## The impact of rainbow trout culture in floating cage on the levels of Chlorophyll-a and The Trophy State Index in the Abbas Abad area, southern basin of the Caspian Sea

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## **Abstract**

In order to determine The impact of rainbow trout culture in floating cage on The levels of Chlorophyll-a and The Trophy State Index (TSI) Water samples were collected at distance of 5, 50, 100 and 1000 m from the cages in December 2014 (before the culture period), March and April (production period) and August 2015 (after the culture period) in the coastal waters of Abbas Abad area. The levels of Chlorophyll-a varied significantly in different periods and stations (P<0.05). The Trophy State Index (TSI) was significantly different only between the sampling periods It seems that the cage culture of rainbow trout in the Abbas Abad area had only a minor impact on water quality probably due to low stocking density, short duration of cage culture activity and strong water currents.

**Keywords:** Cage culture, rainbow trout, The Trophy State Index, southern basin of the Caspian Sea.