

The genus *Porpalia* and the following *Porpema* together make up the subfamily Porpalidæ, characterised by a strongly vaulted, lenticular or nearly spherical, umbrella, which includes a mitriform or campanulate pneumatocyst; the distal margin of the latter being divided into radial lobes. The chitinous substance of this lobate pneumatocyst in the Porpalidæ is much thinner, more delicate, and softer than in the Porpittellidæ (*Porpittella* and *Porpita*), sometimes it resembles crumpled tissue-paper. The numerous marginal tentacles in *Porpalia* are arranged in eight regularly disposed radial bunches, whilst in *Porpema* they are equally distributed along the margin of the umbrella.

The genus *Porpalia* is founded upon a new species, *Porpalia prunella* (Pl. XLVIII.), well-preserved specimens of which were found in the Challenger collection, taken in the tropical Pacific (Station 222). The incomplete description of another species of this genus, founded upon a single specimen, was given in 1829 by Eschscholtz, under the name *Porpita globosa*.<sup>1</sup> He took this specimen in the tropical Atlantic, near the Cape Verde Islands. The exumbrella is in this Atlantic *Porpalia globosa* much smaller, but the tentacles larger than in our species from the Pacific.

The phylogenetic position of *Porpalia* is clearly indicated by its morphological relation to *Disconalia* on one hand, and to the *Porpula* larvæ of the other Porpittidæ on the other. It may be regarded as the common ancestral form of this family derived from *Disconalia* by the formation of a mouth on the distal ends of the gonostyles.

*Porpalia prunella*, n. sp. (Pl. XLVIII.).

*Habitat*.—Tropical Pacific, north of New Guinea, Station 222; March 6, 1875; lat. 12° 15' N., long. 146° 16' E. Surface.

*Umbrella* (fig. 1, as seen from above; fig. 2, in profile; fig. 3, in meridional section).—The umbrella is biconvex lenticular; its diameter amounts to 4 or 5 mm. (without tentacles and siphon). A deep submarginal ring-furrow separates the flat exumbrella from the biconvex body, the superior face of which is more strongly vaulted than the inferior. The equatorial diameter of the biconvex lens is twice as great as its vertical main axis.

*Exumbrella* (figs. 1–3, *ue*).—The superior or apical face of the umbrella is rather flat, with a shallow ring-furrow separating the central disc from the elevated peripheral margin. The central disc exhibits an elegant pigment-star with eight dark brown rays. Numerous stigmata are disposed in irregular rows between them.

*Limbus Umbrellæ* (figs. 1–3, *um*).—The free prominent border or limb of the umbrella is as broad as the radius of the central disc of the umbrella, and therefore half as broad as the equatorial radius of the lens. Its upper face is concave, the lower convex. The thickened margin is reflected upwards, and contains a single series of the usual muciparous glands (compare above).

<sup>1</sup> 1, p. 178, Taf. 16, fig. 4.