

seem to show sufficient differences to fairly entitle them to generic rank; *Muricea* is therefore taken here as a genus in the sense of Verrill's subgenus, which is characterised as having species "in which the verrucæ are bilabiate, or have a prolonged lower lip. The spindles of the cœnenchyma and verrucæ similar, and usually stout, but sometimes slender and pointed." To which may be added, that the tentacles in repose are quite withdrawn into the calyx; the basal portions of the tentacles, however, are armed with needle or spindle-shaped spicules, which form an octoradiate incomplete operculum, which lies over the infolded tentacular portions of the polyps. The largest number of the described species are found on the west coast of America, a few are met with in the Atlantic. The Challenger collection contains but a single species, which appears to be new.

*Muricea bicolor*, n. sp. (Pl. XXIII. fig. 11; Pl. XXV. fig. 8).

† *Eunicea humilis*, Milne-Edwards, Hist. Nat. des Coralliaires, vol. i. p. 149.

The stem in this species forms a short, upright axis, arising from a flat base; branches are given off in a triradiate manner; these are sometimes short, simple, terminating in knob-like masses, and are given off at right angles; sometimes rather large, and nearly of the strength of the main stem, these are furnished with smaller branches in the same manner as in the principal axis; these last have also again small lateral twigs. The larger branches arise at obtuse angles, but soon bend upwards and run parallel to the main stem. The principal stem is 80 mm. high, and 3 mm. in diameter at its base. The larger branches are from 40 to 60 mm. long, with a basal thickness of 2 mm. The terminal branches reach to a length of from 15 to 24 mm., with a thickness of 2 mm. at their base, increasing to 2.5 mm. at the extremities. The branches are about 2 mm. apart. The cœnenchyma is thick and rough on the surface. On a section being made, two layers of spicules are seen, the outer layer, 0.7 mm. thick, with rough spindles unilaterally spined, of a yellowish-white colour; the inner layer of 0.3 mm. thickness, the spicules of a violet hue. The polyps are laterally compressed, with oval mouths, whose long diameters are turned to the stem. They are so flattened to the stem that only a small portion of the outer body-wall projects free; the outer margin of the body is a little protruded, and forms a short lip. The tentacular portions of the polyps are quite retractile, the basal portion of each tentacle is furnished with needle-shaped spicules, which help to form a rudimentary covering over the tentacles. The spicules of the cœnenchyma and of the polyps are on the exterior large, one-sided spiny spindles; the spines present the form of dentate, often branched eminences, which arise in two parallel rows from the spindles, and sometimes, becoming confluent, form spiny combs. In addition to these, there are branched spines from the whole spindle. Sometimes the spindle is short, while the spiny comb-like portions are strongly developed. In other cases one end of a spindle will be expanded into a series of branched spines and