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PAPERS FROM THE HOPKINS STANFORD GALA-
PAGOS EXPEDITION, 1898-1899.

VI.

THE ISOPODS.

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THE Isopods, collected by the Hopkins Stanford Expedition, comprise four species of which two, new to science, are here described. One of the new species comes from Clipperton Island; the other was collected at sea about 300 miles north of Galapagos. The two species previously known are for the first time recorded from the localities cited.

Family TANAIIDÆ.

TANAIIS STANFORDI sp. nov.

Description of Male.—Head very broad at base, attenuated anteriorly, where it is produced straight forward, forming a sort of neck. The anterior margin of this projection has a triangular median point, on either side of which the first pair of antennæ are inserted in the depression formed by the median point and the acute antero-lateral angles of the projection. The eyes, which are black and distinct, are situated in these lateral angulations. The first pair of antennæ are composed of three joints each, the first joint very much elongated, about equal to two-thirds the length of the head; the other two joints

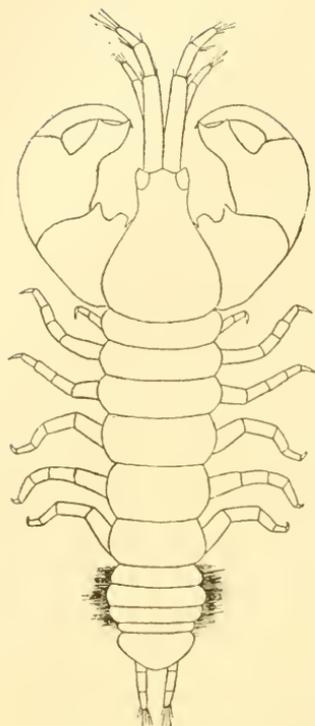


FIG. 58. *Tanais stanfordi*, male.

are short, subequal, both together but little longer than half the length of the first joint. The second pair of antennæ extend only to the end of the second joint of the first pair. Both pairs of antennæ terminate in long hairs.

The first thoracic segment is coalesced with the head. The second segment is short, the next two equal in length and longer than the first. The last three are subequal and the longest.

There are five abdominal segments, including the terminal one. The first three are subequal in length; the fourth is half as long as any of the preceding ones; the terminal segment is rounded posteriorly.

The three pairs of pleopods are densely setose. The uropods are single-branched, each branch composed of three joints.

The first gnathopods have the hand strongly chelate and very large, the finger and thumb gaping. The finger is long and curved; the thumb elongated and squarely produced; the upper surface is provided with two teeth, a slight depression separating them. The carpus is produced at the upper inner angle in a strong tubercle.

The first pereopods are very small, feeble and almost inconspicuous; the second pair longer, but not quite as long as the other four pairs, which are equal in length.

Description of Female.—Head broad at base and attenuated anteriorly, but not produced in a straight process as in the male. The anterior margin has a triangular median point on either side of which the first pair of antennæ are inserted in the depression formed by the median point and the antero-lateral angles. The eyes are situated as in the male. The first pair of antennæ are much shorter than those of the male. The first joint is longest, equal to one-third the length of the head, the two following joints are subequal and



FIG. 59. *Tanais stanfordi*; hand of male.

both together as long as the first joint. The second pair of antennæ do not quite reach the end of the second joint of the first pair.

The thoracic segments are similar to those of the male.

The abdomen and the uropods are also similar to those of the male.

The gnathopods have the hand strongly chelate, but very much smaller than the hand of the male, the finger and thumb not gaping. The pereopods are all alike and of equal length.

Color of specimens white with more or less numerous markings of brown.

A number of specimens of both males and females were found at Clipperton Island Lagoon.

Type, U. S. National Museum. Cat. No. 25172.

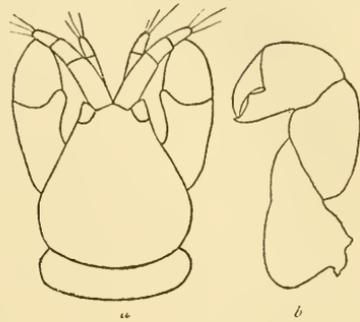


FIG. 60. *Tanaïs stanfordi*. a. Head of female. b. Hand of female.

Family CYMOTHOIDÆ.

ÆGATHOA EXCISA sp. nov.

Description.—Body narrow, elongate, three and a half times longer than broad.

Head quadrangular, the front produced over and beyond the basal joints of the antennæ, the anterior margin of which is deeply excavate, the lateral margins rounded. Eyes large, occupying the greater part of the area of the head, but not contiguous. The first pair of antennæ extend a little beyond the posterior margin of the head, and are composed of eight joints. The second pair of antennæ are equal in length to the first pair, and are composed of about fourteen joints.

The first and fifth thoracic segments are somewhat longer than any of the others. The epimera are short, not reaching beyond the posterior angles of their respective segments, but all equalling these segments in length.

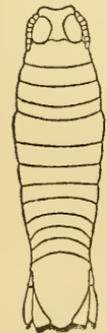


FIG. 61.
Ægathoa excisa.

All of the first five abdominal segments are distinct and subequal; terminal segment is about equal in length to the five preceding ones, is triangularly shaped, with rounded extremity, and has a lateral incision on each side near the posterior

margin. At the base of this segment there is a deep depression. The uropods do not surpass the terminal segment. The outer branch is narrow, lanceolate; the inner branch is broad, truncate; both branches are equal in length.

The color of the entire body is a dark bluish gray with the exception of the terminal segment and the uropods, which are a light yellow.

One specimen was taken from the fin of a dolphin (*Coryphæna hippurus*) in 5° N. lat., 90° W. long.

Type U. S. National Museum. Cat. No. 25173.

Meinertia gaudichaudii (Milne-Edwards).

- Cymothoa gaudichaudii* Milne-Edwards, Hist. Nat. Crust., III, p. 271.
Ceratothoa rapax HELLER, Reise Novara, Crust., p. 146, pl. XII, f. 17.
Ceratothoa gaudichaudii SCHIGEDTE and MEINERT, Naturhistorisk Tidsskrift (3), XIII, 1881-83, p. 335-340, pl. XIII, figs. 11-15, pl. XIV, figs. 1-5.
Meinertia gaudichaudii STEBBING, Hist. Crust., 1893, p. 354.

Black Bight, Albemarle Island, Galapagos Islands; 200 miles north of Wenman Island, Galapagos Islands.

Family LIGIIDÆ.

Ligia exotica (Roux).

- Ligia exotica*, ROUX, Crust. Médit., p. 3, pl. XIII, fig. 9.—Budde-Lund, Crust. Isop. Terrestria, pp. 266-268, 1885.
Ligia gaudichaudii, MILNE-EDWARDS, Hist. Nat. des Crust., III, p. 157.—DANA, Exp. Ex., p. 741, pl. XLIX, figs. 6^{a-b}.—NICOLET in Gay's Hist. Chile, III, p. 265.
 (?) *Ligia (Italica) coriacea*, KOCH, Deutschl. Crust., p. 36.

Guadalupe and Clipperton Islands.