

Mapping of Mangrove Ecosystem In Segara Anakan Lagoon using Normalized Different Vegetation Index and Dominant Vegetation Index

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Author Order	6 of 11
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Abstract	<p>Mangrove ecosystem in Segara Anakan Lagoon (SAL) Cilacap as a typical and specific semiclosed estuary. SAL is dominated by many species like as <i>Rhizophora</i> spp., <i>Sonneratia</i> spp., <i>Bruguiera</i> spp., <i>Avicennia</i> spp., and other species. The normalized different vegetation index (NDVI) and dominant vegetation index (DVI) are a suitable method to support the mapping analysis of mangrove structure and mangrove density. This research aimed to develop mapping of mangrove species distribution, density and dominated species using NDVI and DVI. The method of this research used NDVI analysis using satellite imagery 2017-2020 and domination vegetation with line and quadrat transect method. The results showed that West Segara Anakan had mangrove dense (25 %), moderate density (25 %), rare density (50%) and East Segara Anakan had mangrove dense (43,86 %), moderate density (47.99 %), rare density (8,24 %). Based on domination species showed that East Segara Anakan was dominated by <i>Rhizophora stylosa</i> (233-1633 trees ha-1), <i>Rhizophora apiculata</i> (100-1067 trees ha-1), <i>Nypa fruticosa</i> (50-2775 trees ha-1), whereas West Segara Anakan was dominated by <i>Nypa fruticosa</i> (565-2333 trees ha-1), <i>Avicennia marina</i> (198-933 trees ha-1), <i>Sonneratia caseolaris</i> (132-700 trees ha-1) and <i>Avicennia alba</i> (107-1000 trees ha-1). Keywords : Mangrove density, mapping analysis, Segara Anakan Lagoon, NDVI and NDWI</p>
Publisher Name	Fisheries and Marine Science Faculty - Jenderal Soedirman University
Publish Date	2022-11-22
Publish Year	2022
Doi	DOI: 10.20884/1.oa.2022.18.2.926
Citation	
Source	Journal Omni-Akuatika
Source Issue	Vol 18, No 2 (2022): Omni-Akuatika November
Source Page	165-178
Url	http://ojs.omniakuatika.net/index.php/joa/article/view/926/400
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