

## **GROWTH OF DIPLOID (2N) AND TRIPLOID (3N) JUVENILE BLACK SEA TURBOT (*PSETTA MAXIMA*) UNDER DIFFERENT TEMPERATURE REGIMES**

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### **RAST DIPLOIDNE I TRIPLOIDNE MLAĐI CRNOMORSKE RIBE LIST (*PSETTA MAXIMA*) U RAZLIČITIM TEMPERATURNIM USLOVIMA**

#### ***Abstract***

The present study was carried out to investigate growth and feed utilization of juvenile triploid Black Sea turbot under different temperature regimes. Diploid (D16) and triploid (T16) fish juvenile (4 g) were reared at 16 °C for 56 days (I. period) and at 21 °C for 55 days (II. period), while diploid (D21) and triploid (T21) groups were reared at 21 °C for whole period (111 days). Ploidy did not affect fish survival rates at all temperature regimes that was statistically significant ( $P > 0.05$ ).

At the end of the first period, there was no difference in the specific growth rate (SGR) between D21 and T21 groups, but D16 group had a significantly higher SGR than T16 group. In the second period, there was no difference in SGR between D21 and T21 groups or D16 and T16 groups. SGR of D21 and T21 groups were significantly higher than D16 and T16 groups for both periods ( $P < 0.05$ ). Triploid exhibited similar weight with diploids reared at 21 °C but lower at 16 °C. It seems that triploid juvenile turbot may show lower performance than diploids at low rearing temperature. When lower rearing temperature (16 °C) was increased to 21 °C, D16 juveniles compensated their body weight and were similar to those of D21 group, but group T16 did not compensate their body weight to the body weight of T21 group.

In conclusion, not only temperature but also ploidy influenced growth and feed utilization of juvenile turbot and similar growth can be obtained from juvenile triploid turbot by rearing them at 21 °C.

***Key words:*** Black Sea turbot, *Psetta maxima*, ploidy, feed utilization, growth, temperature.