

cells (Pl. VIII. fig. 8) through the stages shown in figs. 9 and 10, in which there are many nuclei in the fibre, but the cross striation is not yet present, and it has not broken up into fibrils, up to the completely differentiated tissue shown in figs. 11 and 12.

The nervous system and the dorsal tubercle are particularly well preserved, and are clearly visible in the specimen which is now mounted as a microscopic object (see Pl. VIII. figs. 14 and 15). There is a triangular peritubercular area in which the closely placed nerve ganglion and dorsal tubercle (Pl. VIII. fig. 14) are situated. This is a point in which the present species differs from *Salpa democratica-mucronata*, where the dorsal tubercle is considerably in front of the nerve ganglion.

The ganglion is of rounded form, with a large club-shaped sense organ (ocular) near its anterior end, and with a pair of laterally placed wing-like appendages (Pl. VIII. fig. 15, *ap.*). There are at least sixteen or eighteen distributory nerves given off from the ganglion, and they arise from its sides as well as from the ends. Four of the nerves, running two anteriorly and two posteriorly, are large, the rest are nearly all very small. On one of the smaller nerves springing from one side of the ganglion a small rounded granular mass is placed; this is possibly another sense organ (Pl. VIII. fig. 15, *s.o.*).

The large club-shaped sense organ attached near the anterior end of the ganglion (Pl. VIII. fig. 15, *op.*) is probably an organ of sight. It has a clear, transparent, concavo-convex disc on its free end, and behind that is a layer of somewhat ovate columnar cells, darkly pigmented of a reddish colour, which probably forms the retina. The short stalk is mainly cellular, and where it joins the ganglion there is another band of dark reddish pigmented cells (Pl. VIII. fig. 15).

The dorsal tubercle is very large, but has a simple structure. Its posterior end is embedded in the front of the ganglion. The edges of the elongated elliptical slit are formed of regularly placed columnar cells richly ciliated. The rest of the surface of the tubercle is also ciliated, which gives it a finely striated appearance (Pl. VIII. fig. 15).

There are three very young embryos (or ova) situated on the left side of the body, behind the endostyle, and between the sixth and seventh muscle bands. This specimen is therefore an aggregated or sexual form.

Salpa africana-maxima, Forskåhl.

Salpa maxima, Forsk., *Descrip. anim.*, p. 112, 1775.

Salpa africana, Forsk., *Descrip. anim.*, p. 116, 1775.

Salpa africana-maxima, Krohn, *Ann. d. Sci. Nat.*, (Zool.), ser. 3, tom. vi. p. 112, 1846.

Salpa africana-maxima, Traustedt, *loc. cit.*, p. 374, which see for further synonymy.

A single large *Salpa* obtained in the Southern Ocean is probably referable to the solitary form of this species. The locality is March 10, 1874, Station 159; lat. 47° 25' 0" S., long. 130° 22' 0" E.; surf. temp. 51°·5.