

# Struktur komunitas kepiting dan potensi kepiting bakau (*scylla oceanica*) di ekosistem mangrove Kecamatan Panimbang, Banten = The structural type of the crab community and the potential of mangrove crabs *scylla oceanica* at the mangrove ecosystem in Panimbang sub District Banten / Titing Pudiawati

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## Abstrak

### <b>ABSTRAK</b><br>

Telah dilakukan penelitian mengenai struktur komunitas kepiting dan potensi kepiting bakau *Scylla oceanica* di ekosistem mangrove Kecamatan Panimbang, Banten, bertujuan untuk mengetahui struktur komunitas kepiting dan potensikepiting bakauserta mengetahui indeks persepsi masyarakatyang tinggal di sekitar hutan mangrove. Pengambilan sampel vegetasi mangrove menggunakan metode Line Transect Plot,dan untuk sampel kepiting dilakukan dengan metoda transek pada tiga stasiun pengamatan. Setiap stasiun dibuat tiga plot dengan tiga kali ulangan. Hasil yang diperoleh ditemukan 6 jenis mangrove yaitu *Avicennia alba*, *Bruguiera* sp, *Excoecaria agollocha*, *Lumnitzera littorea*, *Rhizopora apiculata*, dan *Sonneratia alba* serta 4 suku kepiting dengan 14 jenis dari 354 kepiting, yaitu suku *Grapsidae*, *Sesarmidae*, *Ocypodidae*, dan *Dotillidae*. Rata-rata kepadatan kepiting 36 ind/m<sup>2</sup> - 43 ind/m<sup>2</sup>, indeks keanekaragaman 1,86-2,01, indeks keseragaman 0,706 - 0,763, indeks dominansi 0,142 - 0,166, dan pola distribusi mengelompok Id = 1,282-1,494 . Indeks kesamaan antara stasiun 1, 2, dan 3, hampir sama 78,01 - 85,96 . . Rata-rata kepadatan kepiting bakau *Scylla oceanica* yaitu 19,1ekor/100 m<sup>2</sup>. Berat kepiting bakau betina berkisar 95 ndash; 495 g dan kepiting jantan berkisar 100 ndash; 420 g. Lebar karapaks kepiting bakau betina 6,8 ndash; 14,5 cm dan kepiting bakau jantan 7,1 ndash; 13,5 cm. Pola pertumbuhan kepiting bakau jantan dan betina menunjukkan tipe allometrik negatif, dengan pola distribusi mengelompok Id = 1,5176 . Indeks persepsi masyarakat tentang potensi kepiting bakau di Panimbang, Banten tergolong baik 78 . Potensi hasil tangkapan kepiting bakau per bulan sebesar 2.820 ndash; 4.440 kg dan pendapatan penduduk dari sektor ini berkisar Rp169.200.000,00- sampai Rp266.400,00,- per-bulan.

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### <b>ABSTRACT</b><br>

A research has been conducted regarding the structural type of the crab community and the potential of the mangrove crab *Scylla oceanica* at mangrove ecosystem station Panimbang sub district, Banten. The objective of the research is to understand the structure of the crab community and the potential of the mangrove crab and to discover the perception index of communities living around the mangrove forest. Sampling of the local mangrove vegetation uses Line Transect Plot and the crabs is using the transect method at the three observation station. Three plots at each location was observed and executed three times. The result was as follows 6 types of mangrove which are *Avicennia alba*, *Bruguiera* sp, *Excoecaria agollocha*, *Lumnitzera littorea*, *Rhizopora apiculata*, and *Sonneratia alba* including 4 family of crabs from 14 species from the 354 crabs caught, which are family of *Grapsidae*, *Sesarmidae*, *Ocypodidae*, and *Dotillidae*. The population density of being 36 ind m<sup>2</sup> 43 ind m<sup>2</sup>, the diversity index of crabs is 1,86 ndash 2,01, the uniformity index of mangrove crabs is 0,706 0,763, dominance index around 0,142 ndash 0,166, and the

distribution pattern of grouping crabs  $I_d$  1,282 ndash 1,494 . Uniformity index between station 1, 2 and 3 are almost similar 78,01 85,96 . Population density of mangrove crabs *Scylla oceanica* are 19,1 ind 100 m<sup>2</sup>. The average weight of female mangrove crabs caught were around 95 495 g, the average weight of male crabs being at 100 420 g. Diameter of carapace of the female crabs are around 6,8 ndash 14,5 cm and the average carapace diameter of male crabs were found at 7,1 ndash 13,5 cm. The growth pattern of male and female mangrove crabs is the negative allometric type, with a grouping distribution value  $I_d$  1,5176 . The community perception index regarding the potential of the mangrove crabs at Panimbang sub district, Banten is considered good 78 . The potential catch mud crabs per month of 2.820 4.440 kg and incomes of population in this sector ranges Rp169.200.000,00 until Rp266.400.000,00 per month.