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# Bulletin of the Museum of Comparative Zoölogy AT HARVARD COLLEGE.

Vol. XLIII. No. 6.

205005

REPORTS ON THE DREDGING OPERATIONS OFF THE WEST COAST OF CENTRAL AMERICA TO THE GALAPAGOS, TO THE WEST COAST OF MEXICO, AND IN THE GULF OF CALIFORNIA, IN CHARGE OF ALEXANDER AGASSIZ, CARRIED ON BY THE U.S. FISH COMMISSION STEAMER "ALBATROSS," DURING 1891, LIEUT. COMMANDER Z. L. TANNER, U.S. N., COMMANDING.

#### XXXVII.

REPORTS ON THE SCIENTIFIC RESULTS OF THE EXPEDITION TO THE EASTERN TROPICAL PACIFIC, IN CHARGE OF ALEXANDER AGASSIZ, BY THE U. S. FISH COMMISSION STEAMER "ALBATROSS," FROM OCTOBER, 1904, TO MARCH, 1905, LIEUT. COMMANDER L. M. GARRETT, U. S. N., COMMANDING.

XIV.

# THE MOLLUSCA AND THE BRACHIOPODA.

BY WILLIAM HEALEY DALA.

MAY 1 0 1989

WITH TWENTY-TWO PLATES.

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CAMBRIDGE, MASS., U. S. A.:
PRINTED FOR THE MUSEUM.
October, 1908.

#### MUREX LINNÉ.

# Murex (Alipurpura) centrifuga HINDS.

Murex centrifuga Hinds, Zoöl. Voy. Sulphur, Moll., 1844, p. 8, pl. 3. figs. 7, 8.

West coast of Veragua in fifty-two fathoms, sand, Hinds; U. S. S. "Albatross," station 3391, Gulf of Panama, in 153 fathoms, mud, bottom temperature 55°.8 F. U. S. N. Mus. 123,019.

The operculum is concentric with the nucleus a little above and to the right of the apex. It has no Purpuroid markings on the reverse side.

## Murex (Phyllonotus) humilis Broderip.

Murex humilis Broderip, P. Z. S. Lond., 1832, p. 176; Reeve, Conch. Icon., 1845, 3, Murex, pl. 13, fig. 50 b.

St. Elena, west coast of Nicaragua, Cuming; U. S. S. "Albatross," station 2798, in Panama Bay, in 18 fathoms, sand. U. S. N. Mus. 110,615. Also on the beach of Perico Island, Panama Bay.

#### Tritonalia FLEMING.

Tritonalia Fleming, Hist. Brit. An., 1828, p. 567 (in corrigenda); type, Murex erinaceus Linné.

Ocenebra (Leach MS.) Gray, Ann. Mag. N. Hist., 1847, 20, p. 269; Gray, P. Z. S. Lond., 1847, p. 133 No. 10; same type.

Ocinebra H. and A. Adams, Gen. Rec. Moll., 1853, 1, p. 74; Fischer, Man. de Conchyl., 1883, p. 642.

It is somewhat surprising that, notwithstanding the above names and dates have been frequently cited, Fleming's name, twenty years prior to the publication of Leach, has been ignored.

# Murex (Tritonalia) diomedaeus Dall, n. sp.

# Plate 12, figures 4, 5.

Shell small, reddish brown with (on the last whorl four, on the antepenultimate whorl five) spinose varices and about seven whorls, of which nearly three are nuclear and defective; spire subtabulate with two strong, rounded revolving ridges, the posterior larger and forming the shoulder, and at the varices forming a long, anteriorly guttered and longitudinally anteriorly lamellose, posteriorly imbricately longitudinally laterally threaded, recurved spine; on the body between varices there are three or four other similar ridges, smooth, except for very fine revolving striae, and ending in similar but shorter spines, in front of

which, on the canal, are two smaller, narrower, and more simple spines; aperture ovate with a projecting, simple margin, not adherent on the side of the body; the outer lip with five notches due to the spiral ridges; interior without lirae; canal elongated, recurved, nearly closed. Lon. of shell, 29; of last whorl, 24; of aperture, 8; max. diam. of whorl, 15; including spines, 19 mm.

U. S. S. "Albatross," station 3397, Gulf of Panama, in 85 fathoms, mud,

bottom temperature 57°.3 F. U.S. N. Mus. 123,020.

This shell has the characteristics of the Mediterranean species *Tritonalia erina*cea Linné, but is smaller, with more slender form and fewer and less strongly striated spirals.

### TYPHIS MONTFORT.

# Typhis martyria DALL.

Plate 15, figure 11.

Typhis martyria Dall, Proc. U. S. Nat. Mus., 1902, 24, p. 550.

U. S. S. "Albatross," station 3013, off the island of San Pedro Martir, Gulf of California, in 14 fathoms, sand, bottom temperature 65° F. U. S. N. Mus. 130,629.

#### ANTISTREPTUS DALL.

Antistreptus Dall, Proc. U. S. Nat. Mus., 1902, 24, p. 532; type, A. magellanicus Dall.
 Glypteuthria Strebel, Zool. Jahrb., 1905, 22, heft 6, p. 627; type, Euthria meridionalis E. A. Smith.

This genus was originally described as sinistral, the type being left-handed in its spiral, but the excellent figures given by Strebel in his most useful work on the Magellanic fauna show that there are also dextral species. Thus, like Antiplanes in the Turritidae, the diagnosis must be revised to include both dextral and sinistral species. Strebel shows that in fully adult specimens, both outer and inner lips are somewhat thickened, and the outer lip may even show some traces of liration, if all the species he refers to Glypteuthria are congeneric. With the above reservation, the operculum may be said to be concentric with an apical nucleus and short ovate form, the inner face with a callous border on the anterior margins. It does not, however, show the purpuroid rotatory markings on the interior face of the operculum, which characterize Euthria cornea, the type of the genus to which Strebel refers Glypteuthria as a subgenus. Only an examination of the radula can finally decide the question, but the similarities of the shell, nucleus, and operculum are sufficient to render it very probable that Antistreptus will eventually form a subordinate group of Euthria.

#### PLATE 12.

- Fig. 1. Cavolina occidentalis Dall, with the animal fully expanded, drawn from life by W. H. Dall; max. lat. 22.0 mm.; p. 233.
- Fig. 1b. The same with the pteropodia partly folded preparatory to their withdrawal into the test; width about 12 mm.
- Fig. 1c. View of the "head" from above, showing the notched junction of the pteropodia and the strongly contrasted asymmetrical eye pedicels, much magnified.
- Fig. 2. Irenosyrinz persimilis Dall; alt. 100.0 mm.; p. 271.
- Fig. 3. Leucosyrinx? pacifica Dall; alt. 23.0 mm.; p. 270.
- Fig. 4. Murex (Tritonalia) diomedaeus Dall, vertical view showing varices; p. 313.
- Fig. 5. The same, alt. 29.0 mm.; p. 313.
- Fig. 6. Fusinus fragilissimus Dall, alt. 21 mm.; p. 301.
- Fig. 7. Trivia panamensis Dall, profile view, lon. 4.2 mm.; p. 324.
- Fig. 8. Trivia atomaria Dall, profile view, lon. 3.2 mm.; p. 323.
- Fig. 9. Trivia panamensis Dall, basal view, p. 324.
- Fig. 10. Trivia atomaria Dall, basal view, p. 323.
- Fig. 11. The same, dorsal view.
- Fig. 12. Trivia panamensis Dall, dorsal view, p. 324.

Figures 3 and 7-12 were drawn by the late Dr. J. C. McConnell, the others by Miss Evelyn Mitchell.

