North-East Atlantic Commission

NEA(20)12

Gyrodactylus salaris in Norwegian Rivers

(Tabled by Norway)

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No spread of the parasite to new regions has occurred since 1997 thanks to strict rules and effective preventative measures. In 2019, however, *G. salaris* was detected in a new river, Selvikelva, in the Drammen region. This is a small river nearby an already infected river.

In 2019, all the previously infected rivers in the Rauma region (6 rivers) were declared free of parasites after successful combatting in 2013/2014.

By May 2020, *G. salaris* has been detected on Atlantic salmon in 51 rivers. 38 of these rivers are treated and the parasite is successfully eradicated. In another 5 rivers, the eradication programs are completed but the results are still not confirmed. Presently, if all the eradication measures implemented are successful, the number of infected rivers are reduced to 8. These infected rivers are located into two regions, the Driva region (4 rivers) and the Drammen region (4 rivers).

Driva region: A fish barrier is built in the River Driva. Barrier construction reduces the size and complexity of the treatments and the amount of chemical and other resources needed while increasing the chance of success. This fish barrier reduce the salmon migration distance from 100 km to 20 km. The parasite will disappear upstreams the barrier if migrants are excluded for 4 to 6 years and there are no non-migratory hosts. An eradication of the parasite downstream the fish barrier and in the other tree infected rivers in this region is planned in 2022 and 2023.

Drammen region: In 2016 an expert group was established to assess whether it is possible to eradicate *G. salaris* from this region. The expert group gave its recommendation in the spring of 2018. The working group believes it is possible to eradicate *G. salaris* from the Drammen region with known methodology, given that new knowledge is accumulated prior to chemical treatment so that the challenges that have been identified by the working group can be handled in a secure way.

The first step in the efforts to combat the parasite in this region was to close the fish ladder in Hellefossen. Decisions to close the fish ladder were made on May 24, 2019.

In the coming years, research will be carried out to find good solutions to the challenges identified.

Development of a new method of combating: It is known that chlorine added as monochloramine at very low concentrations can remove *Gyrodactylus salaris* from salmon fry within a few days without having visible negative effects on the fish. Testing of chlorine dosage in an infected river in Drammen region showed that monochloramine also has a good treating effect against *G. salaris* when the chemical is added and transported with the water masses in a natural watercourse. Further field studies about effects of chloramine in a larger river were conducted in 2018 and 2019. Additional testing of monochloramine as a possible new method for combating *G. salaris* will be done in 2020.

Approval of rotenone in accordance with the EU Biocide Directive

In 2006, VESO Norway (the company providing the substance) applied for approval of rotenone in accordance with the EU Biocide Directive. England was appointed to process the application. Rotenone has a rather limited use in Europe and the work on the application was not prioritized. As the years passed, new regulations and requirements for new documentation were implemented. So far, VESO has followed up on all new requirements. As a result of Brexit, the responsibility for handing the application was transferred to Polish authorities.

Norwegian authorities have been contacted by VESO who have received additional requirements for new investigations. There seem to be some indications that the regulations are interpreted differently between the English and Polish authorities.

The new requirements and uncertainty that have arisen about whether approval will be given for rotenone at all have led VESO to consider withdrawing the application. Rotenone is intended to be the government's tool against alien species in fresh water, including *Gyrodactylus salaris* and invasive fish species, not a product on the free market. Without access to rotenone, efforts to combat *Gyrodactylus salaris* and invasive fish species will be impossible