

Vol. 12 (1): 195-200 (2022)

FISH REPRODUCTION CONDITIONS OF THE VOLGOGRAD RESERVOIR IN THE WATER AREAS NEAR THE VILLAGES OF AKHMAT AND ZOLOTUE IN 2020 IN COMPARISON WITH PREVIOUS YEARS

D.Iu. Tiulin^{1*}, A.A. Vasiliev¹, Iu.A. Guseva¹, O.A. Gurkin¹, A.A. Anurieva¹

¹*N.I. Vavilov Saratov State Agrarian University, Saratov, Russian Federation;*

*Corresponding Author D.Iu. Tiulin, e-mail: dmitiyul@mail.ru;

Received November 2021; Accepted December 2021; Published January 2022;

DOI: <https://doi.org/10.31407/ijeess12.123>

ABSTRACT

The article considers the conditions for the reproduction of fish in the waters of the Volgograd reservoir of the villages Akhmat and Zolotoe, such as level and temperature regimes, as well as production processes (the rate of gross photosynthesis, the rate of respiration of the plankton community, net primary production, which can serve as indicators of the state of the natural food base). According to the results of the fry survey in 2020, the conditions for the fish reproduction in the waters of the Volgograd reservoir of villages Akhmat and Zolotoe should be recognized as very unfavorable, which could be predicted by the dynamics of the level and temperature regimes. Black Sea sprat (*Clupeonella cultriventris* (Nordmann, 1840)), as in previous years, is reproduced in the water area of the village of Zolotoe and is not reproduced in the water area of the village of Akhmat. The high food capacity of the studied water areas has a noticeable effect on the efficiency of reproduction of certain fish species in years with a more favorable level regime but is not able to compensate for the damage caused to the reproduction of fish by a particularly unfavorable regime of the water level in general.

Key words: fishery, water hygiene, Sea sprat, water level.