

ABSTRAK

Penelitian bertujuan untuk mengetahui sebaran jenis substrat serta pengaruhnya terhadap tutupan kanopi mangrove di Kecamatan Socah dan Kecamatan Bangkalan, Madura. Penelitian dilakukan pada bulan Agustus 2023. Penentuan titik *sampling* menggunakan metode *purpose sampling* dengan luas per transek 10x10 meter pada dua stasiun dengan sebaran tiga titik transek di tiap stasiun. Dari hasil perhitungan persentase jenis substrat, dapat diketahui bahwa persentase jenis substrat Gravel paling tinggi ditemukan di T2 sebanyak 0,517%, jenis substrat Sand sebanyak 64,830% di T1, Silt sebanyak 1,196% di T3, dan Clay paling banyak ditemukan di T4 dengan persentase sebesar 82,388%. Hasil perhitungan persentase tutupan kanopi mangrove pada tabel di atas, menunjukkan bahwa dari 2 stasiun dengan jumlah 6 titik penelitian, stasiun 1 dan stasiun 2 tergolong dalam kategori baik. Hasil analisis regresi menunjukkan nilai *R Square* terbesar dimiliki jenis substrat gravel yakni 0.3749 yang berarti 37,5% persentase tutupan kanopi dipengaruhi oleh jenis substrat Gravel. Diketahui bahwa nilai *R Square* substrat Silt sebesar 0.285 yakni dalam kategori rendah, yang berarti 28% variabel persentase tutupan kanopi mangrove dapat dijelaskan oleh variabel jenis substrat Silt. Diketahui bahwa nilai *R Square* substrat Sand sebesar 0.292 yakni dalam kategori rendah. Semua berkorelasi positif kecuali koefisien data clay, diketahui bahwa nilai *R Square* substrat clay sebesar 0.308 yakni dalam kategori rendah.

Kata Kunci : Jenis Substrat, Persentase Tutupan Kanopi Mangrove, Koefisien Determinasi (R^2)

ABSTRACT

This research aimed to determine the distribution of substrate types and their effects on mangrove forest cover in Socah District and Bangkalan District, Madura. The study was conducted in August 2023. Determination of sampling points using the Purpose Sampling method with an area per transect of 10x10 meters at two stations with a distribution of three transect points at each station. From the results of the calculation of the percentage of substrate types, it can be seen that the highest percentage of Gravel substrate types was found in T2 as much as 0.517%, Sand substrate types as much as 64.830% in T1, Silt as much as 1.196% in T3, and Clay was most commonly found in T4 with a percentage of 82.388%. The results of the calculation of the percentage of mangrove canopy cover in the table above show that out of 2 stations with a total of 6 research points, station 1 and station 2 are included in the good category. The results of the regression analysis show the largest R Square value for the gravel substrate type, namely 0.3749, which means that 37.5% of the percentage of canopy cover is influenced by the gravel substrate type. R Square value of the Silt substrate it's known is 0.285 which is in the low category, which means that 28% of the mangrove canopy cover percentage variable can be explained by the Silt substrate type variable. It is known that the R Square value of the Sand substrate is 0.292 which is in the low category. All are positively correlated except for the clay data coefficient, it is known that the R Square value of the clay substrate is 0.308, which is in the low category.

Keywords: Substrate Type, Percentage of Mangrove Canopy Cover, Determination Coefficient (R²)