

## ABSTRACT

Haniatul Munfaridah. 24020119130115. **Vegetation Structure and Potential Use of Understory Plants in *Marine Science Techno Park (MSTP) Teluk Awur, Jepara Regency, Central Java***. Under the guidance Jumari and Lilih.

Indonesia is an archipelago with a diverse range of flora, one of which is understory vegetation. The Marine Science Techno Park (MSTP) is a bio-education area aimed at boosting the economy of Jepara residents. The MSTP area is managed by Diponegoro University in collaboration with the Jepara local government. In addition to trees, the area is also home to various types of understory plants. This study aims to determine the vegetation structure and the potential for utilizing understory plants in the MSTP area. The study was conducted at two stations: the coastal area (Station I) and the shrimp pond area (Station II). At each station, four 200-meter-long transects were established. Within each transect, four 1 m × 1 m plots were placed, spaced 50 meters apart. The procedure for collecting understory plant samples used the walk-through method; observations of understory plant samples included species names and the number of individuals. Vegetation data were analyzed descriptively and quantitatively using the Shannon-Wiener index, Simpson's dominance index, evenness index, and Importance Value Index (IVI). Potential data were analyzed descriptively through a literature review. The results identified 33 plant species from 21 families. Station I showed higher ecosystem stability ( $H'=2.915$ ;  $E=0.87$ ;  $D=0.072$ ) compared to Station II ( $H'=2.01$ ;  $E=0.69$ ;  $D=0.235$ ), which was dominated by the invasive species *Eleusine indica (L)* (IVI 59.420%). Understory plants in this area have potential as sources of traditional medicine, local food, livestock feed, and agents for coastal conservation.

*Keywords: MSTP Jepara, vegetation structure, understory plants, importance value index, potential use.*