# Biosystematic study of the subfamily (Oxudercinae) in Ghannam estuary (Northwest of the Persian Gulf)

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**Abstract**

Animal systematic purpose; Identifying, naming, classifying animals and reconstructing the kinship relationships between them is at different levels of organization.Compared to other vertebrates, fishes are more affected by changes in environmental conditions, which even lead to inter- and intra-species changes in them. Actinopterygii fishes include most of the known and bony fishes of today, including mudskippers. mudskippers belong to the sub-order Gobioidei, family Gobiidae and sub-family oxudercinae.In this study, 140 mudskippers fish samples were caught from Ghannam estuary in winter 2017 to spring 2018 and were studied in terms of morphometry, morphology, and reproduction. The result of morphological and morphometric studies showed the existence of two species *Periophthalmus waltoni* and *Boleophthalmus dussumieri* in Ghannam estuary.during this study, the frequency of *Periophthalmus waltoni* species was higher than the other species in both autumn and spring, and *Boleophthalmus dussumieri* was ranked second in terms of frequency. according to the results in both identified species, the sexes were independent of each other.in terms of the presence of sexual size dimorphism in morphometric traits, T-test and ANOVA were conducted separately for each of the male and female sexes.the results of the MANOVA test proved the population separation between males and females and showed that in both species the female is larger than the male. in both species, *Periophthalmus waltoni* and *Boleophthalmus dussumieri*, the populations of both sexes had the highest reproductive capacity in spring. The result showed that in both species, reproductive ability increases with increasing body weight and a fish with a higher weight has a higher reproductive capacity.

**Keywords:** Gobiadea, Ghannam estuary,oxudercinae, Sexual size dimorphism, *Periophthalmus waltoni*, *Boleophthalmus dussumieri.*