Feasibility of green mussel, Perna viridis farming in Marudu Bay, Malaysia

Abstract

Bivalve aquaculture is an important source of affordable animal protein for coastal community. The success and sustainability of this industry is highly influenced by the suitability of the environment in which it is carried out. Present study was carried out to evaluate the feasibility of green mussel (Perna viridis) farming in Marudu Bay. The site suitability for green mussel farming was evaluated based on biophysical parameters and food availability. The in situ environmental parameters, phytoplankton abundance and composition were collected from 10 sampling stations on monthly interval from May 2014 to April 2015. The results showed that the environmental parameters and food availability in most of the sampling stations were suitable for green mussel. However, the presence of phytoplankton taxa (Chaetoceraceae) which are unfavorable by green mussel in most of the stations located at the bay pocket make those areas less recommended for green mussel farming. In contrast, stations located on the mouth of the bay exhibited high site suitability rating points and hence are highly recommended for cultivation of green mussel.