

GENERAL MORPHOLOGY AND ECOLOGY OF OSTRACODS

Ostracods are crustacean and can be easily recognised by the presence of the carapace as a bivalve shell having an antennal notch, closed by an adductor muscle, all of the seven pairs of appendages being capable of being withdrawn inside the shell. Hence although an ostracod is a segmented crustacean with head, thorax and abdomen, only the head has the full complement of limbs. The head is very little defined and there is no obvious body segmentation externally. There are well developed pairs of first and second antennae, the second typically biramous. Sometimes the antennae can be seen extruded through the notch in front. There is a pair of mandibles with a well developed palp, but the number of paired appendages posterior to the mandible is markedly reduced. The first pair is usually termed the maxillae; at most, three pairs occur behind this. The body ends in a multi- prolonged tail named furca.

The shape of the carapace, the sensory filaments on 1st and 2nd antenna the furca and the frontal organ help in identification, close to the margin of the shell there are numerous glandular cells, the location of which are characteristic in many species. A copulatory limb is present in male. Furca with lamellae and claws are found at the posterior end. Behind the furcal claws there is often an unpaired bristle.

The classification adopted is that provided by the international specialist Dr. M.V. Angel, 2002 (personal communication).

Most ostracods are very small, fewer more than 4 mm long but some deep-water pelagic species grow to 30mm. The great majority of ostracods are benthic, but there are planktonic members, and one family, the Halocyprididae is an important marine planktonic group. Cypridinids comprise numerous neritic species, especially in the Indo-Pacific. For example, *Cypridina dentata* is the dominant epipelagic species in the upwelling region of the South Arabian Coast and contributes markedly to luminescence in that area. Geologically the fossilized carapaces of ostracods are important to date sediments.

Sexes are separate and females brood eggs in the chamber of the carapace. The male must transfer sperm to the female before eggs are laid. Males of some species attract females using flashing lights to signal while females can distinguish between related species because each has its own individual pattern. These animals can live for more than two years but moult only four or five times.

In general ostracods are micro – predators and have strong claws for grabbing small living prey. On the marine sediments some families of ostracods are important components of the scavenging community. Basically

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Though the ostracods are perhaps not such conspicuous members of plankton especially in surface tows at moderately high latitudes, the occurrence of some species and their extensive horizontal distribution, render them a reasonably important element in the marine plankton; despite their small size. In warmer oceans ostracods reach peak numbers in upper 500 m. Though numbers decrease with depth, in certain warm oceans some extent to about 6000 m.

