

often one of its free ventral margins overlaps the other; the superior half is comparable to the cowl of the mantle, and includes the simple ovate ascending phollocyst. The free inferior part of the mantle-lobes often exhibits two small prominent teeth.

The genus *Cucullus* was founded by Quoy and Gaimard upon an Australian Eudoxia, which they figured first under the name *Diphyes cucullus* (2, p. 92), synonymous with *Eudoxia lessonii* of Eschscholtz (1, p. 126). Blainville called the former in 1834 *Cucullus doreyanus* (24, p. 131), and Lesson himself separated the latter as *Cucullus lessonii* (3, p. 459). Indeed the genus *Cucullus* of the French authors (published in 1834) is identical with *Eudoxia* of Eschscholtz (1829). But since Gegenbaur and Leuckart, in 1853, demonstrated that the Eudoxiæ are the isolated cormidia of Diphyidæ, the term *Eudoxia* is generally used for all these "Diphyozoids" (Huxley, 1859, 9, p. 57). It seems, therefore, best, to avoid further confusion—to employ the term *Cucullus* for the monogastric generation of those Diphyidæ which constitute the genus *Diphyes* in the strictest sense (compare below, Genus 27). The typical and oldest species remains *Cucullus lessoni*, as the free Eudoxia of the Pacific *Diphyes appendiculata*, Esch.

Scarcely different from *Cucullus* is the genus *Cucubalus* of Quoy and Gaimard. This genus, however, may be retained for the Eudoxiæ of the Monophyid *Muggiæa*, which are very similar to those of *Diphyes*. (Compare the preceding genus.)

Many bottles of surface animals in the Challenger collection contained specimens of Eudoxiæ belonging to *Cucullus*, and in some cases it was possible to demonstrate their connection with a species of *Diphyes* contained in the same bottle as the former. Supported by the comparative study of these forms, and of similar forms compared in other collections, and partly observed living by myself, I have been led to state the ontogenetic connection of the following species of monogastric *Cucullus* with corresponding species of polygastric *Diphyes*:—

1. *Cucullus lessoni*, Lesson (3, p. 459), synonymous with *Eudoxia lessonii*, Eschscholtz (1, p. 126), is the free Eudoxia of *Diphyes appendiculata*, Esch. (1, p. 138), taken in the Pacific.
2. *Cucullus gracilis*, Hkl., synonymous with *Eudoxia bojani*, Esch. (1, p. 125) and Huxley (9, p. 59), is the free Eudoxia of *Diphyes gracilis*, Hkl., taken in the Southern Pacific and in the Indian Ocean.
3. *Cucullus elongatus*, Hkl., is the free Eudoxia of *Diphyes elongata*, Hyndman (64, p. 166), occurring in different parts of the Northern Atlantic, Gulf Stream, &c.
4. *Cucullus gegenbauri*, Hkl., synonymous with *Eudoxia messanensis*, Ggbr. (7, Taf. xvi. fig. 4), is the free Eudoxia of *Diphyes sieboldii*, Köll. (4, Taf. xi.), Mediterranean and Tropical Atlantic.