

**Sea trout (*Salmo trutta* L.) restocking in Latvia**

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Yearly more than 160 thousands of artificially reared one year old sea trout are released in natural watercourses of Latvia. However the amount of breeding sea trout reduces every year. This problem appeared since a release of 2 year old sea trout was stopped. Fish are reared in recirculation and flow-through systems in hatcheries based on three different rivers. The only criterion for sea trout release is fish weight. To evaluate the quality of released sea trout and to determine whether these fish had achieved smolts stage fish were examined in the Latvia University of Agriculture, Faculty of Veterinary Medicine and in the Institute BIOR, Laboratory of Aquaculture. Morphological and hematological parameters common for artificially reared one year old sea trout reared in flow-through and recirculation systems were examined from January to May the year 2013. At the time of release (May) average fish weight was 28.84 g, length 13.10 cm, condition index 1.32 for fish from recirculation system but for fish from flow-through system average weight was 15.35 g, length 11.35 cm and condition index 1.11. Triiodothyronine level for fish from both rearing systems was almost equal – 2.63-2.64 nmol·L<sup>-1</sup> but thyroxine level in flow-through system was 52.97 nmol·L<sup>-1</sup> and in recirculation system 46.00 nmol·L<sup>-1</sup>. Silvering level increased from January to April but then the increase became slower in May without reaching the top level.

The analysis of current situation shows that Latvian sea trout restocking plan has several disadvantages which should be improved to increase the productivity of restocking.

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