



Pink salmon in Norway

Situation report and control measures

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Content

- The history of pink salmon in the Barents region
- Development in recent years
- What is at stake for Norway and other North Atlantic countries?
- What can be done?



Pink salmon in Norway originates from introductions in Russia

- Pacific salmon species was introduced from the Pacific coast of eastern Russia to the Barents region and rivers around the White Sea
- In 1933-1939, attempts at introducing chum salmon failed
- Introductions of pink salmon started in 1956

Foto: PINRO





Two phases of introduction

- Phase 1: 1956-1978
 - Eggs mostly from the islands Sakhalin and Iturup
 - Late spawning period resulted in high mortality of the embryos
- Phase 2: 1985-2001
 - Eggs from the river Ola in Magadan region
 - Successful establishment of reproduction in the wild

Historical river catches in Norway



Graph: Henrik Berntsen



Sources of data in Norway

- Catch statistics
 - Recreational fishing (nation wide since 2019)
 - Sea salmon fishing (2019-)
 - Targeted measures
- Snorkeling/driftcounting
- Video counts (few rivers)

The trend in Northern Norway up to 2019

Example from river Tana – catches of pink salmon



Explosive population growth from 2019-2021

Example from video monitoring in river Kongsfjord - number of ascending pink salmon

2500





Total catch (n) of pink salmon 2021 Rivers in Troms and Finnmark county from west to east













What is at stake?

- Pink salmon is effectively reproducing in most rivers in Northern Norway.
- Pink salmon has become the dominant species in many rivers in odd years.
- Gradually, we are seeing high numbers of spawners further west and south.
- It is possible that pink salmon can colonize all of Norway – and thus other countries around the North Atlantic ocean.









VKM Report 2020: 01

Assessment of the risk to Norwegian biodiversity and aquaculture from pink salmon (*Oncorhynchus gorbuscha*)

Scientific Opinion of the Panel on Alien Organisms and Trade in Endangered Species of the Norwegian Scientific Committee for Food and Environment

Negative impacts

- Displacement of native anadromous fish species in the river.
- Poor water quality when high number of pink salmon die and decompose after spawning.
- Impacts on biodiversity from changes in nutrient load.
- Risk of disease spreading between fish farms pink salmon as vector.
- Negative for sportfishing and related economy.





What can Norway do?

- Spawning can be controlled by sorting ascending fish – denying pink salmon access to spawning habitats.
- A group of experts have been appointed to find the most effective measures.
- Different types of weirs will be tested in 2022.





Photo: Eirik Frøiland



Photo: Reisa Elvelag





Photo: Fishbio

Photo: Brad Fuerst, ADFG









Photo: Fishbio





Varanger area - river catch 2019 and 2021



Summary

- Pink salmon is reproducing effectively in the wild in Norway.
- Odd year populations are growing fast and spreading to new rivers.
- Pink salmon has become the dominant salmonid in Northern Norway.
- This is a threat to Atlantic salmon, biodiveristy and water quality.
- Norway will try to prevent reproduction in as many rivers as possible.
- If we fail, pink salmon may colonize countries around the North Atlantic ocean.



Recommendations

- Pink salmon should be recognized as a threat to Atlantic salmon.
- Successful spawning is already reported from Iceland and Scotland:
 - This should be monitored and counteracted.
 - Failure to do so may create new bridgeheads that will allow further spread with implications for neighboring countries.
- Affected countries (Parties) should organize to share information and work together in the coming years.



