

PREDATION ON *LITTORARIA SCABRA* (LINNE, 1758) (LITTORINIDAE: PROSOBRANCHIA) IN THE MANGROVE OF BUNAKEN ISLAND, NORTH SULAWESI

Farnis B. Boneka, L.J.L. Lumingas & S.B. Pratasik  
Faculty of Fisheries & Marine Sciences,  
Sam Ratulangi University, Manado 95115, Indonesia

ABSTRACT

Bark of mangrove trees harbour populations of *Littoraria scabra*. The snails are preyed upon by aquatic and terrestrial predators. To investigate the main direction of predation, four *Avicennia* trees were seeded with 30 marked snails each. The snails were placed on trees variously protected by net cages: one tree with a fully closed cage to prevent access of all predators, one with a cage open above to allow entry of terrestrial predators, one with a cage open at the bottom to allow entry of aquatic predators. The fourth tree, without net, served as control. Snails were counted every 2 weeks. In the fully closed cage, the number of snails was relatively constant for 12 weeks, and survival was significantly different from the other trees. On the partly caged trees and the control tree, the number of snails declined drastically during the first four weeks. This indicates that aquatic predators (crabs), entering the tree from below, preyed on the *Littoraria*. Terrestrial predators, entering the tree trunk from above, are unknown.