

β. *Bathymetrical range*: 14 to 1808 fathoms.

Greatest range of one species: *Pedicellaster typicus*, 50 to 620 fathoms.

Of the other species *Pedicellaster margaritaceus* and *Pedicellaster sex-radiatus* only occur in the Abyssal zone. The remainder inhabit the Littoral zone, and are not recorded from greater depths, excepting *Pedicellaster pourtalesi*, which extends into the Continental zone.

γ. *Nature of the Sea-bottom*: *Pedicellaster typicus* is found on Clay (sometimes sandy) and Stones; *Pedicellaster palæocrystallus* on a hard bottom; *Pedicellaster pourtalesi* on fine sand; *Pedicellaster scaber* on Volcanic mud; and *Pedicellaster hypernotius* on Volcanic sand.

The species collected by the Challenger are indicated in the above list by an asterisk.

### Chorological Synopsis of the Species.

	Ocean.	Range in Fathoms.	Nature of the Sea-bottom.
<i>Pedicellaster hypernotius</i> . . . . .	Southern.	140	Volcanic sand.
<i>Pedicellaster margaritaceus</i> . . . . .	Atlantic.	670	...
<i>Pedicellaster octoradiatus</i> . . . . .	Atlantic.	14	...
<i>Pedicellaster palæocrystallus</i> . . . . .	Atlantic.	25 to 80	Hard bottom.
<i>Pedicellaster pourtalesi</i> . . . . .	Atlantic.	127 to 250	Fine sand.
<i>Pedicellaster sarsi</i> . . . . .	Atlantic.	...	...
<i>Pedicellaster scaber</i> . . . . .	Southern.	20 to 25	Volcanic mud.
<i>Pedicellaster sexradiatus</i> . . . . .	Atlantic.	1730 to 1808	...
<i>Pedicellaster typicus</i> . . . . .	Atlantic.	50 to 620	Clay (sometimes sandy); Stones.

#### 1. *Pedicellaster scaber*, Smith.

*Pedicellaster scaber*, Smith, 1876, Ann. and Mag. Nat. Hist., ser. 4, vol. xvii. p. 107; Phil. Trans., Zool. Kerguelen Island, 1879, vol. clxviii. p. 274, pl. xvi. fig. 3.

*Locality*.—Station 149D. Royal Sound, Kerguelen Island. January 20, 1874. Lat. 49° 28' 0" S., long. 70° 13' 0" E. Depth 20 to 25 fathoms. Volcanic mud. Surface temperature 41° 0 Fahr.

*Remarks*.—This is a well-marked species, and is not merely a variety of *Pedicellaster typicus*, as suggested by Danielssen and Koren.<sup>1</sup>

#### 2. *Pedicellaster hypernotius*, n. sp. (Pl. CV. figs. 5-7).

Rays five. R = 25 mm.; r = 5 mm. R = 5 r. Breadth of a ray at the base 5.25 mm.

Rays elongate, narrow, tapering very slightly; probably subcylindrical during life, more or less depressed in their present condition. Disk small, not distinguishable from the base of the rays. Interbranchial arcs acute.

<sup>1</sup> *Nyt Mag. f. Naturvidensk.*, Bd. xxvii. p. 274; Den Norske Nordhavs-Expedition, 1876-1878, Zoologi, xi. Asteroida, Christiania, 1884, p. 40.