

HUBUNGAN ANTARA LEBAR PERAKARAN MANGROVE DENGAN KETEBALAN SUBSTRAT LUMPUR DI KAWASAN SEGORO ANAK RESORT GRAJAGAN TAMAN NASIONAL ALAS PURWO

INTISARI

Oleh :

Rizka Januardana¹

Dr. Erny Poedjirahajoe, M.P.²

Hutan mangrove merupakan ekosistem yang khas dan bersifat unik yaitu sebagai penghubung antara daratan dan perairan. Salah satu fungsi hutan mangrove adalah sebagai pelindung dan juga sebagai pendukung kedua ekosistem tersebut. Berbagai fungsi dan manfaat hutan mangrove tidak lepas dari peran perakaran mangrove yang juga memiliki berbagai keunikan. Salah satunya adalah dapat mengakumulasi substrat lumpur agar tetap tinggal pada habitat mangrove tersebut.

Penelitian ini bertujuan untuk mengetahui kondisi perakaran mangrove, kondisi substrat lumpur dan hubungan antara perakaran mangrove dengan substrat lumpur di hutan mangrove Segoro Anak Taman Nasional Alas Purwo. Untuk memenuhi tujuan penelitian tersebut, dilakukan metode sistematis dengan petak ukur kuadrat meliputi pengukuran vegetasi dan pengukuran faktor fisik-kimia perairan yaitu oksigen terlarut (DO), suhu, salinitas, derajat keasaman (pH) dan ketebalan lumpur.

Hasil penelitian menunjukkan bahwa lebar perakaran mangrove rata-rata sebesar 3,19 meter dan untuk tebal lumpur rata-rata 117,72 cm. Hubungan antara lebar perakaran mangrove dengan ketebalan lumpur signifikan dengan koefisien korelasi 0,845. Berdasarkan analisis regresi, lebar perakaran mangrove berpengaruh signifikan terhadap ketebalan lumpur dengan model persamaan regresi yang diperoleh : $Y = 52,609 + 0,027 X$ dengan koefisien determinasi sebesar 0,714. Artinya adalah bahwa variasi lebar perakaran (X) mangrove mampu merepresentasikan variasi tebal lumpur (Y) pada habitat mangrove sebesar 71,4 %. Sisanya dipengaruhi oleh faktor lain. Hal ini menunjukkan bahwa semakin lebar perakaran mangrove maka akan semakin tebal lumpur yang terdapat pada habitat tersebut.

Kata kunci : mangrove, perakaran, substrat lumpur

¹Mahasiswa Bagian Konservasi Sumberdaya Hutan Fakultas Kehutanan UGM

²Dosen di Bagian Konservasi Sumberdaya Hutan Fakultas Kehutanan UGM

RELATIONSHIP BETWEEN WIDTH OF MANGROVE ROOTS WITH MUD SUBSTRATE THICKNESS IN SEGORO ANAK RESORT GRAJAGAN ALAS PURWO NATIONAL PARK

ABSTRACT

Rizka Januardana¹

Dr. Erny Poedjirahajoe, M.P.²

Mangrove forests is a unique ecosystem that are link between terrestrial and aquatic land. One of the function of mangrove forest is as a protector and also supports of both ecosystems. Various functions and benefits of mangrove forests are not separated from the role of mangrove roots that also has a variety of uniqueness's. One of these is to accumulate the substrate mud so that it stays in the mangrove habitat.

The objectives of this research were to find out the condition of mangrove roots, mud substrate conditions and the relationship between mangrove roots with mud substrate in mangrove forests Segoro Anak, Alas Purwo National Park. In order to achieve these research objectives the systematic method with square plots was applied in which included the measurements of vegetation and the measurement of aquatic physical-chemical factors, namely dissolved oxygen (DO), temperature, salinity, acidity (pH) and mud thickness.

The results showed that the average width of the mangrove roots were 3.19 meters and the average thick mud was 117.72 cm. The relationship between the width of mangrove roots and mud thickness were significantly related with a coefficient of 0,845. Based on the regression analysis, the width of the mangrove roots were significantly influenced by the thickness of the mud showed by a model obtained by the regression equation : $Y = 52,609 + 0,027 X$ with r^2 of 0,714. This means that width variations in mangrove roots (X) represent a variety of mud thickness (Y) in mangrove habitat as high as 71,4%. The rest of it influenced by other factors. This shows that the wider the roots then the thicker the mud in the mangrove habitat.

Keywords : mangrove, rooting, mud substrate

¹Student of Forest Resources Conservation Department. Faculty of Forestry. UGM

²Lecturer of Forest Resources Conservation Department. Faculty of Forestry. UGM