

with adambulacral plates prominent. Pedicellariæ valvate, foraminata or excavate

## Order PHANEROZONIA.

A. Marginal plates large and conspicuous; with the axes of the plates of the two series usually in parallel planes.

a. Apical plates decrescent. Abactinal skeleton with simple spiniferous spicules, with pseudo-paxillæ, or true columnar paxillæ. Tegumentary developments usually spiniform.

a. Marginal plates thin and lamelliform, naked, or covered only with membrane. Actinal areas paved with thin squamiform plates covered with delicate membrane. Cribriform organs present. Adambulacral plates with a simple marginal armature, uniserial

## PORCELLANASTERIDÆ

b. Marginal plates thick and massive, covered with spines or papillæ. Actinal areas small, plates when present covered with spines. No cribriform organs. Adambulacral plates with a complex armature, grouped or in several series.

a. Proctuchous. Devoid of superambulacral plates. Adambulacral plates large and not compressed. Pedicellariæ usually present

## ARCHASTERIDÆ

β. Aproctuchous. With superambulacral plates. Adambulacral plates short, and more or less compressed. Pedicellariæ rarely present

## ASTROPECTINIDÆ

b. Apical plates often increscent. Abactinal skeleton tessellate. Tegumentary developments usually graniform. Actinal interradial areas well developed.

a. Abactinal skeleton tessellate, the plates often more or less tabulate, with co-ordinated granules simulating paxillæ

## PENTAGONASTERIDÆ

b. Abactinal skeleton stellato-reticulate.

a. Abactinal plates with granules and tubercles. Actinal intermediate plates with large valvate pedicellariæ

## ANTHENEIDÆ

β. Abactinal plates with large conical spiniform tubercles. Actinal intermediate plates devoid of large valvate pedicellariæ

## PENTACEROTIDÆ

c. Abactinal skeleton tessellate, the plates often irregular and only partially contingent, covered with skin

## GYMNASTERIIDÆ

B. Marginal plates comparatively small and inconspicuous; with the axes of the plates of the two series convergent and not in parallel planes. Abactinal skeleton with lamelliform plates, imbricating, notched on one side, with spines on the free margins. Spines on the actinal intermediate plates. No pedicellariæ

## ASTERINIDÆ

II. Marginal plates small and inconspicuous. Papule not confined to the area circumscribed by the super-marginal plates, but often present between the marginal plates and on the actinal surface. Ambulacral plates more or less crowded and narrow. Actinostomial ring with ambulacral or adambulacral plates prominent. Pedicellariæ pedunculate or sessile, not foraminata

## Order CRYPTOZONIA.

A. Marginal plates small but persistent. Abactinal skeleton more or less fully developed. Parambulacral and actinal intermediate plates present; one or both more or less fully represented. Interbranchial septa usually present.