

Pontophilus with *Crangon*, and Kinahan¹ more recently established his several genera on features that are liable to vary.

Development (Pl. LXXXVI. fig. 4; Pl. LXXXIX. fig. 1).—The brephalos of *Crangon*, as it quits the ovum, exists in a form not very unlike that of the Zoea of *Palæmon*.

It has the carapace anteriorly produced to a sharp-pointed rostrum that is about one-third the length of the carapace, but exhibits signs that at its first moult the anterior extremity is lost. The pleon has the posterior margins of the third somite dorsally armed in the median line with a sharp-pointed tooth, and the fifth somite with one on each side of the dorsal surface. The sixth somite is longer than the preceding two, and continuous with the broad and fan-like telson (fig. 4z), the distal margin of which is fringed with seven ciliated spines on each side.

The ophthalmopod exists chiefly as a large ophthalmus, being nearly equal in depth and in breadth, subequal in length to that of the carapace.

The first pair of antennæ consists of a single jointed peduncle that extends beyond the end of the rostrum and terminates in two small flagella, rudimentary in character and tipped with hairs.

The second pair of antennæ has the peduncle consisting of two distinct joints, the extremity of which supports two branches; one, narrow and sharp pointed, represents the future flagellum, the other, broad and distally fringed with hairs, the scaphocerite.

The mandibles are not very dissimilar to those of the adult, and the same is true of the siagnopoda.

The gnathopoda are pediform and seven-jointed, the second joint carrying a long basephysis, and the seventh tipped with three ciliated hairs.

Four pairs of pereopoda exist as sac-like buds.

The pleopoda are also in an incipient condition.

Geographical Distribution.—The range of this genus is very great, but so far as I am aware, it is confined to the northern hemisphere. It is found on the sandy shores all round the coasts of Europe, and we have frequently taken an unspotted variety off the coasts of Devon and Cornwall, in from 10 to 50 fathoms of water. Dana records it from the western coasts of North America, from San Francisco, California, and Puget's Sound. Dr. Stimpson recognised a variety from the Pacific coast of North America as a distinct species from *Crangon vulgaris*, under the name of *Crangon nigricauda*, but as its distinction chiefly rests on the colour of the caudal extremity, with very minor and unimportant structural variations, it can scarcely be accepted as forming a distinct species. *Crangon propinquus*, Stimpson, which I also believe to belong to this species, was obtained off the northern shores of Japan. He says that it differs both from *Crangon vulgaris* and *Crangon nigricauda* only in having the fourth somite of the pleon, and sometimes the third also, carinated in the adult.

¹ *Proc. Roy. Irish Acad.*, p. 354, 1862.