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A NEW SPECIES OF THE GENUS *SOLASTER* (ECHINODERMATA: ASTEROIDEA) FROM MARTINIQUE

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A single specimen of a large handsome new starfish was collected by the Bureau of Commercial Fisheries vessel *Oregon* in Martinique Channel in March 1966. It is so distinctively different from other known species of *Solaster* that, even on the basis of a single specimen, it can safely be said to be undescribed. The family Solasteridae is represented in the Western North Atlantic south of Cape Cod by only two other species, *Solaster caribbaeus* and *Lophaster radians*. This is mainly a boreal family, occurring in shallow to moderately deep waters.

Key to the Caribbean Solasteridae

1. Two distinct and equal series of marginals ..... *Lophaster radians* (Perrier, 1881)
   Only inferomarginals distinct 2
2. Rr 2–3[1]; subambulacral spines 6–8 ..... *Solaster notophrynus* n. sp.
   Rr 4; subambulacral spines 3–4 ..... *Solaster caribbaeus* Verrill, 1915

Solaster notophrynus n. sp.
(Figs. 1A and B)

Rr 2–3; dorsum very inflated, tegument moderately thin; pseudopaxillae low, minute; subambulacral spines 6–8.

Etymology: noto, Greek *notos*—south, and phrynus, Greek *phryne*—toad.

[1] R = major radius, from disc center to arm tip; r = minor radius, from disc center to interradial edge of disc.

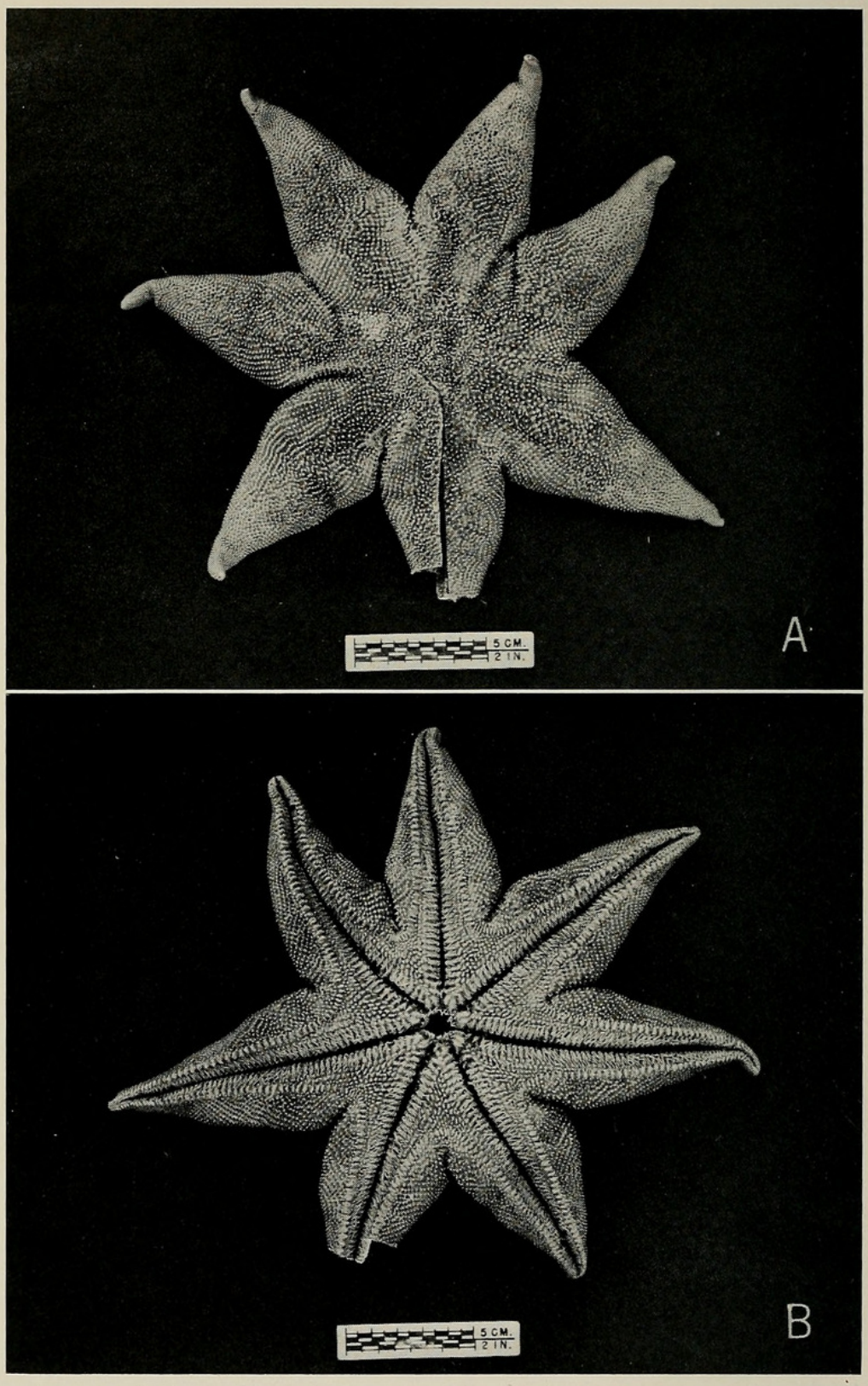

FIG. 1. *Solaster notophrynus*, holotype, USNM (one arm dissected). A. Abactinal, B. Actinal.

Description: R = 114 mm, r = 49 mm; Rr = 1:2.3. Width of arms at base = 48 mm. Arms = 7. Disc broad; arms short, broad, tapering to acute tip. Dorsum inflated, moderately thin. Papular pores numerous, single. Papulae very large. Abactinal plates Y-shaped or cruciform, with long imbricating lobes; no regular arrangement on central disc or mid-arms, but in oblique-transverse rows elsewhere. Pseudopaxilla small, not very high, well-spaced; bearing 10–40 minute thorny spinules. Narrow interradial band with fused plates and few papulae or none. Madreporite minute, nearly hidden by enlarged pseudopaxillae, nearer margin than center, at top of patch of fused abactinals. Superomarginals indistinguishable from adjacent abactinal plates. Inferomarginals confined to actinal surface, about three times as wide as long, high crescentic, bearing numerous small spinules on crest; bare spaces between inferomarginal plates about twice length of plate. Well-spaced actinal plates in irregular chevrons, small, round, or large, elongate, bearing 4–14 spinules; one row extending nearly ¾ of arm. Adambulacral furrow margin curved, bearing four or five setose furrow spines; transverse ridge on actinal face bears six to eight longer, stouter, acute spines. Mouth plates wide, prominent, with eight to ten long tapering webbed oral spines, central pair largest, and a pair of fans of four or five smaller setose spines, one above the other; face of plate covered with setose spinules; suture wide and bare. Internal interradial strut between mouth and body wall a single column of plates embedded in tissue supporting abactinal roof.

Type: Holotype in U.S. National Museum (USNM No. E11383).

Type locality: Martinique Passage, R/V *Oregon* Station 5929, 15°39′N, 61°10′W, 355 fms, March 1966.

Discussion: This species differs from S. *caribbaeus* in the proportion of disc and arms (1:2–3, *vs.* 1:4 for S. *caribbaeus*), in having lower, smaller, and more widely spaced pseudopaxillae, and in having 10–40 very short spinules, while S. *caribbaeus* has six to ten spinules nearly as long as the pedicel. The arms are much shorter and fatter, and the dorsal tegument is thinner and much more inflated. The inferomarginals are confined to the actinal surface entirely, and do not define the actinal ambitus as in S. *caribbaeus*. The transverse row of subambulacral spines numbers six to eight, *vs.* three or four in S. *caribbaeus*, and they are shorter and not as stout. The actinal plates are mostly elongate, with 4–14 small, rather setose spinules, rather than round and bearing two to six relatively robust spinules as in S. *caribbaeus*.

Acknowledgments

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