

Research Article

The diversity of marine invertebrate macrofauna in selected rocky intertidal zones of Matara, Sri Lanka

M.P. Wickramasinghe^{1*}, K.A.M. Sudarshani², and H.C.E. Wegiriya³

Department of Zoology, Faculty of Science, University of Ruhuna, Matara 81000, Sri Lanka

**Corresponding Author's E-mail: manupa1993@gmail.com*

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ABSTRACT

The present study was conducted in intertidal rocky shores at Wellamadama and Kamburugamuwa of Matara district from June to November 2018. A line transect method was employed perpendicular to the shore and randomly placed quadrats were used to identify and quantify the species. Collectively 34 species of intertidal macroinvertebrate fauna were identified. Shannon-Weiner index, Menhinick's index, and Pielou's index for Wellamadama were 1.8271, 0.5612, and 0.7620 respectively, while those in Kamburugamuwa were 1.9281, 0.4307, and 0.7517. Higher species diversity was recorded at the rocky shores of Kamburugamuwa, while higher species richness and evenness at Wellamadama rocky shores. The Jaccard similarity index indicates a low similarity (<50%) between two study rocky shores. *Clypidina notata*, *Cellana rota*, and *Patelloida striata* were the dominant species in the low tide zone. Highly abundant species in mid tidal zone at Wellamadama was *Nodilittorina quadricincta*, while that of in mid-tide zone at Kamburugamuwa was *Chiton sp.* Periwinkle snails were dominating the high tide zone of both study rocky shores of which *Nodilittorina trochoides* dominated at Wellamadama and *Littoraria undulata* dominated at Kamburugamuwa. The study indicates that community assemblages in intertidal rocky shores vary spatially and comprehensive studies are essential to investigate the controlling factors.

Key words: Rocky intertidal zone, Invertebrates, Diversity, Dominant species, Community structure

