

The chief differences that separate this species from *Gennadas parvus* are the pointed character of the prominent secondary eye-stalk, the less prominent lobe-like condition of the upper surface of the third joint of the first pair of antennæ, the greater amount of squamiform expansion of the meral and ischial joints of the gnathopoda, the presence of a short, stout tooth on the outer margin of the dactylos, midway between the base and the apex, and of a fine but stiff spine at the extremity, and probably the greater relative length of the telson as compared with the outer plates of the rhipidura.

This specimen was taken along with *Haliporus* and *Acanthephyra*.

### Family SERGESTIDÆ.

In this family the diminishing value of the two posterior pairs of pereopoda is very conspicuous, both becoming small, enfeebled, and in some instances rudimentary, as in *Sergestes*. In *Acetes* the penultimate pair is reduced and the posterior is wanting, while in *Leucifer* they are both entirely absent. The branchial system has also become of diminished importance. The mastigobranchiæ are all wanting except a rudimentary discoid plate at the base of the first pair of gnathopoda; so also are the podobranchial plumes, except a small plume attached to the first gnathopod. The arthrobranchiæ are all wanting in the genus *Sergestes*, but are retained in *Petalidium*, except on the last two pairs of pereopoda, and the pleurobranchiæ are retained in all the genera in a more or less modified form.

### Subfamily SERGESTINÆ.

This subfamily comprises those genera that possess branchiæ of an impoverished character.

The mastigobranchiæ and podobranchiæ are wanting, excepting a rudimentary pair, attached to the first pair of gnathopoda. The ovum of this subfamily has never been observed, but specimens of an early Zœa stage, believed to belong to this subfamily, have been taken and watched, and I therefore think it probable that the ova are deposited and hatched in the sea, and not carried by the animal. The brephalos is stated to be in the Nauplius form but as yet this is only hypothetical, since its connection with the parent has never been observed. The Zœa form to which Anton Dohrn<sup>1</sup> has given the name of *Elaphocaris*, is the earliest known stage according to the results of the Challenger exploration. But Professor Brooks states<sup>2</sup> that "the metamorphosis of *Sergestes* is more like that of *Leucifer* than is the case with any known Crustacean except *Acetes*, but our knowledge of *Sergestes* is incomplete."

In this subfamily there are several genera, *Petalidium*, *Sergestes*, *Acetes*, and *Sciacarus*.

<sup>1</sup> *Zeitschr. f. wiss. Zool.*, Bd. xx. p. 607, 1870.

<sup>2</sup> *Phil. Trans.*, p. 111, pl. i., 1882.