



Study on Mollusc *Teredo navalis* Linnaeus 1758 in Mangrove Vegetation Environment of East Halmahera, Indonesia

Yumima Sinyo, Sutrisno Anggoro and Tri Retnaningsih Soeprbowati

Environmental Science, School of Postgraduate Studies, Universitas Diponegoro, Semarang, Indonesia

Aquatic Resources Management, Faculty of Fisheries and Marine Sciences

Universitas Diponegoro, Semarang, Indonesia

Biology, Faculty of Science and Mathematics, Department of Aquatic Resources

Universitas Diponegoro, Semarang, Indonesia

E-mail: sinyoyumima@gmail.com

Abstract: The aim of this study was to determine the ideal osmoregulation and salinity pattern for the growth of *T. navalis* in the mangrove trunk habitat. The research location consists of site I in the northern part of Wailukum Village and station II in the southern part of the mangrove waters, each station is 50 meters long. The study was conducted from June 2019 to December 2020. A sampling of 45 *T. navalis* measuring 70 cm on the mangrove trunks of *Rhizophora* sp and *Avicennia* sp. Samples of mangrove stems were taken with a size of 8 cm as many as 24 pieces, drinking water samples were 4 bottles. Determination of patterns based on osmotic workload using Automatic micro osmometer Roebbling type 13/13 DR with three repetitions. Salinity was measured using a refractor meter. The osmotic workload varied, the highest was in *Avicennia* sp (294 mOsm/l H₂O) with media salinity of 25 ppt and the lowest was of *Rhizophora* sp (3 mOsm/l H₂O) with media salinity of 16 ppt. The ideal media salinity for *T. navalis* is 16 ppt. The pattern of osmoregulation of *T. navalis* in the mangrove trunks of *Rhizophora* sp and *Avicennia* sp is hyperosmotic, iso-hyperosmotic, and isoosmotic. To maintain the presence of *T. navalis* in the stem habitat, it is necessary to pay attention to the isoosmotic range of media salinity.

Keywords: Osmotic work level, *Teredo navalis*, Mangrove stem habitat, East Halmahera
