Antibacterial activities of selected seaweed and seagrass from Port Dickson coastal water against different aquaculture pathogens

ABSTRACT

Eight seaweed species in Teluk Kemang and three seagrass species in Teluk Pelanduk, Port Dickson, respectively, were screened for antibacterial activities. The antibacterial activities were screened using disc diffusion test, minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) against six aquacultural pathogens strains Aeromonas hydrophila ATCC35654, Vibrio harveyi BB120, Vibrio harveyi ATCC14126, Vibrio alginolyticus ATCC17749, Vibrio parahaemolyticus ATCC17803 and Vibrio anguillarum ATCC43313. The results showed that among all the pathogens, seaweed Padina minor and seagrass Thalassia hemprichii had the strongest antibacterial activity against Vibrio harveyi BB120 and Vibrio harveyi ATCC14126, respectively. The lowest values for minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) were obtained from Padina minor against V. harveyi BB120 and Thalassia hemprichii against V. harveyi ATCC14126, respectively. The findings suggested that seaweed and seagrass in Port Dickson coastal water have the potential to prevent bacterial diseases particularly in aquaculture.

Keyword: Antibacteria; Aquaculture pathogens; Port Dickson; Seagrass; Seaweed