Biological characteristics of an obligate marine strain Lagenidium thermophilum isolated from mud crab (Scylla tranquebarica) eggs in Sabah, Malaysia

Abstract

A fungus Lagenidium thermophilum was isolated from the eggs and larvae of the mud crab Scylla tranquebarica at a hatchery in Sabah, Malaysia. This fungus is responsible for almost 100% of mud crab larval mortality in the hatchery. In this study, the present strain, IPMB 1401, which was isolated from the eggs was identified as an obligatory marine fungus as the strain only grew on PYG agar containing seawater. Varying concentrations of formalin solution were tested to determine the concentration at which hyphal growth of the fungus was inhibited. The findings showed that hyphal growth and zoospore production were inhibited when the colonies were exposed to formalin at 25 ppm for 24 h. Therefore, a bath treatment using 25 ppm formalin could potentially be used to control fungal infection in mud crab larvae aquaculture operations.