

Comparison study on reproduction biology of Mudskipper (*Scartelaos tenuis*) from Abi Estuarie and Azini Estuarie of Hormozgan Province coastal area

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Abstract

Survey on fecundity of mudskipper *Scartelaos tenuis* from Abi Estuaries and Azini were carried out from March to April 2010. Data were sampled by hand based on simple random sampling. A totally 219 mudskipper were collected, throughout 113 individual were caught from Abi Estuaries (93 female, 20 male) and 106 individual from Azini Estuarie (83 female, 23 male). The sex ratio of female to male was observed 1:0.24 and it was significantly different from the theoretical 1male:1female sex ratio ($P>0.05$). Mean total length were calculated 16.32 ± 2.14 cm for female in Bandar Pol and 15.50 ± 2.11 cm for male, and mean length 16.19 ± 2.27 cm for female and 17.26 ± 1.9 cm for male in Tiab. The result showed no significant differences between mudskipper lengths in two areas ($P>0.05$). The more frequent length classes were calculated 15-16 cm in Bandar Pol and 18-19 cm in Tiab. The length – weight relationships were estimated as $W=0.0016TL^{2.7245}$ for female and $W=0.0138TL^{2.6523}$ for male, and the result showed isometric growth. Mean absolute fecundity were estimated 4147 ± 1045 in Bandar pol and 3707 ± 983 in Tiab area, there are no significant differences between fecundity in two areas ($P>0.05$). The relationship between fecundity-total length were calculated as $Fecundity=36.17TL^{1.6412}$. The average eggs diameter were calculated 796 ± 144 mm in Bandar Pol and 737 ± 137 mm in Tiab. The relationship between egg diameter and gonad weight carried out as $OD=0.0009GW-0.2167$ ($R^2=0.4728$).

Keywords: Mudskipper, *Scartelaos tenuis*, Fecundity, Egg diameter, Sex ratio, Abi Estuarie, Azini Estuarie.