-55 Depth. 10-40 fathoms.

MYTILIMERA Conrad 1837, Jour. Acad. Nat. Sci. Phila., 7: 246.

Mytilimera nuttallii Conrad 1837, Jour. Acad. Nat. Sci. Phila., 7: 247.

Type locality. California.

Range. 37-55 Depth. Intertidal - 10 fathoms.

MYTILUS Linnaeus 1758, Syst. Nat., Ed. 10, p. 704.

Mytilus californianus Conrad 1837, Jour. Acad. Nat. Sci. Phila., 7: 242.

Type locality. San Diego, California.

Range. 18-60 Depth. Intertidal - 2 fathoms.

Mytilus edulis Linnaeus 1758, Syst. Nat., Ed. 10, p. 705.

Type locality. North Atlantic.

Range. 28-74 Depth. Intertidal - 5 fathoms.

NEMOCARDIUM Meek 1876, U.S. Geol. Surv. Territories, 9: 167.

Nemocardium centifilosum Carpenter 1864, Brit. Assoc. Adv. Sci. Rept. for 1863, p. 642.

Type locality. Monterey, California.

Range. 30-49 Depth. 10-150 fathoms.

Nemocardium richardsoni Whiteaves 1878, Can. Nat. (2), 8: 469.

Type locality. Straits of Georgia, British Columbia.

Range. 38-60 Depth. 80-400 fathoms.

NETTASTOMELLA Carpenter 1865, Proc. Zool. Soc. London, p. 202.

Nettastomella japonica Yokoyama 1920, Jour. Coll. of Fisheries, Imp. U. Tokyo, No. 6, 39: 105.

Type locality. Yokosuka Zone, Kanagawa, Japan.

Range. Japan. Depth. Intertidal - 100 fathoms.

Remarks. Present in Massett, Queen Charlotte Islands, and Vancouver, B.C.

Nettastomella rostrata Valenciennes 1845, Voy. of the Venus, Atl. de Zool. Moll., Pl. 24.

Type locality. Monterey, California.

Range. 25-54 Depth. Intertidal - 20 fathoms.

NUCULA Lamarck 1799, Mem. Soc. Hist. Nat. Paris, p. 87.

Nucula cardara Dall 1916, Proc. U.S. Nat. Mus., 52: 394.

Type locality. Off San Diego, California, in 1090 fathoms.

Range. 30-51 Depth. 450-1300 fathoms.

Nucula carlottensis Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 6.

Type locality. Off Queen Charlotte Islands, B.C., in 876 fathoms.

Range. 34-54 Depth. 50-1200 fathoms.

Nucula expansa Reeve 1855, Last of the Arctic Voyages, App., p. 397.

Type locality. Northunberland Sound, Arctic Ocean.

Range. 32-75 Depth. 50-800 fathoms.

Nucula linki Dall 1916, Proc. U.S. Nat. Mus., 52: 394.

Type locality. Off Point Fermin, Lower California, in 24 fathoms.

Range. 22-55 Depth. 20-100 fathoms.

Nucula tenuis Montagu 1808, Test. Brit. Suppl., p. 56.

Type locality. Dunbar, Scotland.

Range. 32-73 Depth. 5-150 fathoms.

NUCULANA Link 1807, Beschreib. der. Natur. Samm. ser U. zu Rostock, Abth. 3,

Nuculana acuta Conrad 1831, Amer. Mar. Conch., p. 182.

Type locality. Off North Cardina, Atlantic Ocean.

Range. 21-52 Depth. 15-1000 fathoms.

Remarks. This species is not synonymous with the true Atlantic N. acuta.

Nuculana austini Oldroyd 1935, Nautilus, 49: 13.

Type locality. Off Neck Point, Vancouver Island, B.C., in 100 fathoms.

Range. 48-49 Depth. 25-150 fathoms.

Nuculana cellulita Dall 1896, Nautilus, 10: 1.

Type locality. Port Orchard, Puget Sound, Washington.

Range. 48-55 Depth. 40-150 fathoms.

Nuculana conceptionis Dall 1896, Nautilus, 10: 2.

Type locality. Point Conception, California.

Range. 33-56 Depth. 20-200 fathoms.

Nuculana curtulosa Dall 1916, Proc. U.S. Nat. Mus., 52: 396.

Type locality. Unalaska Harbour, Alaska, in 60 fathoms.

Range. 54-64 Depth. Unknown.

Remarks. Some authorities place this as a subspecies of N. fossa Baird.

Nuculana extenuata Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 8.

Type locality. Off Dixon Entrance, B.C., in 1569 fathoms.

Range. 55-60 Depth. 1000-1600+ fathoms.

Nuculana fossa Baird 1863, Proc. Zool. Soc. London, 1863, p. 71.

Type locality. Vancouver Island, B.C.

Range. 48-66 Depth. 20-200 fathoms.

Synonym. N. sculpta Dall.

Nuculana hamata Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 98.

Type locality. Santa Barbara, California.

Range. 8-48 Depth. Unknown.

Remarks. Range of this species probably south of B.C.

Nuculana leonina Dall 1896, Nautilus, 10: 2.

Type locality. Off Sea Lion Rock, Washington, in 500 fathoms.

Range. 36-55 Depth. 10-1100 fathoms.

Nuculana minuta Fabricius 1776, Fauna Grönl., p. 414.

Type locality. Greenland.

Range. 33-72 Depth. 20-200 fathoms.

Nuculana navissa Dall 1916, Proc. U.S. Nat. Mus., 52: 395.

Type locality. Off Farallon Islands, California, in 191 fathoms.

Range. 33-49 Depth. 30-100 fathoms.

Nuculana penderi Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14-N, p. 9.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 34-60 Depth. 10-100 fathoms.

Nuculana pernula Müller 1779, B. Ges. Naturf. zu Berlin, 4: 55.

Type locality. "North Sea".

Range. 50-66 Depth. 50-300 fathoms.

OSTREA Linnaeus 1758, Syst. Nat., Ed. 10, p. 696.

Ostrea lurida Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 646.

Type locality. Vancouver Island, B.C.

Range. 23-57 Depth. Intertidal.

PANDORA Bruguiere 1797, Encycl. Meth., livr. 2, p. 250.

Pandora bilirata Conrad 1855, Proc. Acad. Nat. Sci. Phila., 7: 267.

Type locality. California.

Range. 27-61 Depth. 30-100 fathoms.

Pandora filosa Carpenter 1864, Proc. Zool. Soc. London, p. 602.

Type locality. Puget Sound.

Range. 34-60 Depth. 20-70 fathoms.

Pandora glacialis Leach 1819, Jour. Phys., 88: 465.

Type locality. Spitzbergen.

Range. 48-72 Depth. 20-100 fathoms.

Pandora grandis Dall 1877, Proc. Calif. Acad. Sci., 7: 11.

Type locality. Unalaska, Alaska.

Range. 45-60 Depth. 50-300 fathoms.

Pandora punctata Conrad 1857, Jour. Acad. Nat. Sci. Phila., 7: 228.

Type locality. Santa Barbara, California.

Range. 23-52 Depth. 5-25 fathoms.

Remarks. non Carpenter 1864.

PANOPE Menard 1807, Jour. de Phys., 65: 114.

Panope generosa Gould 1850, Proc. Boston Soc. Nat. Hist., 3: 215.

Type locality. Nisqually, Puget Sound.

Range. 28-55 Depth. Littoral -

Panope generosa solida Dall 1898, Trans. Wagner Inst., Pt. 4, 3: 831.

Type locality. Gulf of California.

Range. 30-49 Depth. Littoral.

Remarks. Probably a synonym of P. generosa Gould.

PANOMYA Gray 1857, Fig. Moll. Anim., 5: 29.

Panomya ampla Dall 1898, Trans. Wagner Inst. Sci., Pt. 4, 3: 883.

Type locality. Kyska Harbour, Aleutians.

Range. 48-68 Depth. Intertidal - 100 fathoms.

Panomya turgida Dall 1916, Proc. U.S. Nat. Mus., 52: 416.

Type locality. Popoff Strait, Shumagin Group, Alaska.

Range. 40-56 Depth. Littoral.

Remarks. Dall suggests this species is a variety of P. arctica.

PECTEN Müller 1776, Zool. Danicae Prodomus, pp. 31, 248.

Pecten caurinus Gould 1850, Proc. Boston Soc. Nat. Hist., 3: 345.

Type locality. Port Townsend, Admiralty Inlet, Alaska.

Range. 41-57 Depth. 6-90 fathoms.

PETRICOLA Lamarck 1801, Syst. Anim. Vers, p. 121.

Petricola carditoides Conrad 1837, Journ. Acad. Nat. Sci. Phila., p. 255.

Type locality. Santa Barbara, California.

Range. 25-50 Depth. 5-10 fathoms.

PHILOBRYA Carpenter 1872, Ann. Mag. Nat. Hist., Ser. 3, 13: 314.

Philobrya setosa Carpenter 1864, Ann. Mag. Nat. Hist., Ser. 3, 13: 314.

Type locality. Cape San Lucas, Lower California.

Range. 23-55 Depth. Intertidal - 10 fathoms.

PHOLADIDEA Turton 1819, Conch. Dict., p. 147.

Pholadidea concamerata Deshayes 1839, Rev. Zool. Soc. Cuv., p. 3211.

Type locality. California.

Range. 33-60 Depth. Littoral.

Synonym. P. penita Conrad fide Grant and Gale (1931).

Pholadidea conradi Valenciennes 1846, Voy. of the Venus, Atlas, Pl. 24, fig. 4.

Type locality. Mazatlan, Mexico.

Range. 23-49 Depth. Intertidal - 10 fathoms.

Synonym. P. intercalata Carpenter.

Pholadidea ovoidea Gould 1851, Proc. Boston Soc. Nat. Hist., 4: 87.

Type locality. Monterey, California.

Range. 23-60 Depth. Intertidal - 50 fathoms.

Pholadidea penita Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 237.

Type locality. San Diego (?), California.

Range. 33-56 Depth. Intertidal - 20 fathoms.

Pholadidea rostrata Valenciennes 1846, Voyage of the Venus, Atlas, Pl. 24, fig. 4a.

Type locality. Monterey, California.

Range. 33-54 Depth. Subtidal - 4 fathoms.

Pholadidea sagitta Dall 1916, Proc. U.S. Nat. Mus., 52: 417.

Type locality. Monterey, California.

Range. 19-49 Depth. Intertidal.

PLATYODON Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 235.

Platyodon cancellatus Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 236.

Type locality. Near Santa Barbara, California.

Range. 33-54 Depth. Littoral.

PODODESMUS Philippi 1837, Wiegmann's Arch. f. Naturg., p. 385, Pl. 9, fig. 1.

Pododesmus macroschisma Deshayes 1839, Rev. Zool. Soc. Cuv., p. 359.

Type locality. Kamchatka, Alaska.

Range. 30-57 Depth. Intertidal - 20 fathoms.

PORONYA Forbes 1844, Rept. Brit. Assoc. (Cork, 1843), 13: 191.

Poromya beringiana Dall 1916, Proc. U.S. Nat. Mus., 52: 406.

Type locality. Bowers Bank, Bering Sea, in 557 fathoms.

Range. 45-55 Depth. 200-1000 fathoms.

Poromya leonina Dall 1916, Proc. U.S. Nat. Mus., 52: 406.

Type locality. Off Sea Lion Rock, Washington, in 877 fathoms.

Range. 47-52 Depth. 1050 fathoms.

Poromya tenuiconcha Dall 1913, Proc. U.S. Nat. Mus., 45: 596.

Type locality. Off Monterey Bay, California.

Range. 32-60 Depth. 200-600 fathoms.

PROPEAMUSSIUM Gregorio 1884, Nat. Siciliano, Ann. 3, No. 4, p. 119.

Propeamussium alaskense Dall 1871, Amer. Journ. Conch., 7: 155.

Type locality. Pribiloff Islands, Alaska.

Range. 34-56 Depth. 50-200 fathoms.

Propeamussium davidsoni Dall 1897, Nautilus, 11: 86.

Type locality. Davidson Bank, Alaska, in 280 fathoms.

Range. 48-56 Depth. 40-600 fathoms.

PROTOTHACA Dall 1902, Proc. U.S. Nat. Mus., 26: 364.

Protothaca staminea Conrad 1877, Journ. Acad. Nat. Sci. Phila., 7: 250.

Type locality. California.

Range. 23-73 Depth. Intertidal.

Synonyms. P. orbella Carpenter; P. laciniata Carpenter; P. petiti Deshayes; P. ruderata Deshayes; P. spatiosa Dall.

PSEPHIDIA Dall 1902, Journ. Conch., 10: 243.

Psephidia lordi Baird 1863, Proc. Zool. Soc. London, p. 69.

Type locality. Esquimalt Harbour, Vancouver Island, B.C.

Range. 33-55 Depth. Intertidal - 150 fathoms.

Psephidia ovalis Dall 1902, Proc. U.S. Nat. Mus., 26: 407.

Type locality. Off Catalina Island, California, in 16 fathoms.

Range. 33-57 Depth. 2-100 fathoms.

PSEUDOCHAMA Odhner 1917, Kungl. Svenska. Veten-aka. Handlingar., No. 16, 52: 28-31.

Pseudochama exogyra Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 256.

Type locality. Santa Barbara, California.

Range. 8-53 Depth. 80-100 fathoms.

PSEUDOPYTHINA Fischer 1878, Act. Soc. Limn. Bordeaux, (4)2: 178.

Pseudopythina compressa Dall 1899, Proc. U.S. Nat. Mus., 21: 888.

Type locality. S. Nunivak Island, Bering Sea, in 4-28 fathoms.

Range. 16-70. Depth. Intertidal - 30 fathoms.

Remarks. Commensal on crustaceans.

Pseudonythina myaciformis Dall 1916, Proc. U.S. Nat. Mus., 52: 412.

Type locality. Port Orchard, Puget Sound, Washington.

Range. Type locality. Depth. Littoral.

Remarks. Commensal on crustaceans.

Pseudopythina rugifera Carpenter 1864, Rep. Brit. Assoc. Adv. Sci. for 1863, p. 643.

Type locality. Puget Sound.

Range. 37-50. Depth. Intertidal - 40 fathoms.

Remarks. Commensal on Aphrodite.

SAXIDOMUS Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 249.

Saxidomus giganteus Deshayes 1839, Rev. Zool. Soc. Cuv., 2: 359.

Type locality. "Californie"

Range. 45-61. Depth. Intertidal - 10 fathoms.

Note. S. giganteus should be reserved for individuals occurring north of 45°, the southern variety being assigned to S. brevis.

Synonym. S. brevis Dall.

Remarks. Subspecies of S. nuttalli Conrad according to Grant and Gale (1931).

SEMELE Schumacher 1817, Essai Nouv. Syst. Vers Test., p. 165.

Semele rubropicta Dall 1871, Amer. Jour. Conch., 7: 144.

Type locality. Monterey Bay, California, on beach.

Range. 25-57 Depth. Intertidal - 50 fathoms.

SERRIPES Gould 1841, Invert. Mass., p. 93.

Serripes groenlandicus Bruguiere 1789, Encycl. Meth., Vers Test., 1: 222.

Type locality. Coast of Greenland.

Range. 48-72 Depth. 2-40 fathoms.

SILIQUA von Mühfeld 1811, Gessell. Naturf. Freude, Mag., p. 44.

Siliqua patula Dixon 1789, Dixon's Voyage, p. 355.

Type locality. Cook's River, Alaska.

Range. 37-60 Depth. Intertidal - 30 feet.

Siliqua sloati Hertlein 1961, Bull. Calif. Acad. Sci., Pt. 1, 60: 12-19.

Type locality. Off Laguna Point, California, in 46 meters.

Range. 38-60 Depth. 7-30 fathoms.

SOLAMEN Iredale 1924, Proc. Linn. Soc. N.S.W., 49: 198.

Solamen columbianum Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., 2: 4.

Type locality. Chernoffski, Unalaska, in 109 fathoms.

Range. 18-57 Depth. 20-300 fathoms.

SOLEMYA Lamarck 1818, Anim. s. Vert., 5: 488.

Solemya agassizzi Dall 1908, Bull. Comp. Zool., No. 43, p. 365.

Type locality. Gulf of Panama, in 1672 fathoms.

Range. -6-49 Depth. 200-1000 fathoms.

Solemya johnsoni Dall 1891, Proc. U.S. Nat. Mus., 14: 189.

Type locality. Off Lower California, in 1005 fathoms.

Range. 0-55 Depth. 800-1200 fathoms.

SOLEN Linnaeus 1758, Syst. Nat., Ed. 10, p. 672.

Solen sicarius Gould 1850, Proc. Boston Soc. Nat. Hist., 3: 214.

Type locality. Strait of Juan de Fuca.

Range. 30-54 Depth. Intertidal - 30 fathoms.

SPISULA Gray 1838, London's Mag. Nat. Hist. New Series, 1: 372.

Spisula alaskana Dall 1894, Publ. Puget Sound Biol. Sta., 4: 59.

Type locality. Alaska (?).

Range. 48-69 Depth. 5-30 fathoms.

Spisula falcata Gould 1850, Proc. Boston Soc. Nat. Hist., 3: 216.

Type locality. Puget Sound, Washington.

Range. 24-55 Depth. Intertidal - 2 fathoms.

Spisula voyi Gabb 1869, Paleont. Calif., 2: 24.

Type locality. Near Humbolt Bay, California. (Fossil.)

Range. 48-69 Depth. Intertidal (?).

Remarks. Grant and Gale (1931) place this species as a variety of S. polynyma Stimpson.

SPHENIA Turton 1822, Conch. Ins. Brit., p. 36.

Sphenia fragilis Carpenter 1857, Mazatlan Catalogue, No. 30, p. 24.

Type locality. Mazatlan, Mexico.

Range. 23-52 Depth. Intertidal - 40 fathoms.

Sphenia ovoidea Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 637.

Type locality. Puget Sound.

Range. 5-60 Depth. Intertidal - ?.

TARAS Risso 1826, Hist. Nat. Eur. Meric., 4: 344.

Taras aleuticus Dall 1901, Proc. U.S. Nat. Mus., 23: 820.

Type locality. Kyska Harbour, Aleutians, in 8 fathoms.

Range. 55-71 Depth. 5-30 fathoms.

Taras orbella Gould 1852, Proc. Boston Soc. Nat. Hist., 4: 90.

Type locality. San Diego, California.

Range. 23-57 Depth. Intertidal - 100 fathoms.

TELLINA Linnaeus 1758, Syst. Nat., Ed. 10, p. 674.

Tellina bodegensis Hinds 1844, Voyage of the Sulphur, Zool., 2: 67.

Type locality. "Russian Bodeges".

Range. 23-55 Depth. Intertidal - 80 fathoms.

Tellina buttoni Dall 1900, Proc. U.S. Nat. Mus., 23: 304.

Type locality. Guadalupe Island, off Lower California.

Range. 23-58 Depth. Intertidal - 60 fathoms.

Tellina carpenteri Dall 1900, Proc. U.S. Nat. Mus., 23: 303.

Type locality. Neah Bay, Washington.

Range. 8-55 Depth. 10-300 fathoms.

Synonym. T. variegata Carpenter fide Grant and Gale (1931).

Tellina modesta Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 639.

Type locality. Puget Sound.

Range. 30-50 Depth. 3-20 fathoms.

Tellina salmonea Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 639.

Type locality. Vancouver Island, B.C.

Range. 34-56 Depth. Subtidal - 10 fathoms.

TEREDO Linnaeus 1758, Syst. Nat., Ed. 10, p. 651.

Teredo navalis Linnaeus 1758, Syst. Nat., Ed. 10, p. 651.

Type locality. "North Sea".

Range. 50°N, Willapa Harbour, Washington, San Francisco Bay. Depth. Unknown.

Remarks. Introduced to Pendrell Sound, E Redonda Island, B.C., fide Quayle (1964).

THRACIA Blainville 1824, Dict. Sci. Nat., 32: 347.

Thracia beringi Dall 1915, Proc. U.S. Nat. Mus., 49: 442.

Type locality. Commander Island, Bering Sea.

Range. 49-59 Depth. 20-100 fathoms.

Thracia challisiana Dall 1915, Proc. U.S. Nat. Mus., 49: 443.

Type locality. San Juan Island, Washington.

Range. 37-55 Depth. 20-30 fathoms.

Thracia curta Conrad 1837, Journ. Acad. Nat. Sci. Phila., 7: 248.

Type locality. Near Santa Barbara, California.

Range. 23-71 Depth. Intertidal - 10 fathoms.

Thracia trapezoides Conrad 1840, Wilke's Exped., p. 723.

Type locality. Astoria, Oregon (fossil).

Range. 34-56 Depth. 20-100 fathoms.

THYASIRA Leach 1818, Hist. Anim. s. Vert., 5: 492.

Thyasira barbarensis Dall 1889, Proc. U.S. Nat. Mus., 12: 261.

Type locality. Santa Barbara Islands, California.

Range. 23-54 Depth. 10-50 fathoms.

Thyasira bisecta Conrad 1849, Rept. U.S. Expl. Exped., 10: 724.

Type locality. Astoria, Oregon (fossil).

Range. 44-56 Depth. 30-200 fathoms.

Synonym. T. disjuncta Gabb (probably a fossil species).

Remarks. Grant and Gale (1931) reject Tegland (1928) T. disjuncta non T. bisecta.

Thyasira cygnus Dall 1916, Proc. U.S. Nat. Mus., 52: 409.

Type locality. Cygnet Island, Boca de Quadra, Alaska, in 160 fathoms.

Range. 50-56 Depth. 900-1090 fathoms.

Thyasira ferruginosa Forbes 1844, Rept. Brit. Assoc. Adv. Sci. for 1843, p. 192.

Type locality. Morea (Greek Peleponesus).

Range. 51-70 Depth. 60-125 fathoms.

Thyasira polygone Jeffreys 1863, Brit. Conch., 2: 248.

Type locality. Unknown.

Range. 33-61 Depth. Unknown.

Remarks. Oldroyd (1924) placed this species as a variety of T. trisinuata. Johnson (1934) rejects the variety.

Thyasira trisinuata d'Orbigny 1846, Moll. Cuba., 2: 300.

Type locality. Martinique and Guadeloupe.

Range. 33-57 Depth. 20-150 fathoms.

TINDARIA Bellardi 1875, Mono. Miculidi. Terr. T. Piemonte Lig.: 28.

Tindaria brunnea Dall 1916, Proc. U.S. Nat. Mus., 52: 401.

Type locality. Bering Sea, in 1401 fathoms.

Range. 45-65 Depth. 700-1000 fathoms.

Tindaria gibbsii Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 10.

Type locality. Off Queen Charlotte Islands, B.C.

Range. 32-54 Depth. 800 fathoms.

Tindaria kennerlyi Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 11.

Type locality. Coast of Washington.

Range. 34-57 Depth. 1000-1200+ fathoms.

TRANSENNELLA Dall 1883, Proc. U.S. Nat. Mus., 6: 340.

Transennella tantilla Gould 1852, Boston Journ. Nat. Hist., 6: 406.

Type locality. Santa Barbara, California.

Range. 27-57 Depth. Subtidal - 50 fathoms.

TRAPEZIUM Megerle 1811, Ges. Nat. from Berlin, May, 5(1): 68.

Trapezium liratum Reeve 1843, Conch-Icon., 3: 210.

Type locality. Japan.

Range. 48-52 Depth. Intertidal.

Remarks. Introduced with Japanese oysters.

TRESUS Gray 1853, Ann. Mag. Nat. Hist., (2)11: 42.

Tresus capax Gould 1850, Proc. Boston Soc. Nat. Hist., 3: 217.

Type locality. Puget Sound.

Range. 37-58 Depth. Intertidal - 5 fathoms.

Remarks. S. nuttallii Conrad fide Grant and Gale (1931). Many workers differentiate the species, with T. capax having the northerly distribution.

TURTONIA Alder 1848, Trans. Tyneside Nat. Field Cl. 1(2): 189.

Turtonia minuta Fabricius 1780, Fauna Gronl., p. 412.

Type locality. Greenland.

Range. 25-63 Depth. 2-10 fathoms.

Synonyms. Paphia bifurcata Quayle; V. philippinarum Adams and Reeve.

Remarks. Introduced from Japan.

Venerupis kennerlyi Carpenter 1863, Conch. Iconica., Vol. 14, Venus, spec. 41.

Type locality. Puget Sound.

Range. 37-57 Depth. Intertidal - 10 fathoms.

Venerupis tenerrima Carpenter 1865, Proc. Zool. Soc. London, p. 200.

Type locality. Panama.

Range. 37-52 Depth. 2-30 fathoms.

VENUS Linnaeus 1758, Syst. Nat., Ed. 10, p. 684.

Venus kennicottii Dall 1871, Amer. Journ. Conch., 7: 147.

Type locality. Neah Bay, Washington.

Range. 40-48 Depth. Intertidal.

Remarks. Doubtful record from Victoria, B.C.

VESICOMYA Dall 1886, Bull. Mus. Comp. Zool. Harvard, 12: 272.

Vesicomya ovalis Dall 1895, Proc. U.S. Nat. Mus., 18: 18.

Type locality. Gulf of Panama, in 1672 fathoms.

Range. 8-56 Depth. 1000+ fathoms.

Vesicomya stearnsii Dall 1895, Proc. U.S. Nat. Mus., 17: 693.

Type locality. Near Tillamook, Oregon.

Range. 23-49 Depth. 900+ fathoms.

Vesicomya lepta Dall 1896, Proc. U.S. Nat. Mus., 18: 17.

Type locality. Gulf of California.

Range. 23-48 Depth. 870 fathoms.

Remarks. Doubtful B.C. record.

XYLOPHAGA Turton 1822, Conch. Insul. Brit., 253.

Xylophaga mexicana Dall 1908, Bull. Mus. Comp. Zool., 43: 425.

Type locality. Acapulco, Mexico, in 141 fathoms.

Range. 17-49 Depth. 50-? fathoms.

Xylophaga washingtonia Bartsch 1921, Proc. Biol. Soc. Wash., 34: 32.

Type locality. San Juan Islands, Washington.

Range. 47-52 Depth. 60-1200 fathoms.

YOLDIA Moller 1842, Index Moll. Groen., p. 18.

Yoldia beringiana Dall 1916, Proc. U.S. Nat. Mus., 52: 399.

Type locality. Pribiloff Islands, Bering Sea, in 987 fathoms.

Range. 34-60 Depth. 200-1000 fathoms.

Yoldia capsa Dall 1916, Proc. U.S. Nat. Mus., 52: 400.

Type locality. Off Tillamook Bay, Oregon, in 786 fathoms.

Range. 47-52 Depth. 1000 fathoms.

Yoldia cecinella Dall 1916, Proc. U.S. Nat. Mus., 52: 399.

Type locality. Off La Paz, Gulf of California, in 26 fathoms.

Range. 23-55 Depth. 10-50 fathoms.

Yoldia ensifera Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 9.

Type locality. Vancouver Island, B.C.

Range. 36-56 Depth. 10-250 fathoms.

Yoldia gardneri Oldroyd 1935, Nautilus, 49: 14.

Type locality. Pender Harbour, Vancouver Island, B.C.

Range. Type locality. Depth. 4 fathoms.

Yoldia limatula Say 1831, Amer. Conch., pl. 12, p. 163.

Type locality. Nahant, Massachusetts.

Range. 33-72 Depth. 15-30 fathoms.

Yoldia martyria Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 9.

Type locality. Off San Pedro Martir Island, Gulf of California.

Range. 23-55 Depth. 120 fathoms.

Yoldia montereyensis Dall 1893, Nautilus, 7: 29.

Type locality. Monterey Bay, California, in 382 fathoms.

Range. 33-56 Depth. 100 fathoms.

Yoldia myalis Couthouy 1838, Boston Journ. Nat. Hist., 2: 62.

Type locality. Massachusetts Bay.

Range. 48-72 Depth. Subtidal - 50 fathoms.

Yoldia sanesia Dall 1916, Proc. U.S. Nat. Mus., 52: 399.

Type locality. Boca de Quadra, Alaska, in 160 fathoms.

Range. 34-55 Depth. Unknown.

Yoldia scissurata Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 8.

Type locality. St. Paul, Kodiak Island, Alaska.

Range. 48-72 Depth. 10-200 fathoms.

Remarks. Y. scissurata Dall and Y. ensifera Dall are probably synonymous. Both were described in the same paper, but Y. scissurata had page priority.

Yoldia thraciaeformis Storer 1838, Boston Journ. Nat. Hist., 2: 122.

Type locality. Off Point Race, (Atlantic).

Range. 44-72 Depth. 20-200 fathoms.

Yoldia vancouverensis E.A. Smith 1880, Ann. Mag. Nat. Hist., 5th ser., 6: 289.

Type locality. Vancouver Island, B.C.

Range. 49-50 Depth. 40 fathoms.

ZIRFAEA Gray 1842, Synop. Cont. Brit. Mus., Ed. 42, p. 150.

Zirfaea gabbi Tryon 1863, Proc. Acad. Nat. Sci. Phila., 15: 144.

Type locality. Japan.

Range. 28-56 Depth. Intertidal - 10 fathoms.

Synonym. Z. pilsbryi.

Class GASTROPODA

ACANTHINA Fischer de Waldheim 1807, Mus. Demidoff, 3: 174.

Acanthina spirata Blainville 1832, Nouv. Ann. du Mus., Paris, 1: 252.

Type locality. Near Santa Barbara, California.

Range. 19-49 Depth. Intertidal.

Remarks. Northern range dubious.

ACMAEA Eschscholtz 1830 (in Kotzebue), Neue. Reis. d. Welt. jahr 1823-26, 2: 24.

Acmaea asmi Middendorff 1849, Beitr. Malac. Ross., 2: 39.

Type locality. Sitka, Alaska.

Range. 30-57 Depth. 3-15 fathoms.

Acmaea digitalis Eschscholtz 1833, Zool. Atlas, 5: 20.

Type locality. Unknown.

Range. 37-60 Depth. Littoral.

Acmaea digitalis umbonata Reeve 1855, Conch. Iconica, Vol. 8, fig. 107.

Type locality. Upper California.

Range. 40-70 Depth. Intertidal.

Acmaea incessa Hinds 1842, Ann. Mag. Nat. Hist., 10: 82.

Type locality. San Diego, California.

Range. 25-60 Depth. 5-15 fathoms.

Acmaea instabilis Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 150.

Type locality. Neah Bay, Washington.

Range. 32-60 Depth. 10 fathoms.

Acmaea cassis Eschscholtz 1833, Zool. Atlas, p. 19.

Type locality. Unknown.

Range. 38-60 Depth. Littoral.

Synonym. A. cassis nacelloides Dall.

Acmaea limatula Carpenter 1864,

Type locality. Not selected.

Range. 21-49 Depth. Littoral.

Synonym. A. limatula morchii Dall.

Acmaea mitra Eschscholtz 1833, Zool. Atlas, p. 18.

Type locality. Bering Sea.

Range. 32-60 Depth. Intertidal - 12 fathoms.

Acmaea mitra funiculata Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 650.

Type locality. Monterey, California.

Range. 25-57 Depth. Littoral.

Acmaea ochracea Dall 1871,

Type locality. Vancouver, B.C.

Range. 34-60 Depth. 5-10 fathoms.

Synonym. A. peramabilis Dall.

Acmaea olympica Dall 1914, Nautilus, 28: 14.

Type locality. Olympia, Washington.

Range. 32-57 Depth. 6 fathoms.

Acmaea paleacea Gould 1853, Boston Journ. Nat. Hist., 6: 376.

Type locality. Santa Barbara, California.

Range. 32-48 Depth. Littoral.

Acmaea pelta Eschscholtz 1833, Zool. Atlas, p. 19.

Type locality. Sitka, Alaska.

Range. 22-60 Depth. Intertidal.

Acmaea persona Eschscholtz 1833, Zool. Atlas, 5: 20.

Type locality. Sitka, Alaska.

Range. 32-60 Depth. Intertidal.

Acmaea rosacea Carpenter 1866, Amer. Jour. Conch., 2: 341.

Type locality. San Diego, California.

Range. 16-48 Depth. Littoral.

Acmaea rosea Dall 1872, Proc. Calif. Acad. Sci., 4: 270.

Type locality. Alaska.

Range. 33-57 Depth. 20 fathoms.

Acmaea scabra Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 152.

Type locality. San Francisco, California.

Range. 23-48 Depth. 15 fathoms.

Synonym. A. spectrum Auct.

Acmaea scutum Eschscholtz 1833, Zool. Atlas, pt. 5, p. 19.

Type locality. Unknown.

Range. 34-60 Depth. Intertidal.

Acmaea scutum cribraria Carpenter 1866, Amer. Jour. Conch., 2: 335.

Type locality. California.

Range. 35-58 Depth. Intertidal.

Acmaea scutum patina Eschscholtz 1833, Zool. Atlas, p. 19.

Type locality. Unknown.

Range. 35-57 Depth. 10 fathoms.

Remarks. Probably color form of A. scutum.

Acmaea scutum pintadina Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 151.

Type locality. Straits of Juan de Fuca, B.C.

Range. 36-57 Depth. Unknown.

Remarks. Probably a synonym of A. scutum Eschscholtz.

Acmaea strigatella Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 618.

Type locality. Northwest coast of America.

Range. 23-57 Depth. Littoral.

Homonym. A. striqillata.

Remarks. Probably a southern form of A. persona.

Acmaea triangularis Carpenter 1866, Proc. Calif. Acad. Sci., 3: 213.

Type locality. Monterey, California.

Range. 33-57 Depth. Intertidal.

ADMETE Kröyer (in Moller) 1842, Index Moll. Groenl., p. 15.

Admete couthouyi Jay 1839, Catal. Coll., p. 77.

Type locality. Massachusetts Bay.

Range. 32-72 Depth. 250 fathoms.

Admete gracilior Carpenter 1866, in Gabb, Paleont. Calif., 2: 50.

Type locality. Santa Barbara, California. (Fossil.)

Range. 32-72 Depth. 150 fathoms.

Admete laevior Leche 1878, Kongl. Svenska Vetensk. Akad. Handl., 16: 43.

Type locality. Arctic Ocean.

Range. 47-72 Depth. 100 fathoms.

Admete sp. 49°53'2"N 127°22'7"W, 1100 fathoms.

AFORIA Dall 1889, Bull. Mus. Comp. Zool., Hvd. 18: 99.

Aforia circinata Dall 1873, Proc. Calif. Acad. Sci., 5: 61.

Type locality. Unalaska.

Range. 48-62 Depth. 400 fathoms.

ALVANIA Risso 1826, Hist. Nat. Eur. Merid., 4: 140.

Alvania burrardensis Bartsch 1921, Proc. Biol. Soc. Wash., 34: 38.

Type locality. Burrard Inlet, B.C.

Range. Type locality. Depth. 8 fathoms.

Alvania carpenteri Weinkauff 1885, Conch. Cab., Ed. 2, p. 192.

Type locality. Neah Bay, Washington.

Range. 36-54 Depth. 15 fathoms.

Alvania compacta Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 62.

Type locality. Puget Sound, Washington.

Range. 33-57 Depth. 2-10 fathoms.

Alvania dinora Burtsch 1917, Proc. U.S. Nat. Mus., 52: 678.

Type locality. Forrester Island, Alaska.

Range. 50-55 Depth. 53 fathoms.

Alvania filosa Carpenter 1865, Proc. U.S. Nat. Mus., 41: 342.

Type locality. Neah Bay, Washington.

Range. 48-57 Depth. 40 fathoms.

Alvania montereyensis Bartsch 1911, Proc. U.S. Nat. Mus., 41: 343.

Type locality. Monterey, California.

Range. 36-58 Depth. Littoral.

Alvania sanjuanensis Bartsch 1921, Proc. Biol. Soc. Wash., 34: 37.

Type locality. Puget Sound, Washington.

Range. 48-57 Depth. 20-30 fathoms.

AMPHISSA H. and A. Adams 1853, Gen. Rec. Moll., 1: 111.

Amphissa columbiana Dall 1916, Nautilus, 30: 27.

Type locality. Puget Sound, Washington.

Range. 34-57 Depth. 5-500 fathoms.

Amphissa reticulata Dall 1916, Nautilus, 30: 27.

Type locality. Not recorded.

Range. 32-60 Depth. 30-80 fathoms.

Amphissa versicolor Dall 1871, Am. Journ. Conch., pl. 16, 7: 113.

Type locality.

Range. 28-54 Depth. 180 fathoms.

ANCISTROLEPIS Dall 1894, Proc. U.S. Nat. Mus., 17: 709.

Ancistrolepis californicus Dall 1919, Proc. U.S. Nat. Mus., 56: 313.

Type locality. Near Cortez Bank in 984 fathoms.

Range. 32-51 Depth. 900-1150 fathoms.

Ancistrolepis eucosmius Dall 1891, Proc. U.S. Nat. Mus., 14: 187.

Type locality. Off Unalaska Island, Alaska.

Range. 44-57 Depth. 760 fathoms.

ANTIPLANES Dall 1902, Proc. U.S. Nat. Mus., 24: 513.

Antiplanes litus Dall 1919, Proc. U.S. Nat. Mus., 56: 34.

Type locality. Off Esteros Bay, California, in 92 fathoms.

Range. 35-49 Depth. 89 fathoms.

Antiplanes perversa Gabb 1865, Proc. Calif. Acad. Sci., 5: 183.

Type locality. San Pedro, California. (Fossil.)

Range. 29-57 Depth. 35-130 fathoms.

Antiplanes thalaea Dall 1902, Proc. U.S. Nat. Mus., 24: 514.

Type locality. Off San Luis Obispo, California, in 252 fathoms.

Range. 32-55 Depth. 80-120 fathoms.

Antiplanes sp. 49°43'5"N 128°28'5"W in 1200 fathoms.

ASSIMINEA Fleming (Leach) 1828, Hist. Brit. Anim., p. 275.

Assiminea translucens Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 613.

Type locality. San Diego, California.

Range. 34-48 Depth. Littoral.

Synonym. Synava translucens Carpenter.

ASTRAEA Bolten 1798, Mus. Boltenienum, Pt. 2, p. 79.

Astraea gibberosa Pfeiffer 1840 (non Smelin), Kvit. Regist. Mart. Chem. Conch., 102.

Type locality. Unknown.

Range. 33-54

Depth. Intertidal - 5 fathoms.

Remarks. A. inaequalis Martyn.

ATLANTA LeSeur 1817, Journ. de Phys., 85: 391.

Atlanta peronii LeSeur 1817, Journ. de Phys., 85: 390.

Type locality. North Pacific.

Range. 33-50

Depth. Pelagic.

BALCIS Leach 1852, Moll. Gt. Brit., p. 200.

Balcis columbiana Bartsch 1917, Proc. U.S. Nat. Mus., 53: 324.

Type locality. Departure Bay, Vancouver Island, B.C.

Range. 49-57 Depth. 10 fathoms.

Balcis comoxensis Bartsch 1917, Proc. U.S. Nat. Mus., 53: 325.

Type locality. Comox, Vancouver Island, B.C.

Range. Type locality. Depth. 8 fathoms.

Balcis macra Bartsch 1917, Proc. U.S. Nat. Mus., 53: 326.

Type locality. Departure Bay, Vancouver Island, B.C.

Range. 48-49 Depth. Littoral.

Balcis micans Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1864, p. 659.

Type locality. San Pedro, California.

Range. 22-51 Depth. Littoral.

Synonym. B. borealis Bartsch.

Balcis oldroydi Bartsch 1917, Proc. U.S. Nat. Mus., 53: 309.

Type locality. San Pedro, California.

Range. 27-50 Depth. Littoral.

Balcis ptilocrinicola Bartsch 1907, Proc. U.S. Nat. Mus., 32: 555.

Type locality. Off B.C. in 1588 fathoms, on Ptilocrinus.

Range. Type locality. Depth. 1588 fathoms.

Balcis randolphi Vanatta 1899, Proc. Acad. Nat. Sci. Phila., p. 256.

Type locality. Unalaska, Alaska.

Range. 48-57 Depth. Littoral.

Balcis rutila Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 359.

Type locality. Monterey, California.

Range. 23-60 Depth. 35-50 fathoms.

BARLEEIA Clark 1855, Brit. Mar. Test. Moll., pp. 392-395.

Barleeia marmorea Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 657.

Type locality. San Pedro, California.

Range. 34-54 Depth. Littoral.

Synonym. Diala marmorea Carpenter.

Barleeia oldroydi Bartsch 1920, Proc. U.S. Nat. Mus., 58: 171.

Type locality. Monterey Bay, California.

Range. 33-54 Depth. 15 fathoms.

Barleeia sanjuanensis Bartsch 1920, Proc. U.S. Nat. Mus., 58: 170.

Type locality. Puget Sound.

Range. Type locality. Depth. Littoral.

BATHYBEMBIX Crosse 1893, Journ. Conchyl., 40: 288.

Bathybembix bairdi Dall 1889, Proc. U.S. Nat. Mus., 12: 346.

Type locality. Off San Clements Island in 414 fathoms.

Range. 32-57 Depth. 250 fathoms.

Synonym. Turcicula bairdi Dall.

BATILLARIA Benson 1842, Ann. Mag. Nat. Hist., 9: 488.

Batillaria zonalis Bruguière 1792, Dict. Encyc. Meth., Vol. 1.

Type locality. Japan.

Range. 48-51 Depth. Intertidal.

Synonym. B. cumingii.

Remarks. Introduced from Japan with Crassostrea gigas.

BERINGIUS Dall 1879, Sci. Res. Expl. Alaska, pl. 2.

Beringius crebricostatus Dall 1877, Proc. Calif. Acad. Sci., 7: 6.

Type locality. Boca de Quadra, Alaska, in 160 fathoms.

Range. 49-55 Depth. 200-300 fathoms.

Beringius stimpsoni Gould 1860, Proc. Boston Soc. Nat. Hist., 7: 325.

Type locality. Bering Straits.

Range. 54-60 Depth. 310 fathoms.

Beringius undatus Dall 1919, Proc. U.S. Nat. Mus., 56: 311.

Type locality. Boca de Quadra, Alaska, in 160 fathoms.

Range. 49-55 Depth. 10-200 fathoms.

BITTIUM Leach (in Gray) 1847, Ann. Mag. Nat. Hist., 20: 270.

Bittium attenuatum Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 655.

Type locality. Monterey, California.

Range. 30-57 Depth. Littoral.

Bittium boreale Bartsch 1911, Proc. U.S. Nat. Mus., 40: 395.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 48-54 Depth. Littoral.

Bittium chalisae Bartsch 1917, Proc. U.S. Nat. Mus., 52: 673.

Type locality. San Juan Island, Washington.

Range. 48-52 Depth. 7-150 fathoms.

Bittium eschrichtii Middendorff 1849, Beitr. Malac. Ross., 2: 68.

Type locality. Sitka, Alaska.

Range. 48-60 Depth. 20-80 fathoms.

Synonym. B. icelum Bartsch.

Bittium munitum Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 638.

Type locality. Neah Bay, Washington.

Range. 37-57 Depth. 80 fathoms.

Bittium oldroydi Bartsch 1911, Proc. U.S. Nat. Mus., 40: 408.

Type locality. Lower California.

Range. 28-48 Depth. Littoral.

Remarks. A doubtful B.C. record.

Bittium sanjuanensis Bartsch 1917, Proc. U.S. Nat. Mus., 52: 674.

Type locality. Off San Juan Island, Puget Sound.

Range. Type locality. Depth. 25 fathoms.

Bittium vancouverense Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 19.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 48-60 Depth. Littoral.

BOREOMELON Dall 1918, Proc. Biol. Soc. Wash., 31: 138.

Boreomelon stearnsii Dall 1872, Calif. Acad. Sci., 4: 270.

Type locality. Pribiloff Islands, Alaska.

Range. 54-57 Depth. 40-120 fathoms.

Synonym. Fulgoraria stearnsii Dall.

BOREOTROPHON Fischer 1884, Man. de Conch., p. 640.

Boreotrophon beringi Dall 1902, Proc. U.S. Nat. Mus., 24: 544.

Type locality. Not known (Bering Sea?).

Range. 48-71 Depth. 300 fathoms.

Boreotrophon cepula Sowerby 1880, Thes. Conch. Trophon 61, pl. 404.

Type locality. Bering Sea?

Range. 48-60 Depth. 250 fathoms.

Boreotrophon dalli Kobelt 1878, Conch. Cab., 2nd ed., p. 275 (Trophon).

Type locality. Bering Sea.

Range. 48-72 Depth. 66 fathoms.

Boreotrophon disparilis Dall 1891, Proc. U.S. Nat. Mus., 14: 189.

Type locality. Near Gray's Harbour, Washington, in 52 fathoms.

Range. 33-54 Depth. 20 fathoms.

Boreotrophon macouni Dall 1919, Geol. Surv. Canada, Mem. 14N, p. 12.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 48-58 Depth. 140 fathoms.

Boreotrophon multicostatus Eschscholtz 1829, Zool. Atlas, pt. 2, p. 11, pl. 9, fig. 4.

Type locality. Sitka, Alaska.

Range. 34-60 Depth. 18 fathoms.

Boreotrophon orpheus Gould 1849, Proc. Boston Soc. Nat. Hist., 3: 142.

Type locality. Puget Sound.

Range. 46-48 Depth. Intertidal - 28 fathoms.

Boreotrophon pacificus Dall 1902, Proc. U.S. Nat. Mus., 24: 544.

Type locality. Bering Sea (?).

Range. 17-72 Depth. 50 fathoms.

Boreotrophon smithi Dall 1902, Proc. U.S. Nat. Mus., 24: 542.

Type locality. Not given.

Range. 34-57 Depth. 25 fathoms.

Boreotrophon staphylinus Dall 1902, Proc. U.S. Nat. Mus., 56: 338.

Type locality. Off Santa Barbara Island, California.

Range. 32-57 Depth. 500 fathoms.

Boreotrophon stuarti E.A. Smith 1880, Proc. Zool. Soc. London, p. 481.

Type locality. Vancouver Island, B.C.

Range. 33-60 Depth. 30-1000 fathoms.

Boreotrophon tenuisculptus Carpenter 1866, Ann. Mag. Nat. Hist., 3rd ser., 17: 277.

Type locality. Santa Barbara, California (fossil).

Range. 32-60 Depth. 50-100 fathoms.

BUCCINUM Linnaeus 1758, Syst. Nat., Ed. 10, p. 734.

Buccinum angulosum Gray 1839, Barkley's Voy. to the Pacific, Zool. p. 127, pl. 36.

Type locality. Icy Cape, Alaska.

Range. 50-72 Depth. 65 fathoms.

Buccinum diplodetum Dall 1907, Smiths. Misc. Coll., 50: 143.

Type locality. Off Sea Lion Rock, Washington.

Range. 47-57 Depth. 700-1000 fathoms.

Buccinum glaciale Linnaeus 1761, Fauna Suecica, 2nd Ed., p. 523.

Type locality. Northern Sea.

Range. 48-72 Depth. 400 fathoms.

Buccinum pemphigus Dall 1907, Smiths. Misc. Coll., 50: 151.

Type locality. Off Dalnoi Point, Kamchatka, in 682 fathoms.

Range. 38-50 Depth. 700 fathoms.

Buccinum planeticum Dall 1919, Proc. U.S. Nat. Mus., 56: 326.

Type locality. Off Hagemeister Island, Bering Sea.

Range. 55-57 Depth. 290 fathoms.

Buccinum plectrum Stimpson 1865, Can. Nat. and Jour. of Sci., 2: 374.

Type locality. Not listed.

Range. 48-72 Depth. 80 fathoms.

Buccinum striqillatum Dall 1891, Proc. U.S. Nat. Mus., 14: 186.

Type locality. Off Guadalupe Island, Lower California, in 167 fathoms.

Range. 29-54 Depth. 40 fathoms.

Buccinum striqillatum fucanum Dall 1907, Smiths. Misc. Coll., 50: 152.

Type locality. Strait of Juan de Fuca in 125 fathoms.

Range. 44-48 Depth. 200 fathoms.

Remarks. Possibly ♀ B. striqillatum Dall.

Buccinum viridum Dall 1889,

Type locality. Off Santa Barbara, California.

Range. 34-60 Depth. 400-800 fathoms.

CALLIOSTOMA Swainson 1840, Treat. Malac., pp. 218, 351.

Calliostoma annulatum A. Adams 1851, Proc. Zool. Soc. London, 164.

Type locality. California.

Range. 33-55 Depth. Intertidal - 40 fathoms.

Calliostoma canaliculatum Cooper 1864, Brit. Assoc. Adv. Sci. Rept. 1863, p. 652.

Type locality. California.

Range. 32-57 Depth. Intertidal - 100 fathoms.

Synonym. C. doliarus Halten.

Calliostoma canaliculatum transliratum Dall 1919, Proc. U.S. Nat. Mus., 56: 360.

Type locality. Biorka Island, Sitka, Alaska.

Range. Type locality. Depth. 42 fathoms.

Remarks. Doubtful B.C. record off Queen Charlotte Islands.

Calliostoma caeruleum Dall 1919, Proc. U.S. Nat. Mus., 56: 359.

Type locality. Monterey, California.

Range. 37-48 Depth. 120 fathoms.

Calliostoma costatum Carpenter 1864, Brit. Assoc. Adv. Sci. Rept. 1863, p. 652.

Type locality. Unknown.

Range. 32-57 Depth. 90 fathoms.

Calliostoma platinum Dall 1889, Proc. U.S. Nat. Mus., 12: 343.

Type locality. Santa Barbara Island, California.

Range. 33-54 Depth. 35-100 fathoms.

Calliostoma variegatum Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 61.

Type locality. Puget Sound, Washington.

Range. 28-57 Depth. 20-100 fathoms.

CALYPTRAEA Lamarck 1799, Mem. Soc. Hist. Nat. Paris, 1: 78.

Calyptraea fastigiata Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 161.

Type locality. Puget Sound.

Range. 48-56 Depth. 5-50 fathoms.

Remarks. Grant and Gale (1931) remarks this species as synonymous to C. mamillaris Gould, this would extend the range to -7.

CANCELLARIA Lamarck 1799, Mem. Soc. Hist. Nat. Paris, p. 71.

Cancellaria circumcincta Dall 1873, Proc. Calif. Acad. Sci., 5: 59.

Type locality. Shumagin Islands, Alaska.

Range. 54-60 Depth. 20-200 fathoms.

Cancellaria crawfordiana Dall 1891, Proc. U.S. Nat. Mus., 14: 182.

Type locality. Near San Francisco, California.

Range. 33-52 Depth. 80-1025 fathoms.

Cancellaria modesta Carpenter 1865, Ann. Mag. Nat. Hist. (3), 15: 32.

Type locality. Neah Bay, Washington.

Range. 48-60 Depth. 15-100 fathoms.

Cancellaria unalaskensis Dall 1873, Proc. Calif. Acad. Sci., 5: 58.

Type locality. Unalaska, Alaska.

Range. 43-55 Depth. 50-80 fathoms.

CARDIOPODA Agassiz 1846, Nomen. Zool. Index. Univ.

Cardiopoda placenta Lesson 1830, Voyage de la 'Coquille', Zool., p. 253.

Type locality. North Pacific.

Range. N. and S. Pacific Ocean. Depth. Pelagic.

CARINARIA Lamarck 1801, Syst. Anim., p. 98.

Carinaria punctata d'Orbigny 1836, Voyage en Amerique meridionale, 5: 160.

Type locality. Unknown.

Range. N. and S. Pacific Ocean. Depth. Pelagic.

CERATOSTOMA Gray 1847, Proc. Zool. Soc. London, 15: 134.

Ceratostoma foliata Gmelin 1790, Reeve 1880, Conch. Icon., Vol. 3, Murex, pl. 3, fig. 12.

Type locality. North west coast of America.

Range. 33-60 Depth. Littoral.

Remarks. Purpura foliata Martyn.

CERITHIOPSIS Forbes and Hanley 1853, Hist. Brit. Moll., 3: 364.

Cerithiopsis charlottensis Bartsch 1917, Proc. U.S. Nat. Mus., 52: 668.

Type locality. Queen Charlotte Sound, B.C., in 60 fathoms.

Range. 48-60 Depth. 160 fathoms.

Cerithiopsis columna Carpenter 1864, Rept. Brit. Assoc. Adv. Sci., p. 660.

Type locality. Neah Bay, Washington.

Range. 32-50 Depth. 20 fathoms.

Cerithiopsis fraseri Bartsch 1921, Proc. Biol. Soc. Wash., 34: 34.

Type locality. Clayoquot, B.C.

Range. 48-50 Depth. 24 fathoms.

Cerithiopsis stephensae Bartsch 1909, Proc. U.S. Nat. Mus., 37: 399.

Type locality. Peril Strait, Alaska.

Range. 48-55 Depth. 80 fathoms.

Cerithiopsis signa Bartsch 1921, Proc. Biol. Soc. Wash., 34: 36.

Type locality. Puget Sound.

Range. Type locality. Depth. 120 fathoms.

Cerithiopsis truncata Dall 1886, Proc. U.S. Nat. Mus., 9: 304.

Type locality. Unalaska, Alaska.

Range. 48-57 Depth. 60-100 fathoms.

Cerithiopsis willetti Bartsch 1921, Proc. Biol. Soc. Wash., 34: 36.

Type locality. Forrester Island, Alaska.

Range. 48-55 Depth. 8-40 fathoms.

CIDARINA Dall 1909, U.S. Geol. Surv., Prof. Paper 59, p. 98.

Cidarina carlotta Dall 1902, Proc. U.S. Nat. Mus., 24: 553.

Type locality. Off Queen Charlotte Islands in 1558 fathoms.

Range. Type locality. Depth. 1558 fathoms.

Cidarina cidaris A. Adams 1864, Ann. Mag. Nat. Hist., (3), 14: 426.

Type locality. Near Neah Bay, Washington.

Range. 30-60 Depth. 20-600 fathoms.

CINGULA Fleming 1828, Ency. Brit. (Suppl. to Ed. 4-6), 3(1): 311.

Cingula kyskensis Bartsch 1911, Proc. U.S. Nat. Mus., 41: 291.

Type locality. Kyska, Aleutian Islands.

Range. 50-52 Depth. 200 fathoms.

CLATHRODRILLIA Dall 1918, Proc. U.S. Nat. Mus., 54: 317.

Clathrodrillia fancherae Dall 1903, Proc. Biol. Soc., Wash., 16: 172.

Type locality. Catalina Island, California.

Range. 27-49 Depth. 20 fathoms.

Synonym. C. halcyonis Dall.

Clathrodrillia grippi Dall 1919, Proc. U.S. Nat. Mus., pl. 8, 56: 27.

Type locality. San Diego, California.

Range. 33-49 Depth. 12-15 fathoms.

Clathrodrillia incisa Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 62.

Type locality. Puget Sound.

Range. 32-48 Depth. 25-40 fathoms.

Clathrodrillia rhines Dall 1908, Proc. U.S. Nat. Mus., fig. 5, 56: 18.

Type locality. Puget Sound.

Range. 32-48 Depth. 80 fathoms.

Clathrodrillia willetti Dall 1919, Proc. U.S. Nat. Mus., 56: 29.

Type locality. Forrester Island, Alaska.

Range. 54-57 Depth. Unknown.

COCCULINA Dall 1882, Proc. U.S. Nat. Mus., 4: 402.

Cocculina agassizii Dall 1908, Bull. Mus. Comp. Zool., 43: 340.

Type locality. Gulf of Panama, 556 fathoms.

Range. 7-54 Depth. 145 fathoms.

Cocculina cazanica Dall 1919, Proc. U.S. Nat. Mus., 56: 356.

Type locality. Kasa-an Bay, Alaska.

Range. 53-57 Depth. 170 fathoms.

COLUS Bolten 1798, Mus. Boltenionum, p. 117.

Colus acosmius Dall 1891, Proc. U.S. Nat. Mus., 14: 188.

Type locality. Unalaska Islands, Bering Sea.

Range. 54-57 Depth. 80-200 fathoms.

Colus adonis Dall 1919, Proc. U.S. Nat. Mus., 56: 316.

Type locality. Suruga Gulf, Japan.

Range. 33-50 Depth. 680 fathoms.

Colus aphelus Dall 1889, Proc. U.S. Nat. Mus., 12: 325.

Type locality. Off Santa Barbara County, California, in 414 fathoms.

Range. 32-57 Depth. 250-550 fathoms.

Colus capponicus Dall 1919, Proc. U.S. Nat. Mus., 56: 317.

Type locality. Port Clarence, Bering Sea.

Range. 49-66 Depth. 250 fathoms.

Colus dalmasius Dall 1919, Proc. U.S. Nat. Mus., 56: 322.

Type locality. Coast of British Columbia.

Range. Type locality. Depth. 238 fathoms.

Colus errones Dall 1919, Proc. U.S. Nat. Mus., 56: 321.

Type locality. Bering Sea.

Range. 48-56 Depth. 300-350 fathoms.

Colus georgianus Dall 1919, Proc. U.S. Nat. Mus., 56: 327.

Type locality. Gulf of Georgia, B.C.

Range. 32-49 Depth. 60-822 fathoms.

Colus halidonus Dall 1919, Proc. U.S. Nat. Mus., 56: 318.

Type locality. Off Destruction Island, Washington.

Range. 32-56 Depth. 534 fathoms.

Colus halimeris Dall 1919, Proc. U.S. Nat. Mus., 56: 320.

Type locality. Near Stikine River, B.C.

Range. 33-54 Depth. 100-600 fathoms.

Colus halli Dall 1873, Proc. Calif. Acad. Sci., 5: 59.

Type locality. Sanborn Harbour, Nagai.

Range. 32-60 Depth. 80-100 fathoms.

Colus jordani Dall 1913, Proc. U.S. Nat. Mus., 45: 588.

Type locality. Gulf of Georgia, B.C., in 67 fathoms.

Range. 32-60 Depth. 60-150 fathoms.

Colus morditus Dall 1919, Proc. U.S. Nat. Mus., 56: 319.

Type locality. Gulf of Georgia.

Range. Type locality. Depth. 70 fathoms.

Colus severinus Dall 1919, Proc. U.S. Nat. Mus., 56: 320.

Type locality. Monterey, California, in 278 fathoms.

Range. 37-51 Depth. 480-1000 fathoms.

Colus spitzbergensis Reeve 1855, Last of the Arctic Voyages, 395.

Type locality. Spitzbergen.

Range. 48-72 Depth. 12-142 fathoms.

Colus tahwitanis Dall 1918, Proc. U.S. Nat. Mus., 54: 228.

Type locality. Tahwit Head, Washington, in 178 fathoms.

Range. 48-49 Depth. 80 fathoms.

COMENTEROXENOS Tikasingh 1960, Jour. Parasit., 2 pls., 47: 268-272.

Comenteroxenos parastichopoli Tihasingh 1960, Jour. Parasit., 47: 268.

Type locality. Puget Sound, Washington.

Range. Type locality. Depth. Littoral.

Remarks. Parasitic in Parastichopus californicus.

CORALLIOPHILA H. and A. Adams 1853,

Coralliophila kincaidi Dall 1919, Proc. U.S. Nat. Mus., 56: 339.

Type locality. Puget Sound, Washington.

Range. Type locality. Depth. 10 fathoms.

Remarks. Recorded from Victoria, Vancouver Island, B.C.

Crepidula nummaria Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 160.

Type locality. Strait of Juan de Fuca, B.C.

Range. 8-65 Depth. Intertidal - 20 fathoms.

Crepidula nivea C. Adams 1852, Cat. of Shells Coll. at Panama, p. 234.

Type locality. Panama.

Range. 8-54 Depth. 10 fathoms.

Synonym. C. nivea perforans Velenciennes; C. fimbriata Reeve.

Crepidula orbiculata Dall 1919, Proc. U.S. Nat. Mus., 56: 251.

Type locality. Victoria, B.C.

Range. 32-60 Depth. Unknown.

CYPRAEOLINA Cerolli-Ivelli 1911, Palacont Ital. Mend. Pal., 17: 23.

Cypraeolina pyriformis Carpenter 1865, Journ. de Conch., 13: 148.

Type locality. San Diego, California.

Range. 23-60 Depth. Intertidal - 20 feet.

DIODORA Gray 1821, London Med. Repos. Journ., 15: 233.

Diodora aspera Eschscholtz 1833, Zool. Atlas, 5: 21.

Type locality. Sitka, Alaska.

Range. 24-60 Depth. Littoral.

DENDROPOMA Morch 1861, Proc. Zool. Soc. London, p. 154.

Dendropoma lituella Morch 1861, Proc. Zool. Soc. London, p. 154.

Type locality. Not given.

Range. 33-55 Depth. Littoral.

Synonym. Spiroglyphus lituellus Morch.

ENTOCONCHA Müeller 1852, Monatsber. Akad. Wiss. Berlin, p. 207.

Entoconcha mirabilis J. Müeller 1852, Monat. Akad. Wiss. Berlin 1852, p. 207.

Type locality. Mediterranean.

Range. 48-50 (?) Depth. Parasitic in Parastichopus californicus.

EPITONIUM Bolten 1798, Mus. Boltenionum, pt. 2, p. 91.

Epitonium acrostephanus Dall 1908, Proc. U.S. Nat. Mus., 34: 251.

Type locality. Monterey, California.

Range. 32-48 Depth. 40 fathoms.

Epitonium caamanoi Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 13.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 34-49 Depth. 10 fathoms.

Epitonium catalinae Dall 1908, Proc. U.S. Nat. Mus., 34: 252.

Type locality. Off Catalina Island, California.

Range. 32-55 Depth. 20-50 fathoms.

Epitonium columbianum Dall 1917, Proc. U.S. Nat. Mus., 53: 481.

Type locality. Off the Columbia River, Oregon.

Range. 23-55 Depth. 29 fathoms.

Epitonium cooperi Strong 1930, Trans. San Diego Soc. Nat. Hist., 6: 194.

Type locality. San Pedro, California.

Range. 23-53 Depth. 73 fathoms.

Epitonium densiclathratum Dall 1917, Proc. U.S. Nat. Mus., 53: 478.

Type locality. Puget Sound, Washington.

Range. 33-48 Depth. 25 fathoms.

Epitonium greenlandicum Perry 1811, Conchology, pl. 28, fig. 8.

Type locality. Greenland.

Range. 54-72 Depth. 40 fathoms.

Epitonium indianorum Carpenter 1864, Ann. Mag. Nat. Hist., (3), 15: 31.

Type locality. Neah Bay, Washington.

Range. 32-60 Depth. 30 feet-100 fathoms.

Epitonium sawinae Dall 1903, Proc. Biol. Soc. Wash., 16: 173.

Type locality. Catalina Island, California.

Range. 34-50 Depth. 20-120 fathoms.

Epitonium tinctum Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 660.

Type locality. San Pedro, California.

Range. 23-51 Depth. 150 fathoms.

Synonym. E. subcoronatum Carpenter; E. fallaciosum Carpenter.

EUNATICINA Fischer 1885, Man. Conch., p. 768.

Eunaticina oldroydii Dall 1897, Nautilus, 11: 8: 85.

Type locality. Catalina Island, California.

Range. 32-52 Depth. Unknown.

EXILIOIDEA Grant and Gale 1931, Mem. San Diego Soc. Nat. Hist., 1: 665.

Exilioidea rectirostris Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 64.

Type locality. Puget Sound.

Range. 30-60 Depth. 25-100 fathoms.

FARTULUM Carpenter 1858, Cat. Manzatlan, p. 325.

FUSINUS Rafinesque 1815, Analyse, p. 145.

Fusinus harfordii Stearns 1871, Conch. Mem., pt. 7, p. 1.

Type locality. Off Mendocino, California.

Range. 39-51 Depth. Intertidal - 40 feet.

Fusinus monksea Dall 1915, Nautilus, 29: 55.

Type locality. San Pedro, California (fossil).

Range. 26-50 Depth. Unknown.

Synonym. F. rugosus Trask.

Remarks. Northern limit doubtful.

FUSITRITON Cossmann 1903, Ess. Paleo. Comp., 5: 109.

Fusitriton oregonense Redfield 1848, Annals Lyc. Nat. Hist. N.Y., 4: 165.

Type locality. Straits of Juan de Fuca.

Range. 32-60 Depth. 160 fathoms.

Synonym. Argobuccinum oregonense Redfield.

HALIOTIS Linnaeus 1758, Syst. Nat., Ed. 12,

Haliotis kamtschatkana Jonas 1845, Zeitschr. fur Malak., p. 168.

Type locality. Sitka, Alaska.

Range. 33-57 Depth. Littoral.

HALISTYLUS Dall 1889, Proc. U.S. Nat. Mus., 12: 341.

Halistylus pupoides Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 656.

Type locality. Monterey, California.

Range. 8-57 Depth. 8-10 fathoms.

HEMITOMA Swainson 1840, Treat. Malacol., 244; 357.

Hemitoma bella Gabb 1865, Proc. Calif. Acad. Sci., 3: 188.

Type locality. Monterey, California.

Range. 33-57 Depth. Littoral.

Synonym. H. yatesii Dall.

HIPPONIX DeFrance 1819, Journ. de Phys., 88: 217.

Hipponix cranoides Carpenter 1864, Ann. Mag. Nat. Hist. (3), 14: 427.

Type locality. Neah Bay, Washington.

Range. 33-51 Depth. 10-35 fathoms.

Synonym. H. antiquatus.

HOMALOPOMA Defrance 1819, Journ. Phys. Chim. Hist. Nat. Arts, 88: 217.

Homalopoma bacula Carpenter 1864, Proc. Calif. Acad. Sci., 3: 177.

Type locality. Catalina Island, California.

Range. 30-52 Depth. 20-50 fathoms.

Synonym. H. lacunatum Carpenter.

Homalopoma engbergi Willett 1929, Nautilus, 43: 27.

Type locality. Olga, Washington.

Range. 48-53 Depth. Unknown.

Homalopoma lurida Dall 1885, Proc. U.S. Nat. Mus., 8: 542.

Type locality. Puget Sound.

Range. -23-57 Depth. Intertidal - 38 fathoms.

Synonym. H. carpenteri Pilsbry.

IANTHINA Bolten 1798, Mus. Bolten., 2: 75.

Ianthina globosa Swainson 1822, Zool. Illust., (1), Vol. 2, pl. 85.

Type locality. Cornwall, England.

Range. 23-48 Depth. Pelagic.

ISELICA Dall 1918, Proc. Biol. Soc. Washington, 31: 137.

Iselica fenestrata Carpenter 1864, Ann. Mag. Nat. Hist., (3), 14: 429.

Type locality. Santa Barbara, California.

Range. 23-53 Depth. 30 feet-30 fathoms.

Iselica laxa Dall 1919, Proc. U.S. Nat. Mus., 56: 351.

Type locality. Vancouver Island, B.C.

Range. 48-52 Depth. Littoral.

Synonym. I. obtusa Dall 1919.

LACUNA Turton 1827, Zool. Journ., 3(10): 190.

Lacuna cerinata Gould 1848, Proc. Boston Soc. Nat. Hist., 3: 75.

Type locality. Puget Sound.

Range. Type locality. Depth. Littoral.

Lacuna marmorata Dall 1919, Proc. U.S. Nat. Mus., 56: 348.

Type locality. Monterey, California.

Range. 33-57 Depth. Littoral.

Synonym. L. ella Dall.

Lacuna solidula Loven 1846, Index Moll. Scan., p. 23.

Type locality. Bergen, Norway.

Range. 32-61 Depth. 20 fathoms.

Remarks. Probably a subspecies of L. vincta Montagu.

Lacuna variegata Carpenter 1864, Brit. Assoc. Adv. Sci., p. 656.

Type locality. Neah Bay, Washington.

Range. 22-55 Depth. Intertidal.

Lacuna vincta Montagu 1803, Test. Brit., p. 307.

Type locality. Salcomb Bay, England.

Range. 32-64 Depth. 8 fathoms.

Homonym. L. divaricata Fabricius.

Synonym. L. porrecta effusa Carpenter.

LAMELLARIA Montagu 1815, Trans. Limn. Soc. London, 11(2): 183.

Lamellaria stearnsii Dall 1871, Amer. Jour. Conch., 7: 122.

Type locality. Monterey, California.

Range. 21-60 Depth. Intertidal - 12 fathoms.

Synonym. L. orbiculata Dall.

LEPETA Gray 1842, Synop. Cont. Brit. Mus., Ed. 42, p. 148.

Lepeta alba Dall 1869, Amer. Jour. Conch., 5: 145.

Type locality. Seniavine Strait.

Range. 48-60 Depth. 10-40 fathoms.

Lepeta caecoides Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 60.

Type locality. Puget Sound.

Range. 37-72 Depth. 20-50 fathoms.

Lepeta concentrica Middendorff 1851, Sibirische Reise, p. 183.

Type locality. Sea of Okhotsk.

Range. 48-70 Depth. 25-40 fathoms.

LITIOPA Rang 1829, Ann. Sci. Nat., 16(63): 306.

Litiopa melanostoma Rang, 1829, Ann. Sci. Nat., p. 203.

Type locality. South Pacific.

Range. 32-50. Depth. Pelagic.

Synonym. L. bombyx Rang.

LITTORINA Ferussac 1822, H.N. g.et p. Moll., Tabl. gen XXXIV.

Littorina gronlandica Menke 1830, Synopsis Meth. Moll., p. 45.

Type locality. Greenland.

Range. 48-66. Depth. Littoral.

Littorina planaxis Philippi 1847, Abbild. Beschreib. neue Conchyl., Littorina, pl. 4.

Type locality. 'California superior'.

Range. 19-49. Depth. Littoral.

Littorina scutulata Gould 1849, Proc. Boston Soc. Nat. Hist., 3: 83.

Type locality. Puget Sound.

Range. 14-60. Depth. Littoral.

Synonym. L. plena Gould.

Littorina sitkana Philippi 1845, Proc. Zool. Soc. London, p. 140.

Type locality. Vancouver Island, B. C.

Range. 48-60. Depth. Littoral.

LORA Gistel 1848, Naturg. des Tier. fur h. Schulen, Foreward, p. ix.

Lora alaskensis Dall 1871, Amer. Jour. Conch., 7: 98.

Type locality. Unga Island, Bering Sea, in 4 fathoms.

Range. 48-66 Depth. 25 fathoms.

Lora bicarinata Couthouy 1838, Boston Jour. Nat. Hist., 2: 104.

Type locality. Nahant, Massachusetts.

Range. 49-63 Depth. 2-90 fathoms.

Lora fidicula Gould 1849, Proc. Boston Soc. Nat. Hist., 3: 141.

Type locality. Puget Sound.

Range. 48-56 Depth. 40-60 fathoms.

Lora fiora Dall 1919, Proc. U.S. Nat. Mus., 56: 302.

Type locality. Adakh Island, Aleutians.

Range. 55-57 Depth. 120 fathoms.

Lora harpa Dall 1884, Proc. U.S. Nat. Mus., 7: 523.

Type locality. Nunivak Island, Alaska.

Range. 50-72 Depth. 105 fathoms.

Lora kyskana Dall 1919, Proc. U.S. Nat. Mus., 56: 47.

Type locality. Kyska Island, Alaska.

Range. 49-52 Depth. 5 fathoms.

Lora lotta Dall 1919, Proc. U.S. Nat. Mus., 56: 47.

Type locality. Queen Charlotte Islands, B.C.

Range. 33-54 Depth. 90 fathoms.

Synonym. L. krausei Dall fide Grant and Gale (1931).

Lora miona Dall 1919, Proc. U.S. Nat. Mus., 56: 47.

Type locality. Boca de Quadra, Alaska.

Range. 35-55 Depth. 25 fathoms.

Lora popovia Dall 1919, Proc. U.S. Nat. Mus., 56: 42.

Type locality. Bristol Bay, Bering Sea.

Range. 37-57 Depth. 18 fathoms.

Lora pribilova Dall 1919, Proc. U.S. Nat. Mus., 56: 50.

Type locality. Cape Lisburne, Arctic Ocean.

Range. 32-71 Depth. 140 fathoms.

Lora quadra Dall 1919, Proc. U.S. Nat. Mus., 56: 46.

Type locality. Unalaska, Aleutian Islands.

Range. 43-56 Depth. 10 fathoms.

Lora rosea Loven 1846, Index Moll. Scand., p. 12.

Type locality. Bergen, Norway.

Range. 48-57 Depth. Littoral.

Lora solida Dall 1886, Proc. U.S. Nat. Mus., 9: 301.

Type locality. Kyska Harbour, Alaska.

Range. 48-63 Depth. 11 fathoms.

Lora tabulata Carpenter 1865, Ann. Mag. Nat. Hist., (3), 15: 29.

Type locality. Neah Bay, Washington.

Range. 36-57 Depth. 20 fathoms.

Lora trevelliana Turton 1834, Ann. Mag. Nat. Hist., 7: 351.

Type locality. Scarborough, England.

Range. 32-72 Depth. 80 fathoms.

Synonym. L. reticulata Brown fide Grant and Gale (1931).

Lora turricula Montagu 1803, Testac. Britann., p. 262.

Type locality. Sandwich, Kent, England.

Range. 48-72 Depth. Unknown.

MANGELIA Risso 1826, Hist. Nat. Eur. Merid., 4: 219.

Mangelia aleutica Dall 1871, Amer. Jour. Conch., 7: 99.

Type locality. Unga Island, Bering Sea.

Range. 48-72 Depth. 10-40 fathoms.

Remarks. Placed in the genus Lora by Grant and Gale (1931).

Mangelia arteaga Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 11.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 33-49 Depth. 5 fathoms.

Mangelia barbarensis Oldroyd 1924, Univ. Wash. Publ. Puget Sd. Biol. Sta., 4: 82.

Type locality. Santa Barbara, California.

Range. 23-48 Depth. 28 fathoms.

Synonym. M. angulata Carpenter non Reeve.

Mangelia carlottae Dall 1919, Proc. U.S. Nat. Mus., 56: 65.

Type locality. Queen Charlotte Islands, B.C., in 876 fathoms.

Range. 48-55 Depth. 1110-1250 fathoms.

Mangelia crebricostata Carpenter 1865, Ann. Mag. Nat. Hist., (3), 15: 28.

Type locality. Neah Bay, Washington.

Range. 36-57 Depth. Littoral - 50 fathoms.

Mangelia eriopis Dall 1919, Proc. U.S. Nat. Mus., 56: 67.

Type locality. Forrester Island, Alaska.

Range. 53-57 Depth. Unknown.

Mangelia hecatae Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 10.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 33-49 Depth. 30 fathoms.

Mangelia levidensis Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 63.

Type locality. Puget Sound.

Range. 37-63 Depth. 30-80 fathoms.

Mangelia newcombei Dall 1919, Proc. U.S. Nat. Mus., 56: 71.

Type locality. Clayoquot Sound, Vancouver Island, B.C.

Range. 38-49 Depth. 20 fathoms.

Mangelia victoriana Dall 1897, Bull. Nat. Hist. Soc. B.C., No. 2, p. 13.

Type locality. Victoria, Vancouver Island, B.C.

Range. Type locality. Depth. 53 fathoms.

Synonym. Cytharella victoriana Dall.

MARGARITES Leach (in Gray) 1847, Ann. Mag. Nat. Hist., 20: 27.

Margarites helicinus Phipps 1774, Voy. to the North Pole, App. p. 198.

Type locality. Spitsbergen.

Range. 32-65 Depth. 8-100 fathoms.

Margarites inflatulus Dall 1921, U.S. Nat. Mus., Bull. 112, p. 179.

Type locality. Puget Sound.

Range. 48-50 Depth. 40 fathoms.

Synonym. Margarita inflatula Carpenter.

Margarites lacunatus Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 653.

Type locality. Neah Bay, Washington.

Range. 33-41 Depth.

Margarites lirulatus Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 653.

Type locality. Puget Sound.

Range. 32-60 Depth. Littoral - 20 fathoms.

Margarites marginatus Dall 1919, Proc. U.S. Nat. Mus., 56: 367.

Type locality. Adakh Island, Aleutians.

Range. 44-72 Depth. Intertidal - 30 feet.

Margarites parcipictus Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 653.

Type locality. Neah Bay, Washington.

Range. 29-57 Depth. 15 fathoms.

Margarites pribiloffensis Dall 1919, Proc. U.S. Nat. Mus., 56: 366.

Type locality. Pribilof Island, Bering Sea, in 34 fathoms.

Range. 56-72 Depth. 50-90 fathoms.

Margarites pupillus Gould 1849, Proc. Boston Soc. Nat. Hist., 3: 91.

Type locality. New Zealand (!).

Range. 36-60 Depth. Littoral.

Margarites rhodius Dall 1920, Proc. Acad. Nat. Sci. Phila., p. 62.

Type locality. Puget Sound.

Range. 32-60 Depth. 38 fathoms.

Margarites salmoneus Carpenter 1864,

Type locality. Monterey and Santa Barbara, California.

Range. 37-48 Depth. Littoral.

Remarks. Probably synonym of M. pupillus Gould.

Margarites succinctus Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 653.

Type locality. Neah Bay, Washington.

Range. 32-60 Depth. Littoral.

Margarites tenuisculptus Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 61.

Type locality. Neah Bay, Washington.

Range. 40-50 Depth.

MEGATEBENNUS Pilsbry 1890, Tryon's Man. Conch., Sec. 1, 12: 178.

Megatebennus bimaculatus Dall 1871, Amer. Jour. Conch., 7: 132.

Type locality. Monterey, California.

Range. 21-57 Depth. Littoral.

MICRANELLUM Bartsch 1920, Journ. Wash. Acad. Sci., 10: 568.

Micranellum barkleyense Bartsch 1920, Jour. Wash. Acad. Sci., 10: 569.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 48-49 Depth. 8 fathoms.

Micranellum oregonense Bartsch 1920, Jour. Wash. Acad. Sci., 10: 569.

Type locality. Forrester Island, Alaska.

Range. 32-60 Depth. 15 fathoms.

MITRELLA Risso 1826, Hist. Nat. Eur. Merid., 4: 247.

Mitrella carinata Hinds 1844, Zool. Voy. of the Sulphur, p. 39, pl. 10.

Type locality. San Diego, California.

Range. 23-60 Depth. Littoral.

Synonyms. M. californiana Gaskoin; M. gausapata Gould.

Mitrella gouldi Carpenter 1856, Proc. Zool. Soc. London, p. 208.

Type locality. Santa Barbara, California.

Range. 24-55 Depth. 15-100 fathoms (1025 fathoms).

Synonym. M. dalli E.A. Smith.

Mitrella hypodra Dall 1916, Nautilus, 30: 27.

Type locality. San Diego, California.

Range. 14-48 Depth. Unknown.

Mitrella lutulenta Dall 1919, Proc. U.S. Nat. Mus., 56: 331.

Type locality. Off San Francisco, California, in 24 fathoms.

Range. 33-48 Depth. 50-100 fathoms.

Remarks. Often M. luculenta.

Mitrella permodesta Dall 1890, Proc. U.S. Nat. Mus., 12: 327.

Type locality. Off Santa Barbara, California, in 276 fathoms.

Range. 33-55 Depth. 700 fathoms.

Mitrella tuberosa Carpenter 1865, Ann. Mag. Nat. Hist., (3), 15: 398.

Type locality. Santa Barbara, California.

Range. 23-55 Depth. Intertidal.

Synonym. M. major T.S. Oldroyd (preoccupied).

MITROMORPHA Adams (in Carpenter) 1865, Ann. Mag. Nat. Hist., (3), 15: 182.

Mitromorpha gracilior Hemphill 1884, Tryon Man. Conch., 6: 317.

Type locality. Monterey, California.

Range. 32-55 Depth. 80-140 fathoms.

Mitromorpha interfossa Carpenter 1865, Ann. Mag. Nat. Hist., (3), 15: 29.

Type locality. Neah Bay, Washington.

Range. 33-49 Depth. Littoral.

Synonym. Mangelia interfossa Carpenter.

MOHNIA Friele 1879, (in Kobelt) Jahrb. dtsch. malak. ges., 6: 282.

Mohnia frielei Dall 1891, Proc. U.S. Nat. Mus., 14: 186.

Type locality. Off B.C.

Range. 49-56 Depth. 800 fathoms.

Mohnia vernalis Dall 1913, Proc. Acad. Nat. Sci. Phil., p. 502.

Type locality. Off Tillamook, Oregon, in 786 fathoms.

Range. 36-52 Depth. 700-900 fathoms.

MOLLERIA Jeffreys 1865, Brit. Conch., 3: 242.

Molleria quadrae Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 14.

Type locality. Cumshewa Inlet, B.C.

Range. 53-60 Depth. 10 fathoms.

NASSARIUS Dumeril 1805, Zool. Analyt., p. 166.

Nassarius fossatus Gould 1849, Proc. Boston Soc. Nat. Hist., 3: 152.

Type locality. Puget Sound (mouth of Columbia River).

Range. 27-50 Depth. Intertidal.

Nassarius mendicus Gould 1849, Proc. Boston Soc. Nat. Hist., 3: 155.

Type locality. Port Discovery, Puget Sound.

Range. 25-60 Depth. Littoral (1200 fathoms).

Synonym. N. mendicus cooperi Forbes.

Nassarius obsoletus Say 1822, Jour. Acad. Nat. Sci. Phila., 2: 232.

Type locality. 'Coast of the United States'.

Range. 38-54 Depth. Intertidal.

Synonym. Ilyanasa obsoleta Say.

Remarks. Introduced from Atlantic with Crassostrea virginica.

Nassarius perpinquis Hinds 1844, Zool. Voy. of the Sulphur, p. 36.

Type locality. Magdalena Bay, California.

Range. 25-54 Depth. Littoral.

NATICA Scopoli 1777, Futro. Hist. Nat., p. 392.

Natica aleutica Dall 1919, Proc. U.S. Nat. Mus., 56: 352.

Type locality. Unalaska, Aleutians.

Range. 32-71 Depth. 6-480 fathoms.

Natica clausa Broderip and Sowerby 1829, Zool. Jour., 4: 372.

Type locality. Arctic Ocean.

Range. 32-72 Depth. 80 fathoms.

Natica russa Gould 1859, Proc. Boston Soc. Nat. Hist., 7: 43.

Type locality. Arctic Ocean.

Range. 32-71 Depth. 40-200 fathoms.

NEPTUNEA Bolten 1798, Mus. Boltenionum, p. 115.

Neptunea amianta Dall 1890, Proc. U.S. Nat. Mus., 12: 321.

Type locality. Near Santa Barbara, California, in 414 fathoms.

Range. 34-56 Depth. 150-200 fathoms.

Neptunea liratus Gmelin 1790, Figs. of Nondescr. Shells, table 2, pl. 43.

Type locality. Hudson Bay, Labrador.

Range. 32-71 Depth. 20-1075 fathoms.

Neptunea pribiloffensis Dall 1919, Proc. U.S. Nat. Mus., 56: 323.

Type locality. Off Pribilof Islands, Bering Sea, in 50-100 fathoms.

Range. 48-60 Depth. 250 fathoms.

Neptunea phoeniceus Dall 1891, Proc. U.S. Nat. Mus., 14: 187.

Type locality. Off coast of B.C.

Range. 45-56 Depth. 86 fathoms.

Neptunea smirnius Dall 1919, Proc. U.S. Nat. Mus., 56: 322.

Type locality. Straits of Juan de Fuca.

Range. 48-60 Depth. 205 fathoms.

Neptunea tabulata Baird 1863, Proc. Zool. Soc. London, p. 6.

Type locality. Esquimalt Harbour, Vancouver Island, B.C.

Range. 33-54 Depth. 10-250 fathoms.

Neptunea vinosa Dall 1919, Proc. U.S. Nat. Mus., 56: 323.

Type locality. Western Bering Sea in 16 fathoms.

Range. 54-56 Depth. 180 fathoms.

OCENEBRA Leach (in Gray) 1847, Proc. Zool. Soc. London, p. 133.

Ocenebra atropurpurea Dall 1919, Proc. U.S. Nat. Mus., 56: 334.

Type locality. Neah Bay, Washington.

Range. 32-50 Depth. Littoral.

Remarks. Placed in synonymy of O. interfossa Carpenter by some workers.

Ocenebra barbarensis Gabb 1866, Proc. Calif. Acad. Sci., 3: 183.

Type locality. Catalina Island, California, in 10 fathoms.

Range. 32-50 Depth. Intertidal.

Ocenebra fraseri I. Oldroyd 1920, Nautilus, 33: 136.

Type locality. Departure Bay, Vancouver Island, B.C.

Range. Type locality. Depth. Littoral.

Ocenebra interfossa Carpenter 1864, Proc. Acad. Nat. Sci. Phil., 64: 202.

Type locality. Monterey Bay, California.

Range. 32-60 Depth. Littoral.

Ocenebra japonica Dunker 1860, Mol. Blatt., 6: 230.

Type locality. Japan.

Range. 49-52 Depth. Intertidal.

Remarks. Introduced to Washington and B.C. from Japan.

Ocenebra lurida Middendorff 1849, Beit. zu. Einer. Mal. Rossica, Vol. 1, pt. 2: 150.

Type locality. Sitka, Alaska.

Range. 34-60 Depth. Intertidal.

Ocenebra painei Dall 1903, Proc. Biol. Soc. Wash., 16: 174.

Type locality. Off Catalina Island, California.

Range. 32-55 Depth. Intertidal.

OLIVELLA Swainson 1831, Zool. Illustr., Ser. 3, Vol. 2, pl. 58.

Olivella baetica Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 661.

Type locality. San Diego, California.

Range. 23-60 Depth. Intertidal - 60 fathoms.

Synonym. O. porteri Dall.

Remarks. Misspelt O. boetica.

Olivella biplacata Sowerby 1825, Tankerville Cat. App. 33.

Type locality. West Coast of North America.

Range. 25-54 Depth. Intertidal.

Synonym. O. biplacata fucana T.S. Oldroyd. O. angelina T.S. Oldroyd.

Olivella pedroana Conrad 1855, Pacific Railroad Repts., 5: 327.

Type locality. San Pedro, California.

Range. 23-55 Depth. 10-100 fathoms.

Remarks. O. baetica Carpenter should probably be placed in the synonymy.

OPALIA H. and A. Adams 1853, Gen. Rec. Moll., 1: 223.

Opalia borealis Beck 1839, The Rising of Sweden 37, pl. 2, fig. 11-12.

Type locality. Sweden.

Range. 52-57 Depth. 35 fathoms.

Opalia chacei Strong 1937, Nautilus, pl. 2, 51: 45.

Type locality. Crescent City, California.

Range. 34-49 Depth. 20-40 fathoms.

Opalia evicta DeBoury 1919, Jour. de Conchyl., 14: 36.

Type locality. Neah Bay, Washington.

Range. 25-55 Depth. 45 fathoms.

Synonym. O. pluricostata Dall.

PETALOCONCHUS Lea 1843, Trans. Amer. Philos. Soc., (N.S.), 9: 233.

Petaloconchus complicatus Dall 1908, Bull. Mus. Comp. Zool., 43: 326.

Type locality. Near Cocos Island.

Range. 8-49 Depth. 20 fathoms.

PLICIFUSUS Dall 1902, Proc. U.S. Nat. Mus., 24: 523.

Plicifusus griseus Dall 1890, Proc. U.S. Nat. Mus., 12: 322.

Type locality. Off Santa Barbara, California, in 414 fathoms.

Range. 32-60 Depth. 80-200 fathoms.

Plicifusus laticordatus Dall 1907, Smiths. Inst. Misc. Coll., 50: 161.

Type locality. Bristol Bay, Alaska, in 41 fathoms.

Range. 48-60 Depth. 180-600 fathoms.

POLINICES Montfort 1810, Conch. Syst., 2: 222.

Polinices algidus Gould 1848, Proc. Boston Soc. Nat. Hist., 3: 73.

Type locality. Classet, Oregon (Rio Nigro?).

Range. 48-55 Depth. 500 fathoms.

Polinices canonicus Dall 1919, Proc. U.S. Nat. Mus., 56: 353.

Type locality. Off San Diego, California, in 822 fathoms.

Range. 32-55 Depth. 1000-1200 fathoms.

Polinices caurinus Gould 1847, Proc. Boston Soc. Nat. Hist., 2: 239.

Type locality. Straits of Juan de Fuca.

Range. 32-55 Depth. 300-700 fathoms.

Polinices draconis Dall 1903, Proc. Biol. Soc. Wash., 16: 174.

Type locality. Drakes Bay, California.

Range. 31-58 Depth. Littoral.

Polinices groenlandicus Moller 1842, Index Moll. Groenl., p. 7.

Type locality. Greenland.

Range. 37-72 Depth. 20-150 fathoms.

Polinices lewisii Gould 1847, Proc. Boston Soc. Nat. Hist., 2: 239.

Type locality. Discovery Harbour, Puget Sound.

Range. 31-54 Depth. Littoral.

Polinices nanus Moller 1842, Index Moll. Groenl., p. 7.

Type locality. Greenland.

Range. 32-72 Depth. 380 fathoms.

Polinices pallidus Broderip and Sowerby 1829, Zool. Jour., 4: 372.

Type locality. Icy Cape, Arctic Ocean.

Range. 37-72 Depth. 10-120 fathoms (1100 fathoms).

PUNCTURELLA Lowe 1827, Zool. Jour., 3: 78.

Puncturella cooperi Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 651.

Type locality. Catalina Island, California.

Range. 32-60 Depth. 38-50 fathoms.

Puncturella cucullata Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 159.

Type locality. Puget Sound.

Range. 23-60 Depth. 35-50 fathoms.

Puncturella eyerdami Dall 1924, Nautilus, 37: 133.

Type locality. Drier Bay, Prince William Sound, Alaska.

Range. 53-62 Depth. Littoral - 90 fathoms.

Puncturella galatea Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 159.

Type locality. Oregon.

Range. 34-54 Depth. 5-80 fathoms.

Puncturella major Dall 1891, Proc. U.S. Nat. Mus., 14: 189.

Type locality. Bering Sea in 43 fathoms.

Range. 48-56 Depth. 65 fathoms.

Puncturella multistriata Dall 1914, Nautilus, 28: 63.

Type locality. Puget Sound.

Range. 8-60 Depth. Intertidal - 50 fathoms.

Puncturella princeps Mighuels and Adams 1842, Bost. Journ. Nat. Hist., 4: 42.

Type locality. Off Kennebec River, 75 fathoms (fish stomach).

Range. 35-60 (E. coast) Depth. 25-310 fathoms.

Synonym. Pneochina Linnaeus.

SCISSURELLA d'Orbigny 1824, Mém. Soc. Hist. Nat. Paris, 1(2): 341.

Scissurella kelseyi Dall 1905, Nautilus, 18: 124.

Type locality. Off San Diego, California.

Range. 32-60 Depth. 1000-1200 fathoms.

SEARLESIA Harmer 1914, Mon. Palaeo. Soc., Vol. 67.

Searlesia dira Reeve 1846, Conchol. Icon., Buccinum, fig. 92.

Type locality. Not given.

Range. 37-56 Depth. 8 fathoms.

SOLARIELLA Wood 1842, Ann. Mag. Nat. Hist., 9: 531.

(?) Solariella gouldi Stat. dub.

Type locality.

Range. 48-52 Depth. 80 fathoms.

(?) Solariella lewisii Willett (?)

Type locality.

Range. 48-50 Depth. 58-250 fathoms.

Solariella nuda Dall 1895, Proc. U.S. Nat. Mus., 18: 9.

Type locality. Off lower California.

Range. 18-48 Depth. 250 fathoms.

Solariella obscura Couthouy 1838, Boston Jour. Nat. Hist., 2: 100.

Type locality. Massachusetts Bay, Atlantic.

Range. 48-72 Depth. 200 fathoms.

Solariella peramabilis Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 653.

Type locality. California.

Range. 32-55 Depth. 10-110 fathoms.

Solariella vernicosa Mighels and Adams 1842, Boston Jour. Nat. Hist., 4: 40.

Type locality. Bay Chaleur, Quebec, Atlantic.

Range. 32-60 Depth. 50-60 fathoms.

SPIRATELLA Blainville 1817, Dict. Sci. Nat., 9: 407.

Spiratella pacific Dall 1871, Amer. Jour. Conch., 7: 138.

Type locality. Monterey, California.

Range. 37-72 Depth. Littoral.

TACHYRHYNCUS Mörch 1868, Amer. Jour. Conch., 4: 46.

Tachyrhynchus erosus Couthouy 1838, Bost. Journ. Nat. Hist., 2: 103.

Type locality. Arctic Ocean.

Range. 53-61 Depth. 10-20 fathoms.

Synonym. T. erosus major Dall.

Tachyrhynchus lacteolus Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 62.

Type locality. Vancouver region, B.C.

Range. 27-60 Depth. 30 fathoms.

Synonym. T. lacteolus subplanatus Carpenter.

Tachyrhynchus pratomus Dall 1919, Proc. U.S. Nat. Mus., 56: 347.

Type locality. Semidi Islands, Alaska, in 20 fathoms.

Range. 25-56 Depth. 80 fathoms.

Tachyrhynchus reticulatus Mighels and Adams 1842, Boston Jour. Nat. Hist., 4: 50.

Type locality. Chaleur Bay, Gulf of St. Lawrence.

Range. 48-72 Depth. Littoral.

TARANIS Jeffreys 1870, Ann. and Mag. Nat. Hist., (4) 5: 447.

Taranis stronqi Arnold 1903, Paleont. of San Pedro, Calif., p. 215.

Type locality. San Pedro, California. (Fossil.)

Range. 33-55 Depth. 80-260 fathoms.

TEGULA Lesson 1835, Illust. Zool., liv. 17, pl. 51.

Tegula funebralis A. Adams 1854, Proc. Zool. Soc. London, p. 316.

Type locality. California.

Range. 28-54 Depth. Intertidal.

Tegula pulligo Martyn 1784, Univ. Conch., table 2, pl. 76.

Type locality. Not given.

Range. 28-57 Depth. Littoral.

Tegula taylori I. Oldroyd 1922, Mar. Shells. Puget Sound and vicinity, p. 171.

Type locality. Hope Island, Vancouver Island, B.C.

Range. 48-54 Depth. Littoral.

THAIS Bolten 1798, Mus. Boltenionum, p. 54.

Thais canaliculata Duclos 1832, Ann. des Sci. Nat., 26: 104.

Type locality. California.

Range. 37-57 Depth. Littoral.

Thais emarginata Deshayes 1839, Rev. Zool. Soc. Cuv., p. 360.

Type locality. California.

Range. 16-60 Depth. Intertidal.

Thais lamellosa Gmelin 1792, Syst. Nat., 7: 3498.

Type locality. Not stated.

Range. 34-57 Depth. Littoral.

Synonym. T. lamellosa hormica Dall.

Thais lima Gmelin 1790, Figs. Nondescr. Shells, table 2, pl. 46.

Type locality. New Zealand. (Incorrect.)

Range. 28-66 Depth. Littoral.

Thais tumulosa auct (non Reeve)

Type locality. Japan.

Range. Ladysmith Harbour. Depth. Intertidal.

Synonym. Purpura clavigera.

Remarks. Introduced with oyster seed from Japan. [Not established.]

THYONICOLA Mandahl-Barth 1941, Vidensk. Medd. Dansk. Naturh. For. 104, 341-351.

Thyonicola americana Tikasingh 1960. Jour. Parasit., 47: 269.

Type locality. Puget Sound, Washington.

Range. Type locality. Depth. Littoral.

Remarks. Parasitic in Parastichopus californicus.

TRICHOTROPIS Sowerby 1829, Zool. Jour., 4: 373.

Trichotropis bicarinata Sowerby 1825, Tankerville Catalogue, pl. 9.

Type locality. Icy Cape, Arctic Ocean.

Range. 54-71 Depth. 60 fathoms.

TRICOLIA Risso 1826, Hist. Nat. Eur. Merid., 4: 122.

Tricolia lurida Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 15.

Type locality. Queen Charlotte Islands, B.C., in 20 fathoms.

Range. 45-54 Depth. 15-30 fathoms.

TROPHONOPSIS Bucquoy, Dautzenberg and Dollfus 1882, Moll. Mar. Roussillon, 1: 40.

Trophonopsis lasius Dall 1919, Proc. U.S. Nat. Mus., 56: 338.

Type locality. Off Point Pinos, California, in 495 fathoms.

Range. 32-55 Depth. 38-80 fathoms.

Trophonopsis tripherus Dall 1902, Proc. U.S. Nat. Mus., 24: 545.

Type locality. Off Destruction Island, Washington.

Range. 32-48 Depth. Unknown.

UROSALPINX Stimpson 1865, Amer. J. Conch., I: 58.

Urosalpinx cinerea Say 1822, Jour. Acad. Nat. Sci. Phila., 2: 236.

Type locality.

Range. Boundary Bay, Ladysmith Harbour. Depth. Intertidal.

Remarks. Introduced from Atlantic with Crassostrea virginica.

VELUTINA Fleming 1821, New Edingh. Encycl. (Amer. Ed.), pt. 2, 13: 684.

Velutina laevigata Linnaeus 1767, Syst. Nat., ed. 12, p. 1250.

Type locality. England (?).

Range. 37-71 Depth. 15-40 fathoms.

Velutina prolongata Carpenter 1865, Ann. Mag. Nat. Hist., (3) 15: 32.

Type locality. Neah Bay, Washington.

Range. 37-65 Depth. 10 fathoms.

Velutina zonata Gould 1841, Rep. Inv. Massachusetts, p. 242, fig. 160.

Type locality. Chelsea Beach, Massachusetts, Atlantic.

Range. 37-71 Depth. Unknown.

VERMETUS Cuvier 1800, Lezon Comp. Anat. 1, tab. 5.

Vermetus compactus Carpenter 1864, Ann. Mag. Nat. Hist., (3) 14: 427.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. 32-49 Depth. Intertidal.

Synonym. Bivonia compacta Carpenter.

VITRINELLA C.B. Adams 1850, Mon. Vitrinella, p. 3.

Vitrinella columbiana Bartsch 1921, Proc. Biol. Soc. Wash., 34: 39.

Type locality. Departure Bay, Vancouver Island, B.C.

Range. Type locality. Depth. 20 fathoms.

Synonym. Decomphala columbiana Bartsch.

VOLUTHARPA Fischer 1856, Journ. Conchyl., 5: 85.

Volutharpa ampullacea Middendorff 1848, Sibische Reisa, p. 237.

Type locality. Southeast Sea of Okhotsk.

Range. 48-66 Depth. 200 fathoms.

VOLUTOMITRA Adams 1853, (Gray MS) Gen. Rec. Moll., 1: 172.

Volutomitra alaskana Dall 1902, Nautilus, 15: 103.

Type locality. Not specified. (Pribilof Islands?)

Range. 32-57 Depth. 90-200 fathoms.

subclass OPISTHOBRANCHIA

ACANTHODORIS Gray 1850, Figs. Moll. Anim., 4: 103.

Acanthodoris armata O'Donoghue 1927, Trans. Roy. Can. Inst., 16: 4.

Type locality. False Narrows, B.C.

Range. Type locality. Depth. 20 fathoms.

Acanthodoris atrogriseata O'Donoghue 1927, Trans. Roy. Can. Inst., 16: 2.

Type locality. False Narrows, B.C.

Range. Type locality. Depth. Intertidal.

Acanthodoris brunnea MacFarland 1905, Proc. Biol. Soc. Wash., 18: 52.

Type locality. Monterey Bay, California.

Range. 37-50 Depth. Littoral.

Acanthodoris hudsoni MacFarland 1905, Proc. Biol. Soc. Wash., 18: 51.

Type locality. Point Pinos, California.

Range. 36-55 Depth. Intertidal.

Acanthodoris nanaimoensis O'Donoghue 1921, Trans. Roy. Can. Inst., 13: 172.

Type locality. Near Hammond's Bay, Vancouver Island, B.C.

Range. 37-50 Depth. Littoral.

Acanthodoris pilosa Abildgaard 1789, Zool. Danica, Ed. 3, 3: 7.

Type locality. "In fucis Maris Norvagici".

Range. 50-57 Depth. Intertidal - 30 fathoms.

Synonyms. A. pilosa albescens Bergh; A. pilosa purpurea Bergh.

ACTAEON Montfort 1810, Conch. Syst., 2: 314.

Actaeon punctocoelatus Carpenter 1864, Sup. Rep. Brit. Assoc. Adv. Sci., 1: 307.

Type locality. Santa Cruz, California.

Range. 37-54 Depth. Littoral.

Remarks. The variety A. punctocoelatus vancouverensis Oldroyd is not valid and should be considered a synonym.

ACTEOCINA Gray 1847, Proc. Zool. Soc. London, p. 160.

Acteocina culcitella Gould 1853, Boston Jour. Nat. Hist., 6: 377.

Type locality. Santa Barbara, California.

Range. 38-57 Depth. Intertidal - 20 fathoms.

Acteocina eximia Baird 1863, Proc. Zool. Soc. London, p. 67.

Type locality. Esquimalt Harbour, Vancouver Island, B.C.

Range. 50-57 Depth. Littoral.

Remarks. Many authorities place this species as a variety of A. culcitella Gould.

Acteocina oldroydi Dall 1925, Nautilus, 39: 25.

Type locality. Departure Bay, Vancouver Island, B.C.

Range. Type locality. Depth. 5 fathoms.

AEGIRES Lövén 1844, Opfers. k. Vet. Akad. Forh. (Stockh.), 1: 49.

Aegires albopunctatus MacFarland 1905, Proc. Biol. Soc. Wash., 18: 45.

Type locality. Monterey, California.

Range. 32-51 Depth. Littoral.

AEOLIDIA Cuvier 1798, Tabl. Elem. Hist. Nat. (published Dec. 24, 1797).

Aeolidia papillosa Linnaeus 1761, Fauna Suecica, Ed. 2, p. 508.

Type locality. "In Mari Norvegico".

Range. 30-60 Depth. Intertidal - 50 fathoms.

AGLAJA Renier 1804, Prosp. della Cl. d. Vermi, Padova, p. 16.

Aglaja diomedia Bergh 1894, Bull. Mus. Comp. Zool., 25: 211.

Type locality. Alaska.

Range. 38-60 Depth. 5-60 fathoms.

ANISODORIS Bergh 1898, Zool. Jahrb., Supp. 4, Heft. 3, p. 508.

Anisodoris nobilis MacFarland 1905, Proc. Biol. Soc. Wash., 18: 38.

Type locality. Monterey Bay, California.

Range. 33-51 Depth. Littoral.

ANTIOPELLA Hoyle 1902, Jour. Conch., London, 10: 214.

Antiopella fusca O'Donoghue 1924, Trans. Roy. Can. Inst., 15: 16.

Type locality. Not recorded.

Range. 36-50 Depth. Littoral.

ARCHIDORIS Bergh 1878, Reisen Archipel. der Philipp. (Semper), Malac. untersuch., Bd. 1, Heft. 14, p. 616.

Archidoris montereyensis Cooper 1862, Proc. Calif. Acad. Sci., 2: 204.

Type locality. Monterey Bay, California.

Range. 32-57 Depth. Intertidal.

ARMINA Rafinesque 1814, Schmalz, Precis decouv. trav. Somiol., p. 30.

Armina californica Cooper 1862, Proc. Calif. Acad. Nat. Sci., p. 203.

Type locality. San Diego Bay, California.

Range. 0-52 Depth. 10-30 fathoms.

Armina vancouverensis Bergh 1876, Malak. Blatt., Bd. 23, p. 1.

Type locality. Vancouver Island, B.C.

Range. 45-49 Depth. 10-25 fathoms.

Synonym. A. columbiana O'Donoghue.

CADLINA Bergh 1879, Proc. Acad. Nat. Sci. Phila., p. 114.

Cadlina flavomaculata MacFarland 1905, Proc. Biol. Soc. Wash., 18: 43.

Type locality. Monterey Bay, California.

Range. 27-54 Depth. Intertidal - 10 fathoms.

Cadlina marginata MacFarland 1905, Proc. Biol. Soc. Wash., 18: 43.

Type locality. Monterey Bay, California.

Range. 27-54 Depth. Intertidal - 12 fathoms.

CAVOLINA Abildgaard 1791, Skrifter of Naturhist.-Sels., Vol. 1, Heft. 2, p. 174.

Cavolina occidentalis Dall 1908, Bull. Mus. Comp. Zool., 43: 233.

Type locality. N.E. Pacific Ocean, 30° to 54°N.

Range. Type locality. Depth. Pelagic.

Cavolina trispinosa Blainville 1821, Dict. des Sci. Nat., 22: 82.

Type locality. "La Mer des Antilles".

Range. -40-60 Depth. Pelagic.

CLIO Linnaeus 1767, Syst. Nat., ed.

Clio cuspidata Bosc 1801, Suites a Deterville, ed. Buffon, Moll., 11, p. 241.

Type locality. None given.

Range. Atlantic Ocean, -42-60 Depth. Pelagic.

Remarks. Doubtful identification, this species probably not Pacific.

Clio occidentalis Dall 1871, Amer. Jour. Conch., 7: 140.

Type locality. North Pacific Ocean, 33°N 130°W.

Range. 30-50 Depth. Pelagic.

Clio pyramidata Linnaeus 1767, Syst. Nat., ed. 12, 1: 1094.

Type locality. "In Oceano".

Range. -40-66 Depth. Pelagic.

Clio polita Pelseneer 1887, Challenger Repts., Pteropoda, Pt. II, Gymno, p. 60.

Type locality. Davis Strait.

Range. -8-55 Depth. Pelagic.

CLIONE Pallas 1774, Spic. Zool., 10: 28.

Clione elegantissima Dall 1871, Amer. Jour. Conch., 7: 139.

Type locality. Pacific Ocean, 51°51'N 161°26'W.

Range. Type locality. Depth. Pelagic.

Remarks. Probably a mid-ocean species.

Clione limacina Phipps 1773, Voyage to the North Pole, p. 195.

Type locality. "Arctic Seas".

Range. 37-77 Depth. Pelagic.

Synonym. C. kincaidi Agersborg.

CORAMBE Bergh 1869, Bid. fil. Mon. o Phylli. Naturh. Tids. 3 R.V.B. (footnote, p. 359).

Corambe pacifica MacFarland and O'Donoghue 1929, Proc. Calif. Acad. Sci., Ser. 4, 18: 1-27.
Type locality. Monterey, California.

Range. 27-53 Depth. Littoral.

Remarks. Frequently found on kelp.

CORAMBELLA Balch 1899, Proc. Boston Soc. Nat. Hist., 29(7): 151-153.

Corambella steinbergue Lance 1962, Veliger 5(1): 33.

Type locality. California.

Range. 32-49 Depth. Littoral.

Remarks. Frequently found on Membranipora sp. on kelp.

COROLLA Dall 1871, Amer. Journ. Conch., 7: 137.

Corolla spectabilis Dall 1871, Amer. Jour. Conchol., 7: 138.

Type locality. North Pacific Ocean.

Range. 36-55 Depth. Pelagic.

CORYPHELLA Gray 1850, Figs. Moll. Anim. London, 4: 109.

Coryphella fusca O'Donoghue 1921, Trans. Roy. Can. Inst., 13: 195.

Type locality. Vancouver Island region.

Range. Type locality. Depth. Littoral.

Coryphella longicaudata O'Donoghue 1922, Trans. Roy. Can. Inst., 14: 156.

Type locality. Not designated.

Range. 48-50 Depth. Littoral.

Coryphella trilineata O'Donoghue 1921, Trans. Roy. Can. Inst., 13: 197.

Type locality. Nanoose Bay, Vancouver Island, B.C.

Range. 50 Depth. Intertidal.

CRATENA Bergh 1864, Dansk. Vidensk. Skrift., Ser. V, Bd. VII, p. 198.

Cratena columbiana O'Donoghue 1922, Trans. Roy. Can. Inst., 14: 160.

Type locality. Gabriola Pass, B.C.

Range. 49-50 Depth. Intertidal - 15 fathoms.

Remarks. Some investigators assign this species to the genus Catriona.

CRESEIS Rang 1828, Ann. Sci. Nat., 13(51): 305.

Creseis acicula Rang 1828, Ann. des Sci. Nat., 13: 318.

Type locality. "L'Ocean et la Mer des Indes".

Range. -40-52 Depth. Pelagic.

CUTHONA Alder and Hancock 1855, Mon. Brit. Nud. Moll., Pt. 7, App. p. xxii.

Cuthona concinna Alder and Hancock 1843, Ann. Mag. Nat. Hist., 12: 234.

Type locality. Northumberland, England.

Range. 32-53 Depth. Intertidal.

CYLICHNA Loven 1846, Index Moll. Scand., p. 10.

Cylichna alba Brown 1827, Illustr. Conchol. of Great Britain, pl. 19, p. 3, figs. 43, 44.

Type locality. Grenock, Scotland.

Range. 38-60 Depth. 10-900 fathoms.

Cylichna attonsa Carpenter 1865, Proc. Acad. Nat. Sci. Phila., p. 58.

Type locality. Puget Sound.

Range. 32-50 Depth. 5-200 fathoms.

Cylichna diegensis Dall 1919, Proc. U.S. Nat. Mus., 56: 300.

Type locality. Off Point Loma, California.

Range. 31-55 Depth. 20-180 fathoms.

DENDRONOTUS Alder and Hancock 1845, Athenaeum, No. 922, p. 644.

Dendronotus dalli Bergh 1879, Proc. Acad. Nat. Sci. Phila., p. 94.

Type locality. Bering Straits.

Range. 38-55 Depth. Littoral - 20 fathoms.

Dendronotus frondosus Ascanius 1774, K. Norsk. Vidensk. Selsk. Skrift. 5: 158.

Type locality. None given.

Range. 30-58 Depth. Intertidal - 100 fathoms.

Synonyms. Tritonia reynoldsii Couthouy. D. arborescens Gould.

Dendronotus iris Cooper 1862, Proc. Calif. Acad. Nat. Sci., 3: 59.

Type locality. Santa Barbara, California.

Range. 38-52 Depth. Littoral.

Synonym. D. giganteus O'Donoghue.

Dendronotus rufus O'Donoghue 1921, Trans. Roy. Can. Inst., 13: 190.

Type locality. Vancouver Island.

Range. Type locality. Depth. 10-20 fathoms.

DIAULULA Bergh 1878, Reisen Archipel. der Philipp (Semper) Malac. untersuch., Bd. 1, Heft. 14, p. 567.

Diaulula sandiegensis Cooper 1862, Proc. Calif. Acad. Nat. Sci., 2: 204.

Type locality. San Diego Bay, California.

Range. 22-57 Depth. Intertidal - 10 fathoms.

DIRONA Cockerell and Eliot 1905, Jour. Malac., pt. 3, 12: 46.

Dirona albolineata Cockerell and Eliot 1905, Jour. Malac., Vol. 12, No. 3.

Type locality. Monterey Bay, California.

Range. 33-50 Depth. Intertidal - 10 fathoms.

DISCODORIS Bergh 1877, Jahrb. d. deutschen. malac. Gesell., No. 4, p. 61.

Discodoris fulva O'Donoghue 1924, Trans. Roy. Can. Inst., 15: 27.

Type locality. Departure Bay, B.C.

Range. Type locality. Depth. Intertidal.

Remarks. Possibly a juvenile D. heathi.

Discodoris heathi MacFarland 1905, Proc. Biol. Soc. Wash., 18: 39.

Type locality. Monterey Bay, California.

Range. 33-54 Depth. Intertidal.

DORIS Linnaeus 1758, Syst. Nat., ed. 10, p. 653.

Doris odonoghue Steinberg 1963, Veliger., No. 2, 6: 63.

Type locality. Vancouver Island, B.C.

Range. 48-49 Depth. Littoral.

Synonyms. D. echinata O'Donoghue. D. maculata O'Donoghue.

DOTO Oken 1815, Lehrb. der Naturg. III Zool., 1: 278.

Doto columbiana O'Donoghue 1921, Trans. Can. Inst., Vol. 13.

Type locality. Vancouver Island, B.C.

Range. 38-52 Depth. 10-30 fathoms.

EUBRANCHUS Forbes 1838, Malac. Monensis., p. 5.

Eubranchus olivaceus O'Donoghue 1922, Trans. Roy. Can. Inst., 14: 158.

Type locality. Departure Bay, B.C.

Range. 48-52 Depth. Intertidal.

FIONA Forbes and Hanley 1851, Hist. Brit. Moll., Pts. 41 and 42, Vol. 3.

Fiona pinnata Eschscholtz 1831, Zool. Atlas, Heft. 4, p. 14.

Type locality. Sitka Island, Alaska.

Range. 30-60 Depth. Pelagic.

FLABELLINA Voight 1834, Das Tierreich, 3: 124.

Flabellina iodinea Cooper 1862, Proc. Calif. Acad. Nat. Sci., 2: 205.

Type locality. San Diego Bay, California.

Range. 32-54 Depth. Intertidal.

GALVINA Alder and Hancock 1855, Mon. Brit. Nudibr. Moll., Pt. 7, p. 22.

Galvina olivacea O'Donoghue 1922, Trans. Roy. Can. Inst., 14: 158.

Type locality. Not recorded.

Range. 50 Depth. Littoral.

GASTROPTERON Kosse 1813, Diss. de Pterop. ord. et nov. ip. gen. Halle, p. 10-16.

Gastropteron pacificum Bergh 1893, Zool. Jahrb., 17: 303.

Type locality. Unalaska, Aleutians.

Range. 48-60 Depth. 5-20 fathoms.

Gastropteron cinereum Dall 1925, Rept. Can. Arctic Exped., 18: 11B.

Type locality. Skidegate Inlet, Queen Charlotte Islands, B.C.

Range. 50-55 Depth. 10-20 fathoms.

Remarks. Probably a variety of G. pacificum Bergh.

GLOSSODORIS Ehrenbergh 1831, Symbolae Physicae, p. 93 (non pag.).

Glossodoris dalli Bergh 1879, Proc. Acad. Nat. Sci. Phila., p. 109.

Type locality. Puget Sound.

Range. Type locality. Depth. Intertidal.

HAMINOEA Turton 1830, (and Kingston) The Teigmouth.

Haminoea cymbiformis Carpenter 1857, Cat. Reigen. Coll. Mazatlan Moll., Brit. Mus., p. 174.

Type locality. Mazatlan, Mexico.

Range. 22-50 Depth. Littoral.

Synonym. H. virescens auctt non Sowerby.

Haminoea vesicula Gould 1855, Pac. Railroad Surveys, Append. 5, p. 334.

Type locality. San Diego, California.

Range. 36-57 Depth. Intertidal - 5 fathoms.

HERMAEA Löven 1844, K. Vet. Akad. Fork. Stockh., No. 3, 1: 50.

Hermaea vancouverensis O'Donoghue 1924, Trans. Roy. Can. Inst., 15: 17.

Type locality. Vancouver Island region, B.C.

Range. Type locality. Depth. Littoral.

HERMISSENDA Bergh 1878, Verk. k.k. zool.-bot. Gesel. Wien, 28, p. 573.

Hermissenda crassicornis Eschscholtz 1831, Zool. Atlas, Heft. 4, p. 15.

Type locality. Sitka Island, Bering Sea.

Range. 27-57 Depth. Intertidal - 10 fathoms.

IDULIA Leach 1852, Synops. Moll., Gt. Britain, p. 25.

Idulia columbiana O'Donoghue 1921, Trans. Roy. Can. Inst., 13: 204.

Type locality. Departure Bay, Vancouver Island, B.C.

Range. 49-50 Depth. Littoral.

JANOLUS Bergh 1884, Rept. Sci. Challenger Zool., 10: 18.

Janolus fuscus O'Donoghue 1924, Trans. Roy. Can. Inst., 15: 16.

Type locality. Galiano Island, B.C.

Range. Type locality. Depth. Littoral - 15 fathoms.

LAILA MacFarland 1905, Proc. Biol. Soc. Wash., 18: 47.

Laila cockerelli MacFarland 1905, Proc. Biol. Soc. Wash., 18: 47.

Type locality. Monterey Bay, California.

Range. 22-54 Depth. Intertidal.

LIMACINA Lamarch 1819, An. s. vert., 6(1): 291.

Limacina helicina Phipps 1774, Voy. to the North Pole, p. 195.

Type locality. "Arctic Seas".

Range. 50-70 Depth. Pelagic.

MELIBE Rang 1829, Man. des Moll., p. 129.

Melibe leonina Gould 1853, U.S. Explor. Exped., 12: 310.

Type locality. Port Discovery, Puget Sound.

Range. 24-57 Depth. Pelagic.

Synonym. Chioraera leonina Gould.

MICROGLYPHIS Dall 1902, Proc. U.S. Nat. Mus., 24(1264): 512.

Microglyphis estuarinus Dall 1908, Bull. Mus. Comp. Zool., No. 6, 43: 238.

Type locality. Off Estero Bay, California, in 92 fathoms.

Range. 38-49 Depth. 50-200 fathoms.

ODOSTOMIA Fleming 1817, Edinburgh Encycl., Pt. 1, 7: 76.

Odostomia angularis Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 523.

Type locality. Nanaimo, Vancouver Island, B.C.

Range. 38-57 Depth. 20 fathoms.

Odostomia avellana Carpenter 1865, Ann. Mag. Nat. Hist., 3rd ser., 15: 30.

Type locality. Neah Bay, Washington.

Range. Type locality. Depth. 80 fathoms.

Odostomia barkleyensis Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 19.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. Not recorded.

Odostomia canfieldi Dall 1908, Nautilus, 31: 131.

Type locality. Monterey, California.

Range. 38-50 Depth. Littoral.

Odostomia cassandra Bartsch 1912, Proc. U.S. Nat. Mus., 42: 285.

Type locality. Skidegate, Queen Charlotte Islands, B.C.

Range. Type locality. Depth. Unknown.

Odostomia columbiana Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 525.

Type locality. Victoria, Vancouver Island, B.C.

Range. 49-50 Depth. 20-30 fathoms.

Odostomia cumshewaensis Bartsch 1921, Proc. Biol. Soc. Wash., 34: 34.

Type locality. Cumshewa Inlet, Queen Charlotte Islands, B.C.

Range. Type locality. Depth. Not recorded.

Odostomia cypria Dall and Bartsch 1912, Proc. U.S. Nat. Mus., 42: 282.

Type locality. Skidegate, Queen Charlotte Islands, B.C.

Range. Type locality. Depth. 10-40 fathoms.

Odostomia deliciosa Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 525.

Type locality. Monterey, California.

Range. 38-52 Depth. 8 fathoms.

Odostomia engbergi Bartsch 1920, Jour. Wash. Acad. Sci., 10: 572.

Type locality. Off San Juan Island, Puget Sound.

Range. Type locality. Depth. 12 fathoms.

Odostomia gouldii Carpenter 1865, Ann. Mag. Nat. Hist., ser. 3, 15: 29.

Type locality. Neah Bay, Washington.

Range. Type locality. Depth. 10 fathoms.

Odostomia grippiana Bartsch 1912, Proc. U.S. Nat. Mus., 42: 287.

Type locality. Nanaimo, Vancouver Island, B.C.

Range. Type locality. Depth. 6 fathoms.

Odostomia hypatia Dall and Bartsch 1912, Proc. U.S. Nat. Mus., 42: 282.

Type locality. Skidegate, Queen Charlotte Island, B.C.

Range. Type locality. Depth. Unknown.

Odostomia inflata Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 524.

Type locality. Neah Bay, Washington.

Range. Type locality. Depth. Littoral.

Odostomia kennerlyi Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 529.

Type locality. Nanaimo, Vancouver Island, B.C.

Range. 38-49 Depth. Littoral.

Odostomia oregonensis Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 516.

Type locality. Cumshewa Inlet, Queen Charlotte Islands, B.C.

Range. 36-54 Depth. 10 fathoms.

Odostomia pharcida Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 520.

Type locality. Cumshewa Inlet, Queen Charlotte Islands, B.C.

Range. Type locality. Depth. 10-15 fathoms.

Odostomia quadrae Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 17.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 20 fathoms.

Odostomia sanjuanensis Bartsch 1920, Jour. Wash. Acad. Sci., 10: 571.

Type locality. Near San Juan Island, Puget Sound.

Range. 44-50 Depth. Unknown.

Odostomia skidegatensis Bartsch 1912, Proc. U.S. Nat. Mus., 42: 284.

Type locality. Skidegate, Queen Charlotte Islands, B.C.

Range. 32-54 Depth. 5-20 fathoms.

Odostomia spreadboroughi Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 17.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 15 fathoms.

Odostomia stephensae Dall and Bartsch 1909, U.S. Nat. Mus. Bull 68, p. 210.

Type locality. Peril Straits, Baranoff Island, Alaska.

Range. 50-60 Depth. Unknown.

Odostomia tenuisculpta Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863, p. 659.

Type locality. Neah Bay, Washington.

Range. 30-52 Depth. Littoral.

Odostomia vancouverensis Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 18.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 20 fathoms.

Odostomia washingtonia Bartsch 1920, Jour. Wash. Acad. Sci., 10: 571.

Type locality. San Juan Island, Puget Sound.

Range. Type locality. Depth. Unknown.

Odostomia youngi Dall and Bartsch 1912, Proc. U.S. Nat. Mus., 42: 277.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 20 fathoms (?)

OKENIA Menke 1830, Synops. Meth. Mollusc., ed. 2, p. 10.

Okenia vancouverensis O'Donoghue 1921, Trans. Roy. Can. Inst., 13: 177.

Type locality. Rosespit, Queen Charlotte Islands, B.C.

Range. Type locality. Depth. 5-20 fathoms.

ONCHIDORUS Blainville 1816, Bull. Soc. Philom., Paris (April), p. 96.

Onchidorus fusca Müller 1776, Zool. Danicae Prodr., p. 229.

Type locality. Denmark.

Range. 38-60 Depth. Littoral.

Synonym. Doris bilamellatus Linnaeus 1767 non 1761.

Onchidorus hystericina Bergh 1878, Malac. Untersuch., 14, Semper Reisen Archipel. Philipp., p. 614.

Type locality. Kyska Island, Aleutians.

Range. 38-58 Depth. Intertidal - 10 fathoms.

PHILINE Ascanius 1772, K. Veteusk Akad. Handl. Stockholm, 33: 331.

Philine polaris Aurivillius 1885, Vega Exped., 4: 380.

Type locality.

Range. 49-70 Depth. 5-20 fathoms.

PHYLLAPLYSIA Fischer 1872, Journ. de Conchyl., Paris, 20: 296.

Phyllaplysia zostericola McCauley 1960, Proc. Calif. Acad. Sci., Ser. 4, No. 16, 29: 549.

Type locality. Tomales Bay, California.

Range. 32-50 Depth. Intertidal.

Phyllaplysia taylori Dall 1900, Nautilus, 14: 91-92.

Type locality. Nanaimo, Vancouver Island, B.C.

Range. 32-49 Depth. Littoral.

POLYCERA Cuvier 1817, Regne Anim., 2: 390.

Polycera zosterae O'Donoghue 1924, Trans. Roy. Can. Inst., 15: 7.

Type locality. Not recorded (Vancouver Island).

Range. 49 Depth. Littoral.

RETUSA Brown 1827, Illust. Conch. Gt. Britain, Irel., pl. 38, figs. 1-6.

Retusa harpa Dall 1871, Amer. Jour. Conch., 7: 136.

Type locality. Monterey, California.

Range. 38-55 Depth. 20-180 fathoms.

ROSTANGA Bergh 1879, Arch. f. Naturgesch., Jahrg. 14, Pt. 1, p. 353.

Rostanga pulchra MacFarland 1905, Proc. Biol. Soc. Wash., 18: 40.

Type locality. Monterey Bay, California.

Range. -6-54 Depth. Intertidal.

SCYLLAEA Linnaeus 1758, Syst. Nat., ed. 10, p. 656.

Scyllaea pelagica Linnaeus 1758, Syst. Nat., ed. 10, 1: 656.

Type locality. "in Pelagi, Fuco natante".

Range. 30-60 Depth. Pelagic.

SPIRATELLA Blainville 1817, Dict. Sci. Nat., 9: 407.

Spiratella pacifica Dall 1871, Amer. Jour. Conch., 7: 138.

Type locality. Monterey, California.

Range. 36-70 Depth. Pelagic.

TRIOPHA Bergh 1880, Proc. Acad. Nat. Sci. Phila., Pt. I, p. 112.

Triopha aurantiaca Cockerell 1908, Nautilus, 21: 107.

Type locality. San Pedro, California.

Range. 36-50 Depth. 15-30 fathoms.

Synonym. T. elioti O'Donoghue.

Triopha carpenteri Stearns 1873, Proc. Cal. Acad. Sci., fig. 2, 5: 78.

Type locality. Monterey, California.

Range. 32-53 Depth. Intertidal - 20 fathoms.

Synonym. T. modesta Bergh.

TRITONIA Cuvier 1798, Tab. Elem. l'Hist. Nat. Animaux, Paris, An. 6, p. 378.

Tritonia diomedia Bergh 1894, Bull. Mus. Comp. Zool., Harvard, 25: 146.

Type locality. Shumagin Islands, Alaska.

Range. 50-60 Depth. Subtidal - 5 fathoms.

Synonym. Sphaerostoma diomedia Bergh.

Tritonia exsulans Bergh 1894, Bull. Mus. Comp. Zool., Harvard, 25: 150.

Type locality. Point Ano Nuevo, California.

Range. 33-54 Depth. Intertidal - 200 fathoms.

Synonym. Sphaerostoma exsulans Bergh.

Tritonia festiva Stearns 1873, Proc. Calif. Acad. Sci., fig. 1, 5: 77.

Type locality. Monterey Bay, California.

Range. 32-55 Depth. Littoral.

Synonyms. Sphaerostoma undulata O'Donoghue. Tritoniopsis undulata O'Donoghue.

TRITONIOPSIS Eliot 1905, Trans. Roy. Soc. Edinburgh, 41: 519.

Tritoniopsis tetraquetra Pallas 1788, Nova Acta Petrop., 2: 237.

Type locality.

Range. 36-57 Depth. Intertidal.

Synonym. Sphaerostoma tetraquetra Pallas.

Tritoniopsis undulata O'Donoghue 1924, Trans. Roy. Can. Inst., 15: 3.

Type locality. Vancouver Island, B.C.

Range. 32-55 Depth. Littoral.

Synonyms. Sphaerostoma undulata O'Donoghue. Tritonia festiva Stearns is probably the valid nomenclature to this species.

TURBONILLA Risso 1826, Hist. Nat. Eur. Merid., 4: 224.

Turbonilla aurantia Carpenter 1865, Jour. de Conchyl., 13: 147.

Type locality. Pacific northeast Santa Barabara to Puget Sound.

Range. 32-50 Depth. 10 fathoms.

Turbonilla barkleyensis Bartsch 1917, Proc. U.S. Nat. Mus., 52: 641.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 15 fathoms.

Turbonilla engbergi Bartsch 1920, Jour. Wash. Acad. Sci., 10: 570.

Type locality. San Juan Island, Washington.

Range. Type locality. Depth. 8 fathoms.

Remarks. Doubtful record of this species from Victoria, B.C.

Turbonilla eschscholtzi Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 513.

Type locality. Carter Bay, B.C.

Range. 49-55 Depth. 15 fathoms.

Turbonilla kincaidi Bartsch 1921, Proc. Biol. Soc. Wash., 34: 33.

Type locality. Dogfish Bay, Puget Sound.

Range. 48-50 Depth. Unknown.

Turbonilla lordi E.A. Smith 1880, Ann. Mag. Nat. Hist., Ser. 5, 6: 288.

Type locality. Vancouver Island, B.C.

Range. Type locality. Depth. 12 fathoms.

Turbonilla lyalli Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 500.

Type locality. Banks Island, B.C.

Range. Type locality. Depth. Not recorded.

Turbonilla macouni Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 15.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 14 fathoms.

Turbonilla newcombei Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 45.

Type locality. Port Simpson, B.C.

Range. 49-51 Depth. 8 fathoms.

Turbonilla oregonensis Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 503.

Type locality. Off Oregon.

Range. 43-50 Depth. 20-40 fathoms.

Turbonilla pedroana Dall and Bartsch 1903, Mem. Calif. Acad. Sci., 3: 279.

Type locality. San Pedro, California.

Range. 36-49 Depth. 20-30 fathoms.

Turbonilla pesa Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 14.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 18 fathoms.

Turbonilla pugetensis Bartsch 1917, Proc. U.S. Nat. Mus., 52: 647.

Type locality. Elliot Bay, Seattle, Washington.

Range. 47-49 Depth. Unknown.

Turbonilla rinella Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 14.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. 40 fathoms.

Turbonilla talma Dall and Bartsch 1910, Geol. Surv. Canada, Mem. 14N, p. 13.

Type locality. Barkley Sound, Vancouver Island, B.C.

Range. Type locality. Depth. Unknown.

Turbonilla taylori Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 499.

Type locality. Departure Bay, Vancouver Island, B.C.

Range. 49-50 Depth. Littoral.

Turbonilla valdezi Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 502.

Type locality. Monterey, California.

Range. 36-50 Depth. Unknown.

Turbonilla vancouverensis Baird 1863, Proc. Zool. Soc. London, p. 67.

Type locality. Esquimalt Harbour, Vancouver Island, B.C., (from crop of pintail duck).

Range. 49-60 Depth. Littoral.

Turbonilla victoriana Dall and Bartsch 1907, Proc. U.S. Nat. Mus., 33: 501.

Type locality. Victoria, B.C.

Range. Type locality. Depth. 18 fathoms.

VOLVULELLA Newton 1891, Syst. List. Edwards Coll. Brit. Olig. Eoc. Moll. Brit. Mus., p. 268 (nom. nov. pro. Volvula A. Adams).

Volvulella cylindrica Carpenter 1864, Rept. Brit. Assoc. Adv. Sci. for 1863,

Type locality. Santa Barbara, California.

Range. 32-54 Depth. Littoral - 10 fathoms.

subclass PULMONATA

ARCTONCHIS Dall 1905, Harriman Alaska Exp., 13: 112.

Arctonchis borealis Dall 1871, Amer. Jour. Conch., 7: 135.

Type locality. Sitka, Alaska.

Range. 38-57 Depth. Intertidal.

Synonym. Onchidella borealis Dall.

ONCHIDELLA Gray 1850. Figs. Moll. Anim., 4: 117.

Onchidella carpenteri Binney 1860, Proc. Acad. Nat. Sci. Phila., p. 154.

Type locality. Juan de Fuca Strait.

Range. 32-48 Depth. Intertidal.

SIPHONARIA Sowerby 1824, Gen. Shells, 21.

Siphonaria thersites Carpenter 1864, Ann. Mag. Nat. Hist. (3), 14: 425.

Type locality. Neah Bay, Washington.

Range. 48-60 Depth. Intertidal.

class SCAPHOPODA

CADULUS Philippi 1844, Enum. Moll. Sicil., 2: 209.

Cadulus aberrans Whiteaves 1887, Trans. Roy. Soc. Canada, sec. 4, 4: 123.

Type locality. Quatsino Sound, B.C.

Range. Type locality. Depth. Unknown.

Cadulus californicus Pilsbry and Sharp 1898, Man. Conch., 17: 180.

Type locality. Not located.

Range. -1-56 Depth. Unknown.

Cadulus hepburni Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., 2: 12.

Type locality. Near Victoria, British Columbia, in 60 fathoms.

Range. 37-61 Depth. 20-80 fathoms.

Cadulus stearnsii Pilsbry and Sharp 1898, Man. Conch., 17: 253.

Type locality. Tillamook Harbour, Oregon, in 786 fathoms.

Range. 30-54 Depth. 500 fathoms.

Synonym. C. simplex Pilsbry and Sharp non Michelotti.

Cadulus tolmiei Dall 1897, Bull. Nat. Hist. Soc. Brit. Coll., No. 2, p. 13.

Type locality. Near Victoria, B.C.

Range. 30-51 Depth. 125-550 fathoms.

DENTALIUM Linnaeus 1758, Syst. Nat., ed. 10, p. 785.

Dentalium agassizii Pilsbry and Sharp 1897, Man. Conch., 17: 26.

Type locality. Gulf of Panama.

Range. 8-50 Depth. 1000-1200 fathoms.

Dentalium dalli Pilsbry and Sharp 1897, Man. Conch., pl. 21, fig. 46, vol. 17.

Type locality. Bering Sea.

Range. -6-60 Depth. 30-150 fathoms.

Dentalium inversum Deshayes 1825, Mem. Soc. Hist. Nat. Paris, 2: 370.

Type locality. Not located.

Range. 8-58 Depth. 800 fathoms.

Dentalium pretiosum Sowerby 1860, Thes. Conch., vol. 95, pl. 225, fig. 57.

Type locality. California.

Range. 32-55 Depth. 6-70 fathoms.

Dentalium rectius Carpenter 1864, Brit. Assoc. Adv. Sci. (Supp. Rep.) 1963, p. 648.

Type locality. Puget Sound.

Range. 8-60 Depth. 20-80 fathoms.

Dentalium vallicolens Raymond 1904, Nautilus, 17: 123.

Type locality. Off Redondo, California, in 145 fathoms.

Range. -10-55 Depth. 40 fathoms.

class CEPHALOPODA

GONATUS Gray 1849, Cat. Moll. coll. Brit. Mus., Pt. 1, p. 68.

Gonatus fabricii (Lichtenstein 1818) Steenstrup 1880, Sepien mit Krallen, p. 13.

Type locality. Not located.

Range. 30-60 Depth. Littoral.

Gonatus magister Berry 1913, Proc. Acad. Nat. Sci. Phil., 65: 76.

Type locality. Puget Sound.

Range. 48-55 Depth. 50-300 fathoms.

LOLIGO Schneider 1784, Samml. Verm. Abk., 110.

Loligo opalescens Berry 1911, Proc. U.S. Nat. Mus., 40: 591.

Type locality. Puget Sound.

Range. 32-52 Depth. Pelagic.

MOROTEUTHIS Verrill 1881, Amer. Journ. Sci., (3)22: 248.

Moroteuthis robusta Verrill 1876, Amer. Jour. Sci., 12: 236.

Type locality. Unalaska, Aleutians.

Range. 48-60 Depth. Pelagic.

ROSSIA Owen 1828, App. Nar. 2nd Voyage..., p. 93.

Rossia pacifica Berry 1911, Proc. U.S. Nat. Mus., 40: 591.

Type locality. Behm Canal, Alaska, in 39-45 fathoms.

Range. 35-60 Depth. Pelagic.

OCTOPUS Lamarck 1798, Bull. Sci. Soc. philon [Paris], No. 17: 130.

Octopus hongkongensis Hoyle 1885, Ann. Mag. Nat. Hist., (5), 15: 224.

Type locality. Off Ino Sima, Japan, in 345 fathoms.

Range. 32-60 Depth. Littoral - 100 fathoms.

Synonym. Paroctopus apollyon Berry.

Octopus leioderma Berry 1911, Proc. U.S. Nat. Mus., 40: 590.

Type locality. Shelikof Strait, Alaska, in 106-112 fathoms.

Range. 35-55 Depth. 500 fathoms.

OMMATOSTREPHES d'Orbigny 1835, Voy. Amer. Merid., p. 45.

Ommatostrephes sagittatus Lamarck 1799, Mem. Soc. Hist. Nat. Paris, 1: 13.

Type locality. Europe.

Range. 48 Depth. Unknown.

Remarks. One doubtful record from Victoria, B. C.

ONYCHOTEUTHIS Lichtenstein 1818, Moeller 1842 Ind. Moll. Groenl., 3.

Onychoteuthis fusiformis Gabb 1862, Proc. Calif. Acad. Sci., 2: 171.

Type locality. Cape Horn (?).

Range. ? Depth. Unknown.

Remarks. Doubtful record from Oak Bay, B.C.

OPISTHOTEUTHIS Lichtenstein 1818, Isis (Oken): 1592.

Opisthoteuthis californiana Berry 1949, Malac. 1(6), p. 23.

Type locality. Humboldt Bay, California, in 188 fathoms.

Range. 41-59 Depth. 500 fathoms.

VAMPIROTEUTHIS Chun 1903, Aus den Tiefen. Weltmeeres, ed. 2, p. 88.

Vampiroteuthis sp.

48-02N125-45-2W in 534 fathoms.

ADDENDUM

PELECYPODA

Thyasira gouldi Philippi 1845, Zeitschr. Malak., 2: 74.

Type locality. Massachusetts Bay.

Range. 33-64 Depth. 20-150 fathoms.

VENERUPIS Lamarck 1818, Hist. Anim. s. Vert., 5: 506.

Venerupis semidecussata Reeve 1859, Conch. Icon. 11, fig. 2.

Type locality. Japan.

Range. 37-55 Depth. High littoral.

Synonym. V. japonica auctt.

GASTROPODA

CREPIDULA Lamarck 1799, Mem. Soc. Hist. Nat. Paris, Ser. 1, 1: 78.

Crepidula adunca Sowerby 1825, Tankerville Cat., App. 7, No. 828.

Type locality. Monterey, California.

Range. 23-54 Depth. Littoral.

Crepidula fimbriata Reeve 1859, Conch. Icon. 11, fig. 11.

Type locality. Georgia Straits, B. C.

Range. 23-53 Depth. 5-10 fathoms.

Crepidula lingulata Gould 1846, Proc. Boston Soc. Nat. Hist., 2: 160.

Type locality. Puget Sound, Washington.

Range. 8-60 Depth. 80 fathoms.

FARTULUM

Fartulum bakeri Barsch 1920, Jour. Wash. Acad. Sci., 10: 566.

Type locality. San Pedro, California.

Range. 23-61 Depth. 62 fathoms.

Fartulum occidentalis Bartsch 1920, Jour. Wash. Acad. Sci., 10: 566.

Type locality. San Pedro, California.

Range. 28-60 Depth. 105 fathoms.

LEUCOSYRINX

Leucosyrinx kincaidi Dall 1919, Proc. U. S. Nat. Mus., 56: 6.

Type locality. Shelikoft Strait, Bering Sea.

Range. 51-58 Depth. 1050 fathoms.

OPALIA

Opalia wroblewskii Morch 1876, Conchyl. Iconica, Scalaria.

Type locality. Vancouver Island, B. C.

Range. 32-60 Depth. 15-85 fathoms.

Synonym. Scalaria borealis Gould non Beck.

RISSOINA d'Orbigny 1840, Voy. Amer. Merid., 5: 395.

Rissoina newcombei Dall 1897, Nat. Hist. Soc. Brit. Coll., Bull. 2, p. 14.

Type locality. Cumshewa Inlet, B. C.

Range. 48-55 Depth. 80 fathoms.

TRICHOTROPIS

Trichotropis borealis Broderip and Sowerby 1829, Zool. Journ., No. 15, 4: 375.

Type locality. Bering Sea.

Range. 54-72 Depth. 10-80 fathoms.

Synonym. T. borealis costellata Couthouy.

Trichotropis cancellata Hinds 1843, Proc. Zool. Soc. London, p. 17.

Type locality. Sitka, Alaska.

Range. 44-57

Depth. Intertidal - 50 fathoms.

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Baker, Frank C. 1891. Catalogue and synonomy [sic] of the Recent species of the family Muricidae. First paper, Proc. Rochester Acad. Sci., 1: 153-172.

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