

DESCRIPTIONS OF A NEW GENUS OF ISOPOD CRUSTACEANS, AND OF TWO NEW SPECIES FROM SOUTH AMERICA.

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Six species heretofore referred to the genus *Cirolana* are herein transferred to a new genus, of which *Cirolana orientalis* Dana is designated as the type. Two new species of the genus are also described, one collected on the east coast and the other on the west coast of South America. Only one of the six known species is from South America, the others being from North America and the Orient.

EXCIROLANA, new genus.

Head with the front produced in the middle in a process which separates the basal articles of the antennæ and extends anteriorly, becoming dilated at its extremity and confluent with the frontal lamina.

All the segments of the abdomen with the sides free, those of the fifth not covered by the lateral angles of the preceding segment.

Uropods and terminal segment of abdomen furnished with long plumose hairs, the outer margin of the external branch being always naked.

Pleopods with both branches long, slender, and tapering.

Mouth parts as in the genus *Cirolana*.

*Type of the genus.*—*Cirolana orientalis* Dana, from the Sulu (Jolo) Sea.

The other species referred to this genus are:

*Exciorolana armata* (Dana), from Rio Janeiro, Brazil;

*Exciorolana mayana* (Ives), from Yucatan;

*Exciorolana linguifrons* (Richardson), from Monterey Bay, California;

*Exciorolana chiltoni* (Richardson), from San Francisco, California;

*Exciorolana japonica* (Thielemann), from Japan;

and the two new species described herein.

## EXCIROLANA CHILENSIS, new species.

Body oblong-ovate and very convex. Color, in alcohol, yellow, marked with scattered arborescent black markings.

Head large, wider than long, with the front excavate between the antero-lateral angles and the median process for the reception of the basal articles of the first antennæ. Antero-lateral angles obliquely truncate. The anterior margin is produced in the middle in a long, narrow process between the basal articles of the first antennæ and becomes dilated at its extremity, which is continuous with the frontal lamina. The eyes are large and subquadrate and extend half the length of the lateral margin. The peduncle of the first antennæ is composed of three articles, the first two of which are subequal and dilated,

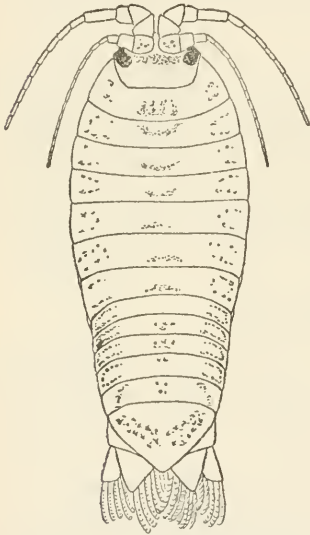


FIG. 1.—EXCIROLANA CHILENSIS X6.

being about as wide as long; the third article is shorter and narrower than either of the other two; the flagellum is composed of 15 articles and extends to the posterior margin of the third thoracic segment. The second antennæ have a peduncle composed of 5 articles, the first two of which are directed forward, the basal one being concealed in a dorsal view by the first antennæ; the first 4 articles are short, the fifth being much longer than any of the others; the flagellum is broken off at the ninth joint.

The segments of the thorax are subequal. All, with the exception of the first, are provided with wide, subquadrate epimera. The greatest width of the thorax is 4 mm.

The first 5 segments of the abdomen are short and subequal, all visible in a dorsal view, the fifth being free at the sides, which are not covered by the fourth segment. The sixth or terminal segment is wider than long,  $2\frac{1}{2}$  mm.:  $1\frac{1}{2}$  mm., and is triangularly produced at its posterior extremity. The length of the entire abdomen is 4 mm. The peduncle of the uropoda is produced at its inner extremity; the inner branch is wide and has the posterior extremity obliquely truncate; the outer branch is about half as wide as the inner branch and also has the posterior extremity obliquely truncate, but less so than the inner branch. The posterior margin of the terminal abdominal segment as well as the posterior margin of the uropoda is fringed with long plumose hairs.

The first three pairs of legs are prehensile, the last four pairs ambulatory; all are furnished with spinules.

Only one specimen was obtained by the U. S. Bureau of Fisheries steamer *Albatross* off Lota, Chile, at a depth of 677 fathoms in yellow mud.

*Type-specimen*.—Cat. No. 43654, U.S.N.M.

This species differs from all the known species of the genus in the form of the head, which has the antero-lateral angles produced and obliquely truncate, and in having the two basal articles of the peduncle of the second antennæ directed forward.

**EXCIROLANA BRAZILIENSIS, new species.**

Body oblong-ovate, convex. Length  $4\frac{1}{2}$  mm.; width 2 mm. Color in alcohol, yellow, marked with arborescent black markings.

Head about twice as wide as long; antero-lateral angles rounded. Anterior margin produced in the middle in a long, narrow process between the basal articles of the antennæ and dilated at its extremity, which is confluent with the frontal lamina. Eyes large, subquadrate, and occupying almost the entire lateral margin; they are separated by a distance equal to the width of one eye. The first pair of antennæ have the two basal articles of the peduncle subequal and dilated; the third article is narrower, but not longer than the second; the flagellum is composed of 10 articles, and extends to the posterior margin of the third thoracic segment. The second antennæ have a peduncle composed of 5 articles, the first four of which are short, the first and second being subequal, and the third and fourth subequal, each of the second pair being twice as long as either of the first pair; the fifth is twice as long as the fourth; the flagellum is composed of 13 articles and extends to the posterior margin of the fifth thoracic segment.

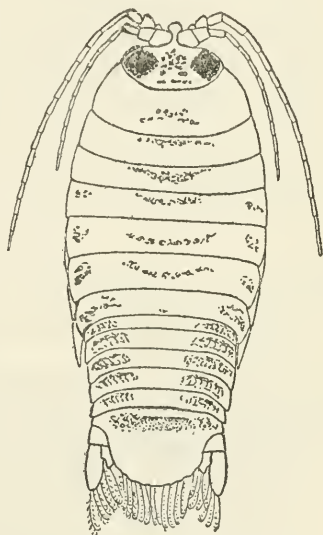


FIG. 2.—EXCIROLANA BRAZILIENSIS X15.

The first, fifth, and sixth segments of the thorax are the longest and are subequal; the second and third segments are the shortest and are subequal; the fourth and seventh are subequal. Epimera are present on all the segments with the exception of the first and are in the form of subquadrate plates, which in the last four have the outer post-lateral angles slightly produced backward.

The first 5 segments of the abdomen are short and subequal, the first being half covered by the seventh thoracic segment; all 5 segments are free at the sides, the last not being covered by the pre-

ceding segment. The sixth or terminal segment is widely rounded posteriorly, crenulate, and fringed with long plumose hairs. There is a crescentiform depressed area near the base of the segment. The peduncle of the uropoda is slightly produced at the inner posterior angle; the outer branch is long, oval in shape, about twice as long as the inner branch, is posteriorly rounded, and extends some distance beyond the tip of the terminal abdominal segment; the inner branch does not quite reach the tip of the terminal segment and is notched on the exterior margin near the posterior extremity. Both branches are fringed with long, plumose hairs, the outer margins being naked.

The first 3 pairs of legs are prehensile, the last 4 pairs ambulatory; all are thickly furnished with spinules.

Only one specimen was collected by the U. S. Bureau of Fisheries steamer *Albatross* at station 2758, off Cape St. Roque, Brazil, at a depth of 20 fathoms, among broken shells.

*Type-specimen*.—Cat. No. 43655, U.S.N.M.

This species is close to *Excirolana armata* (Dana)<sup>1</sup> from Rio Janeiro, but differs in the much larger eyes, the shape of abdomen and uropods, and in the proportions and length of the latter.

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<sup>1</sup> U. S. Expl. Exp., vol. 14, Crust., 1853, p. 771 pl. 51, fig. 5 a-c.