

is occupied with largely developed permanent primary plates, the regularly placed symmetrical interradials (basals), radials, and underbasals being especially prominent and conspicuous. The rays are covered with large, subhexagonal and slightly convex plates arranged in perfectly regular longitudinal lines, the plates diminishing regularly in size as they proceed outward, and those of the median line being the largest. The plates bear a few widely-spaced semicircular translucent granules, and a single large papula occurs in the interspace left at the angles of adjoining plates. Each adambulacral plate bears two short, thick, cylindrical spines, one directed towards the furrow and the other outward, which form two regular longitudinal series. External to the adambulacral plates is a complete longitudinal series of plates which bear two or rarely three spines placed side by side, and on the inner portion of the ray a few additional plates similarly armed form an incomplete pseudo-ventral series in large specimens. A few small pedicellariæ (forcipiform) are present on the lateral regions of the ray, and also, but less frequently, on the abactinal area in the neighbourhood of the papulæ.

“ In the Southern Ocean the genus *Hymenaster* occurs in depths varying from 1375 to 1950 fathoms, and *Brisinga* also shows a similar bathymetrical range. Both were dredged at three Stations, but were associated only at one, Station 146 (1375 fathoms). *Pararchaster*, though likewise found at three Stations in depths varying from 1600 to 1900 fathoms, occurs in company with *Brisinga* only at Station 147 (1600 fathoms); and this genus is not found associated with the Pterasteridæ in any area. The allied genus *Pontaster* occurs at Station 146 along with *Hymenaster* and *Brisinga* above mentioned. The genus *Leptoptychaster* is associated with *Brisinga* at Station 156, south of the 60th parallel, at a depth of 1975 fathoms, and is accompanied by an interesting new form, remarkable for the way in which it appears to unite the characters of Echinasteridæ and Goniasteridæ mimetically. *Chitonaster* is a small stellate Asterid, with convex and inflated disk and short rigid rays. The abactinal surface of disk and rays with short thick isolated and well-spaced rigid conical truncate spinelets, each appearing as if standing perpendicularly on a hexagonal plate, the whole surface at the base of the spines being covered with membrane. A double series of marginal plates are present, likewise hidden in membrane, the inferior the larger, and each plate with three spinelets similar to those above described, forming a line transverse to the axis of the ray; the supero-marginal plates with one or two spinelets. The armature of the adambulacral plates consists of three isolated spines forming a line transverse to the furrow and similar to the other spines. Actinal interradial areas very small. No pedicellariæ.

“ The Porcellanasteridæ are represented in the Southern Ocean only by a species of *Hyphalaster*, which occurs in company with *Hymenaster* at Station 157 at a depth of 1950 fathoms.

“ In the Eastern or Malay Archipelago only six genera of Starfishes occur at depths greater than 1000 fathoms. In the area north of the Equator are *Brisinga* and *Pontaster*,