

Actinal interradial areas small, with intermediate plates arranged in regular columns, and bearing short skin-covered papillæ, three or four larger than the rest in the midst, forming a massive pedicellarian apparatus.

Adambulacral plates large, and longer than broad. Adambulacral armature consisting of short skin-covered spinelets, arranged in several longitudinal series, and one large pedicellaria formed of three or four modified papillæ.

Madreporiform body large and compound.

Anal aperture subcentral and distinct.

There are no superambulacral plates, but a ridge on the ambulacral plate suggests forcibly the appearance of a coalesced or incipient rudiment of that structure.

Remarks.—This is a well-marked and readily distinguishable genus. Although an unmistakable Archasterid, it may be said to hold a more or less intermediate position between *Dytaster* and *Leptoptychaster*—a genus which I have for the present at least felt warranted in ranking amongst the Astropectinidæ. Its nearest affinities are with *Dytaster*, but it is distinguished by the short, cylindrical, pointed rays, by the disproportionately small supero-marginal plates, as well as by a number of minor characters, which, being noted in the diagnosis above given, it is unnecessary to recapitulate. On the other hand, *Lonchotaster* approaches *Leptoptychaster* by the short marginal plates and the small superior series, but is widely separated from that form by the presence of the numerous pedicellariæ; by the compound madreporiform body; by the long, large, adambulacral plates, with their longitudinally disposed armature; and by the peculiar sacculate spinulation. *Lonchotaster* is further characterised by the absence of superambulacral plates, and by the unmistakable presence of an anal aperture.

Chorology of the Genus Lonchotaster.

a. *Geographical distribution:*—

ATLANTIC: One species between the parallels of 20° and 30° N.

Lonchotaster tartareus off the West Coast of Africa, between the Canaries and the Cape Verde Islands.

SOUTHERN OCEAN: One species between the parallels of 60° and 70° S.

Lonchotaster forcipifer in the neighbourhood of the pack ice of the Antarctic Circle, near the meridian of 95° E. longitude. It is also found South of Australia, near the meridian of 110° E. longitude.

β. *Bathymetrical range:* 1950 fathoms to 2400 fathoms.

Both species are confined to the Abyssal zone.

γ. *Nature of the Sea-bottom:* *Lonchotaster tartareus* is found on Globigerina ooze, and *Lonchotaster forcipifer* on Diatom ooze.