

## عنوان مقاله:

Biological investigation and effects of environmental conditions on migration and catch of Clupeonellagrimmi in the (southwest coast of the Caspian Sea (Guilan Province

### محل انتشار:

چهارمین کنگره بین المللی توسعه کشاورزی، منابع طبیعی، محیط زیست و گردشگری ایران (سال: 1398)

تعداد صفحات اصل مقاله: 15

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#### خلاصه مقاله:

The present study is carried out in the southwestern part of the Caspian Sea in Guilan province, 632 samples of bigeye kilka were collected from Bandar Anzali s fishing port. In the study, the species population had a variety of 8 age cohorts, including 1 to 8 years old, the average age of the female and male fish was 3.69 years and 3.41 years. The Total, natural and fishing mortality were 2.66 Yr-1, 1.51 Yr-1 and 1.14Yr-1 respectively and the exploitation rate was calculated as 0.43. The sex ratio of female fish to male was 1:0.81. Therefore, throughout the study period, female fish were predominant. The average fork lengths of female and male fishes were 129.3 mm and 125.6 mm, and their mean weight was 21.05 grams and 17.66 grams sequentially. The length-weight relationship is resulted as W = 0.007677 \* L3, R2= 0.72. Obtained from this study, it can be said that between 1999 to 2015, the average length, weight, and age of Clupeonella grimmi population had increased due to its positioning in deeper areas and comparison with the other Kilka species it was less affected by the changes in the marine environment of the Caspian Sea .it can be derived that the main reason of the reduction of catching C.grimmi in recent years is due to lack of .fishing operations at the depths of more than 80 meters

# كلمات كليدى:

C.grimmi, Mortality , Sex ratio , Exploitation rate , Length-Weight relationship

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