

either as to the position of *Zoroaster* in the Stichasteridæ or of *Pedicellaster* in the Brisingidæ. The former seems to me to warrant classification in a distinct family, and *Pedicellaster*, on the other hand, differs so widely in character and structural details from *Brisinga* and its allies, that I cannot regard them as belonging to the same family. Although I feel much uncertainty as to whether the characters of *Pedicellaster* are of sufficient value to justify its recognition as the type of an independent family, the structure of the skeleton, the character of the tegumentary appendages, and the character of the water-vascular system present an assemblage of differences which, in my opinion, require recognition; and I therefore prefer, in the present state of knowledge of the anatomy of these little known forms, to retain the family Pedicellasteridæ, rather than relegate *Pedicellaster* to a subdivision of one of the allied families. The family as now recognised comprises the single genus *Pedicellaster*.

Genus *Pedicellaster*, Sars.

Pedicellaster, Sars, Oversigt af Norges Echinodermer, Christiania, 1861, p. 77.

Since the discovery of this genus in the North Atlantic area a number of forms have been referred to it, which indicate a wide range of distribution. Although I am inclined to think that the whole of the species now ranked as *Pedicellaster* may not ultimately be retained in the genus, the occurrence of representative forms in the higher latitudes of the Northern and Southern hemispheres is fully established. As to the relations of the intermediate and doubtful forms, I withhold for the present any expression of opinion, as I have not had an opportunity of examining specimens.

Chorology of the Genus *Pedicellaster*.

a. Geographical distribution:—

ATLANTIC: Seven species between the parallels of 82° N. and 60° S.

Pedicellaster typicus, off the Norwegian and Murman coasts, and off Nova Zembla, Jan Mayen, and Beeren Island. *Pedicellaster palæocrystallus*, off Grinnell Land at Discovery Bay and Cape Frazer. *Pedicellaster pourtalesi*, off Grenada and St. Kitts. *Pedicellaster margaritaceus* and *Pedicellaster sexradiatus*, dredged by the "Travailleur," the former at Station 39, the latter at Stations 3 and 5. *Pedicellaster octoradiatus* and *Pedicellaster sarsii*, off the Island of South Georgia.

SOUTHERN OCEAN: Two species between the parallels of 45° and 55° S.

**Pedicellaster scaber*, off Kerguelen Island. **Pedicellaster hypernotius*, off Marion Island.