Government 'confusion' is harming sockeye salmon

Report criticizes dual role for Canada's fisheries department.

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Andy Clark/REUTERS

Sockeye salmon numbers in tyhe Fraser River have been in decline for years.

A fish fight is brewing in Canada as an eagerly anticipated report on the fate of sockeye salmon in the Fraser River of British Columbia has blamed the federal government for weakening environmental laws that are meant to protect the fishes' habitat.

The report¹ also finds that employees at the Department of Fisheries and Oceans (DFO) are confused by their dual mandate to protect wild fish while also promoting the fish-farming industry.

Sockeye salmon (*Oncorhynchus nerka*) is one of five species that begin life along the North Pacific coast. After four years at sea, mature sockeye return to the streams and lakes of their birth to spawn. But over the past two decades, the numbers of sockeye returning to the Fraser River basin have collapsed — falling from 24 million in 1992 to 1.36 million in 2009.

The decline caused great alarm, and in 2009 the federal government asked British Columbia Supreme Court judge Bruce Cohen to investigate. The Cohen Commission subpoenaed 179 witnesses, examined more than 3 million pages of documents and exhibits and spent Can\$26 million (US\$26 million) before releasing its findings this week.

Stressors

The report does not point to a single "smoking gun", but instead finds that the decline is due to the combined effect of numerous stressors, such as algal blooms and ocean conditions. Climate change will further reduce salmon returns in the future, the report finds.

British Columbia's \$800-million aquaculture industry could be a potential source of disease transmission to migrating fish, but there are insufficient data to estimate the risk precisely, the report finds.

Cohen recommends that the development of fish farms along a key sockeye migration route be frozen, without any changes in their operation or size, until 30 September 2020 while the DFO studies the risk to wild fish. If the risk is greater than minimal, farming should not be allowed anywhere in the region.

"Thank you very much, Justice Cohen, because what we are seeing is well above minimal risk," says Alexandra Morton, an independent biologist and salmon activist.

The BC Salmon Farmers Association in Campbell River, British Columbia, did not reply to a request for comment by *Nature*'s deadline, but in a press release the organization said that only nine fish farms would be affected by the proposed freeze.

The report offers 75 recommendations for the federal government, including a call for the DFO, which has been criticized for having a cosy relationship with industry, to lose its aquaculture promotion activities. Cohen wants a separate department to manage aquaculture, leaving the DFO to focus on protecting wild fish.

The DFO is planning to spend \$70 million by 2013 to promote the competitiveness of Canadian aquaculture, while at the same time it is about to lay off 32 scientists who study habitats, because of a \$79-million budget cut, says Eric Taylor, a biologist at the University of British Columbia in Vancouver.

The judge also takes issue with Prime Minister Stephen Harper for amending the federal Fisheries Act in June to remove key provisions protecting the habitat of wild fish. The few protections that remain are only for commercial, recreational or Aboriginal fisheries. Cohen expressed regret at a press conference on 31 October that the government amended the act without waiting for the commission's final report.

"Many experts have emphasized the importance of protecting fish habitat, promoting biodiversity and adopting ecosystem-based management practices," he said in a statement. "However, the recent amendments to the Fisheries Act appear to be taking DFO in a very different direction."

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References

1. Cohen, B. I. The Uncertain Future of Fraser River Sockeye (Ministry Public Works & Government Services Canada, 2012).