ON SOME NEW AND LITTLE - KNOWN AUSTRALIAN ASTEROIDS.

By

ARTHUR A. LIVINGSTONE,

Assistant Zoologist, The Australian Museum, Sydney.

(Plates iv-viii.)

Every species referred to herein has been seen by Dr. H. L. Clark, of the Museum of Comparative Zoölogy, Cambridge, Massachusetts, United States of America, to whom I wish to express my sincere thanks for kind advice and assistance. Giving me his tentative opinion in each case where his advice was sought he allowed me every freedom in action, and so greatly do I value his opinion that, in most cases, I have adopted his suggestions after due consideration. As Dr. Clark's time was short when he visited the Australian Museum in November of 1929, he did not have an opportunity to investigate each species fully, so in fairness no blame for error in judgment, should there be any, can be ascribed to him.

Family GONIASTERIDÆ Forbes 1841 (emended). Sub-family GONIASTERINÆ Verrill 1899 (extended). Pseudogoniodiscaster gen. nov.

Diagnosis.—Rays tapering and blunt, moderately wide. Abactinal plates distinct, coarsely granulated, separated, except for faint line-like connecting plates which give the entire abactinal surface a reticulated appearance, by large papular areas. Papular areas with one or two minute pincers. Abactinal interradial plates enlarged; third from superomarginals the largest. Five large primary radial tubercles on disc forming a pentagon. Small bivalved pedicellariæ on infero- and superomarginal plates. Marginal plates of both series increasing in width from interradius to apex of ray, noticeably so in inferomarginals. Third superomarginal from apex of ray is the widest. The corresponding plate below in the inferomarginal series is slightly narrower, but is either the widest or as wide as any other in its series. Superomarginals and abactinals in some cases bear fairly large tubercles. Tubercles most numerous on superomarginals in interbrachial arc. Actinal surface smoothly granulated. Plates fairly well defined and provided with very large bivalved pedicellariæ as seen in Hippasteria and Anthenea. Adambulacral armature in three series. Long pincer-like pedicellariæ between spines of adambulacral armature.

Type.—Pseudogoniodiscaster wardi sp. nov.

Affinities.—Many characters possessed by the type species of this genus suggest alliance with both Goniodiscaster and Anthenea, but neither of these genera could claim Pseudogoniodiscaster wardi sp. nov. as a representative. Goniodiscaster possesses more characters in common with Pseudogoniodiscaster than Anthenea or any other known genus of the family Goniasteridæ, and they are as follows: a pentagon of five tubercles on disc; marginal plates of both series