

cylinder about 25 centimetres in length by 5 centimetres in diameter. The walls are composed, as in *E. aspergillum*, of a fundamental square-meshed siliceous net-work, bands of spicules running longitudinally from end to end of the sponge, and transverse bands intersecting these at right angles. The spicules are in some cases straight and smooth: frequently four projecting knobs ranged round the centre of the shaft of the spicule show that in essential form the spicule is six-rayed; and often one of the side rays is strongly developed, and projects to a distance of half an inch or more from the surface of the sponge. The spicules are all free from one another, and those composing the bands can easily be teased asunder with a pair of needles. In this species, as in *E. aspergillum*, the corners of the square meshes are filled up—a pale-brown, corky-looking substance reducing them to round tube-like holes, and rising into spirally arranged ridges between them; but the ridges, instead of having a continuous glassy skeleton, have their soft substance supported by a multitude of delicate six-rayed separate spicules interspersed with the usual minute siliceous stars and rosettes. The sponge is hirsute with sheaves of feathered spicules, which project from the crests of the spiral ridges, and a series of like sheaves of great length replace round the mouth the fretted frill of the Philippine Islands form. The mouth is closed by a very delicate net-work of a gelatinous substance supported by sheaves of fine needles. The correspondence in form between its ultimate spicules and those of *E. aspergillum* appeared to be so close, that when I first saw this sponge I suspected that it might turn out to be the same thing under different conditions. I am now, however, convinced that the two species are entirely distinct. *Euplectella suberea* is not the only species of the genus living in the Atlantic. Fragments of at least two others have occurred to us, but they are too imperfect for description.

The tube of the Philippine examples of *Euplectella aspergil-*