

## Struktur Komunitas Mangrove Asosiasi di Kawasan Tambak Silvofishery Blanakan, Subang, Jawa Barat = Community Structure of Associated Mangrove at Blanakan Silvofishery Pond, Subang, West Java

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### Abstrak

Penelitian struktur komunitas mangrove asosiasi di kawasan tambak silvofishery Blanakan telah dilakukan sejak Februari hingga Agustus 2019. Penelitian ini bertujuan untuk mengetahui dan membandingkan struktur komunitas mangrove asosiasi yang dekat dan jauh dari sumber polutan logam berat di kawasan tambak silvofishery Blanakan, Subang, Jawa Barat, meliputi komposisi jenis, keanekaragaman, kemerataan, dominansi, kerapatan relatif, frekuensi relatif, penutupan relatif, dan Indeks Nilai Penting (INP). Data komunitas mangrove asosiasi diambil dari 3 stasiun, yang masing-masing terdiri atas 3 tambak.

Pengambilan data di setiap tambak dilakukan dengan metode belt transect berukuran  $1\text{m} \times 100\text{m}$  sejumlah 4 belt transect. Pengukuran faktor abiotik dilakukan di setiap tambak. Mangrove asosiasi diidentifikasi dan dianalisis menggunakan indeks keanekaragaman Shannon-Wiener, indeks kemerataan Pielou, indeks dominansi Simpson, Kerapatan Relatif jenis, Frekuensi Relatif jenis, Penutupan Relatif jenis, dan Indeks Nilai Penting. Hasil penelitian diperoleh 19 jenis mangrove asosiasi dari 12 suku. Komposisi jenis komunitas mangrove asosiasi di stasiun II yang berada jauh dari sumber polutan logam berat, lebih banyak dibandingkan di stasiun I dan III yang berada dekat dengan sumber polutan logam berat. Keanekaragaman jenis mangrove asosiasi tinggi sementara penyebaran jenis hampir merata di setiap stasiun. Namun, tidak terdapat jenis yang mendominasi komunitas tersebut. Komunitas mangrove asosiasi dalam keadaan stabil dan faktor abiotik masih mendukung keberadaan komunitas tersebut. *Chloris barbata* Sw. (vide Bor) memiliki kerapatan relatif tertinggi sebesar 41,13% pada stasiun I. *Ischaemum muticum* memiliki frekuensi relatif tertinggi sebesar 28,59% pada stasiun I. *Pluchea indica* L. memiliki INP sebesar 73,65% pada stasiun II. *Sesuvium portulacastrum* L. memiliki penutupan relatif tertinggi sebesar 50,12% dan INP tertinggi sebesar 99,81% pada stasiun III.

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Community structure study of associated mangrove at Blanakan Silvofishery Pond was done from February until August 2019. The purpose of this study is to know and compare the community structure of associated mangrove near and far from the source of heavy metal pollutants in the Blanakan silvofishery pond area, Subang, West Java, including species composition, diversity, evenness, dominance, relative density, relative frequency, relative closure, and Important Value Index (IVI). Data of associated mangrove community were collected from 3 stations and each station consist of 3 ponds. The sampling community data on each pond was done using belt transect method with  $1 \times 100$  square meter as many as 4 belt transects. Measurement of abiotic factors was done on each pond. Associated mangrove were identified and analyzed using the Shannon-Wiener diversity index, Pielou evenness index, Simpson dominance index, Species Relative Density, Species Relative Frequency, Species Relative Closure, and Important Value Index. The results showed that there were 19 species of associated mangrove from 12 families. The species composition of the associated mangrove community at station II which far from the sources of heavy metal pollutants, more

than in station I and III which are close to the sources of heavy metal pollutants. Species diversity of associated mangrove is high while species distribution is almost evenly distributed at each station. However, there is no dominant species in community. The associated mangrove community was in stable condition and the abiotic factors still support the existence of the community. *Chloris barbata* Sw. (vide Bor) has the highest relative density, as many as 41,13% at station I. *Ischaemum muticum* has highest relative frequency, as many as 28,59% at station I. *Pluchea indica* L. has IVI as many as 73,65% at stasion II. *Sesuvium portulacastrum* L. has the highest relative closure as many as 50,12% and the highest IVI as many as 99,81% at station III.<i/>