

hitherto noticed, I believe, by any author, are equally well developed in the typical *Calanus finmarchicus* of the North Sea. Such examples as have usually come under my notice, taken off the east coast of England, or in other places very near to the English coast, are comparatively small, and have their salient characters not strongly marked; but I have recently had the opportunity of examining specimens collected in more northern latitudes, during the cruise of the "Knight Errant,"¹ and I cannot see that these differ in any respect from the southern form. Thus, the only reasonable course is to consider both the northern and southern forms as belonging to one species, probably the most abundant and most widely distributed of all the Copepoda. In the arctic regions it is known to be very abundant, and the specimens described by Roussel de Vauzème from the antarctic seas are identically the same. I do not know, however, of its occurrence in the warm seas of the tropics.

Though this species has already been frequently described and figured, I have thought it best to give drawings of some of the most distinctive characters as seen in southern specimens. The figures have all been drawn by aid of the camera lucida.

2. *Calanus valgus*, n. sp. (Pl. III. figs. 1-7).

Length, 1-7th of an inch (3.5 mm.). Forehead broadly rounded, rostrum long and slender; head incompletely separated from the thorax (fig. 1). Anterior antenna rather longer than the cephalothorax, its setæ distributed as in *Calanus finmarchicus*. Posterior antennæ and mouth organs as in *Calanus finmarchicus*. Swimming feet very long and slender, their marginal spines longer than in the preceding species. The right fifth foot of the *male* (fig. 5) is not very much longer than the left, but the marginal spines of the first and second joints are very long,—longer indeed than the joints themselves; the third joint bears a comparatively short apical spine; the inner branch is destitute of setæ, but bears small marginal spines; the foot of the right side (at any rate in spirit specimens) is usually flexed at a right angle, as shown in fig. 6; basal joint of the peduncle finely serrated on the inner margin. All the joints of the *male* abdomen are nearly equal (fig. 7), but in the *female* (fig. 1) the first two joints are much longer than the following two.

Habitat.—Off Cape Howe, Australia, at night; in the Arafura Sea, in several South Pacific Stations (287, 288, 295, 296, 299) between lat. 38° S., long. 94° W., and lat. 33° 31' S., long. 74° 43' W.; in lat. 36° 9' S., long. 48° 22' W. (Station 324, South Atlantic), and in lat. 3° 10' N., long. 14° 51' W. (Station 348, North Atlantic). The gathering from Station 296 consisted entirely of this species, and in several others it was also tolerably abundant.

¹ Exploration of the Farøe Channel during the summer of 1880, in Her Majesty's hired ship "Knight Errant," Staff-Commander Tizard and John Murray, *Proc. Roy. Soc. Edin.*, vol. xi. pp. 638, et seq. 1882.