

Genital foramina opening upon the abactinal surface close to the marginal plates on each side of the odd interradial plate.

Remarks.—The genus *Benthopecten*, recently described by Verrill,¹ is stated to be furnished with abactinal plates covered with skin, usually bearing a single spine or sometimes two or three, but not forming true paxillæ. This character would seem to indicate an alliance with *Pararchaster*; but from the brevity of the description I cannot say whether this be near or remote, and I am for the same reason unable to indicate in the foregoing synoptic table the relative position of the genus in the family. No mention is made of the presence of any odd interbrachial marginal plate and spine, or of the limitation of the papulæ to the basal region of the rays,—characters which are so conspicuous in *Pararchaster*, and whose importance from a structural point of view could scarcely have been overlooked by a naturalist so well acquainted with starfish anatomy as Professor Verrill, had they been present in *Benthopecten*. Furthermore, no mention is made of the presence of any pedicellarian apparatus. On the other hand it is recorded that “a circle of four to six papillæ, placed singly, surrounds each plate.” If the word “papillæ” here stands for the organs which I call *papulæ* (following Stimpson), it would appear extremely doubtful whether *Benthopecten* would find a place even in the same subfamily as *Pararchaster*.

The subjoined scheme will assist in the ready recognition of the different species of the genus.

Synopsis of the Species included in the Genus Pararchaster herein described.

- A. No pedicellariæ of any kind. Single spinelets on the abactinal plates.
 - a. Abactinal area of disk plano. One supero-marginal spine. Adambulacral plates with two actinal spines. No line of thornlets on the infero-marginal plates *semisquamatus.*
 - b. Abactinal area of disk inflated. Two supero-marginal spines. Adambulacral plates with three actinal spines. A line of thornlets on the infero-marginal plates *antarcticus.*
- B. With special comb-formed pedicellariæ. Abactinal plates with one to three or more spinelets.
 - a. With pedicellariæ between each infero-marginal plate. *pedicifer.*
 - b. With no pedicellariæ between the infero-marginal plates.
 - a. One lateral spine on infero-marginal plates and a small companion. Adambulacral plates with six or seven furrow spines, one actinal and sometimes a small companion behind it. Abactinal plates with one or two spinelets, all simple. Comb-like pedicellariæ on the abactinal surface *armatus.*
 - b. Three or four lateral spines on infero-marginal plates. Adambulacral plates with four furrow spines, and two actinal side by side. Abactinal plates with several long needle-like spinelets interspersed amongst the simple ones. No comb-formed pedicellariæ on the abactinal surface *spinosisimus.*

¹ *Amer. Journ. Sci. and Arts*, Sept. 1884, vol. xxviii p. 218.