

## PRODUCTION, SIZE DISTRIBUTION, AND LENGTH WEIGHT RELATIONSHIP OF LOBSTER LANDED IN THE SOUTH COAST OF YOGYAKARTA, INDONESIA

Aisyah and Setiya Triharyuni

Research Center for Capture Fisheries, Ancol-Jakarta

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### ABSTRACT

Lobster is one of the most important fisheries export commodities. An increasing trend of annual production during 1999-2005 was occurred, however a decreasing trend during 2005-2007 was observed. It is likely that the long lived and slow growing species group do not capable to balance the fishing pressure. Information on lobster fisheries were gathered through desk study while field surveys and biological observations were focused in Baron sub district at the largest lobster collector in the district of Gunung Kidul, Yogyakarta. From data analysis it was found that the dominant size of lobster collected in January to October 2009 was in the stage of juvenile or can be categorized as seed with the monthly average of about 52% of the total catch. It was also identified that lobster species consisted of sand lobster (*Panulirus homarus*), brown spiny lobster (*P. penicillatus*), pearl lobster (*P. ornatus*), dark green striped leg spiny lobster (*P. versicolor*), painted spiny lobster (*P. longipes*), grey-blue spotted legs (*P. polyphagus*), and red Spanish lobster (*Scyllarides squammosus*). The first two species were the most abundance group as reflected by the highest amount in the catch followed by *P. ornatus*. Lobster fishing season characterized by high production in the south coast of Yogyakarta occur at the end of the year to the beginning of the following year. Some management measures leading to the optimum and sustainable yield of lobster fisheries in the south coast of Yogyakarta include application of minimum legal size and protection of parent stock at the collector level should be introduced.

**KEYWORDS:** lobster, South Coast of Yogyakarta, seeds of lobster

### INTRODUCTION

Lobster is an important marine fisheries commodity in Indonesia, even in other parts of the world, current and future. Percentage of lobster exports compared to production of shrimp in 2006 was about 2.3%. From the year 1999-2006 lobster exports continued to increase, with average of 9.1%, with European Union,

Japan, and the United States as the countries of destination.

Lobster is an Indonesian important fisheries export commodities, that cover wide market area to all the continents of the world. The largest export destination was the Asian countries as shown on Table 1.

Table 1. Export volume and value of fishery products by continent (2006)

No.	Destination	Volume (tonnes)	Proportion (%)
1.	Asian countries	3,590	93.4
2.	Australia	85	2.2
3.	America (USA)	81	2.1
4.	European countries	90	2.3
5.	Africa	0.13	0.003
	Total	3,845	100.0

Sources: The National Statistic, DGCF (2006)

Lobster production in Indonesia come from all provinces of Indonesia, one of them came from Java, that was about 10.4% from total production of lobster in Indonesia in the period 1997-2007. The largest proportion come from Sumatra and the lowest is East Nusa Tenggara (Anonymous, 2007). Lobster or *barong shrimp* or reef prawns also called *mangkara*, spread in almost all provinces in Indonesia, as the part of tropical waters that characterized by the cluster of coral reefs. Based on the national statistic the

production is under the fish production, but the prices are highest, which makes lobster an important commodity compared to others in capture fisheries.

In the world market, there are currently four known lobsters; the true lobster-Homaridae, spiny lobster-Palunuridae, cray fish-Astacidae, and Spanish lobster-Scyllaridae. Three types of lobsters, the cray fish, spanish lobster, and spiny lobster are known to be present in Indonesia (Subani, 1981). Four species of

Corresponding author:

Jl. Pasir Putih I, Ancol Timur-Jakarta 14430, E-mail: rccf\_office@indo.net.id

