

AMERICAN MUSEUM NOVITATES

Number 80

Published by
THE AMERICAN MUSEUM OF NATURAL HISTORY
New York City

June 22, 1923

59.53,4C(75.9)

A NEW SPECIES OF PARASITIC COPEPOD FROM FLORIDA

BY CHARLES BRANCH WILSON

The genus *Cecrops* is one of the older genera among the parasitic copepods, having been established by Leach in 1816, but up to the present time it has contained only the type species, the well known *Cecrops latreillii*. It is true that Risso proposed a new species, *desmaresti*, in 1826, but in his description he stated that the first and third legs were "monodactyle," which of course would exclude it from the genus *Cecrops*. Hesse also proposed a new species, *Cecrops achantii-vulgaris* in 1883, based upon a single female specimen. His description and figures, however, show that the parasite he described could not possibly belong to the genus *Cecrops* (compare Proc. U. S. Nat. Museum, XXXIII, p. 467).

Hence we are left with the single type species, which is one of the best known and most widely distributed of the parasitic copepods. Nearly every investigator of any importance has noted this parasite, and it has been reported from the Atlantic and Pacific coasts of North America, from the British Isles, the North Sea, the Mediterranean, the southern Atlantic and southern Pacific, and the Indian Ocean, and from a great variety of hosts. It is somewhat peculiar that in this long list of localities and specimens a second valid species has not hitherto appeared.

***Cecrops exiguus*,¹ new species**

Figures 1 to 15

HOST AND RECORD OF SPECIMENS.—Sixteen fully developed females, most of them with egg strings and attached males, were obtained from the gills of a large shark off the southeast coast of Florida. They were attached between the flattened gill filaments, their thick bodies pushing into the flesh of the filament on either side and thus forming an ellipsoidal cavity or pocket. A single male was found clinging to the top of one of the filaments, his body hanging free.

These specimens are deposited in the Department of Lower Invertebrates of The American Museum of Natural History in New York City (Cat. No. 4618) and become the types of the new species.

¹*Exiguus*, "small," being less than half the size of the type species.

SPECIFIC CHARACTERS OF FEMALE.—General body form elliptical, twice as long as wide and somewhat flattened dorsoventrally. Cephalothorax three-fifths of the entire length and considerably wider than the rest of the body, the anterior, posterior and lateral margins each quite distinctly two-lobed but with shallow invaginations. None of the specimens of either sex showed distinct grooving upon the dorsal surface, even the outline of the frontal plates being indistinct. Posterior sinus shallow leaving short and bluntly rounded lobes at each posterior corner. Dorsal plates of the fused second and third segments so short as not to reach the level of the posterior lobes of the carapace. Dorsal plates of the fourth segment as wide as those of the genital segment and a little more than half as long, with a short and narrow posterior sinus. Dorsal plates of the genital segment one-fourth shorter and narrower than the cephalothorax, with a short and narrow posterior sinus. Abdomen shorter than the genital segment, its ventral plate triangular, the posterior end or angle strongly narrowed, the anterior corners produced and bluntly rounded.

First and second antennæ like those of *latreillii*; maxillæ quite different, their swollen ends carrying on the outer margin a stout curved claw. Terminal claw of maxillipeds shutting down against a sharp peg on the second joint; basal joint raised into a broad curved ridge at its proximal end. The tip of the proboscis fits down between these two ridges, while the maxillæ just reach their anterior surfaces.

The swimming legs are similar to those of *latreillii*, but differ in the number and arrangement of the spines and setæ, as shown in the figures.

Color (preserved material), a uniform yellowish white; egg cases, orange-yellow; tips of claws on second antennæ and maxillipeds, dark brown.

Total length, 12 mm. Carapace, 7 mm. long, 5.75 mm. wide. Posterior body, 5 mm. long, 4.50 mm. wide.

SPECIFIC CHARACTERS OF MALE.—Carapace similar to that of the female but much larger in comparison with the rest of the body, the anterior, lateral and posterior emarginations even more shallow than in the other sex. The fused dorsal plate on the second and third segments reaches slightly behind the posterior lobes of the carapace and is emarginate posteriorly. The fused dorsal plate of the fourth segment covers the whole of the genital segment, and has a very short and slit-like posterior sinus. It is four-sevenths as wide and three-sevenths as long as the cephalothorax, with evenly rounded margins. The abdomen projects nearly its entire length behind the plate of the genital segment. It is transversely elliptical and nearly three times as wide as long. The anal laminæ are small, terminal and somewhat boot-shaped, the toes pointing towards the midline. The appendages are similar to those of the female with the usual sexual modifications. The swimming legs are much like those of the *latreillii* male, with specific differences in the number and arrangement of the spines and setæ.

Color, like that of the female, yellowish white.

Total length, 6.30 mm. Carapace, 4.15 mm. long, 4 mm. wide. Genital segment, 1.75 mm. long, 2.35 mm. wide.

This species may be readily distinguished from *latreillii* by its much smaller size, by the relative size and shape of the carapace and genital segment, and by the size and shape of the various pairs of dorsal plates. These differences may then be supplemented by the details of

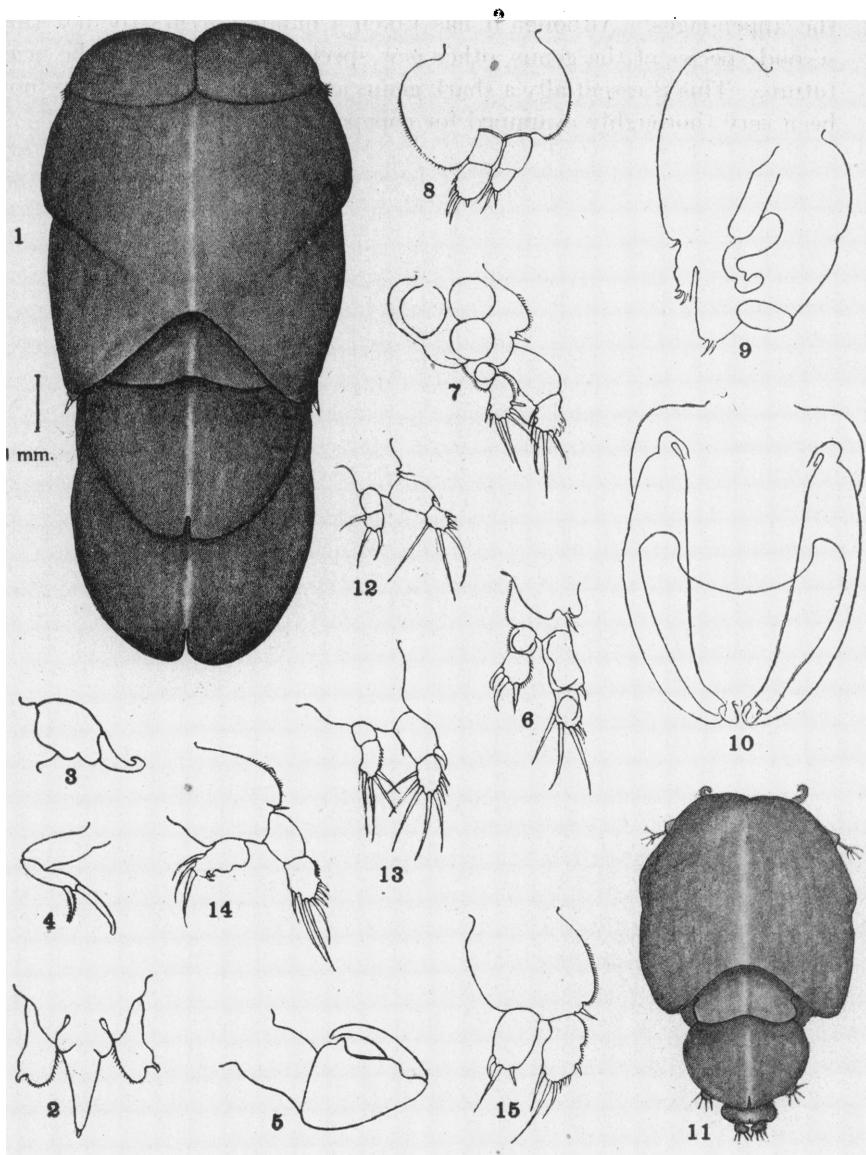


Fig. 1. Dorsal view of female. Fig. 2. Mouth tube and maxillæ. Fig. 3. Second antenna. Fig. 4. Second maxilla. Fig. 5. Maxilliped. Figs. 6 to 9. First, second, third, and fourth swimming legs. Fig. 10. Ventral view of posterior body, showing ventral plate of abdomen. Fig. 11. Dorsal view of male. Figs. 12 to 15. First, second, third, and fourth swimming legs.

the appendages. Although it has taken a hundred years to find this second species of the genus, other new species may appear in the near future. This is essentially a shark genus and our large sharks have not been very thoroughly examined for copepod parasites.