

terminal; near the centre of the former stands a large petasma, beyond which, on the same surface, is a small projecting calcareous process. The second pair of pleopoda differs from the first in being biramose, the inner branch being short and robust, lobed at the base, obtusely pointed and anteriorly obliquely truncate. The third pair of pleopoda is shorter than the preceding, the two rami are similar in character, but the inner branch is somewhat stouter at the base than the outer. The fourth pair of pleopoda is shorter than the third, and the fifth is shorter than the fourth.

The posterior pair, which forms the outer branches of the rhipidura, has a short basal joint and two long foliaceous branches, the inner of which is fringed with long hairs and is twice the length of the telson, while the outer is about one-fourth longer than the inner and furnished with a small tooth near the distal extremity of the outer margin, the inner margin being fringed with long hairs.

Length, 9 mm. (0.36 in.).

*Female*.—In general aspect the female bears a close resemblance to the male, and even the differences other than sexual, which I have been able to determine, are such as may not be constant in all specimens. The one under examination is a little larger than the male; it has the ophthalmopoda relatively a little shorter, and the phymacerite slightly longer. It has the first pair of pereopoda shorter than the second pair of gnathopoda. The pointed processes on the lateral margins, at the base of the pleopoda, are larger and more conspicuous than in the male. The sixth somite has the lateral margins furnished with a single tooth, and that a very small one, one-third of the length distant from the posterior extremity. The pleopoda are generally longer and more slender; the first pair is single-branched and free from the secondary sexual appendage; the second and following pairs are biramose and slender; the terminal pair resembles that of the male. The telson is free from the inferior lobe, terminates in two small spines, and is flanked on each side by another still smaller.

Length, 10 mm. (0.4 in.).

*Habitat*.—Arafura Sea; near Station 270, Mid-Pacific, lat. 2° 34' N., long. 149° 9' W.; Philippine Islands; Port Jackson (female); off Samboangan; West Pacific; Mid-Pacific; St. Paul's Rocks; Tropical part of Atlantic; North Atlantic.

*Lucifer reynaudii*, Milne-Edwards (Pl. LXXXIV.).

*Lucifer reynaudii*, Milne-Edwards, Hist. Nat. Crust., t. ii. p. 469.

*Male*.—Cephalon anteriorly produced in advance of the epistoma to about one-fifth of the length of the animal; dorsal surface produced to a sharp rostrum; a prominent tooth is produced on each side at the inferior antennal angle. The pereion is about one-third shorter than the cephalon; it is deeper posteriorly than anteriorly, and