The slightly irregular dictyonal framework consists of moderately thick beams, somewhat uniformly beset with fine tubercles. The nodes of intersection exhibit no thickening, and on the bounding surface slender tubercle-like bosses of moderate length project freely (Pl. CI. fig. 3). The dermal membrane contains rough pentacts disposed regularly so as to form square meshes. In these spicules, the four uniformly long tangential rays end in a knot-like swelling, while the much longer proximal radial, which becomes narrower inferiorly, is simply rounded off or pointed. The parenchyma includes delicate oxyhexacts with somewhat undulating rays, which sometimes divide, and may also exhibit thickened points of intersection (Pl. CI. figs. 5, 6). More frequently sphæro-hexasters occur of variable size, and with a variable number of terminal rays. The principal rays are either moderately short, bearing six to eight knobbed terminals, about three times as long, somewhat markedly divergent and slightly curved (Pl. CI. fig. 8), or they are so shortened that they appear rather as a spherical thickening of the node of intersection. In the latter form the numerous, long knobbed terminal rays look like simple radii from a spherical centre (Pl. CI. fig. 7).

O. Schmidt notes that the form was dredged at Havanna, West Indies, from a depth of 158 fathoms.

Genus 4. *Myliusia*, Gray (Pl. CIII.).

1859. Gray, Proc. Zool. Soc. Lond., vol. xxvii. p. 437 ; Ann. and Mag. Nat. Hist., ser. 3, vol. v. p. 495 (*Myliusia callocyathes*).
1867. Gray, Proc. Zool. Soc. Lond., p. 492.
1869. Bowerbank, Proc. Zool. Soc. Lond., pp. 66, 334 (*Myliusia grayi*).
1870. O. Schmidt, Grundzüge einer Spongienfauna des Atlant. Gebiet.
1872. Gray, Ann. and. Mag. Nat. Hist., ser. 4, vol. ix. p. 442.
1873. Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xii. p. 349.
1875. Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xvi. p. 1.
1875. Marshall, Zeitschr. f. wiss. Zool., Bd. xxv., Suppl.
1876. Marshall, Zeitschr. f. wiss. Zool., Bd. xxvii.
1877. Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xix. p. 121.
1877. Sollas, Ann. and Mag. Nat. Hist., ser. 4, vol. xix. p. 43 (*Myliusia grayi*) ; and vol. xx. p. 285.
1877. Zittel, Abhandl. d. k. Baier. Akad.
1878. Marshall and Meyer, Mittheil. d. Zool. Mus. zu Dresden, Bd. ii. p. 261.
1879. O. Schmidt, Spongien der Meerbusens von Mexico, vol. i.
1880. O. Schmidt, Spongien der Meerbusens von Mexico, vol. ii.
1882. Weltner, Beiträge zur Kenntniss der Spongien.

History.—In 1859 Gray[1] described and figured a new sponge procured from the West Indies, which he regarded as representative of a new genus, and named *Myliusia*, with the specific name *callocyathes*.[2] The generic title was given in honour of Christlob Mylius, who was the first to describe the singular *Umbellularia groenlandica*. The

[1] *Proc. Zool. Soc. Lond.*, p. 439 ; *Ann. and. Mag. Nat. Hist.*, ser. 3, vol. v. p. 497.
[2] Properly, *callocyathus*, from κύαθος, a cup.