

somewhat square in shape, and convex in front, in the middle of which the fairly large nauplius-eye is seen, and with the adhesive organ occupying almost the centre of the dorsal surface of the head. The composite paired eyes are large, with movable, more slender peduncles and of the usual, iridescent, blackish colour. Their length is about that of the first pair of antennae situated next to them. The second antennae are developed as large sickle-shaped claspers, reminding one strongly of the mandibles of certain insect-larvae (Dytiscidae). Their bases are confluent, uniting into the labrum (see below) and more slender than at the level of the composite eyes, where the basal joint is enormously swollen (to give room for the powerful muscles) and ends inwardly in a broad and flat part, somewhat triangular in shape and ending in a blunt point, well shown in the dorsal view. The terminal joint of the claspers resembles a broad and flat fish hook, running out into a blunt and slightly curved terminus, and with a widening occupied by two hooks a little more than half way down. Each clasper is roughly spinose on the whole of the terminal joint, except for the proximal half of the central thickest part. At the base of the terminal joint of each clasper is a small hooked spine, on the inner side. The head is without frontal process unless a small, heart-shaped appendix, made up of two halves, situated between the bases of the two claspers, ventrally, can be considered as such¹ (fig. 5c). The labrum is broadly spatulate, rounded at its free posterior end. Behind it are seen the mandibles and two pairs of maxillae. The two first abdominal segments of both sexes are fused together and much swollen, owing to the development of the genitalia. The ventrally protruding part of the latter has in the male somewhat the shape of the "sac" of the Cirriped, *Sacculina*, parasitic upon the tail of crabs. With the fairy-shrimp this "sac" is somewhat slender at its base, and occupied by the two coiled penes, their swollen bases showing a granulated spiny chitinous and yellow surface (fig. 5d). The free ends of the two penes each form a coil somewhat resembling a snail-shell with a few loose turns; the spine in which each one ends (see *A. bungei*) is apparently only protruded occasionally, in the actual moment of copulation. The length of the abdomen is a little less than that of the body (excluding the head), and has no dorsal processes above the genitalia.

The females (see text fig. 6) are a little larger (8-11 mm.) than the males, mainly caused by an elongation of the abdomen. The head (fig. 6a, c) is more rounded oblong than in the male, and of course smaller, owing to the little development of the second pair of antennae. The first pair of antennae seems comparatively shorter than in the male, while the second pair is only a little longer than the composite eyes, and of the shape usual with female fairy-shrimps. The nauplius-eye, adhesive organ and mouth parts² are of course as with the male, as also the body with its foliaceous legs. The first and the last pairs of the latter are shown in fig. 5b and d. They are similar to those of *A. bungei* (Daday de Déès, 1910, fig. 17).

In the female *A. stefanssoni* the last body segment and the two succeeding abdominal segments are each produced laterally (fig. 6b) into a flap-process (important for copulation-purpose), very similar to the two similar ones found on the same part of the body in the female *Eubranchipus gelidus* (Hay). They are, however, not lanceolate-triangular as in *E. gelidus*, but more spoon-shaped. The ovisac (fig. 6d) is very large and oval, its transversal diameter being longer than the longitudinal. On its ventral side are seen two broad folds in the wall of the ovisac probably supporting the latter in its movements. These females, secured on October 6, 1915, had a great number of ripe, red-brown eggs filling the whole middle part of the ovisac, the unripe part of the ovary showing up as two smaller masses above the ripe eggss. The abdomen is about the same length as the body, owing to the great development of the ovisac.

¹ It is probably a remnant of the "kidney-labrum," so largely developed in the nauplius and metanauplius stages of fairy-shrimps (see p. 17).

² There seems to be no "appendix" to the labrum ("kidney remnant") as with the male; that the latter has it is the only case among fairy-shrimps I know of.