Ecological investigation of mudskeapers species in costal area in Tiab and Khamir ports,Hormozgan, Iran.

Ejlali Khanghah K.*; Khodadadi Joukar K.; Salarpouri A.; Khodadadi Joukar Y.; Tammadoni S.
*Corresponding autor's Email: K_ejlali@yahoo.com

Abstract
The most important habitat of Mudskippers is the muddy areas of the mangrove forests in the tropics. These aquatic fish are in the order of bony fish, And *Scartelaos tenuis* have a relatively wide distribution.Mudskippers can be considered as euryhaline aquatic creature that can withstand a wide range of salinity. The limited range of pH variations due to the small depth and reduction of CO2 as a result of photosynthesis and the stability of marine ecosystems in terms of pH changes cause aquatic animals to be able to survive easily without the need for complex physiological mechanisms. Mudskippers in coastal areas are subject to extensive changes in ambient temperature. The organic matter produced by the components of mangrove forests and other sources of organic matter production is decomposed by decomposer and made available to marine planktons. Samling was carried out from Mar, 2012 to Dec, 2013 in Tiab and Khamir ports located in the east Ann west of Hormoxgan pronince. The results show that the amount of nitrate in the coastal layers has statistical differences ($p<0.05$) in terms of tidal layers during the seasonal study. The maximum amount of nitrite in Bandar Khamir and Tiab was recorded 53.2 and 92.5 microgram per liter respectively. The annual correlation matrix showed a positive relationship between phosphate with nitrite and silicate concentration ($P <0.05$). The lack of phytoplankton that uses silicate (diatoms and flagella) and some zooplankton (radularia) has led to an increase in silicate in the study area, possibly due to the blooming of the coclodelinium species during the study. The group of diatoms, dinophytes and cyanophytes, as well as larvae of crustaceans and Naplius, were observed with different variations and densities. The grain size of the studied areas is located in three sedimentary classes (mud, sand, mud and sand). The dominant group of Bentic founa is

polychaets in both area. The high density of Capitellidae family in the interstitial region probably indicates a kind of environmental stress caused by the movement and activity of fishing and cargo vessels in these areas. There was a significant difference in level ($\alpha = 0.01$) between silt sediments and polychaetes density. In terms of longitudinal size, no significant difference was observed between Mudskipper fishes in the two regions ($P > 0.05$). Also, the average length of *P. waltoni* and *B. dussumieri and* S. *tenuis* were calculated and recorded as 9.85, 14.7 and 11.49 cm, respectively. The calculated gonadal index showed that the spawning season of all three species of mudskeaper in both regions is mainly from late winter to late spring. The sex ratio of females to males was 0.1: 1.45 in *P. waltoni*, 0.41: 1 in *B. dussumieri*, and 0.74: 1.7 in *S. tenuis*. Absolute fecandity of *P. waltoni* 2202 ± 3558, *B. dussumieri* 1030 ± 3952 and *S. tenuis* 1939 6742 eggs were determined. P. waltoni feed on Fiddler crab, S. tenuis species feed on crustaceans, gastropoda, and B. dussumieri species is herbivour.

Keywords: Mudskeaper, ecology, Persian gulf, Hormozgan