Gorgan University of Agricultural Sciences and Natural Resources

J. of Utilization and Cultivation of Aquatics, Vol. 7(2), 2018
http://japu.gau.ac.ir
DOI: 10.22069/japu.2018.13443.1385

Determination of exploitation model for *Rutilus caspicus* in south east of Caspian Sea (Golestan Province)

R. Tatar[1], *R. Ghorbani[2], S. Gorgin[3], Gh.A. Bandani[4] and M. Yahyaei[5]

[1]M.Sc. Student of Aquatic Ecology, Gorgan University of Agricultural Sciences and Natural Resources,
[2]Associate Prof., Fisheries Scientific Member, Gorgan University of Agricultural Sciences and Natural Resources,
[3]Assistant Prof., Fisheries Scientific Member, Gorgan University of Agricultural Sciences and Natural Resources,
[4]M.Sc. Scientific Member, Inland Waters Aquatic Stocks Research Center, Iranian Fisheries Science Research Institute, Agricultural Research, Gorgan, Iran, [5]M.Sc. Graduated, Fisheries Office of Golestan Province
Received: 06/09/2017; Accepted: 07/16/2017

Abstract

Rutilus caspius is one of the most important and commericial species in southeast of Caspian Sea that its catch had high fluctuation in the decads due to overfishing. In this study, data obtained from 246 specimens caught from coastal sein cooperative companies (they are located in the southeast coast of the Caspian Sea) during the fishing season 2014-2015 were analyzed. Results showed individuals ranging from 14.5 to 31.2 cm total length. Growth model were isometric and negative alometric in male and female, respectively. The growth parameters of $L\infty$, K, Z, M, F and E and were computed 41.8 cm, 0.12 $year^{-1}$, 1.239, 0.324, 0.916 $year^{-1}$ and 0.74, respectively. Fish biomass, maximum sustainable yield (MSY) were equal to 417 Kg and 215 Kg, while the ratio of catch was 28 Kg. It seems, the rest of it was in forbidden catch. Totally, catch situation of Caspian roach is not suitable.

Keywords: *Rutilus caspius*, Caspian Sea coastal sein cooperative companies, Population dynamics

*Correspond author: rasulghorbani@gmail.com