CHEMICAL DEFENCE OF THE SPECIALIST ASCOGLOSSAN *COSTASIELLA* SP. FROM THE INDIAN COST

K. Padmakumar & G. Lali
Department of Aquatic Biology and Fisheries, University of Kerala, Beach P.O. Thiruvananthapuram 695 007, India

ABSTRACT

Extracts of the green alga *Avrainvillea erecta* and the gastropod *Costasiella* sp. deterred both herbivorous and carnivorous fishes and also the sea star *Protoreaster lineti*. This investigation demonstrates the ability of the ascoglossan, *Costasiella* sp., to sequester the repugnant metabolite from the chemically defended dietary alga *A. erecta* and employ the same to deter potential predators. The host plant specialisation protects the prey by sequestering the defensive metabolites as in the case of the *Avrainvillea-Costasiella* relationship and also through behavioural sequestering by the association of *Avrainvillea-Ampithoe* which ultimately lead into predator deterrence or avoidance.