

Survey of blood, biochemical, and immunological parameters of Golden grey mullet (*Liza auratus*) in different ages and species (Caspian Sea - Bandar Anzali beaches)

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Abstract

Golden grey mullet (*Liza auratus*) is one of the most valuable bony fishes in southern part of Caspian Sea. Generally, the aim of this study was studying hematological, biochemical and immunological parameters in different ages and sexes in Golden grey mullet (*Liza auratus*). In order to do this research, 200 fishes with different ages and sexes were collected from the beach of Bandar Anzali in 2015. The average total weight and total length were 270.10 ± 82.60 and 32.67 ± 3.38 . Immediately after sampling, the fishes were divided into two sex groups and 5 age groups (3, 4, 5, 6 and 7) and then fish were taken blood. The results showed that there was no significant difference between males and females in terms of all blood, biochemical and immunological factors ($P > 0.05$). There was a significant difference between different ages in MCV, neutrophil and lymphocyte levels ($P < 0.05$) and in other factors there were no significant differences ($P > 0.05$). Generally, it can be said that the sexually transmitted fish do not have a significant effect on blood, biochemical and immune factors, while the age of the fish only affects some blood factors that can be affected by the physiological activity of the body and even the environment.

Keywords: Golden grey mullet (*Liza auratus*), Sex, Age, Hematological, Biochemical and immunological parameters.