COMMUNITY STRUCTURE OF GASTROPODS IN SENDANG BIRU MANGROVE FOREST, SOUTH MALANG

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ABSTRACT

Mangrove forest is one of tropical coastal ecosystems which is dynamic and has the productivity, economic value, and high ecological value. Gastropod are the one classes of molluscs phylum which is dominant in the mangrove forest ecosystem that are influenced by enviromental factors (abiotic and biotic). Sendang Biru mangrove forest with unique physical characteristics of coastal topography in the form of semi-enclosed waters selected for research. The study aimed to understand the distribution and diversity of gastropods at roots, stems, and substrate in 4 zoning (Ceriops, Rhizophora, Bruguiera, and Xylocarpus) Sendang Biru mangrove forest. Chemical physical parameters measured include temperature, salinity, DO, pH, TOM, and analysis of sediment types. Overall data were analysed within descriptive method and quantitative method by using Canoco for windows 4.5 ordination programme. As the result, in Sendang Biru mangrove forests found at least 17 species of 5 families of gastropod. Most type of gastropods found in the substrate for 79.8% from total individuals were found. The highest density of species found on Terebralia sp. (Family Potamididae) with 447 individuals/m². Based on CANOCO for
Windows 4.5 test programe, DO, salinity, and the type of mangrove more influence on distribution of gastropods in the roots, stems, and substrate.

Keyword: mangrove forest, Gastropoda, Sendang Biru, Canoco