

“The genus of long-legged prawns to which A. Milne-Edwards has given the name of *Nematocarcinus* was frequently taken in the trawl when let down to great depths, and has a very extended geographical range. There are specimens from the following localities, the depths being the greatest reached by the trawl or dredge :—off the western and northwestern coast of Celebes Island, 255 to 2150 fathoms ; off Japan, 350, 560, 1875, and 3000 fathoms ; near the Island of Juan Fernandez, 1375 and 1450 fathoms ; in the Southern Ocean, 1260 fathoms ; off the Kermadec and Fiji Islands, in 600 fathoms.

“The fact that the depths vary from 255 to 3000 fathoms suggests that the animals do not live at the greatest depths reached by the nets, but that they are caught while swimming in mid-water and brought to the surface. Two Stations with the greatest depths are not far distant from two or three of the shallower ones, hence in the same regions the species have either the power of living under very different conditions of temperature and bathymetrical influences, or they live suspended in the ocean over the greater depths. The several species brought home vary in points of little importance from each other, such as a longer or shorter rostrum, a shorter or a longer foot. They extend from the Polar regions to the Equator.

“One of the most abundant of specific forms is that of the genus *Alphæus*, in which I include those congeners that have been separated from it, more for the convenience of classification than on account of any structural value. It contains twenty recognised species, which with a single exception have been taken within a depth of 50 fathoms. They are mostly recorded from muddy bottoms, but they are also frequently found sheltered among masses of Sponge or Coral. I am induced, from the peculiar localities in which they are found, and the protected condition of their eyes, to believe that they burrow beneath the surface of the mud. They are mostly inhabitants of the warm seas, abounding in tropical and subtropical regions, becoming more scarce in the temperate, and gradually disappearing towards the cold temperate and Arctic regions. One species, *Betæus truncatus*, is recorded from Cape Horn, where it was dredged in about 10 fathoms. With this exception none has been observed farther south than New Zealand or 50° S. lat., or farther north than the English Channel or 50° N. lat. They are essentially a sublittoral form, for the instances of their having been taken in depths greater than 20 fathoms are few. *Alphæus avarus* in the Challenger collection is recorded as having been twice taken off the coast of Australia, once at a depth of 8 fathoms, and once when the dredge had been sent down to 2675 fathoms.

“The members of the Penæid division exist most numerous in the open waters of the ocean, some genera passing their whole existence within 100 fathoms of the surface ; others are found as constantly in deep water below 300 fathoms, while others again appear to exist in the more remote abysses of the deepest parts of the ocean in close contact with the sea bottom.