The genus *Mitrophyes* among the Monophyidæ (Pl. XXVIII.) differs from all other Calyconectæ in the remarkable peculiarity that the convex exumbrella of the single nectophore is covered by a large concave scutiform bract, and that the contracted siphosome is retracted into the space between the former and the latter. We may assume that here the primary nectophore of the larva, instead of being lost, is converted into a permanent bract.

Siphons or Polypites.—Each cormidium of the Calyconectæ possesses constantly only a single siphon, and this is the manubrium of the medusome, the modified umbrella of which is the bract. A single long tentacle is always attached to the base of the siphon, between its dorsal side and the concave bract-wall. When the cormidium is detached from the common stem, and represents an independent free Eudoxia or Ersæa, it is therefore called a "Monogastric Calyconecta."

The siphons of all Calyconectæ are of similar form, of moderate or small size, very contractile. The four segments or parts of each siphon are usually very distinct, viz., (1) a short peduncle to which is attached the tentacle; (2) a hemispherical or subspherical basigaster with a thick wall; (3) an ovate or ellipsoidal stomach; and (4) a very mobile proboscis with the terminal mouth. (Compare Pl. XXVII. fig. 8, &c.)

The pedicle of the siphon (sp) is usually very short, sometimes rudimentary, and connects as a narrow cylindrical canal the gastral cavity of the former with the common alimentary cavity of the stem. The tentacle arises from it sometimes more proximally, at other times more distally; sometimes even more from the following part.

The basigaster (sb), or the bulbous basal portion of the siphon, is usually subspherical or ellipsoidal, and distinguished by a much-thickened exodermal wall; this is filled with innumerable densely crowded nematocysts. Its outer and inner surfaces bear a vibratile epithelium. Its small ovate cavity is separated from the stomach by a pyloric valve, which can be closed completely.

The stomach (sm) is ovate or ellipsoidal, with a thin, non-ciliated exoderm; its entoderm, however, is very thick, glandular, and often exhibits eight or sixteen hepatic stripes (often of a yellow, red, or orange colour), sometimes instead of these hepatic villi; some of the entoderm cells are usually vacuolate.

The proboscis (sr) or the distal portion of the siphon, is very contractile and extensile, with a strong muscular plate; its free distal end opens through the mouth. The very mobile mouth may be expanded in the form of a suctorial disc, circular, or polygonal; it is often octolobate (more rarely with four, twelve, or sixteen lobes).

Tentacles.—The capturing filaments or tentacles of the Calyconectæ exhibit in all members of this order essentially the same structure, and are very uniform, compared with the manifold and richly varied forms which we find in the similar tentacles of the following order—Physonectæ. In all Calyconectæ, without exception, each siphon bears at its base a single, tubular, very long and extensile tentacle, which is beset with a single