

## THE ISOPOD CRUSTACEAN, ANCINUS DEPRESSUS (SAY).

By HARRIET RICHARDSON,

Collaborator, Department of Marine Invertebrates, United States National Museum.

In 1818, Thomas Say<sup>a</sup> described the form which he referred to the genus *Nasa*, as *N. depressa*. A single dried specimen of this species is to be found in the Academy of Natural Sciences in Philadelphia which I have had an opportunity to examine, and which I<sup>b</sup> redescribed and figured in 1905. Another dried specimen of this species is to be found in the British Museum, which, according to White<sup>c</sup> and Hansen,<sup>d</sup> was presented to that museum by Thomas Say.<sup>e</sup>

In 1840, Milne Edwards<sup>f</sup> redescribed *N. depressa*, and instituted for it the new genus *Ancinus*. The footnote given by Milne Edwards for *Ancinus depressus* reads as follows:

*Næsa depressa* Leach, Collections du Musée britannique de Londres. Cette espèce nous paraît être la même que celle décrite sous ce nom par Say (Journal of the Academy of Philadelphia, I, p. 483.)

It is probable that Milne Edwards did not know that this specimen had been presented by Say, and therefore referred it to Leach.

<sup>a</sup> Journ. Acad. Nat. Sci. Phila., I, 1818, pp. 483-484.

<sup>b</sup> Bull. U. S. Nat. Mus., No. 54, 1905, p. 272.

<sup>c</sup> List of the Specimens of Crustacea in the Collection of the British Museum, 1847, p. 105.

<sup>d</sup> Quart. Journ. Micr. Sci., XLIX, 1905-6, new ser., p. 132.

<sup>e</sup> Dr. Hansen says of this specimen: "The specimen named seems to be the only one existing in any zoological museum; at least I have asked for material of this form in Paris and in American museums, but with negative results." When I asked for Say's types at the Academy of Natural Sciences of Philadelphia I was told that they were not there, but on one occasion, when I happened to be at the museum, I accidentally discovered them.

<sup>f</sup> Historie des Crustacés, III, 1840, pp. 225-226.

In 1905, Tattersall<sup>a</sup> follows Milne Edwards in referring *Nasa depressa* to Leach. Leach, however, never described this form, the earliest description having been given by Say in 1818, and the next to follow being that of Milne Edwards in 1840. Tattersall says of this species (p. 65) in connection with remarks on the distribution of *Bathycopea typhlops*, an allied form:

It is to be regretted that the locality of *Ancinus depressus* Leach is unknown. It would have been interesting to have compared the habitats of the two forms.

Milne Edwards also says of *Ancinus depressus* "Patrie inconnue." Say gives the locality of the specimen of *Ancinus depressus* placed in the Academy of Natural Sciences of Philadelphia as Egg Harbor, New Jersey. White mentions North America as the habitat of the specimen presented by Thomas Say to the British Museum.

In 1905, Tattersall instituted the family *Anciniidae* for the reception of this genus and his new genus *Bathycopea*. In the same year Hansen created the section *Ancinini* of the *Spharominae platybranchiatae* to include this genus, as well as his new genus *Ancinella* and *Tecticeps* Richardson. *Ancinus* differs, however, from any of the genera mentioned in the character of the first and second pairs of pleopoda, the first of which are single branched instead of double branched.<sup>b</sup> For this reason it can not be left where it has been placed in the classifications proposed by these authors.<sup>c</sup>

Last spring in the material that came to the U. S. National Museum from Prof. A. E. Verrill was a single specimen of *Ancinus depressus*, collected at Woods Hole, Massachusetts, in 1885, by the U. S. Bureau of Fisheries steamer *Albatross*. It was found at a depth of 2-3 fathoms. The specimen is a female and, although it differs slightly from the figures given by Milne Edwards for this form, I am inclined to think that the differences are perhaps sexual. The uropods are slightly shorter and the first pair of legs have the hand more enlarged. In the shorter uropoda, however, it agrees with the dried specimen in the Academy of Natural Sciences of Philadelphia.<sup>d</sup> As no complete figure has ever been given since that of Milne Edwards, I have thought it would be of interest to figure and redescribe this specimen, which has been preserved in alcohol, and also give some detailed drawings of parts which it has been impossible to study in the dried specimens.

<sup>a</sup> Fisheries Ireland Sci. Invest., 1904, II, 1905, p. 11.

<sup>b</sup> See description and figures which are to follow.

<sup>c</sup> I prefer to retain *Ancinus* as the type and only genus of the family *Anciniidae*, but those who desire to follow the classification of Hansen may accept the name *Spharominae colobranchiatae* for a fourth group to include this form.

<sup>d</sup> See figure in Bull. U. S. Nat. Mus., No. 54, 1905, p. 272.

## ANCINUS Milne Edwards, 1840.

## ANCINUS DEPRESSUS (Say).

*Naisa depressa* SAY, Journ. Acad. Nat. Sci. Phila., I, 1818, pp. 483-484.—RICHARDSON, Amer. Nat., XXXIV, 1900, p. 224; Proc. U. S. Nat. Mus., XXIII, 1901, p. 537.

*Ancinus depressus* MILNE EDWARDS, Hist. Nat. Crust., III, 1840, p. 226, pl. XXXII, figs. 17-20.—HANSEN, Quart. Journ. Micr. Sci., 1905-6, p. 132.—RICHARDSON, Bull. U. S. Nat. Mus., No. 54, 1905, pp. 271-272, fig. 282.—TATTERSALL, Fisheries, Ireland, Sci. Invest., 1904, II [1905], p. 11-18, 65.

Body oblong ovate, twice as long as wide,  $6 \frac{mm}{2}$  by  $12 \frac{mm}{2}$ . Surface smooth, punctate, and with a few markings. Color, in alcohol, whitish.

Head very wide, much wider than long,  $1 \frac{mm}{2}$  by  $5 \frac{mm}{2}$ ; it is wider anteriorly than posteriorly, the antero-lateral angles being produced in a lateral direction and forming acute angles. The post-lateral angles are rounded. The anterior margin is produced in the middle in a broad, quadrangular process between the basal articles of the first pair of antennæ, and extends forward to the outer margin of these articles. It meets the frontal lamina at its anterior extremity. The eyes are round, composite, and situated close to the posterior margin of the head, but at a distance from the post-lateral angle equal to the width of one eye. The head is coalesced with the first thoracic segment about the middle, but the sides are free. The first pair of antennæ have the basal article large, about twice as long as wide; the second article is half as long as the first; the third article is narrower than either of the first two and is one and a half times as long. The flagellum is composed of nine articles and extends to the posterior margin of the second thoracic segment. The second pair of antennæ have the first article of the peduncle extremely short; the two following are subequal and but little longer than the basal article; the fourth and fifth are also short and subequal, being but little longer than the two preceding ones; the flagellum is composed of nine articles and extends to the posterior margin of the first thoracic segment.

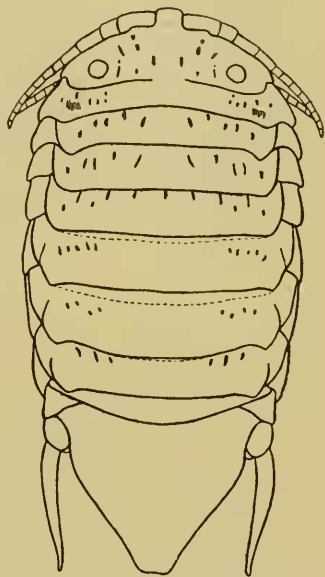


FIG. 1.—*ANCINUS DEPRESSUS*.  
× 14½.

<sup>a</sup> All former measurements were taken from a half-millimeter scale, and should be changed from millimeters to half millimeters.

The maxillipeds have the second, third, and fourth articles of the palp produced into lobes or processes. The mandibles have no masticatory process; the cutting edge is provided with four large blunt



FIG. 2.—ANCINUS DEPRESSUS. MAXILLIPED.  $\times 77\frac{1}{2}$ .

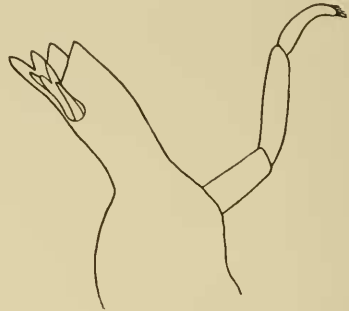


FIG. 3.—ANCINUS DEPRESSUS. MANDIBLE.  $\times 77\frac{1}{2}$ .

teeth; below the cutting edge is a process provided at the tip with three teeth; below this process is a long spine.

The first two segments of the thorax appear to be a little shorter than those following, which are subequal in length. All are of nearly

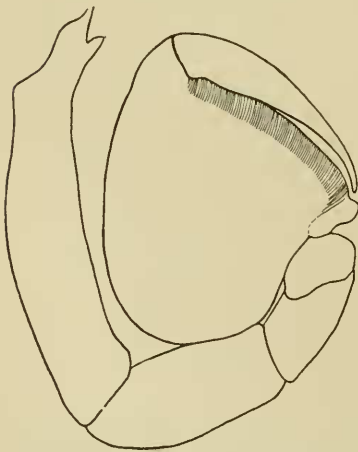


FIG. 4.—ANCINUS DEPRESSUS. FIRST PAIR OF LEGS OF FEMALE.  $\times 77\frac{1}{2}$ .

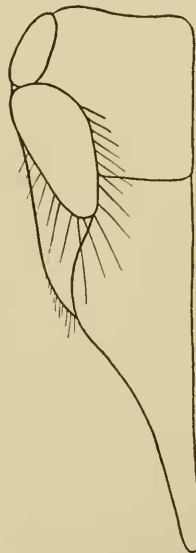


FIG. 5.—ANCINUS DEPRESSUS. FIRST AND SECOND PLEOPOD.  $\times 41$ .

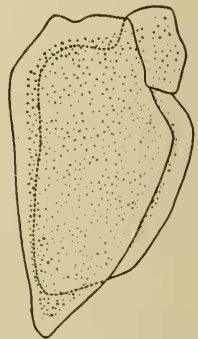


FIG. 6.—ANCINUS DEPRESSUS. THIRD PLEOPOD.  $\times 41$ .

equal width, the sides of the body being almost parallel. With the exception of the first, the epimera of all the segments are distinctly separated; they are broad, quadrangular plates with the post-lateral

angles more or less produced, and they are all bent downwards about the middle almost at right angles with the segments. On the ventral side they are also produced in the form of a plate, covering the proximal extremity of the legs.

The abdomen is composed of two distinct segments. The first is short, not as long as the last thoracic segment, and has no suture lines indicating other coalesced segments. The terminal segment is triangular in shape with the apex appearing somewhat truncate, owing to the sides of the segment being turned downward and inward, so that on the ventral side a funnel-like opening is formed. The uropoda are composed of a small rounded peduncle and a single slender,

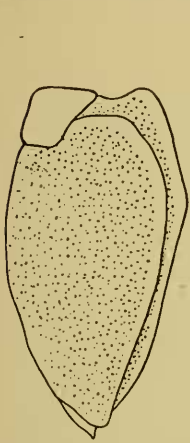


FIG. 7.—*ANCINUS DEPRESSUS*. FOURTH PLEPOD.  $\times 41$ .



FIG. 8.—*ANCINUS DEPRESSUS*. FIFTH PLEPOD. OUTER BRANCH.  $\times 41$ .

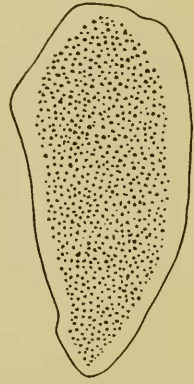


FIG. 9.—*ANCINUS DEPRESSUS*. FIFTH PLEPOD. INNER BRANCH.  $\times 41$ .

movable branch, tapering and acute at the extremity. This branch extends to the extremity of the last abdominal segment.

The first pair of legs are subschelate and have the propodus very much enlarged. All the other legs are ambulatory.

The first pair of pleopoda are small, longer than wide and composed of a single branch furnished with long hairs. This branch is widely separated from the corresponding branch of the opposite side. The second pair of pleopoda are large, double branched, the two branches being placed side by side and attached to the peduncle, so that a sort of operculum is formed, completely covering the following pleopoda. The third pleopoda have the endopod slightly longer than the exopod; both branches without marginal setæ. Fourth pleopoda with endopod and exopod of nearly equal length, and without marginal setæ. Fifth pleopoda with both branches unjointed and without marginal setæ.

Owing to the difference in the structure of the pleopoda, this genus remains alone the type of the family *Anciniidae*. *Bathycopea* Tattersall cannot be retained in the family.