

## Effects of dietary green tea extract on growth, body composition and antioxidant defence in sturgeon hybrid (*Huso huso* ♂ × *Acipenser ruthenus* ♀)

Soleiman Hasanpour<sup>1</sup>

Amir Parviz Salati<sup>2\*</sup>

Bahram Falahatkar<sup>3</sup>

Hamid Mohammadi Azarm<sup>4</sup>

1, 2, 4. Department of Fisheries,  
Faculty of Marine Natural  
resources, Khorramshahr  
University of Marine Science and  
Technology, Khorramshahr, Iran  
3. Fisheries Department, Faculty  
of Natural Resources, University  
of Guilan, Sowmeh Sara, Guilan,  
Rasht, Iran

**\*Corresponding author:**

apsalati@kmsu.ac.ir

**Received date:** 2017/02/01

**Reception date:** 2017/09/10

### Abstract

Herbal extracts are now available as dietary supplements to promote growth in intensive systems. Green tea is a medicinal herb containing antioxidant and immunostimulant properties. In these study effects of dietary green tea on growth performance, proximate composition and antioxidant defense system in hybrid sturgeon (*Huso huso* ♂ × *Acipenser ruthenus* ♀) was assayed. Tree experimental diets including control, containing 50 mg/kg green tea extract (GTE) and 100 mg/kg GTE were used in this study. Ninety sturgeon hybrid, initial weight  $212.6 \pm 0.7$  g were randomly distributed in 27 fiberglass tank with 700 l volume after 2 week adaptation to experimental condition. Fish were fed satiated three times daily. After 6 weeks, sampling was done. The result showed that feeding with GTE improved growth performance in sturgeon hybrid and improved proximate composition. Significant decrease in antioxidant enzymes activity and malondealdehyde content of serum reflects the antioxidant properties of this plant. According to our findings, GTE recommended as food additive in the diet of hybrid sturgeon to improve growth performance and amplifier of antioxidant defense system.

**Keywords:** Sturgeon hybrid, Green tea extract, Growth, Antioxidant defense.