

“The numerous species of *Sergestes* together with those of the allied forms *Acetes* and *Leucifer* exist everywhere in the ocean within a few fathoms of the surface, from the cold temperate regions of the north to those of the south. Of the genus *Acetes* I have not seen an indubitable specimen in the collection, but in the locality from which the type, first described by Milne-Edwards, was taken, Sir Walter Elliot records it as being abundant, and forming the staple food of some of the larger species of fish that frequent the Bay of Bengal. In *Leucifer* the posterior two pairs of walking legs have entirely disappeared, although the penult pair is present at one stage of its existence. Four or five species of this genus have been named by authors, but a close analytical examination of all the numerous specimens brought home by the Challenger, enables me to determine with confidence that the several forms described are but different stages in the growth of two species, or perhaps only two varieties of the same species.

“When the ocean is searched at a depth greater than 100 fathoms the true *Penæus* and its gallant congener *Aristeus* are found to exist in more or less abundance. These, if we may judge from the uniform appearance of the long sweeping pleopoda, are powerfully swimming animals, and the form of *Aristeus* with its long and slender rostrum, its narrow and compressed condition with polished surface, shows that it is capable of swimming through the water with considerable velocity; when at rest, the large and leaf-like scaphocerites are probably extended laterally on each side in the water. The rostrum, which is generally long and powerful in several genera of this division, acts not only as a sharp cutwater but probably also as a weapon of offence. The genus *Sicyonia* appears to have the scaphocerite especially formed for attack, and instead of being broad and leaf-like, flexible and membranaceous, has the outer margin developed as a long and powerful spear, and the inner division tapers towards the extremity into a plate of extreme tenuity; this organ with its strong and spear-like point is under the animal's control, becoming when fixed a strong and formidable bayonet-like weapon of offence, or when relaxed a harmless balancing organ.

“A similar offensive weapon is formed by the telson of the genus *Glyphocrangon*, which is a rigid, sharp-pointed, and powerful organ. This the animal has the power of locking and unlocking at will, and according to its size and power is capable of striking, scorpion-like, with much force, inflicting thereby no slight wound.

“Such genera as *Gennadas* and *Benthescymus* (see fig. 185) dwell apparently in deep water, probably far beneath the predaceous pelagic animals. The former seems to lose the osseous texture of its integument, and with it all power of defence. The eyes become less brilliant through the diminishing quantity of black pigment, while the small phosphorescent organ increases in size and value. With the exception of *Glyphocrangon*, which is a powerful combatant, all the animals brought from great depths are soft and flexible creatures, being incapable of attack or defence.

“That the existing species of Crustacea live, each of them, within certain limits