Genus 11B. Cucubalus, Quoy et Gaimard, 1824 (MS.).

Cucubalus, Blainville, Manuel d'Actinologie, 1834, p. 130.

Definition.—Eudoxidæ with a conical, spathiform or cordiform bract, obliquely bevelled on the ventral side, evenly convex on the smooth dorsal side, pointed at the apex. Phyllocyst simple, ovate. (Eudoxiæ of the genus Muggiæa.)

The genus Cucubalus was founded by Quoy and Gaimard (2, pl. iv. figs. 24, 27) upon a Eudoxia from the Tropical Pacific, which Blainville afterwards described as Cucubalus cordiformis (24, p. 130). It may be, perhaps, the monogastric generation of Muggiæa chamissonis (=Diphyes chamissonis, Huxley, 9, pl. i. fig. 3). The best known representative of the genus is the Mediterranean Cucubalus eschscholtzii, which was described by Busch as Eudoxia eschscholtzii.<sup>2</sup> Its development from the polygastric Muggiæa kochii, and the regular metagenesis of these two forms, were afterwards described very accurately by Chun (86, 87). A similar and nearly allied species was observed by me in 1866 in the Canary Island, Lanzerote, and I found it again in some bottles from the Challenger collection taken in the Tropical Atlantic (Stations 348, 352). This Atlantic species may retain the name of Cucubalus pyramidalis, and its polygastric generation Muggiæa pyramidalis, with respect to the original names of Busch and Will (compare Chun, 85).

The genus Cucubalus is closely allied to the following Cucullus, the monogastric generation of Diphyes. It differs from the latter in the smooth and edgeless shape of the bract, which is more rounded and not pyramidal.

## Genus 12. Cucullus,3 Quoy et Gaimard, 1824 (MS.).

Cucullus, Blainville, Manuel d'Actinologie, 1834, p. 131.

Definition.—Eudoxidæ with a cowled or cucullate, sometimes three-sided pyramidal bract, open at the bevelled ventral side, evenly convex, or sometimes with three incomplete edges on the dorsal side, pointed at the apex. Phyllocyst simple and conical. (Eudoxiæ of the genus Diphyes.)

The genus Cucullus contains those monogastric Eudoxidæ which arise from the polygastric genus Diphyes, in the restricted sense in which recent authors have employed it, and which we have accepted. The bract is irregularly conical, or pyramidal, with a deep ventral fissure, which passes into the obliquely truncated cavity. Its dorsal face is either evenly convex, or slightly three-sided, its apex pointed. The inferior half of the spathiform bract embraces the included siphon and gonophore like a mantle, and

<sup>3</sup> Oucullus = Cowl.