Biomass estimation and density of green tiger prawn (Penaeus semidulcatus, De Haan, 1844) in Bushehr province, Persian Gulf

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Abstract

Biomass and density of green tiger prawn were estimated in Bushehr waters during July -August in 2004, 2005 and 2006. Studied area was located from Motaf area (27 30 N and 51 50 E) till Daylam waters (30 00 N and 50 00 E) the northern part of the Iranian waters of the Persian Gulf with about 2000 nm limit. 45 stations in 15 transects were selected in the waters less than 10 m deep, 10-20 m and 20-30 m. Sampling was done by bottom trawl net. The maximum catch per unit effort (CPUE) of green tiger prawn was obtained in south area. From middle to end of shrimp fishery season (August) CPUE increased in the north area. Based on our estimations, the initial total shrimp biomass estimated in the south area was 674, 1024 and 873 tons in 2004, 2005 and 2006, respectively. The percentages of green tiger prawn in biomasses were 77, 75 and 86 in above mentioned years, respectively.

Investigation of the shrimp concentration in the Bushehr waters showed that the green tiger prawns entered the fishing grounds from the southeastern parts of Bushehr waters, and Motaf, Nakhilu, Rase khan and Rod mond were considered as initial appearance zones. Dense schools of green tiger prawns were observed above 10 meter than deep waters in late June and early July. But in late July, the 20-30 m of deep water contained dense shrimp schools.

Keyword: Biomass Estimation, Density, Green tiger prawn, *Penaeus semisulcatus*, Bushehr waters, Persian Gulf