

Asterinidæ the genera *Porania*, *Dermasterias*, and *Asteropsis*, which are now placed in the family Gymnasteriidæ. I maintain the composition of the family Asterinidæ as defined by Perrier<sup>1</sup> in 1875.

In addition to the genera enumerated by him I have included *Cycethra*, a form since described, whose structural characters seem to me to place it amongst the Asterinidæ. I have also added in the following list another genus, *Stegnaster* (n. gen.), which seems to me necessary. The type of *Stegnaster* is the starfish described by Hutton<sup>2</sup> under the name of *Pteraster inflatus*, and subsequently placed under *Palmipes* by Perrier.<sup>3</sup> I consider that the disposition of the papulæ, the membranous investment of the abactinal area (with the absence of the characteristic tufts of spines and the presence of granules), and the simple character of the armature of the adambulacral plates are sufficient to warrant the generic separation of this form from *Palmipes*. I also refer to the same genus *Asterina wesselii*, though not without some hesitation, as the examples I have seen of that species appear to me to be immature forms.

So far as I can judge from the description<sup>4</sup> and figure<sup>5</sup> of *Tremaster* given by Verrill, I consider that the genus also belongs to this family, but from want of knowledge of its structure, I am unable to say whether its affinities are nearest to *Palmipes* or *Asterina*. No remark is made by the author as to the function of the extraordinary interradial apertures, and no suggestion is offered as to whether they are in relation with papular organs, or lead to a nidamental cavity. The circumstance of their opening on both the abactinal and actinal surfaces would seem to be at variance with such a supposition.

### *Synopsis of the Genera included in the Family ASTERINIDÆ.*

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| A. Marginal plates large; and superficially phanerozonid in character . . . . .   | GANERINE.         |
| a. Spinelets on the abactinal plates spiniform, disposed in paxillæ-like groups. No differentiated median band; all the abactinal plates subsimilar. Marginal plates with a vertical group of spinelets. Actinal intermediate plates with small groups of spinelets . . . . .   | <i>Cycethra</i> . |
| b. Spinelets on the abactinal plates small, often in arcuate series. A more or less distinctly defined band of slightly differently shaped plates along the median radial line. Marginal plates with a vertical single series of spines forming a sort of comb. Actinal intermediate plates with large spines (1-2) not forming a group . . . . . | <i>Ganeria</i> .  |

<sup>1</sup> Révis. Stell. Mus., p. 28 (*Archives de Zool. expér.*, 1875, t. iv. p. 292).

<sup>2</sup> Cat. Echin. New Zealand, 1872, p. 10.

<sup>3</sup> Révis. Stell. Mus., p. 291 (*Archives de Zool. expér.*, 1876, t. v. p. 211).

<sup>4</sup> Proc. U.S. Nat. Mus., 1879, Nov., p. 201.

<sup>5</sup> Rep. Commiss. Fish and Fisheries for 1863, Washington, 1885, pl. xviii. fig. 51.