

Stock Assessment and the Maximum Sustainable Yield Estimation of Common Kilka *Clupeonella Cultriventris Caspia* (Svetovidov, 1941) in the South Caspian Basin

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Abstract:

Kilka as an economic fish, has an important role in the food chain of the Caspian Sea. This study carried out during 2006-07 for estimation of maximum sustainable yield in the southern Caspian Sea. Sampling on the southern coast of the Caspian Sea was carried out from October 2006 to September 2007 in Bandar Anzali and Babolsar. During the review period, 1533 fish were measured and weighed, aging was done by using sagitta otoliths.

The results showed that the mean length of common kilka was 102.4 ± 9.7 mm ranged from 56 to 144 mm. Mean age was 3.6 years and over 73 percent of the samples were composed of third and fourth year classes. Growth coefficient (K) using the Ford – Walford plot and total mortality coefficient (Z) were estimated 0.321 and 1.280 per year, respectively.

In the present study, the common kilka stock in the South of Caspian Sea was estimated about 58.75 thousand tons by using cohort analysis. The maximum Sustainable yield (MSY) was finally obtained 25,322 tons by Cadima equation. The first priority as a management measure of common kilka stock is supportive policies.

Keywords: Stock assessment, maximum sustainable yield (MSY), Caspian Sea, *Clupeonella cultriventris caspia*

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