

POPULATION STRUCTURE OF *Polymesoda* spp. (Heterodonta: Corbiculidae)
AT MANGROVE FOREST IN PASSO AND WAAI VILLAGES
AMBON ISLAND MALUKU

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Abstract

Maluku Province is situated in eastern part of Indonesia and its coastal area has productive resources such as mangrove forest. The occurrence of mangrove forest and its functions has been threatened by nature even anthropogenic. Human activities done continually without being balance by management activity which take place in mangrove forest in Passo and Waai villages could affect mangrove composition. As a result, the population structure of *Polymesoda* spp. could also change. The objectives of the study were to analyze mangrove composition and population structure of *Polymesoda* spp. as well as to analyze relationship between mangrove composition and population structure of *Polymesoda* spp. The line-transect method was used to collect data on mangrove distribution and abundance of *Polymesoda* spp. The relationship between mangrove and population structure of *Polymesoda* spp. at two sites were analyzed by using formulas mangrove density, frequency of occurrence, density of *Polymesoda* spp. and dominance index. The results showed that *Nypa fruticans* and *Rhizophora mucronata* were dominant species in mangrove forest at Passo which the important value for each was 70, 84% and 58, 03%. In addition, at mangrove forest in Waai *Nypa fruticans* was the only dominant species which its important value was 200%. The density of *Polymesoda* spp. indicated that high density with large shell size was represented by *Polymesoda expansa* and *Polymesoda bengalensis* at mangrove forest in Passo. Additionally, the medium and small shell sizes were represented by *Polymesoda expansa*. At mangrove forest in Waai village, high density with large shell size was represented by *Polymesoda expansa* whereas *Polymesoda bengalensis* was having medium and small shell sizes. The correlation test and regression linear explained that both were positive correlation and also positive linear correlation between mangrove and *Polymesoda expansa*.

Keywords: composition, population, mangrove, *Polymesoda* spp, Passo and Waai villages

STRUKTUR POPULASI *Polymesoda* spp. (Heterodonta: Corbiculidae) PADA
MANGROVE DI NEGERI PASSO DAN NEGERI WAAI PULAU AMBON MALUKU

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Intisari

Provinsi Maluku terletak di kawasan timur Indonesia memiliki wilayah pesisir dengan sumberdaya yang produktif seperti hutan mangrove (*mangrove*). Keberadaan hutan mangrove dengan fungsinya mendapat gangguan alami maupun ancaman dari aktivitas manusia. Aktivitas manusia yang dilakukan secara terus-menerus tanpa diimbangi dengan kegiatan pengelolaan seperti yang terjadi di areal hutan mangrove Negeri Passo dan Waai, dapat mempengaruhi komposisi penyusun mangrove yang berakibat pada perubahan struktur populasi *Polymesoda* spp. Penelitian ini bertujuan untuk menganalisis komposisi penyusun mangrove, dan juga struktur populasi *Polymesoda* spp., serta menganalisis hubungan komposisi mangrove terhadap struktur populasi *Polymesoda* spp. Metode line-transek digunakan dalam mencuplik data distribusi mangrove serta kelimpahan *Polymesoda* spp. Hubungan komposisi mangrove dan struktur populasi *Polymesoda* spp. pada kedua lokasi di analisis menggunakan rumus densitas mangrove, frekuensi kehadiran, densitas *Polymesoda* spp. dan indeks dominansi. Hasil penelitian menunjukkan bahwa pada hutan mangrove Negeri Passo, *Nypa fruticans* dan *Rhizophora mucronata* merupakan jenis dominan dengan nilai penting sebesar 70,84% dan 58,03%. Pada hutan mangrove Negeri Waai, hanya *Nypa fruticans* yang dominan dengan nilai pentingnya sebesar 200%. Hasil pengamatan densitas *Polymesoda* spp. menjelaskan bahwa pada Hutan mangrove Negeri Passo densitas tertinggi dengan ukuran cangkang besar dimiliki spesies *Polymesoda expansa* dan *Polymesoda bengalensis*, dan ukuran cangkang sedang dan kecil dimiliki spesies *Polymesoda expansa*. Pada hutan mangrove Negeri Waai densitas tertinggi dengan ukuran cangkang besar dimiliki spesies *Polymesoda expansa*, dan pada ukuran cangkang sedang dan Kecil dimiliki spesies *Polymesoda bengalensis*. Hasil uji korelasi dan regresi linier menjelaskan bahwa hanya hubungan mangrove dan *Polymesoda expansa* yang berkorelasi positif dan memiliki hubungan linier positif.

Kata kunci : Komposisi, Populasi, Mangrove, *Polymesoda* spp, Negeri Passo dan Waai.