

Fitness consequences of bath exposure to hydrogen peroxide bathing in salmon lice (*Lepeophtheirus salmonis*)

21-P-01

Description

In British Columbia (BC), the conservation of wild salmon is the principal driver of salmon louse (*Lepeophtheirus salmonis*) management strategies for farmed Atlantic salmon. Between 2004 and 2013, treatment of salmon louse infections in BC relied on dietary emamectin benzoate (SLICE®), which initially proved effective. More recently, sea lice have acquired some localized resistance to SLICE®, leading to treatment failures. As an alternative, hydrogen peroxide (H₂O₂) became available as a sea lice bath treatment, in 2015.

This project aims to generate knowledge related to the infectivity - the ability of a pathogen to establish an infection - of mobile *L. salmonis*, and the survival and reproductive potential of adult female *L. salmonis* following hydrogen peroxide treatment. This research seeks to improve our understanding of the efficacy of hydrogen peroxide treatment against *L. salmonis* in BC.

Program name

Aquaculture Collaborative Research and Development Program (ACRDP)

Year(s)

2021 - 2022

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[REDACTED] The BC Salmon Farmers Association

[REDACTED], Cermaq Canada

[REDACTED], Grieg Seafood

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Which of the following statements would best describe what a successful Open-Net Pen Transition Plan for B.C. looks like to you? Choose one option.

- A transition away from any marine salmon aquaculture to a sustainable land-based sector, accompanied by marine plants.
- A sustainable and economically viable salmon aquaculture industry in coastal B.C. which drives innovation and supports the use of new technology which could include marine components, provided that they reduce or eliminate interactions with wild salmon.
- A reduced aquaculture sector that transitions coastal economies to other sectors, such as tourism.

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