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LARVAL STAGES OF THE BIOFOULING COMMUNITY FOUND IN COLOMBO PORT, SRI LANKA

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Colombo Port is one of the major international ports in the Indian Ocean bridging the East-West shipping route. Therefore, the port is highly susceptible to the introduction of larval stages of potential biofouling organisms via ship hull fouling and ballast waste. Though the larval stages of biofouling taxa are the key players in biofouling community formation process, the community compositions of the larval stages within the Colombo Port are poorly understood. Therefore, identification of the larval stages of biofouling assemblages within the Colombo Port is imperative for the protection of our native coastal communities as well as to develop monitoring and protective measures against biofouling and associated activities. Larval stages of the Biofouling assemblages in 3 sampling locations i.e. Colombo International Container Terminal (CICT); Passenger Jetty (PJ); Unity Container Terminal (UCT)) within the Colombo Port was investigated from March 2016 to December 2016 fortnightly. Artificial settlement collectors made of metal plates, were deployed at 1 m and 3 m depths in each location to detect the larval stages of biofouling community. Collected larvae from different depths at sampling site were identified using standard guides. larval stages of seven species, *Spirorbis* sp.(Annelida), *Amphibalanus amphitrite*, *Austrominius modestus* (Arthropoda), *Bugula neritina*, *Membranipora membranacea* (Bryozoa), *Botryllus schlosseri*, *Ciona intestinalis* (Chordata, Class Ascidiacea) were recorded. All seven larvae were found in all three sampling locations at both depths except for *Amphibalanus amphitrite* and *Austrominius modestus*, which were found only at 3m depth. The abundance of larval stages was increased with increasing depth. Among the larval species, *M. membranacea* is native to the temperate waters of Europe and Pacific Coast of North America, while *B. neritina* native is native to Eastern Europe. The native ranges of *Ciona intestinalis* and *Bugula neritina* are unknown but suspected to be from Northern Europe. Therefore, necessary actions should be taken to minimize risk of future marine invasion events.

Keywords: *Biofouling, Larval settlement, Colombo Port*