

Investigating some of the fishery indicators from landing data of Sistan and Baluchestan province

Seyedahmadreza Hashemi^{1*}, Seyed Abbas Hosseini²

1,2- Offshore fisheries research center (chabahar). Iranian Fisheries Science Research Institute, Agricultural Research, Education and Extension Organization.

*Corresponding author g-mail: seyedahmad91@gmail.com

Abstract

The average (\pm standard deviation) of total catch during the 21 years of the study period was 70852 ± 131819 t with a 95% confidence level of 161,2122 t and 101515 t, with a significant increase in the trend ($P < 0.05$ and $R = 0.89$). The mean of the Mean trophic level (MTL) during the study period was 4.23 ± 0.04 and the trend of changes along with the increase of the catches had a downward and significant slope ($P < 0.05$ and $R = 0.52$). The average of the Fishing in Balance index (FiB) was 0.44 ± 0.25 and the trend of its changes along with the increase in the catches was increasing and significant ($P < 0.05$ and $R = 0.85$). The Piscivory index (PI) was 0.99 ± 0.01 and without any specific changes and significant at the same time as the increase in the catch ($P > 0.05$ and $R = 0.12$). The increase in total fishing and the fishing in balance index, as well as the decrease of the trophic level index and the beginning of a reduction in the level of fishing for mollusks and cartilage fish in this province, can indicate the severe changes in the structure of aquatic species in this area. According to the above results, it can be said that in the current situation, the catch is out of optimal condition and it is recommended to reduce the exploitation or at least not increase exploitation.

Keywords: trophic level index, fishing in balance index, food networks