

36° 9' S., long. 48° 22' W. (Station 324); lat. 36° 44' S., long. 46° 16' W., at a depth of 650 fathoms, from the dredge (Station 325).

Although this species is certainly very nearly allied both to *Calanus finmarchicus* and *Calanus propinquus*, I am unable, on account of the differences noted above, to refer it to either of them. It does not seem likely that these differences depend upon immaturity, seeing that the specimens appear to be of full size, and are perfect as to the number of joints in the swimming feet, where, if at all, we ought to find signs of imperfect development. Besides the two species here mentioned, *Calanus tonsus* might not unreasonably be referred to several of Dana's species, notably to *rotundatus*, *comptus*, *nudus* or *magellanicus*. But in all these cases certain descriptive details given by Dana throw doubt upon the propriety of such identification. Some of the points of divergence are these:—In *rotundatus* the antennal setæ are stated to be “short, those near the base scarcely longer than the diameter;” in *comptus* the antennæ are “a little longer than the cephalothorax;” in *nudus* the “abdomen is apparently three-jointed, yet the first articulation is somewhat uncertain, antennæ scarcely longer than the cephalothorax;” and in *magellanicus* there are only “four pairs of natatories, the fifth rudimentary.”

5. *Calanus gracilis*, Dana (Pl. V. figs. 1–6; and Pl. XLVI. fig. 1).

*Calanus gracilis*, Dana, Crust. U. S. Expl. Exped., p. 1078, pl. lxxiv. fig. 10.

Length, 1-7th of an inch (3.6 mm.). Anterior antennæ about once and a-half the length of the body, slender, sparingly clothed with very short setæ, except the penultimate and antepenultimate joints, each of which bears an excessively long, ringed, and densely plumose seta. The outer branches of the third and fourth pairs of swimming feet in the *male* have the margin of the last joint, between the base and the median spine, strongly serrated (Pl. V. fig. 5); in the *female* the same space is finely ciliated (fig. 4); the terminal spines of the feet are simply sword-shaped, the serrations of the edge scarcely perceptible: in the first foot, however, there is, as usual, no spine, but the outermost seta of the external branch (Pl. V. fig. 3, and Pl. XLVI. fig. 1) is widened near the base, where it forms a harpoon-like process, and the first joint is produced quite at the base into two short, stout, divaricate spines, and has also a curious appendage, in shape somewhat like the letter *f*, slightly prominent, about half the length of the limb, and laid lengthwise along its basal half. This is plainly seen without any dissection, and is quite diagnostic of the species. The fifth foot of the *female* does not differ from the rest, but on the right side in the *male* (fig. 6) is of abnormal form, while that of the left side is normal. The abdomen is short, scarcely one-third the length of the cephalothorax, caudal stylets about as long as broad, setæ short and subequal, except the second, which is nearly as long as the whole body of the animal. All the setæ of the swimming feet are distinctly jointed in the middle.