

**LIST OF DUPLICATE MARINE INVERTEBRATES DISTRIBUTED
BY THE UNITED STATES NATIONAL MUSEUM.**

SERIES IV.—EDUCATIONAL SERIES No. 2.

PREPARED BY R. S. TARR, UNDER THE DIRECTION OF RICHARD RATHBUN.

CRUSTACEA.

DECAPODA.

1. *Gelasimus pugnax* Smith.
FIDDLER CRAB.
U. S. F. C.—Wood's Holl, Mass., shore.
2. *Gelasimus pugilator* Latr.
FIDDLER CRAB.
U. S. F. C.—Wood's Holl, Mass., shore.
3. *Platyonichus ocellatus* Latr.
LADY CRAB.
U. S. F. C.—Vineyard Sound, Mass.
4. *Cancer irroratus* Say.
ROCK CRAB.
U. S. F. C.—Vineyard Sound, Mass.
5. *Hyas coarctatus* Leach.
U. S. F. C.—Coast of New England, 45 fath.
6. *Libinia emarginata* Leach.
SPIDER CRAB.
U. S. F. C.—Vineyard Sound, Mass.
7. *Zoeas* and *Megalops* of Crabs.
U. S. F. C.—Vineyard Sound, Mass., surface.
8. *Euprognatha rastellifera* Stimp.
U. S. F. C.—Off Martha's Vineyard, Mass., 67 to 79 fath.
9. *Hippa talpoida* Say.
SAND-BUG; BAIT-BUG.
U. S. F. C.—Wood's Holl, Mass., shore.
10. *Eupagurus pollicaris* Stimp.
HERMIT CRAB.
U. S. F. C.—New Haven, Conn.
11. *Eupagurus longicarpus* Stimp.
HERMIT CRAB.
U. S. F. C.—Narragansett Bay, 6 to 12 fath.
12. *Eupagurus bernhardus* Brandt.
HERMIT CRAB.
U. S. F. C.—Cape Cod Bay, Mass., 15 fath.
13. *Eupagurus politus* Smith.
DEEP-SEA HERMIT CRAB.
U. S. F. C.—Off Chesapeake Bay, 300 fath.
14. *Catapagurus sharreri* A. M.-Edw.
DEEP-SEA HERMIT CRAB.
U. S. F. C.—Off Martha's Vineyard, Mass., 120 to 146 fath.
15. *Parapagurus pilosimanus* Smith.
U. S. F. C.—Off Martha's Vineyard, Mass., 319 fath.
16. *Munida*, sp.
U. S. F. C.—Off Martha's Vineyard, Mass., 67 to 71 fath.
17. *Homarus americanus* M.-Edw.
AMERICAN LOBSTER.
U. S. F. C.—Vineyard Sound, Mass.
18. *Cambarus affinis* Erichs.
CRAY FISH.
U. S. F. C.—Potomac River.
19. *Crangon vulgaris* Fabr.
COMMON SHRIMP.
U. S. F. C.—Off Cape Cod, Mass., 26 fath.
20. *Pandalus leptoceros* Smith.
DEEP-WATER PRAWN.
U. S. F. C.—Off Martha's Vineyard, Mass., 46 fath.
21. *Palæmonetes vulgaris* Stimp.
COMMON PRAWN.
U. S. F. C.—Narragansett Bay, R. I., shore.

SCHIZOPODA.

22. *Mysis mixta* Lillje
U. S. F. C.—Cape Cod Bay, Mass., 27 fath.

AMPHIPODA.

23. *Orchestia agilis* Smith.
SAND FLEA; BEACH FLEA.
U. S. F. C.—Newport, R. I., shore.
24. *Talorchestia longicornis* Smith.
LARGE SAND FLEA.
U. S. F. C.—New Haven, Conn., shore.

ISOPODA.

25. *Cirolana concharum* Harger.
U. S. F. C.—Wood's Holl, Mass.

26. *Ligia oceanica* Fabr.
MARINE SOW BUG.
U. S. F. C.—Newport, R. I., shore.

ENTOMOSTRACA.

27. *Artemia gracilis* Verrill.
BRINE SHRIMP.
U. S. F. C.—New Haven, Conn.

CIRRIPIEDIA.

28. *Lepas anatifera* Linné.
GOOSE BARNACLE.
U. S. F. C.—Off Martha's Vineyard, Mass.,
surface.

29. *Balanus balanoides* Stimp.
ROCK BARNACLE; ACORN SHELL.
U. S. F. C.—New Haven, Conn., shore.

ANNELIDA.

CHÆTOPODA.

30. *Lepidonotus squamatus* Kinb.
U. S. F. C.—Buzzard's Bay, Mass.
31. *Lætmatonice armata* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
225 to 319 fath.
32. *Nereis virens* Malmg.
CLAM WORM; BAIT WORM.
U. S. F. C.—Southern New England, shore.
33. *Hyalinœcia artifex* Verrill.
DEEP-SEA TUBE-DWELLING WORM.
U. S. F. C.—Off Martha's Vineyard, Mass.,
250 fath.
34. *Hyalinœcia artifex* Verrill.
TUBES ONLY.
U. S. F. C.—Off Martha's Vineyard, Mass.,
250 fath.
35. *Euglycera dibranchiata* Verrill.
U. S. F. C.—Southern New England, shore.
36. *Chætopterus pergamentaceus*.
U. S. F. C.—Wood's Holl, Mass., shore.
37. *Chætopterus pergamentaceus*.
TUBES ONLY.
U. S. F. C.—Wood's Holl, Mass., shore.
38. *Trophonia affinis* Verrill.
U. S. F. C.—Narragansett Bay, R. I., 10 to
20 fath.
39. *Cirratulus grandis* Verrill.
U. S. F. C.—Southern New England, shore.
40. *Potamilla reniformis* Malmg.
U. S. F. C.—Vineyard Sound, Mass.
41. *Spirorbis borealis* Daud.
U. S. F. C.—Wood's Holl, Mass.

GEPHYREA.

42. *Phascolosoma Gouldii* Dies.
SIPUNCULOID WORM.
U. S. F. C.—Wood's Holl, Mass., shore.
43. *Phascolion Strombi* Theel.
SIPUNCULOID WORM.
U. S. F. C.—Off Newport, R. I., 12 to 19
fath.

CHÆTOGNATHA.

44. *Sagitta elegans* Verrill.
U. S. F. C.—Vineyard Sound, Mass., sur-
face.

MOLLUSCA.

CEPHALOPODA.

45. *Loligo Pealei* Lesneur.
SQUID.
U. S. F. C.—Southern coast New England.
46. *Loligo Pealei* Lesneur.
SQUID (EGGS).
U. S. F. C.—Southern coast New England.

GASTROPODA.

47. *Buccinum undatum* Linné.
WHELK.
U. S. F. C.—New England coast.
48. *Fulgur carica* Conrad.
PERIWINKLE.
U. S. F. C.—Vineyard Sound, Mass.
49. *Sycotypus canaliculatus* Gill.
PERIWINKLE.
U. S. F. C.—Vineyard Sound, Mass.
50. *Tritia trivittata* H. & A. Adams.
U. S. F. C.—Buzzard's Bay, Mass.
51. *Ilyanassa obsoleta* Stimp.
BLACK MUD-SNAIL.
U. S. F. C.—Newport, R. I., shore.
52. *Urosalpinx cinera* Stimp.
U. S. F. C.—Wood's Holl, Mass., shore.
53. *Purpura lapillus* Lam.
PURPLE SEA SNAIL.
U. S. F. C.—Wood's Holl, Mass., shore.
54. *Lunatia heros* H. & A. Adams.
SEA SNAIL.
U. S. F. C.—Vineyard Sound, Mass.
55. *Neverita duplicata* Stimp.
SEA SNAIL.
U. S. F. C.—Vineyard Sound, Mass.
56. *Littorina littorea* Menke.
PERIWINKLE.
U. S. F. C.—Wood's Holl, Mass., shore.

57. *Littorina palliata* Gould.
U. S. F. C.—Wood's Holl, Mass., shore.
58. *Littorina rudis* Gould.
U. S. F. C.—Wood's Holl, Mass., shore.
59. *Bittium nigrum* Stimp.
U. S. F. C.—Wood's Holl, Mass., shore.
60. *Crepidula fornicata* Lam.
BOAT SHELL; DOUBLE DECKER.
U. S. F. C.—Buzzard's Bay, Mass.
61. *Acmaea testudinalis* Han.
LIMPET.
U. S. F. C.—Eastport, Me., shore.
62. *Melampus lineatus* Say.
SALT MARSH SNAIL.
U. S. F. C.—Newport, R. I., shore.
63. *Pleurobranchia tarda* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
100 to 124 fath.

LAMELLIBRANCHIATA.

64. *Ensatella americana* Verrill.
RAZOR SHELL.
U. S. F. C.—Long Island Sound shore.
65. *Mya arenaria* Linné.
LONG CLAM.
U. S. F. C.—Wood's Holl, Mass., shore.
66. *Clidiophora trilineata* Carp.
U. S. F. C.—Buzzard's Bay, Mass.
67. *Callista convexa* H. & A. Adams.
U. S. F. C.—Narragansett Bay, R. I.
68. *Totentia gemma* Perkins.
U. S. F. C.—Provincetown, Mass., shore.
69. *Cyprina islandica* Lam.
U. S. F. C.—Off Newport, R. I.
70. *Nucula proxima* Say.
U. S. F. C.—Southern coast New England.
71. *Scapharca transversa* Ad.
U. S. F. C.—Buzzard's Bay, Mass.
72. *Mytilus edulis* Linné.
COMMON MUSSEL.
U. S. F. C.—Buzzard's Bay, Mass.
73. *Modiola plicatula* Lam.
RIBBED MUSSEL.
U. S. F. C.—Wood's Holl, Mass., shore.
74. *Pecten irradians* Lam.
COMMON SCOLLOP.
U. S. F. C.—Southern coast New England.
75. *Pecten tenuicostatus* Mighels.
SMOOTH SCOLLOP.
U. S. F. C.—Off Martha's Vineyard, Mass.,
46 fathoms.

76. *Pecten tenuicostatus* Mighels.
SMOOTH SCOLLOP.
U. S. F. C.—Off Martha's Vineyard, Mass.
77. *Anomia glabra* Verrill.
SILVER-SHELL; GOLD-SHELL; JINGLE-SHELL.
U. S. F. C.—Southern coast New England.

TUNICATA.

78. *Molgula manhattensis* Verrill.
U. S. F. C.—Southern coast New England,
shore.
79. *Halocynthia partita* Verrill.
U. S. F. C.—Wood's Holl, Mass., shore.
80. *Boltenia Bolteni* Linu6.
STEMMED SEA-PEACH.
U. S. F. C.—Eastport, Me.
81. *Botryllus Gouldii* Verrill.
U. S. F. C.—Wood's Holl, Mass.
82. *Perophora viridis* Verrill.
U. S. F. C.—Wood's Holl, Mass.
83. *Amorœcium pellucidum* Verrill.
U. S. F. C.—Vineyard Sound, Mass.
84. *Amorœcium constellatum* Verrill.
U. S. F. C.—Vineyard Sound, Mass.
85. *Amorœcium stellatum* Verrill.
U. S. F. C.—Wood's Holl, Mass.
86. *Leptoclinum albidum* Verrill.
U. S. F. C.—Vineyard Sound, Mass.
87. *Salpa Caboti* Desor.
U. S. F. C.—Vineyard Sound, Mass., sur-
face.
88. *Salpa*, sp. (large species).
U. S. F. C.—Off Martha's Vineyard, Mass.,
surface.

MOLLUSCOIDA.

POLYZOA.

89. *Cellularia ternata* Johnston.
U. S. F. C.—Off Cape Cod, Mass., 18 fath.
90. *Gemellaria loricata* Busk.
U. S. F. C.—Off Cape Cod, Mass., 24 to 30
fath.
91. *Bugula turrita* Verrill.
U. S. F. C.—Narragansett Bay, R. I., 4 to 6
fath.
92. *Electra pilosa* Fisch.
U. S. F. C.—Southern coast New England.
93. *Discopora nitida* Verrill.
U. S. F. C.—Vineyard Sound, Mass.

ECHINODERMATA.

HOLOTHURIOIDEA.

94. *Thyone Briareus* Selenka.
SEA CUCUMBER.
U. S. F. C.—Wood's Holl, Mass., shore.
95. *Leptosynapta Girardii* Verrill.
U. S. F. C.—Wood's Holl, Mass., shore.

ECHINOIDEA.

96. *Strongylocentrotus dröbachiensis*
A. Ag.
COMMON SEA-URCHIN; SEA EGG.
U. S. F. C.—Off Newport, R. I.
97. *Arbacia punctulata* Gray.
PURPLE SEA-URCHIN.
U. S. F. C.—Vineyard Sound, Mass.
98. *Echinarachnius parma* Gray.
SAND DOLLAR.
U. S. F. C.—Off Martha's Vineyard, Mass.,
26 fath.

ASTERIOIDEA.

99. *Asterias Forbesii* Verrill.
COMMON STAR-FISH.
U. S. F. C.—Vineyard Sound, Mass.
100. *Leptasterias compta* Verrill.
U. S. F. C.—Off Newport, R. I., 27 fath.
101. *Ctenodiscus crispatus* D. & Kor.
VELVET STAR.
U. S. F. C.—Massachusetts Bay.
102. *Archaster americanus* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
89 to 202 fath.
103. *Odontaster hispidus* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
89 fath.

OPHIUROIDEA.

104. *Ophiopholis aculeata* Gray.
VARIEGATED SERPENT-STAR.
U. S. F. C.—Off Martha's Vineyard, Mass.,
146 fath.
105. *Amphiura macilenta* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
63 fath.
106. *Ophiocantha millespina* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
234 fath.

107. *Ophioglypha Sarsii* Lyman.
SARS' SERPENT-STAR.
U. S. F. C.—Off Martha's Vineyard, Mass.,
46 to 100 fath.
108. *Ophioglypha Sarsii* Lyman.
SARS' SERPENT-STAR.
U. S. F. C.—Off Martha's Vineyard, Mass.
109. *Astrophyton Agassizii* Stimp.
BASKET-FISH.
U. S. F. C.—Off Cape Cod, Mass.

CRINOIDEA.

110. *Antedon dentatum* Verrill.
FEATHER STAR.
U. S. F. C.—Off Martha's Vineyard, Mass.,
146-183 fath.

CŒLEENTERATA.

ANTHOZOA.

111. *Pennatula aculeata* Dan.
SEA FEATHER.
U. S. F. C.—Off Martha's Vineyard, Mass.,
207 fath.
112. *Acanella Normanii* Verrill.
JOINTED BUSH CORAL.
U. S. F. C.—Off Martha's Vineyard, Mass.,
200 fath.
113. *Metridium marginatum* Ed. and H.
COMMON SEA-ANEMONE.
U. S. F. C.—Newport, R. I., shore.
114. *Urticina nodosa* Verrill.
WARTY SEA ROSE.
U. S. F. C.—Off Martha's Vineyard, Mass.,
192 to 245 fath.
115. *Bolocera Tuediæ* Gosse.
SEA ROSE.
U. S. F. C.—Off Martha's Vineyard, Mass.,
245 fath.
116. *Sagartia abyssicola* Verrill.
DEEP-WATER SEA ROSE.
U. S. F. C.—Off Martha's Vineyard, Mass.,
164 to 229 fath.
117. *Epizoanthus paguriphila* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
319 fath.
118. *Epizoanthus americanus* Verrill.
U. S. F. C.—Off Martha's Vineyard, Mass.,
193 fath.

HYDROIDEA.

119. *Obelia geniculata* Hincks.
U. S. F. C.—Off Martha's Vineyard, Mass.,
97 fath.

120. *Sertularella polyzonias* Gray.
(Var.)
U. S. F. C.—Off Cape Cod, Mass., 27 fath.
121. *Sertularella tricuspadata* Hincks.
U. S. F. C.—Off Cape Cod, Mass., 18 fath.
122. *Globiceps tiarella* Ayres.
U. S. F. C.—Buzzard's Bay, Mass.

PORIFERA.

123. *Cliona sulphurea* Verrill.
BORING SPONGE.
U. S. F. C.—Vineyard Sound, Mass.
124. *Microciona prolifera* Verrill.
RED SPONGE; OYSTER SPONGE.
U. S. F. C.—Vineyard Sound, Mass.

THE LIFE COLORS OF *CREMNOBATES INTEGRIPINNIS*.

By ROSA SMITH.

The type specimens of this species were described (Proc. U. S. Nat. Mus., 1880, 147) after the color markings were changed from immersion in alcohol. The following description is made from two living examples: Ground color, light purplish brown; top of head and snout, greenish yellow; a broad streak of coralline pink, closely resembling the color of *Callithamnion heteromorphum*, from eye across cheek and opercles; the base of the pectoral fin is of this color, outlined by a black crescent, beyond which the tips are transparent and pale green, dotted with black. On the side of body below lateral line are three orange-colored, nearly circular blotches, the anterior one overlapped but not entirely covered by the tips of the pectoral, the first spot equaling or larger than the orbit, the two posterior ones somewhat smaller. Dorsal fin with eight nearly square purple spots, alternating with lighter spaces of similar size and shape; the seventh dark dorsal spot is a green ocellus (black in the preserved specimen) encircled with a narrow ring of orange color and surrounded with very dark green, the ocellus covering the twenty-fourth, twenty-fifth, and twenty-sixth dorsal spines. The lips are pale green. A white dot at base of occipital tentacle as large as pupil; minute white dots along lateral line from its origin to the point of curvature, and a larger white dot close under the twenty-first or twenty-second dorsal spine. Anal fin marked with dark spots similarly to the dorsal and narrowly margined with white. Caudal transparent, pale green, dotted with black. Ventrals obscurely barred with black. Ventral surface lighter than sides of body.

Lower rays of pectorals projecting beyond membrane, the upper rays much less projecting.

Beginning of anal fin a little nearer tip of snout than base of caudal.

The number of fin rays and all other characters agree with the original description.

One of the present examples was taken February 6, 1883, with a dip-net, from a shallow tide pool about 4 by 6 feet in diameter, two or three miles distant from the locality where this species was discovered. The floor of the pool was of sand and no pools intervened between it and the sand beach, so that this one would be unsurrounded with water at