

Chorological Synopsis of the Species.

	Ocean.	Range in Fathoms.	Nature of the Sea-bottom.
<i>Solaster abyssicola</i>	Atlantic.	843 to 1537	...
<i>Solaster earllii</i>	Atlantic.
<i>Solaster endeca</i>	Atlantic.	Shallow water to 150	Clay, Stones, and Sand.
<i>Solaster endeca</i> , var. <i>decemradiata</i>	Pacific.
<i>Solaster glacialis</i>	Atlantic.	191	Sandy clay.
<i>Solaster paxillatus</i>	Pacific.	345	Green mud.
<i>Solaster regularis</i>	Pacific.	175	Blue mud.
<i>Solaster subarcuatus</i>	Southern.	150	Coarse gravel.
<i>Solaster torulatus</i>	Pacific.	520	Volcanic mud.

1. *Solaster endeca* (Retzius), Forbes.

- Asterias aspera*, O. F. Müller, 1776, Zool. Dan. Prodr., p. 234, No. 2833.
Asterias endeca, Retzius, 1783, K. Svensk. Vet.-Akad. Handl. Bd. iv. 237.
Asterias (Solasterias) endeca, Blainville, 1834, Manuel d'Actinologie, p. 241.
Stellonia endeca, Agassiz, 1835, Mém. Soc. Sci. Nat. Neuchatel, t. i. p. 192.
Solaster endeca, Forbes, 1839, Mem. Wern. Soc. vol. viii. p. 121.
Solaster (Endeca) endeca, Gray, 1840, Ann. and Mag. Nat. Hist., vol. vi. p. 183.

Locality.—Station 48. South-west of Halifax, Nova Scotia. May 8, 1873. Lat. 43° 4' 0" N., long. 64° 5' 0" W. Depth 51 fathoms. Rock. Surface temperature 38°·0 Fahr.

2. *Solaster paxillatus*, n. sp. (Pl. LXXI. figs. 1-3; Pl. LXXII. figs. 1 and 2).

Rays nine. $R = 155$ mm.; $r = 50$ mm. $R > 3 r$. Breadth of a ray at the base about 28 mm.

The rays are elongate, attenuate, and tapering, having a more or less subcylindrical appearance, the tumidity of the sides hiding the infero-marginal paxillæ altogether when the starfish is viewed from above. The disk is large, and its abactinal surface is capable of a considerable amount of inflation, as is also the basal portion of the rays. The actinal surface of the disk is convex and prominent round the mouth, that of the rays is plane. The interbranchial arcs are acute, but were probably slightly rounded when the abactinal area was inflated during life.

The abactinal surface is beset with small, low, uniform, paxilliform groups of spinelets, which consist of ten to twelve short equal spinelets, standing almost erect, compressed together and imbedded in a membranous mass, the tips of all the spinelets being level. The paxillæ, which are exceedingly numerous, are closely placed, and the general appearance of the abactinal surface to the naked eye at a short distance thereby produced is that of a coarsely granular surface. Large single papulæ occur in the interspaces. No definite order of arrangement is distinguishable in the paxillæ, except at the sides of the