

are beset with numerous, somewhat recurved, thin, pointed barbs, which surround the ray in irregular disposition (Pl. LX. fig. 5).

The dermal skeleton is formed of medium-sized oxypentacts, with comparatively long straight rays, which are, throughout their whole length, somewhat thickly beset with small pointed spines. The very ends of the four tangential rays are blunt and conical, while the proximal ray usually runs more gradually to a point. In the position of the undeveloped (sixth) distal radial ray, a rounded tubercle sometimes occurs. The equally large gastralia exhibit the same structure and similar disposition (Pl. LX. fig. 3).

Several fragments of a connected skeletal framework, belonging to the same species, were also trawled between the Marion and Crozets Islands (Station 147, lat. $46^{\circ} 16' S.$, long. $48^{\circ} 27' E.$), at a depth of 1600 fathoms, and a Diatom ooze ground. The completely macerated skeleton contained no trace of soft tissue or of isolated spicules.

Genus 11. *Euryplegma*, n. gen.

This genus contains only the one species *Euryplegma auriculare*.

Euryplegma auriculare, n. sp. (Pl. CII.).

Off Raoul or Sunday Islands, to the north-east of New Zealand (Station 170A, lat. $29^{\circ} 45' S.$, long. $178^{\circ} 11' W.$), from a depth of 630 fathoms, and a volcanic mud ground, two specimens of a plate-shaped Hexactinellid were trawled. They were, however, partly macerated and only fragmentary. The best preserved but broken specimen has the form of a semi-involute ear-shaped plate (Pl. CII. fig. 1). It measures 17 cm. in height, and 6 to 7 cm. in breadth. The macerated skeletal fragment of the other specimen forms a semitubular stalk or basal portion 2 cm. in diameter, and this is continued on into a closed plate 3 to 5 mm. in thickness, which forms the lower portion of a shallow funnel (Pl. CII. fig. 2). The upper portion is unfortunately broken off.

The convex outer surface of the involute ear-shaped specimen (3 to 5 mm. in thickness) seems comparatively smooth, but is penetrated by numerous long oval holes which lead into the runnels and ducts of the afferent canal system (Pl. CII. fig. 1). Near the upper end several of these cavities are covered by a membranous continuation of the thin sieve-like perforated dermal membrane (Pl. CII. fig. 3). The concave internal surface is very rough and uneven in comparison with the outer surface. In the upper portion there is a distinct system of longitudinal ridges with interjacent furrows about 2 mm. in breadth. Somewhat further down they are covered by transverse, arc-like, broad flat zones, so that transverse ridges 4 to 5 mm. in breadth cross at right angles over the deeper longitudinal ridges, and project into the interior. Still further down transverse arcs exhibit knots or cushion-like elevations about 3 mm. in diameter, and