

First record of an invasive cheilostome bryozoan: *Schizoporella errata* in Sri Lankan waters

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Abstract

Biofouling considered to be one of the most important mechanisms of introducing marine organisms and spreading nonnative species across the oceans. Bryozoans are one of the most common fouling organisms, yet very little is known about the presence in our coastal waters due to lack of interest and difficulty in taxonomy. Therefore, there is a great importance in identification of the existing biofouling assemblage in our port environs.

The present study was confined to eight sampling locations within Colombo Port. Biofouling assemblages were collected using artificial settlement plates (10cm x 10cm) submerged in four different depths. The first set was 1 meter below the water surface and others settled in 1 m increments. Monthly samples were collected from October 2014 to July 2015 from both replacing and permanently settled collectors.

Species were identified microscopically, observing their fine morphological features. Additionally, morphometric features such as zooid and orifice length and width were determined where necessary. Findings of the present study results demonstrate presence of taxonomically diverse bryozoan community in Colombo port. Among these, the most important finding is the presence of non-indigenous highly invasive encrusting bryozoan, *Schizoporella errata* for the first time in Sri Lankan waters. They were recorded in all sampling locations in both replacing and permanently settled collectors.

S. errata is an encrusting colonial bryozoan affiliated to the family Schizoporellidae, suborder Flustrina and order Cheilostomatida. The colony is pinkish/purplish white when young and when grow old, middle area becomes dark purple and orangish at the growing edges. The colonies are unilamellar or multilamellar depending on the age of the colony. Zoocia are almost rectangular in shape and occasionally polygonal. The frontal wall is porous with deep areolar pores. The primary orifice is broad with proximal broad U shaped sinus. The umbo is little developed located below the orifice. Single avicularia may locate proximolaterally to the orifice.

S. errata is native to Mediterranean oceans and known to be introduced across the globe and became highly invasive to many countries. They may compete with native species for space and inhibit the growth of adjacent species. Further, they provide secondary substrate for other fouling organisms to settle, subsequently facilitating the dispersion of other invasive organisms.

Key words : Biofouling, non-indigenous, invasive species, encrusting bryozoa, *Schizoporella errata*, Colombo port