Analisis kerapatan dan persebaran vegetasi mangrove menggunakan teknologi penginderaan jauh di pulau Tunda, kabupaten Serang, provinsi Banten = Analysis of the density and distribution of mangrove vegetation using remote sensing technology in Tunda island, Serang regency, Banten province

Asti Citra Pertiwi, author

Abstrak

Penelitian mengenai analisis kerapatan dan persebaran vegetasi mangrove menggunakan teknologi penginderaan jauh berlokasi di Pulau Tunda, Kabupaten Serang, Provinsi Banten perlu dilakukan untuk memberikan informasi dan data ilmiah mengenai vegetasi mangrove di Pulau Tunda. Penelitian tersebut bertujuan untuk mengetahui komposisi spesies vegetasi mangrove, kerapatan vegetasi mangrove, dan zonasi vegetasi mangrove. Penelitian ini telah dilakukan pada 1--5 April 2016. Metode penelitian yang digunakan antara lain purposive sampling, metode transek garis berpetak, dan pengolahan citra landsat 8 OLI.
Hasil penelitian menunjukkan bahwa komposisi mangrove sejati terdiri atas 9 spesies dari 7 famili, sedangkan mangrove asosiasi terdiri atas 9 spesies dari 8 famili. Kerapatan vegetasi mangrove berdasarkan transfomrasi NDVI (0,194) dan EVI (0,085) termasuk ke dalam kelas kerapatan mangrove jarang dan tingkat kesehatan mangrove rendah. Koefisien korelasi antara NDVI (0,147) dan EVI (0,007) dengan luas basal area berkolerasi positif tetapi tergolong rendah. Zonasi mangrove sejati yang paling dominan ialah 1) Rhizophora stylosa, 2) Excoecaria agallocha, dan 3) Sonneratia caseolaris, sedangkan zonasi mangrove asosiasi ialah 1) Pongamia pinnata, 2) Morinda citrifolia, dan 3) Pandanus odoratissima. Mangrove di Pulau Tunda memiliki kelas kerapatan jarang dan persebaran acak.
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Research on analysis of the density and distribution of mangrove vegetation using remote sensing technology in Tunda Island, Serang Regency, Banten Province, was needed to give information and scientific data about mangrove vegetation in Tunda Island. The study aims to know species composition of mangrove vegetation, mangrove vegetation density, and mangrove vegetation zonation. The study was conducted on 1st -- April 5th, 2016. The method was used purposive sampling, partition line transect, and landsat satellite image 8 OLI processing.
The results showed that true mangrove composition consist of 9 species from 7 families, while associate mangrove consist of 9 species from 8 families. Mangrove vegetation density based transformation of NDVI (0,194) and EVI (0,085) was considered as rare class of mangrove density and mangrove healthy as low grade. Correlation coefficient between NDVI (0,147) and EVI (0,007) with basal area was considered as positive correlation but low grade correlation. The most dominant zonation of true mangrove vegetation were 1) Rhizophora stylosa, 2) Excoecaria agallocaha, and 3) Sonneratia caseolaris, while zonation of associate mangrove were 1) Pongamia pinnata, 2) Morinda citrifolia, and 3) Pandanus odoratissima. Mangrove in Tunda Island has rare class of density and random distribution.