

Antiparasitic potential of a medicinal plant flower against marine parasitic Leech in aquaculture

ABSTRACT

The aquaculture industry is essential for food production and economic development in Malaysia and other parts of the world. The development is affected by the parasitic infestation on different cultured fish species. The most common marine parasitic leech *Zeylanicobdella arugamensis* (Hirudinea), which infests various cultured fishes in Malaysia, also in Southeast Asian countries. The current research aimed to elucidate the methanol extract of the flower of *Dillenia suffruticosa* (DS) belonging to the family Dilleniaceae as a natural control agent against marine parasitic leech *Z. arugamensis*. The leeches were collected from infested hybrid groupers in aquaculture facilities and challenged with various concentrations (25, 50 and 100 mg/ml) of the methanol extract of DS flower. The results demonstrated significant antileech activity against *Z. arugamensis* with total mortality in an average period of 53.77 ± 1.42 , 37.63 ± 5.35 and 7.51 ± 0.74 min, respectively. Thus, the research displayed that the methanol extract of DS flower can act as a natural control agent against marine parasitic leech. The study will benefit fish farmers in Malaysia and other Southeast Asian countries to control the leeches using natural products.