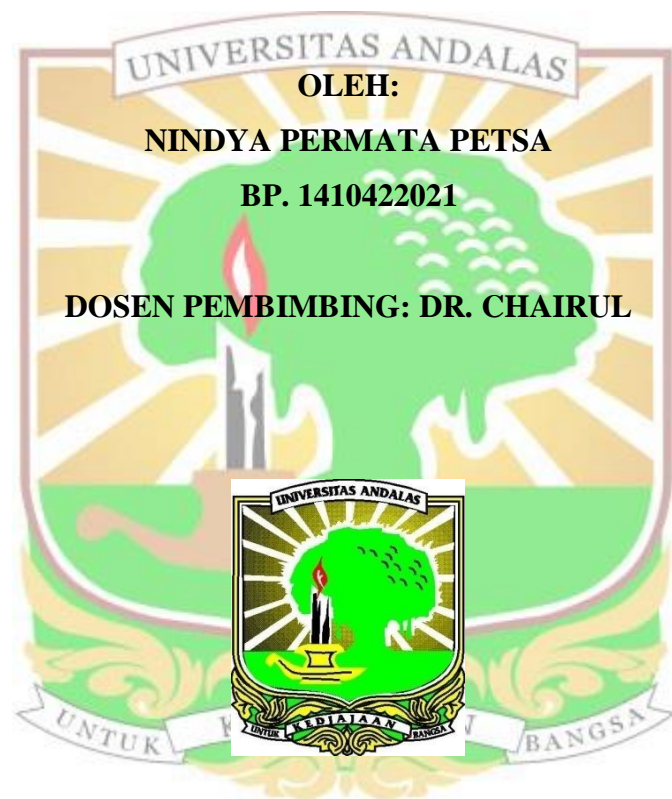


**POTENSI CADANGAN KARBON PADA PERMUKAAN TANAH DI AREAL
PENGELOLAAN HUTAN BERBASIS MASYARAKAT (PHBM) DI NAGARI
KOTOBARU, KABUPATEN SOLOK SELATAN**

SKRIPSI SARJANA BIOLOGI

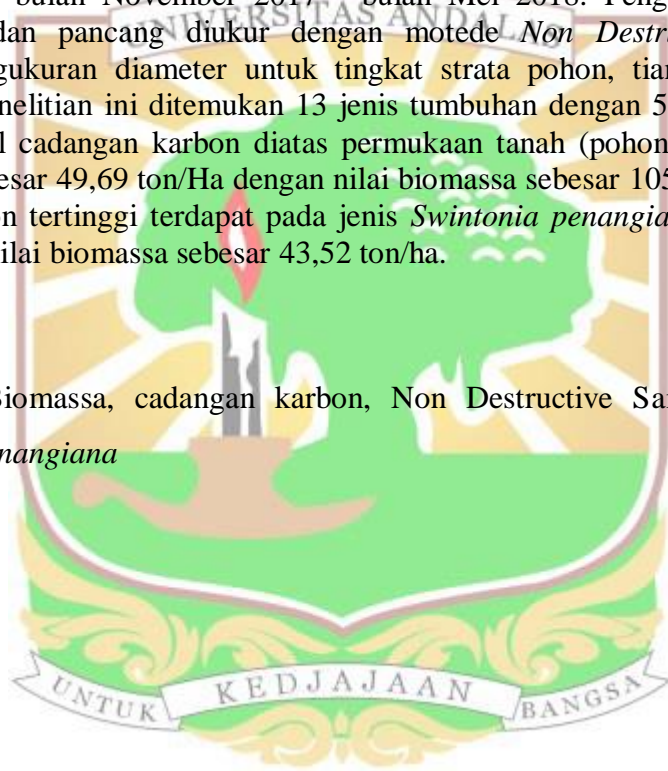


**JURUSAN BIOLOGI
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
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ABSTRAK

Hutan merupakan bagian dari sumber daya alam yang mempunyai peranan sangat penting dalam kelangsungan hidup dan kehidupan makhluk di bumi. Salah satu peranan hutan sebagai penyerap karbon dan menjaga kestabilan iklim global karena kemampuannya menyerap CO₂ melalui proses fotosintesis. Penelitian “Potensi Cadangan Karbon Pada Permukaan Tanah Di Areal Pengelolaan Hutan Berbasis Masyarakat (PHBM) Di Nagari Kotobaru, Kabupaten Solok Selatan”. Tujuan penelitian ini untuk mengetahui potensi cadangan karbon tersimpan pada permukaan tanah di areal Pengelolaan Hutan Berbasis Masyarakat (PHBM) di Nagari Kotobaru, Kecamatan Sungai Pagu, Kabupaten Solok Selatan. Penelitian ini dilakukan pada bulan November 2017 - bulan Mei 2018. Pengukuran biomassa pohon, tiang dan pancang diukur dengan metode *Non Destructive Sampling*. Dilakukan pengukuran diameter untuk tingkat strata pohon, tiang dan pancang. Berdasarkan penelitian ini ditemukan 13 jenis tumbuhan dengan 52 individu dalam 13 famili. Total cadangan karbon diatas permukaan tanah (pohon, tiang, pancang) didapatkan sebesar 49,69 ton/Ha dengan nilai biomassa sebesar 105,73 ton/Ha. Nilai cadangan karbon tertinggi terdapat pada jenis *Swintonia penangiana* sebesar 20,45 ton/ha dengan nilai biomassa sebesar 43,52 ton/ha.

Kata Kunci: Biomassa, cadangan karbon, Non Destructive Sampling, *Swintonia penangiana*



ABSTRACT

Forests are part of natural resources which have a very important role in the survival and life of creatures on earth. One of the roles of forests as carbon sinks and maintaining global climate stability is their ability to absorb CO₂ through photosynthesis. Research "Potential Carbon Reserves on Land Surface in the Community Based Forest Management (CBFM) Areas in Nagari Kotobaru, South Solok Regency". The purpose of this study is to determine the potential of carbon stocks stored on the surface of the land in the area of Community Based Forest Management (CBFM) in Kotobaru Nagari, Sungai Pagu District, South Solok Regency. This research was conducted in November 2017 - May 2018. Measurements of tree biomass, poles and stakes were measured by the method of Non Destructive Sampling. Diameter measurements were carried out for tree, poles and stakes strata. Based on this study 13 species of plants were found with 52 individuals in 13 families. The total carbon stock above the soil surface (trees, poles, stakes) was obtained at 49.69 tons/ha with a biomass value of 105.73 tons/ha. The highest value of carbon reserves is found in *Swintonia penangiana* at 20.45 tons/ha with a biomass value of 43.52 tons/ha.

Keywords: Biomass, Carbon Stock, Non Destructive Sampling, *Swintonia penangiana*

