

All Porpitidæ probably pass during their metamorphosis through a larval stage, which is essentially identical with *Discalia*, and differs from it only in the absence of sexual palpons or gonostyles, bearing gonophores. The young larva of *Porpita linnæana*, which Alexander Agassiz has figured,¹ exhibits a larval stage which is a little more advanced, and forms the transition to the *Disconalia*-stage.

The phylogenetic importance of *Discalia*, therefore, is very great. On the one hand, it seems to indicate clearly the origin of the *Disconnectæ* from the *Trachomedusæ* (*Trachynemidæ*); on the other hand, all the other *Disconnectæ* may be derived from it as from a common ancestral genus.

Two species of *Discalia*, both inhabitants of the deep sea, were found by me in the Challenger collection. The first species, *Discalia medusina*, was taken in the centre of the Southern Pacific, at Station 288 (depth, 2600 fathoms), and is figured in Pl. XLIX. figs. 1-6. The second species, *Discalia primordialis*, was captured in the tropical Pacific, at Station 274 (depth, 2750 fathoms). The latter is distinguished from the former by a more flattened umbrella, and by eight longer (perradial) tentacles, between which eight shorter (interradial) were interpolated; but as its state of preservation was not sufficient, I give here only the description of the first well-preserved species.

Discalia medusina, n. sp. (Pl. XLIX. figs. 1-6).

Habitat.—Southern Pacific, Station 288, October 21, 1875; lat. 40° 3' S., long. 132° 58' W.; depth, 2600 fathoms.

Umbrella (fig. 1, view from below; fig. 2, from above; fig. 3, in profile; fig. 4, in meridional section).—The umbrella, which represents the nectosome, is subspherical, 0·2 to 0·4 mm. in diameter. A deep annular constriction separates the flatter exumbrella from the inflated and highly vaulted subumbrella. The latter bears in its equatorial zone a corona of eight simple tentacles, and beyond it a corona of eight gonostyles, which surround the central siphon.

Exumbrella (fig. 2).—The superior or apical face of the umbrella is rather flat, and exhibits an octoradial star of brown pigment, indicating the course of the eight perradial exumbrellar canals, or the superior vessels of the mantle. The apical stigma, or the superior opening of the central air-chamber, is situated in the centre of the pigment-star, whilst eight other stigmata, the outer openings of the eight interradian air-chambers, are placed between the eight rays of the dark pigment-star.

Limbus Umbrellæ (*uu*).—The circular margin of the umbrella is thickened and divided by eight perradial incisions into eight prominent flat interradian lobes. The whole margin is beset with a corona of the usual marginal glands (fig. 6) (compare p. 42 above).

¹ 57, pl. ix. figs. 1, 2.