

Milne-Edwards (*Sergestes frisii*, Kröyer), but differs in the relative measurements of several parts. The peduncle of the first pair of antennæ is according to Kröyer nearly a seventh ("septima ferme parte") shorter than the carapace in *Sergestes atlanticus*, and a third shorter ("tertia parte brevior") in *Sergestes arcticus*.

The peduncle of the second pair of antennæ has the terminal joint in *Sergestes atlanticus* scarcely the sixth of the length of the scaphocerite, while in *Sergestes arcticus* it nearly equals the third part.

The sixth somite of the pleon in *Sergestes atlanticus* is "scarcely the sixth of the length of the animal," and much shorter than the length of the fourth and fifth somites united, and about one-fourth longer than the telson. In *Sergestes arcticus* the sixth somite of the pleon is about "one-fifth the length" of the animal, surpassing the length of the fourth and fifth somites united, and nearly twice the length of the telson.

A careful and close analysis of the species named by Milne-Edwards *Sergestes atlanticus* and by Kröyer *Sergestes frisii* and *Sergestes arcticus*, has induced me to place them as synonyms of one and the same species. I have in the preceding paragraph given the points of difference which Kröyer takes to be of sufficient importance to justify their being considered separate species. If one compares Kröyer's figure with that of Milne-Edwards which was published so far back as March 1830, it will be seen the differences are not very important, and I feel certain that I shall receive the approval of future observers for uniting them. Kröyer's specimen, *Sergestes frisii*, was about 13 mm. in length, and Milne-Edwards' specimen of *Sergestes atlanticus* was 30 mm. long.

Mr. Sidney Smith gives a species of *Sergestes arcticus* as being 90 mm. in length.

The largest of the specimens of *Sergestes atlanticus*, from a dozen different places, in the Challenger collection is 50 mm., and the smallest perfectly developed male specimen in the collection is 24 mm.

If the animal so varies in length after it has attained adult sexual features, I think we may also assume that with successive moultings in time a greater or less variation may take place in the proportion of parts in relation to each other, for if the relative value of one part to the others be constant there could scarcely be room for the origination of species.

*Sergestes dorsispinalis*, n. sp. (Pl. LXXII. fig. 1).

Carapace rather more than one-third of the length of the animal. Rostrum short, sharp-pointed, and horizontal. Cervical suture well developed, and situated halfway between the frontal and posterior margins; just anterior to the suture, in the median dorsal line, is a small, anteriorly directed tooth.

Pleon with the four anterior somites dorsally smooth and subequal in size; the