

nucleus. From its centre arises a conical mammilla, prolonged into a thin, cylindrical, S-like tubulus, the proboscis, which is about as long as the diameter of the capsule. The outer membrane of the capsule is thick and double-contoured; the inner is very thin, but distinct, and includes finely granulated protoplasm, and numerous spherical, clear vacuoles, each with some small granules. Nucleus spheroidal, depressed in the direction of the main axis, containing numerous dark, irregularly amœbiform nucleoli. The diameter of the nucleus is about equal to the radius of the central capsule. The extracapsular calymma is an alveolated sphere, the diameter of which is six to eight times that of the capsule. The inner part of it contains an irregular, blackish phæodium, which surrounds and hides the oral half of the central capsule.

Dimensions.—Diameter of the central capsule 0.16, of the nucleus 0.08, of the calymma 1.0 to 1.2.

Habitat.—Central Pacific, Station 271 to 274, surface.

Genus 657. *Phæodina*,¹ Haeckel, 1879, Sitzungsber. med.-nat. Gesellsch. Jena, Dec. 12, p. 4.

Definition.—Phæodiniida with three apertures to the central capsule (an astropyle on the oral pole of the main axis, and two lateral parapylæ on both sides of the aboral pole).

The genus *Phæodina* has the same structure of the central capsule as the majority of PHÆODARIA; one large main-opening or astropyle on the oral pole of the main axis, and two smaller lateral accessory openings or parapylæ on each side of the aboral pole: it is therefore a true Tripylean genus, like the majority of PHÆODARIA.

1. *Phæodina tripylea*, Haeckel (Pl. 101, fig. 2).

? *Tripylea* sp., R. Hertwig, 1879, Organismus d. Radiol., Taf. x. figs. 1, 11.

Central capsule spheroidal or lenticular, somewhat depressed in the direction of the main axis. Astropyle with a strongly ribbed, radiate operculum, scarcely one-third as broad as the diameter of the capsule, and prolonged into a short tubular proboscis. Parapylæ also with short tubular openings. The outer strong (double-contoured) membrane of the central capsule is separated from the inner thin (simple-contoured) membrane by a wide interval, filled up by a clear fluid or jelly; only at the three apertures both membranes are in direct connection. The granulated protoplasm contains numerous vacuoles, and surrounds a large spheroidal nucleus, with numerous small nucleoli. The voluminous calymma in a specimen, observed living, was alveolar, and the ramification of the pseudopodia, as well as the formation of the dark brown phæodium, very similar to that of *Dictyocha stapedia* (Pl. 101, fig. 10). Another specimen, figured in Pl. 101, fig. 2, exhibited the first stages of self-division; the reticulated nucleus and the radiate operculum of the astropyle were already doubled, and the two membranes of the capsule between them constricted in the median plane. To this species belong probably the two central capsules figured by R. Hertwig, *loc. cit.*

¹ *Phæodina* = Provided with brown pigment; φαίδιον.