Zonasi sebaran dan potensi retensi mikroflora epifit rumput laut eucheuma cottoni di Provinsi Lampung = Zoning and distribution of epiphytic on the retention potential of seaweed eucheuma cottonii in Lampung Province

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Abstrak

[ABSTRAK
Penelitian ini menggunakan teknik penginderaan jauh dengan tujuan untuk : (1) memetakan daerah budidaya rumput laut yang terinfestasi mikroflora epifit dengan menggunakan data ALOS AVNIR-2 dan spectral signature in situ; (2) memetakan zona potensi retensi menggunakan data AQUA MODIS melalui analisa kesesuaian lahan (site selection) untuk budidaya rumput laut. Metode yang digunakan dalam analisis spektral ALOS AVNIR-2 adalah identifikasi berdasarkan spectral signature in situ yang diolah di MESMA VIPER TOOLS pada ENVI 4.8 dan analisis spasial menggunakan syarat kesesuaian lahan untuk Eucheuma cottonii dengan metode composite dan overlay pada Arcmap 10. Analisis spektral menunjukkan pola pada kanal biru (panjang gelombang 460 nm) reflektasinya sangat rendah, kanal hijau (panjang gelombang 560 nm) reflektasinya sedikit meningkat, kanal merah (panjang gelombang 650 nm) sedikit meningkat sedangkan pada kanal near infrared menunjukkan reflektasi yang cukup tinggi. Pola spectral signature ini menyerupai pola spectral signature Eucheuma cottonii dari Kabupaten Jeneponto (Hendiarti, dkk., 2012) tetapi terdapat sedikit perbedaan yaitu pada spectral signature Eucheuma cottonii terinfestasi memiliki pola yang kurang halus dibandingkan dengan spectral signature Eucheuma cottonii dari Kabupaten Jeneponto. Analisis spektral ALOS AVNIR-2 dapat memetakannya potensi retensi infestasi mikroflora epifit kurang lebih seluas 4,81 ha di Desa Legundi dan 48,345 ha di Desa Sumur. Analisis spasial menunjukkan hasil bahwa di perairan Provinsi Lampung potensi retensi terinfestasi mikroflora epifit ini seluas 3.677.191,34 ha (daerah yang berpotensi), 893.919,40 ha (cukup berpotensi) dan 175.888,44 ha (tidak berpotensi). Apabila dibandingkan dengan kualitas perairan pada tahun 2007 (pada tahun ini produksi sangat tinggi) terjadi peningkatan luasan untuk daerah yang berpotensi.
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ABSTRACT
This study used remote sensing technical, it aims to: (1) mapping the seaweed cultivation areas infested epiphytic microflora using the ALOS AVNIR-2 data and in situ spectral signatures; (2) mapping the area of potential retention through the use of AQUA MODIS data and site selection analysis for seaweed cultivation.The method using spectral analysis of ALOS AVNIR-2 with reference spectral identification derived from in situ spectral signatures processed in MESMA

VIPER TOOLS in ENVI 4.8. It also conducted a spatial analysis of land used site selection for Eucheuma cottonii with the overlay method in Arcmap 10. This study showed through in situ spectral signatures measurements obtained the pattern on a blue canal (460 nm wavelength) with very low reflection, the green canal (560 nm wavelength) slightly increased reflection, the red canal (wavelength 650 nm) slightly increased, while the band near infrared is showed with high enough reflection. This spectral signature pattern similar to the pattern of spectral signatures of Eucheuma cottonii Jeneponto (Hendiarti et al, 2012) but there is little difference in the spectral signature of Eucheuma cottonii infested pattern smoother than the spectral signature of Eucheuma cottonii Jeneponto. Spectral analysis of ALOS AVNIR-2 with reference to the spectral signature is mapping Eucheuma cottonii that can more or less infested area of 4.81 ha in the Legundi village and 48.345 ha in the Sumur village. Spatial analysis showed that in Lampung potential retention area infested 3.677.191,34 ha (potentially area), 893,919.40 ha (potentially enough) and 175,888.44 ha (not potential). Compared to the water quality in 2007 (the year of production was very high) occurred the increasing of the extent to potential areas.;This study used remote sensing technical, it aims to: (1) mapping the seaweed cultivation areas infested epiphytic microflora using the ALOS AVNIR-2 data and in situ spectral signatures; (2) mapping the area of potential retention through the use of AQUA MODIS data and site selection analysis for seaweed cultivation.The method using spectral analysis of ALOS AVNIR-2 with reference spectral identification derived from in situ spectral signatures processed in MESMA VIPER TOOLS in ENVI 4.8. It also conducted a spatial analysis of land used site selection for Eucheuma cottonii with the overlay method in Arcmap 10. This study showed through in situ spectral signatures measurements obtained the pattern on a blue canal (460 nm wavelength) with very low reflection, the green canal (560 nm wavelength) slightly increased reflection, the red canal (wavelength 650 nm) slightly increased, while the band near infrared is showed with high enough reflection. This spectral signature pattern similar to the pattern of spectral signatures of Eucheuma cottonii Jeneponto (Hendiarti et al, 2012) but there is little difference in the spectral signature of Eucheuma cottonii infested pattern smoother than the spectral signature of Eucheuma cottonii Jeneponto. Spectral analysis of ALOS AVNIR-2 with reference to the spectral signature is mapping Eucheuma cottonii that can more or less infested area of 4.81 ha in the Legundi village and 48.345 ha in the Sumur village. Spatial analysis showed that in Lampung potential retention area infested 3.677.191,34 ha (potentially area), 893,919.40 ha (potentially enough) and 175,888.44 ha (not potential). Compared to the water quality in 2007 (the year of production was very high) occurred the increasing of the extent to potential areas., This study used remote sensing technical, it aims to: (1) mapping the seaweed cultivation areas infested epiphytic microflora using the ALOS AVNIR-2 data and in situ spectral signatures; (2) mapping the area of potential retention through the use of AQUA MODIS data and site selection analysis for seaweed

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