Determination of Seasonal variations in the liver and muscle fatty acid composition of Benni Fish (*Mesopotamichthys sharpeyi*) in Shadegan Wetland

Mehran Javaheri Baboli^{1*} Ebrahim Hosseini Najd Gerami²

1. Department of Fisheries, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran 2. Department of Biology, Urmia University, Urmia, Iran

*Corresponding author: mehranjavaheri@gmail.com

Received date: 2015.12.28 Reception date: 2016.12.18

Abstract

In this study, Seasonal variations in the liver and muscle fatty acid composition of *Barbus sharpeyi* were determined. The samples were collected in the middle month of each season during 2014-2015 and Total fatty acid compositions were investigated by a gas chromatographic method. The most abundant fatty acids in the (SFAs) of the liver and muscle were at the highest in the winter and not significant difference with summer, autumn (P \ge 0.05). The total monounsaturated fatty acids (MUFAs) were at the highest in the autumn for liver and muscle (P<0.05).The n-3 PUFA to be at the highest levels in the spring and summer for liver and muscle, respectively. Ratio of n-3 to n-6 fatty acids were at the highest in the spring for muscleand not significant difference with summer. In total, the highest amount of PUFA and omega-3 fatty acids in muscle and liver tissue were obtained in spring and summer, respectively.

Keywords: *Mesopotamichthys sharpeyi*, liver, muscle, fatty acid composition, season, Shadegan Wetland.