

In some gatherings the species was extremely abundant, more especially in those taken off South Australia and in the tropical Atlantic; and the red colour (brick-red) mentioned by Dana was distinctly observed in some samples, even after their prolonged immersion in spirit. These specimens are undoubtedly identical with those described by Sir John Lubbock as *Undina longipes*, and though Dana's figures are too small and his detailed descriptions too meagre for absolute certainty, I can scarcely doubt that they are meant to refer to this species: it would be strange if so widely spread and so abundant a species had escaped him, and if so that his species—likewise widely spread—should have also eluded the Challenger. Dana's drawing of the fifth foot of the male—the only characteristic detail which he gives—applies fairly well to our specimens, if we allow for the absence of minutiae, consequent, perhaps, on the use of too low microscopic powers; and I cannot recognise any distinction between the examples described by the same author under the three specific names, *vulgaris*, *simplex* and *inornata*.

One unmistakable diagnostic mark of *Undina longipes* is the peculiar emargination of the second foot in both sexes—a mark quite sufficient for specific determination, even when no males may be present. The bidentate postero-ventral angle of the thorax, though perhaps not always present, is, I believe, another good specific character.

2. *Undina darwini*, Lubbock (Pl. XVI. figs. 1–4, 6–14).

Undina darwini, Lubbock, On some Oceanic Entomostraca collected by Captain Toynbee, Trans. Linn. Soc., vol. xxiii. p. 179, pl. xxix. figs. 4, 5.

Cephalothorax rounded off in front and behind, posterior ventral angle slightly exserted. Anterior antennæ of the *female* (figs. 3 and 4) twenty-five-jointed, the joints not varying much in length, except that the second is much larger than the rest; in the *male* (fig. 2) the antenna is twenty-two-jointed, angulated at the sixth joint, the first two joints long, equalling the following three or four joints; in both sexes the anterior antennæ are slightly longer than the cephalothorax, and clothed with marginal hairs which are very short except at the apex; the second and sixth joints, in the *male*, each bear a single long seta. The posterior antennæ have the two branches nearly equal in size the inner branch four-jointed, with two small and rather indistinct median joints.¹ Mandibles broad at the apex (fig. 6), numerous and sharply toothed; basal joint of the palp very large, first joint of the inner branch swollen, both branches short and bi-articulate. Maxilla (fig. 7) well-developed, anterior foot-jaw small (fig. 8), posterior (fig. 9) well developed. The outer branches of the swimming feet are more or less strongly serrated between the last two marginal spines; the

¹ Fig. 5 pl. xvi. belongs to another species, and has been inadvertently included among the figures of *Undina darwini*.