

# Observations on the epifaunal assemblage of micro-mollusc *Electroma vexillum* on the seagrass beds of Tuticorin coast

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Seagrass habitats form a highly productive fragile ecosystem, which offers food, shelter, and essential nursery areas of many fish and benthic invertebrates like crustaceans, bivalves, echinoderms and other groups that are produced within, or migrate to that habitats.

During our regular visit to the seagrass beds of the erstwhile Pandian island of Tuticorin coast, in connection with the assessment of the population characteristics of seagrass beds, small forms of bivalve species were noticed to heavily infest the blades of three resident species of seagrass like *Cymodocea serrulata*, *Halophila ovalis* and *Syringodium isoetifolium*. The bivalves were having inequable, fragile, translucent, obliquely wedge-shaped shell valves which were mostly greenish to brown in colour with narrow dark brown zigzag lines on the dorsal shell valves (Fig. 1).

The shell length of the collected specimens was measured using a digital calliper and total weight by using an electronic balance after drying in blotting papers. The specimens were camouflaging the available seagrass habitat showing distinct colour patterns and significant preference or

zonation in their distribution. Larger specimens of size ranging from 5.9 - 10.4mm with a mean  $\pm$  SE of  $8.08 \pm 0.43$  mm and a corresponding weight ranging from 0.043 to 0.08g ( $0.06 \pm 0.004$ g) and with the mean length to height proportion of  $1.5 \pm 0.16$  were noticed adhering on leaf blades of seagrass species with broad leaves like *Halophila ovalis* and *Cymodocea serrulata*, (Fig. 2), whereas spat of the same species having a length ranging

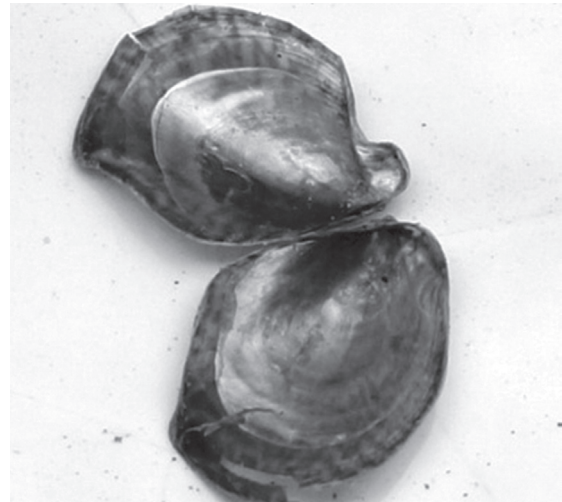


Fig.1 Close-up view of *Electroma vexillum*



Fig. 2. *Electroma vexillum* attached on seagrass leaf blade from 0.84 - 2.51mm ( $1.38 \pm 0.20$  mm) were found attached to the seagrass species with narrow leaf blades like *Syringodium isoetifolium*. This zonation

in distribution proved the ability of this species to utilize seagrass leaves as settlement surface selectively as the growth advances. 68.9% of the total biomass of *Halophila ovalis* beds and 72.6% of *Cymodocea serrulata* beds were constituted by this bivalve, which indicated gregarious nature of this species.

In the first instances, the bivalve was erroneously identified as the spat of invasive *Modiolus* sp. Later after detailed morphometric studies and consulting with experts, the specimens were identified as *Electroma vexillum* (Recve, 1857), which is very common in the Indo-Pacific region and has earlier been reported from Indian waters. In general, this species attains a maximum length of 10 mm and is normally found in seagrass fields, probably attached by a byssus to the seagrass leaves or hard substrate. Similar small species of bivalves and gastropods which are abundantly distributed in Indian waters are often misidentified or remain unnoticed and hence research focussed on their ecological significance is merited.