

The frequency distribution of the length, gonad maturity stages, sex ratio, length at first mature and catch, width-weight relationship, and fisheries factors of blue swimmer crab (*Portunus pelagicus*) caught by *arad* tawl landed at Tegalsari coastal fisheries port in Central Java, Indonesia

Dadan Zulkifli¹, Mugi Mulyono¹, *Firman Agus Heriansyah², Hendra Irawan³

¹ Sekolah Tinggi Perikanan, Jalan AUP, Pasar Minggu, Jakarta, mugimulyono@kkip.go.id

² Politeknik Kelautan Perikanan Karawang, Jl. Baru Tanjungpura-Klari, Kel. Karang Pawitan Kec. Karawang Barat Jawa Barat poltekkkip_kerawang@yahoo.com

³ Bagian Administrasi Pelatihan Perikanan Lapangan Kampus Pantai STP Karangantu, Serang-Banten, bappl@kkip.go.id

Abstract

The research of biology and fisheries aspects of blue swimmer crab (*Portunus pelagicus*) caught by *arad* trawl was done at Tegalsari Coastal Fishing Port in Central Java. Data were collected from 755 individuals. The research method was survey, descriptive analysis and interviews. The most frequently **catch** fish was between 115.9 – 127.7 mm. They was positive allometric pattern. Width weight relationship had equation (all samples) $W=0.0000311 L^{3.1623}$ and (males) $W = 0.0000249 L^{3.2202}$ and (females) $W = 0.0000536 L^{3.0378}$. Length at first **mature** was 124.74 mm (male) and 113.57 mm (females). The L_m value of all samples was 110.17 mm, and the L_c value was 120.4 mm, it means $L_c > L_m$, the **catch** crabs still had a chance to mature and spawn. Investigation, however, on fisheries aspects become important in this case. The present study provides a basic and valuable information for the crab fisheries management and population monitoring.

Key words: Blue swimmer crab, biology and fisheries aspects, fisheries management, *arad* trawl (local mini trawl)

Introduction

Tegal is one of 35 regencies and towns in Central Java province. The capital is Slawi, which is located in 14 Km aside from Tegal city. This regency is bounded with Java ocean. it is one of the regencies that manage the marine resources to develop their regions. In the marine and fisheries sector, there are lot of Tegal fishermen looking for fish to waters of Tegal, Brebes and Cirebon not far from the beach, which is about two up to three miles to the north, west and east of the mainland and landed at Tegalsari Coastal Fisheries Port. The fish that they usually seek is blue swimmer crabs. The blue swimmer crabs (*Portunus pelagicus* Linnaeus, 1766) are highly desirable for capture by fishing as this commodity having an economic value and as an export commodity with high demand as well as highly price in the market. The production heretofore is still relying on catching the crab from the sea, since it can not be

Commented [r1]: ca

Commented [r2]: m

Commented [r3]: ca