

- II. Madreporiform body simple, exposed. Adambulacral armature all spiniform, in coordinated groups, subastropectenoid. Adambulacral plates broad. (*Tethyaster*.)
- | | | |
|--|-----------|---------------------|
| A. Rays long. Marginal plates seventy to eighty in the adult | | <i>subinermis</i> . |
| B. Rays short. Marginal plates twenty to thirty in the adult | | <i>parelii</i> . |

Chorology of the Genus Plutonaster.

a. *Geographical distribution* :—

ATLANTIC : Five species between the parallels of 75° N. and 10° S.

Plutonaster rigidus and *Plutonaster rigidus*, var. *semiarmata*, off the east coast of the United States of America. *Plutonaster abbreviatus* and *Plutonaster notatus*, in the neighbourhood of the Azores. *Plutonaster bifrons* in the Façrøe Channel, off the coast of Portugal, and off the coast of North America (the latter occurrence on the evidence of a single immature specimen, which might belong to a variety). This species has also been obtained (*vide* Norman¹) in the Barents Sea between Spitzbergen and Nova Zembla, in lat. 73° 41' 12" N., long. 22° 58' 30" E., at a depth of 210 fathoms. The examples are stated to be young. *Plutonaster marginatus* in the South Atlantic, near the Island of Ascension.

PACIFIC : One species between the parallels of 30° and 40° S.

Plutonaster ambiguus, off the east coast of Australia, near Sydney.

β. *Bathymetrical range* : 210 fathoms to 1360 or 1700² fathoms.

All the species except *Plutonaster marginatus* belong exclusively to the abyssal zone. Of the remaining five, two only, *Plutonaster bifrons* and *Plutonaster ambiguus*, have been found in depths less than 1000 fathoms.

Greatest range of one species : *Plutonaster bifrons*, 210 to 1360 fathoms.

γ. *Nature of the Sea-bottom* : Two species, *Plutonaster rigidus* and *Plutonaster bifrons*, are found on the Blue mud, and *Plutonaster bifrons* is also found on Globigerina ooze. *Plutonaster ambiguus* is found on Green mud. *Plutonaster notatus* is found on Pteropod ooze ; the nearly allied *Plutonaster abbreviatus* on Volcanic mud: *Plutonaster marginatus* on Volcanic sand.

¹ In W. S. M. D'Urban on the Zoology of Barents Sea, *Ann. and Mag. Nat. Hist.*, ser. 5, vol. vi, 1880, p. 260.

² The uncertainty in the limit of greatest depth arises from not knowing at which of two stations *Plutonaster rigidus* was dredged.