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DESCRIPTION OF A NEW SPECIES OF *CHLAMYS*
(MOLLUSCA: PELECYPODA) FROM THE
GALÁPAGOS ISLANDS

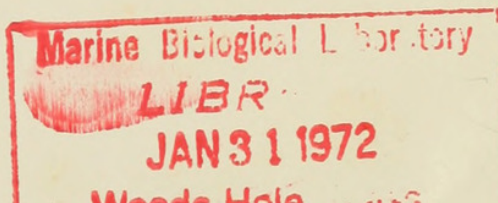
By

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INTRODUCTION

The known marine molluscan fauna of the Galápagos Islands in general is sparser than that of the mainland. Eleven species of scallops (Pectinidae) have been reported living in the Galápagos Archipelago. These are: *Pecten* (*Flabellipecten*) *sericeus* Hinds, *Pecten* (*Oppenheimopecten*) *galapagensis* Grau, *Chlamys* (*Chlamys*) *lowei* Hertlein, *Chlamys* (*Argopecten*) *circularis* Sowerby, *Chlamys* (*Nodipecten*) *magnifica* Sowerby, *Cyclopecten* (*Cyclopecten*) *exquisitus* Grau, *Cyclopecten* (*Cyclopecten*) *pernomus* Hertlein, *Cyclopecten* (*Delectopecten*) *polyleptus* Dall, *Cyclopecten* (*Delectopecten*) *zaca* Hertlein, and from very deep water, *Cyclopecten* (*Cyclopecten*) *liriope* Dall and *Cyclopecten* (*Hyalopecten*) *neoceanicus* Dall. Seven of these are known to occur along the adjacent mainland.

In 1969, Mr. Anthony D'Attilio, San Diego Society of Natural History, sent six paired valves (four with the animal) and four single valves representing a species of *Chlamys* to Allyn G. Smith, Department of Invertebrate Zoology, California Academy of Sciences, with a request for identification of the species. These subsequently were submitted to me for study. A search of the Academy's collection as well as of the literature failed to reveal any similar species described from the eastern Pacific. Upon receipt of this information Mr. D'Attilio requested me to describe the species which appears in the present paper.



ACKNOWLEDGMENTS

The writer here expresses his thanks to the following persons: to Mr. Anthony D'Attilio, San Diego Society of Natural History, for permission to describe the new species and to retain paratypes; to Mr. Allyn G. Smith, California Academy of Sciences, for advice concerning the specimens; to Mr. Barry Roth of the same institution for critical reading of the manuscript and for arrangement of the illustrations; to Dr. Thomas R. Waller, Division of Invertebrate Paleontology, United States National Museum, for information concerning comparative species in the collections of the National Museum; to Mr. Maurice Giles, Staff Photographer, California Academy of Sciences, who prepared the photographs from which the illustrations were made.

DESCRIPTION OF NEW SPECIES

Family PECTINIDAE Rafinesque
Genus **Chlamys** Röding in Bolten

Chlamys (Chlamys) incantata Hertlein, new species.

(Figures 1-5.)

DIAGNOSIS. A species of *Chlamys* differing from other west American species in possessing very narrow, compressed, rather low, spinose ribs.

DESCRIPTION. Shell averaging about 45 mm. in height, ovate, valves gently and nearly equally inflated, hinge line rather short. Right valve sculptured with about 25 major ribs which are narrow, compressed, rather low, and occasionally unequally spaced; on top of each of these ribs is a row of spines which are concave ventrally; submargins with 5 or 6 very fine riblets; interspaces vary in width but are much wider than the ribs, nearly flat-bottomed, and sculptured with 1 to 3 fine radial threads, each bearing a row of spines, the ribs and interspaces crossed by fine concentric imbricating lines of growth; auricles unequal, the anterior one the larger, sculptured with about 5 spiny radial riblets, the hinge line above the auricle with scaly sculpture, below the auricle a well developed byssal notch about half the length of the auricle, below this along the margin there are 4 pectinidial teeth; posterior ear short, slightly concave, sloping rather steeply downward, sculptured with about 6 radial riblets. Left valve sculptured similar to the right but lacking a byssal notch. Hinge with one pair of slight cardinal crura. Interior of valves lightly grooved corresponding to the external ribbing. Color of the exterior of the valves whitish, the spines rosy, lending a roseate appearance to the valves, more pronounced on the left one.

DIMENSIONS. Length 40 mm., height 45 mm., length of hinge line 21 mm., convexity (both valves together) approximately 13 mm. The largest specimen, a left valve, is 48 mm. high.

TYPE MATERIAL. Holotype no. 52263, also paratypes, San Diego Society of Natural History, from off Academy Bay, Santa Cruz (Indefatigable) Island,

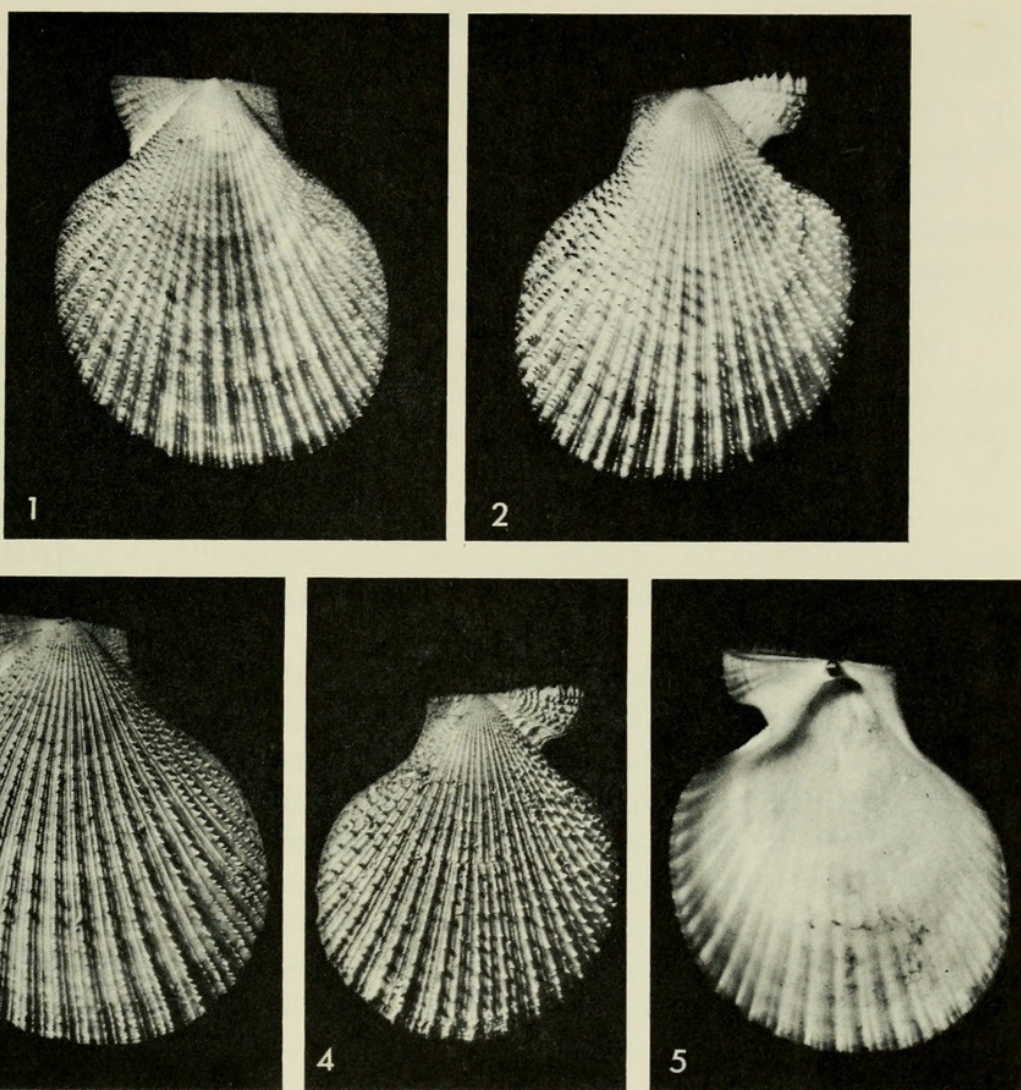


FIGURE 1. *Chlamys (Chlamys) incantata* Hertlein, new species. Holotype no. 52263 (San Diego Society of Natural History), from off Academy Bay, Santa Cruz (Indefatigable) Island, Galápagos Islands, dredged in 200 meters. View of the exterior of the left valve; height 45 mm. FIGURE 2. *Chlamys (Chlamys) incantata* Hertlein, new species. View of the exterior of the right valve of the holotype. FIGURE 3. *Chlamys (Chlamys) incantata* Hertlein, new species. Paratype (SDSNH), from the same locality as the holotype. View of the exterior of a left valve; height 48 mm. FIGURE 4. *Chlamys (Chlamys) incantata* Hertlein, new species. Paratype (SDSNH), from the same locality as the holotype. View of the exterior of a right valve; height 39.5 mm. FIGURE 5. *Chlamys (Chlamys) incantata* Hertlein, new species. View of the interior of the right valve shown in figure 2.

Galápagos Islands; dredged in 200 meters; Mrs. Jacqueline DeRoy collector, July 25, 1969.

Paratypes are deposited in the California Academy of Sciences, the American Museum of Natural History, and in the United States National Museum.

COMMENTS. The shape, spinose sculpture, and rosy coloration of this new

species are somewhat similar to those of *Chlamys hastata* Sowerby (see Arnold, 1906, pl. 42, figs. 1, 1a, 2, 2a; Grau, 1959, plates 27, 28) from California, but the ribs are more numerous, lower, more compressed, and not arranged in pairs on the right valve.

The fewer ribs (25) on the new species serve to separate it from *Chlamys amandi* Hertlein (1935, p. 305; *Pecten australis* Philippi, 1845, p. 56 "Patriae: Insulae Chonos."; not *Pecten australis* Sowerby, 1842) from Chile, which has 30 to 34 ribs which are only slightly scaly toward the submargins.

The sculpture of *C. incantata*, new species, bears a general resemblance to that of the species described as *Pecten (Chlamys) coccymelus* by Dall (1898, p. 741, pl. 34, fig. 1) from strata of middle Miocene age at Plum Point Maryland. Dall called attention to the similarity of the fossil form to juvenile *Pecten madisonius* Say, but believed it to be a distinct species. Mansfield (1936, p. 177) stated that it "may be an immature specimen representing a varietal form of *P. madisonius*," and Rowland (1936, p. 1008) suggested that it "may be a case of arrested development."

The sculpture of the new species described here bears a general similarity to that of illustrations of *Pecten (Chlamys) nympa* Bavay (1906, p. 246, pl. 7, figs. 3 and 4). The type specimen of that species was described as only about 15 mm. high. The type locality was given as "Habitat Caribaeum Mare?". The type specimen in the Muséum National d'Histoire Naturelle de Paris, was originally in a carton which also contained a specimen of *Pecten antillarum* Récluz, a typical inhabitant of Caribbean waters. Dr. Thomas R. Waller (written communication, December 30, 1969), who has given considerable time to a study of the Pectinidae of the western Atlantic, stated that he feels certain that *Pecten (Chlamys) nympa* is a synonym of *Chlamys benedicti* Verrill and Bush (in Verrill, 1897, p. 74; not *Pecten benedicti* Lamarck, 1819) described from "off Martha's Vineyard, 1356 fath., dead; West Indies, in 25 to 72 fath., living." Adult specimens of *C. benedicti* (Weisbord, 1964, pl. 14, figs. 8-11) are quite distinct from the new species described here from the Galápagos Islands.

The specific name of this new species, "*incantata*," is derived from the vernacular appellation, "Las Islas Encantadas" (the Enchanted Islands), sometimes applied to the Galápagos Islands.

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