



Assessing the impact of some Climate parameters variations on the CPUE fluctuations of Sardine and Anchovy in the Persian Gulf and Oman Sea

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Abstract

This study was conducted to investigate the relationship between CPUE variation of sardines and anchovy with climate parameters from 1999 to 1397 in the Hormozgan province, Iran. Catch data were obtained from logbook data, chlorophyll-*a*, and sea surface temperature were collected from the satellite data, wind speed, evaporation, and rainfall data were obtained from the meteorological dataset. The chlorophyll, evaporation, and wind speed parameters had the most regression relationships with sardine and anchovy CPUE ($p < 0.05$). The results of generalized additive models (GAMs) showed that CPUE of sardine and anchovy had the most relationship with chlorophyll, the probability presence of both species were in chlorophyll concentrations less than 2.5 mg/l, and the best range of rainfall for both species were given less the 50 mm. The sardine CPUE was associated with in the range of wind speeds 15-9 meters / second but did not associate with anchovy. The other parameters have the least relations and the most unpredictable changes in the GAM model.

Keywords: Sardine, Anchovy, Chlorophyll-*a*, Satellite, Persian Gulf