

Summary in English – the lumpfish prosject STAMINA

The interest in the use of lumpfish as cleaner fish for salmon in aquaculture has increased greatly over the last couple of years, mainly because the first life stages are easier to control compared to other cleaner fish species, and because it actively grazes on sea lice at lower temperatures than wrasse.

The breeding of lumpfish started up in 2011, and it has since been a constant creation of new production facilities to meet the demand. Today it is assumed that it is between 15 and 20 commercial actors that produce lumpfish for sale. One expects that the production of lumpfish will be closer to 20 million individuals in 2016, a doubling from 2015. The need for lumpfish is expected to continue to increase as a result of new requirements for green production licences and increased drug resistance issues in Northern Norway.

Results achieved in small-scale sea cage trials with salmon and lumpfish shows clearly that the lumpfish has great potential as a biological delouser and can achieve up to 97% delousing of salmon. However, it has been shown that broodstock management, and production of eggs and milk can be challenging and requires better understanding of the basic mechanisms that control the maturation of the species.

By controlling the reproductive cycle of lumpfish, one can achieve all-year-round production of eggs and fry and thus produce lumpfish which is synchronized for the sea transfer of salmon smolts which currently happens in 11 of the 12 months of the year. This project aims to mapping the biological mechanisms that control the reproductive cycle of lumpfish.

The overall aim of the project is to establish seasonal independent intensive production of lumpfish. This will be done through the development methods for controlled reproduction and welfare driven broodstock management, and through basic understanding of sexual maturation.

Prosject partners

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