

DESCRIPTIONS OF A NEW GENUS OF ISOPODA BELONGING TO THE FAMILY TANAIDÆ AND OF A NEW SPECIES OF TANAIIS, BOTH FROM MONTEREY BAY, CALIFORNIA.

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About eight specimens of the two new species to be described were collected at Monterey Bay, California, by Mr. Harold Heath and sent to the United States National Museum. One of these species represents a new genus, *Pancolus*, the diagnosis of which is given below.

PANCOLUS, new genus.

Eyes present, distinct. First pair of antennæ composed of three articles. Second pair of antennæ composed of five articles. First thoracic segment permanently united with the head to form a carapace. The following six segments are free and distinctly separated. The abdomen is composed of only three segments, two segments anterior to the terminal segment. There are but two pairs of well-developed pleopoda. The uropoda are single branched and consist of a peduncle and a branch composed of a single article. The first pair of legs are chelate. All the following six pairs are ambulatory.

PANCOLUS CALIFORNIENSIS, new species.

Body narrow, elongate, $5\frac{1}{2}$ mm. long, and almost $1\frac{1}{2}$ mm. wide.

Head as wide as long, $1\frac{1}{2}$ mm. : $1\frac{1}{2}$ mm., with the anterior margin somewhat triangular between the eyes, which are placed in the extreme antero-lateral angles. The head anteriorly is about half as wide as it is posteriorly. The first pair of antennæ have the first article large and robust, about half as wide as long; the second article is half as long as the first; the third is a little shorter than the second and terminates in a bunch of hairs. The second pair of antennæ are shorter than the first, reaching only to the end of the second article of the first pair of antennæ. The first article is longest, being three times longer than the second; the third is about twice as long as the second; the fourth is more than one and a half times longer than the second; the fifth is minute and terminates in a bunch of hairs.

The first segment of the thorax is coalesced with the head to form a carapace. The second or first free segment is a little shorter than any of those following. The third and fourth or second and third free segments are subequal; the last three are subequal, and each is a little longer than either of the two preceding segments.

The abdomen is composed of three segments, two short ones followed by the terminal segment, which is rounded posteriorly. The uropoda

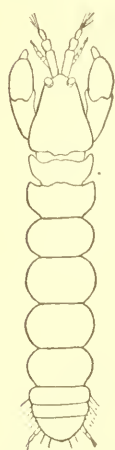


FIG. 1.—PANCOLUS CALIFORNIENSIS. $\times 9$.

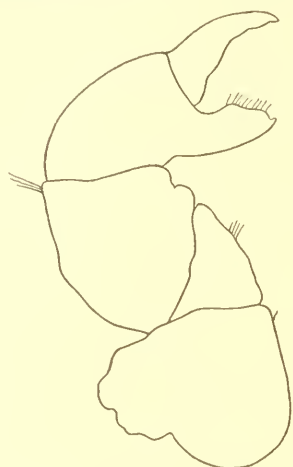


FIG. 2.—PANCOLUS CALIFORNIENSIS. FIRST GNATHOPOD. $\times 20$.

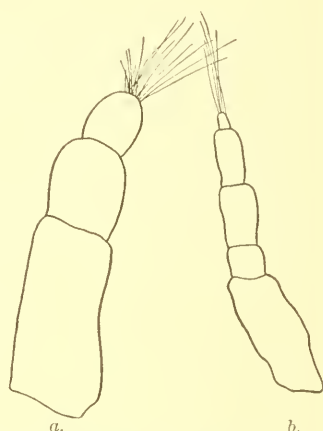


FIG. 3.—PANCOLUS CALIFORNIENSIS. *a*, FIRST ANTENNA. $\times 14$. *b*, SECOND ANTENNA. $\times 14$.



FIG. 4.—PANCOLUS CALIFORNIENSIS. MANDIBLE. $\times 41$.

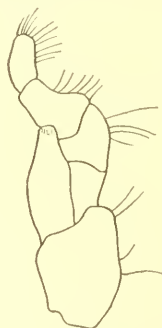


FIG. 5.—PANCOLUS CALIFORNIENSIS. MAXILLIPED. $\times 44$.



FIG. 6.—PANCOLUS CALIFORNIENSIS. EPIGNATH OF MAXILLIPED. $\times 44$.

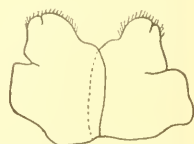


FIG. 7.—PANCOLUS CALIFORNIENSIS. POSTERIOR LIP. $\times 44$.

are single branched. The peduncle is short. The branch consists of a single article, tipped with long hairs. There are but two pairs of well-developed pleopoda.

The first pair of legs or gnathopods are chelate. The second pair of legs are long and feeble, but similar to those following, which are ambulatory, but more robust. The dactyli in the last three pairs are curved.

Six specimens of this species were collected by Mr. Harold Heath at Monterey Bay, California.

The types are in the U. S. National Museum. Cat. No. 30614, U.S.N.M.



FIG. 8.—PANCOLUS CALIFORNIENSIS. FIRST MAXILLA. $\times 44$.

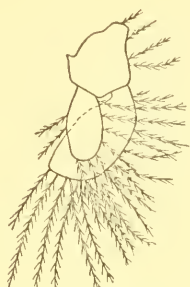


FIG. 9.—PANCOLUS CALIFORNIENSIS. FIRST PLEOPOD. $\times 44$.

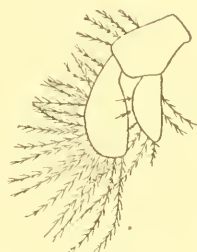


FIG. 10.—PANCOLUS CALIFORNIENSIS. SECOND PLEOPOD. $\times 44$.

TANAIS NORMANI, new species.

Body narrow, elongate, 4 mm. long. : $\frac{3}{4}$ mm. wide.

Head as wide as long, with the anterior margin triangulate between the eyes, which are situated at the extreme antero-lateral angles.

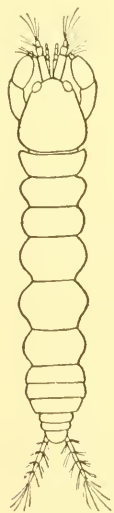


FIG. 11.—TANAIS NORMANI. $\times 11\frac{1}{2}$.



FIG. 12.—TANAIS NORMANI. FIRST GNATHOPOD. $\times 44$.

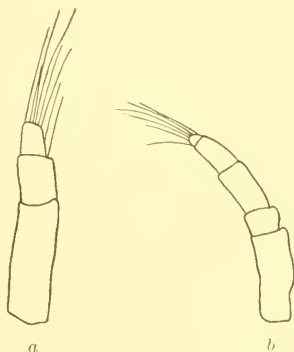


FIG. 13.—TANAIS NORMANI. *a*, FIRST ANTENNA. $\times 44$. *b*, SECOND ANTENNA. $\times 44$.

The head is half as wide anteriorly as it is posteriorly. The eyes are small, but distinct. The first pair of antennae are composed of three articles, and have the first article longest, about two and a half times longer than wide; the second article is half as long as the first; the third is a little shorter than the second, and terminates in a bunch of

long hairs. The second pair of antenna are composed of five articles and have the first article about three times as long as the second; the third is twice as long as the second; the fourth is one and a half times longer than the second; the fifth article is minute and terminates in a bunch of hairs.

The first segment of the thorax is united with the head to form a carapace. The second or first free segment is the shortest of all; the third and fourth or second and third free segments are nearly equal in length, the third being perhaps a little longer; the fifth and sixth or fourth and fifth free segments are subequal and are the longest; the sixth or seventh free segment is about equal in length to the third free segment.

The abdomen is composed of six segments. The first three are subequal in length and carry on the ventral side three pairs of well-developed pleopoda. The two following segments are subequal, and each about one-half as long as any of the three preceding segments and about one-half as wide, being abruptly narrower. These segments do not carry pleopoda. There are thus only three pairs of pleopoda. The sixth or terminal segment is as wide as the two preceding segments and is rounded posteriorly. The uropoda are single branched; the peduncle is followed by a five-articulate branch.

The first pair of legs or gnathopods are chelate. The following six pairs of legs are ambulatory.

Only three specimens of this species were collected by Mr. Harold Heath at Monterey Bay, California.

The types are in the U. S. National Museum. Cat. No. 30615, U.S.N.M.

This species differs from *Tanais alascensis* Richardson in having the abdomen composed of six segments, while in *T. alascensis* it is composed of five segments; in having the uropoda composed of a peduncle and five articles, while in *T. alascensis* the uropoda are composed of a peduncle and six articles; and in the smaller size of the specimens.