

ABSTRAK

ESTIMASI PENYIMPANAN KARBON MANGROVE DI REGISTER 15, KECAMATAN PASIR SAKTI, KABUPATEN LAMPUNG TIMUR, PROVINSI LAMPUNG

Oleh

Maulana Syarif Hidayatullah

Pemanasan global merupakan suatu fenomena yang disebabkan oleh emisi karbon berlebihan di atmosfer. Mangrove merupakan salah satu ekosistem pesisir yang dapat mengurangi emisi karbon tersebut dengan cara menyerap dan menyimpan karbon melalui proses fotosintesis. Penelitian ini bertujuan untuk menganalisis karbon tersimpan pada tegakan, nekromassa, serasah, dan substrat mangrove di Register 15, Kecamatan Pasir Sakti, Kabupaten Lampung Timur, Provinsi Lampung. Pengukuran karbon tersimpan dilakukan dengan perhitungan biomassa atas permukaan dan biomassa bawah permukaan yang kemudian dikonversikan menjadi karbon tersimpan, serta analisis C-organik tanah. Nilai karbon tersimpan pada tegakan, nekromassa, dan serasah mangrove yaitu 29,92 kg C/m², 0,34 kg C/m², dan 0,18 kg C/m². Nilai kandungan C-organik tanah tertinggi yaitu pada substrat tekstur liat kasar sebesar 169,71 kg C/m², sedangkan nilai C-organik tanah terendah yaitu pada substrat tekstur pasir kasar sebesar 94,87 kg C/m². Kesimpulan dalam penelitian ini, yaitu karbon tersimpan pada tegakan mangrove lebih tinggi dibandingkan pada nekromassa dan serasah, sedangkan nilai C-organik tertinggi terdapat pada substrat tanah liat.

Kata Kunci : Biomassa, C-organik, mangrove, dan karbon tersimpan.

ABSTRACT

ESTIMATION OF CARBON STOCK OF MANGROVE IN REGISTER 15, PASIR SAKTI DISTRICT, EAST LAMPUNG REGENCY, LAMPUNG PROVINCE

By

Maulana Syarif Hidayatullah

Global warming is a phenomenon caused by excessive carbon emissions in the atmosphere. Mangroves are one of the coastal ecosystems that can reduce carbon emission by absorbing and storing carbon through the photosynthesis process. The study aimed to analyze the carbon stored in stands, necromass, litter, and mangrove substrate at Register 15, Pasir Sakti District, East Lampung Regency, Lampung Province. The measurement of stored carbon was carried out by calculating the above-ground biomass and sub-surface biomass which was then converted into stored carbon, as well as soil C-organic analysis. The carbon values stored in stands, necromass, and mangrove litter were 29.92 kg C/m², 0.34 kg C/m², and 0.18 kg C/m². The highest soil C-organic value was in the coarse clay textured substrate by 169.71 kg C/m², while the lowest soil C-organic value was in the coarse sand textured substrate by 94.87 kg C/m². The conclusion of this study, was that the carbon stored in mangrove stands was higher than in necromass and litter, while the highest soil C-organic value was in clay substrates.

Keywords : *Biomass, C-organik, carbon stock, and mangrove.*