First report of Lagenidium thermophilum isolated from eggs and larvae of mud crab (Scylla tranquebarica) in Sabah, Malaysia

Abstract

In April 2014, marine Oomycetes were first isolated from mud crab Scylla tranquebarica eggs and larvae at the University Malaysia Sabah shrimp hatchery. A fungus was isolated from infected eggs and larvae using PYGS agar. It was thought that the same fungus infected both eggs and larvae; therefore, strain IPMB 1401 was randomly selected for further characterization in this study. The isolated fungus produced a discharge tube from the mycelium, and a vesicle was formed at the tip. The zoospores swam away after the vesicle separated from the discharge tube. The strain IPMB 1401 was classified as a Lagenidium sp., closely related to L. thermophilum based on the mode of zoospore release. The differences between the strains IPMB 1401 and pathogenic Lagenidium spp. isolated from marine crustaceans were compared in nucleotide sequence of ITS 1 region. As a result, the IPMB 1401 showed high similarity of 99-100% and belonged to the same cluster with L. thermophilum. Therefore, the strain IPMB 1401 was identified as L. thermophilum. This is the first report of Lagenidium infection in Malaysia.