

provided, like the similarly formed four transverse rays, with fine outwardly directed prongs, and is smooth only on its inmost portion.

The *gastral skeleton* is quite similar. Here too pentacts of median size occur as hypogastralia. These have rough pointed extremities and a knob-like rudiment of the sixth ray, while the four cruciate transverse rays of the hexact pinuli, in which the freely projecting proximal ray is covered with scaly prongs like a fir cone, lie in the gastral membrane itself. The distal which is as long as the transverse rays, is like the latter beset, except in its inmost portion, with small outwardly directed prominences. They differ from the autodermalia only in this, that the freely projecting fir-cone-like ray is here somewhat more slender, although in both it runs out to a point.

Subfamily 2. SYMPAGELLINÆ.

Ovoid, thick-walled, usually (perhaps always) stalked goblets, with smooth, thin upper margin. Between the principal hexacts small discohexasters and long diacts.

Genus 1. *Sympagella*, O. Schmidt.

1870. O. Schmidt, Grundzüge einer Spongienfauna des atlant. Gebietes, p. 15.

1872. Gray, Ann. and Mag. Nat. Hist., ser. 4, vol. ix. p. 457.

1873. Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xi. p. 283.

1873. Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xii. p. 360.

1875. Marshall, Zeitschr. f. wiss. Zool., Suppl., p. 142, 1875.

1876. Marshall, Zeitschr. f. wiss. Zool., Bd. xxvii. p. 127.

1881. Milne-Edwards, Comptes rendus, xciii. p. 931.

History.—Under the name *Sympagella nux*, O. Schmidt described and figured a Hexactinellid obtained off Florida from a depth of 98 to 123 fathoms; it presented the form either of a single individual with an ellipsoidal body, about 1 cm. high, with a terminal osculum and a simple stalk, or of a branched stem with several terminal individuals of similar nature.

In the membrane covering the external surface of the body and lining the gastral cavity O. Schmidt found pentact pinuli with a rudimentary sixth ray, and in the latter situation also "nodular hexacts." In the parenchyma were numerous small hexacts with three barbs situated on the end of each ray. In the stalk were long tubercula united by transverse hour-glass-shaped connectives. It was probably on account of these ladder-like structures that Gray¹ in 1872 placed *Sympagella* along with *Farrea* in his family Farreadæ.

In 1873 Carter² discovered in *Sympagella nux* "rosettes with rays multitudinous, of unequal length, without heads, flexed outwards and arranged *en fleur-de-lis*; pappiform."

¹ Notes on the Classification of the Sponges, *Ann. and Mag. Nat. Hist.*, ser. 4, vol. ix. p. 457.

² *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xii. p. 361.