

Genus *Benthaster*, Sladen.

*Benthaster*, Sladen, Journ. Linn. Soc. Lond. (Zool.), 1882, vol. xvi p. 242.

Form depressed. Marginal contour stellato-pentagonoid. Abactinal area convex. Actinal area plane.

Supradorsal canopy rudimentary. No muscular fibrous bands. No spiracula. Nidamental cavity more or less aborted. Paxillæ with subfascicular crowns; spinelets trilaminate, of extraordinary length, delicacy, and number, protruding the greater portion of their length naked beyond the supradorsal membrane. Paxillæ probably devoid of investing membrane. Papulæ simple, globular, sessile sacs, comparatively large. Special dorso-lateral (? supero-marginal) plates at the extremities of the rays. Ossicles of the abactinal surface cruciform, greatly attenuated, the whole calcareous framework being reduced to a minimum.

Adambulacral armature consisting of one or two spinelets, which are long, needle-shaped, independent, and not united by membrane. Aperture-papillæ more or less modified. Segmental apertures (?) aborted.

Mouth-plates of the *Hymenaster* type. Two pairs of secondary or superficial mouth-spines, robust, clavate, thorny, probably without saccular membrane. Mouth-spines proper two or three, the innermost resembling the anterior pair of secondaries, only rather smaller, the others pointed.

Actino-lateral spines merged in the actinal floor.

*Remarks.*—The superficial aspect of this genus recalls, to a certain extent, that of *Korethraster*, from which, however, it is structurally widely separate. The rudimentary supradorsal membrane, and the long, fasciculated, naked, paxillar spinelets, protruding far beyond the membrane, readily distinguish the genus from *Hymenaster*; whilst the simple independent armature of the adambulacral plates, not forming combs and not webbed, at once distinguishes *Benthaster* from *Marsipaster*, the only other form with which it can be compared.

*Chorology of the Genus Benthaster.*a. *Geographical distribution*:—

PACIFIC: Two species between the parallels of 40° N. and 10° S.

*Benthaster wyville-thomsoni*, from the Mid-North Pacific, near the meridian of 170° E. *Benthaster penicillatus*, off the north coast of New Guinea, south-west of the Admiralty Islands.

β. *Bathymetrical range*: 1070 to 2900 fathoms.

γ. *Nature of the Sea-bottom*: *Benthaster wyville-thomsoni* on Red clay; *Benthaster penicillatus* on Blue mud.