

(about the length of the seven last abdominal segments); while the claspers of the male *A. bungei* are more antler than sickle-shaped, and have only one hook (branch) about halfway down the terminal joint, while the small hook-spine on the innerside of their terminal joint is situated about half way between the large hook mentioned above and the proximal end of the terminal joint, and not at the base of the latter, as in *A. stefanssoni*. The blunt point on the innerside of the swollen first joint of the claspers also seems to be more in the shape of a spiny protuberance in *A. bungei* than in *A. stefanssoni*.<sup>1</sup>

The length of *A. bungei* is given for the male, 8-12 mm., and for the female, 7-8½ mm., but from Daday's figure (fig. 17) it would appear that the ovisac of the females secured has not reached its full development, so this sex probably reaches at least the same size as the male, judging from *A. stefanssoni* (see p. 26, 23).

I have not been able to consult Sars' (1897, p. 478) original description<sup>1</sup> of *A. bungei*; so all my references to it here are based upon Daday's description and figures (1910, p. 172-75).

I am indebted to Prof. A. S. Pearse, of Wisconsin University, for telling me that these mature fairy-shrimps from Bernard-harbour represent a new species of *Artemiopsis*, after he had examined a sample of the specimens sent him.

My detailed measurements of the size extremes of both sexes follow (alcohol-specimens). Male, 7 mm.; claspers, 2 mm.; head (without A2), 1 mm.; genitalia, ½ mm. broad and 1 mm. long; abdomen (including genitalia and cercopods), 2 mm. The same measurements for male 10 mm. long: 2½ mm.; 1¼ mm.; ¾ by 1¼ mm.; 2½ mm. Female, 8 mm.; Head, 1 mm.; second pair of antennae, ¾ mm.; ovisac, 1¼ mm. long by 2¼ mm. broad; abdomen, 2½ mm. The same measurements for female, 11 mm. long, were: 1½ mm.; 1 mm.; 2 by 3 mm.; 3 mm.

The shortness of the abdomen (tail) is thus a characteristic feature for both sexes, compared with other fairy-shrimps.

In colour the males were paler than the females, the former being whitish-yellow with darker (yellow-brown) claspers and foliaceous legs, head, etc. The females had much brighter colours, being orange-red-brown, especially the head, foliaceous legs and the dorsal side; while the tail and ovisac (uterus) is pale transparent, with the eggs coloured olive-brown. Both sexes have the labrum of a strong orange-rose colour.

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When found they were, as mentioned above, in lively copulation though there were only a couple of inches of water under the seven inches of thick ice. The females seemed to be a little more numerous than the males, so the latter had a busy time attaching themselves by the aid of their claspers to the dorsal lateral processes of the females (above the ovisac), thus resting on the back of the females. When in copula, the males assist in swimming, though the chief movement is effected by the female. By keeping some of them in a glass of water, I observed that the males would not swim around alone for any length of time, but would quickly "attach" one of the "idle" females in the way just described. During the swimming the females turn the ovisac from side to side, so as to bathe its eggs in the water, in the same way as I have observed in *Eubranhipus gelidus* (*Canadian Field-Naturalist*, February, 1921, p. 28); there being, about one second between the turning of the ovisac from left to right, and vice versa. The animals lived in captivity for a few days only and then died; though I kept their eggs until next summer they did not hatch (Rearing No. 98).

<sup>1</sup>The peduncles of the composite eyes also seem to be more slender in *A. bungei* than in *A. stefanssoni*.