

## Abstract:

The fishing data of 1814 hauls during 393 fishing day's activity (2008-2010) in the Oman Sea were collected from F/V Fanoos-2, Fanoos-3, Fanoos-3 and Fanoos-4. It was found that the total mean CPUE of pelagic fishes were 1903 kg/h of which about 1115 kg/h (58%) belong to lanternfishes and the others belong to hairtail, big-eye croaker and threadfin bream with a total CPUE of 788 kg/h considered as by-catch. Also, the maximum CPUE of lanternfish were in months January to March with values of 2473, 2160, 2784 and 2198 kg/h. A comparison between years 2008, 2009 and 2010 show that the CPUE of lanternfish were 1356, 1148 and 936 kg/h, and for by-catches were estimated 1034, 854 & 581 kg/h, respectively; in which it shows a descending trend.

The distribution pattern maps for different seasons were prepared and it was found that the density is decreased from spring to winter with a descending trend of CPUE from 4900 to 2500 kg/h. The catch statistics show that the fishing season including towing depth, position of fishing ground and engine power are the main parameters affecting on amount of catch. Also a comparison between different vessels show that the highest amount of catch belonged to F/V Fanoos-2 with a CPUE of 2233 kg/h higher than the F/V Fanoos-3 with a CPUE of 1893 kg/h; and this value was estimated 1111 & 772 kg/h for vessels Fanoos-5 and Fanoos-6 as the lowest ones.

On the other hand, the feeding regime of *Pennahia anea* was studied. A total of 188 specimens were seasonally collected; and different food indices such as VI, FI, FP, GaSI and food frequency were calculated. The annual mean GaSI was 1.1; and the average VI was 78.7% and the food preference was identified as Fishes (77%, main food), Crustaceans (19%, minor

food) and Molluscs (4%). The *Trichiurus lepturus* (hairtails) were identified as the other main predator including Purple-back flying squid.

The aging of *Benthoosema pterotum* was done using sagitta otolith and the mean age was found about 349 days and it was proved that they have a short life span with less than one year old.

The growth rate (mmd-1) of lanternfish has negative correlation with increase of body size and body weight.