Short Communication #2

Adult stages of *Caligus rogercresseyi* can show high recovery percentage after certain therapeutic bath treatments

SALMOCLINIC

April 2019

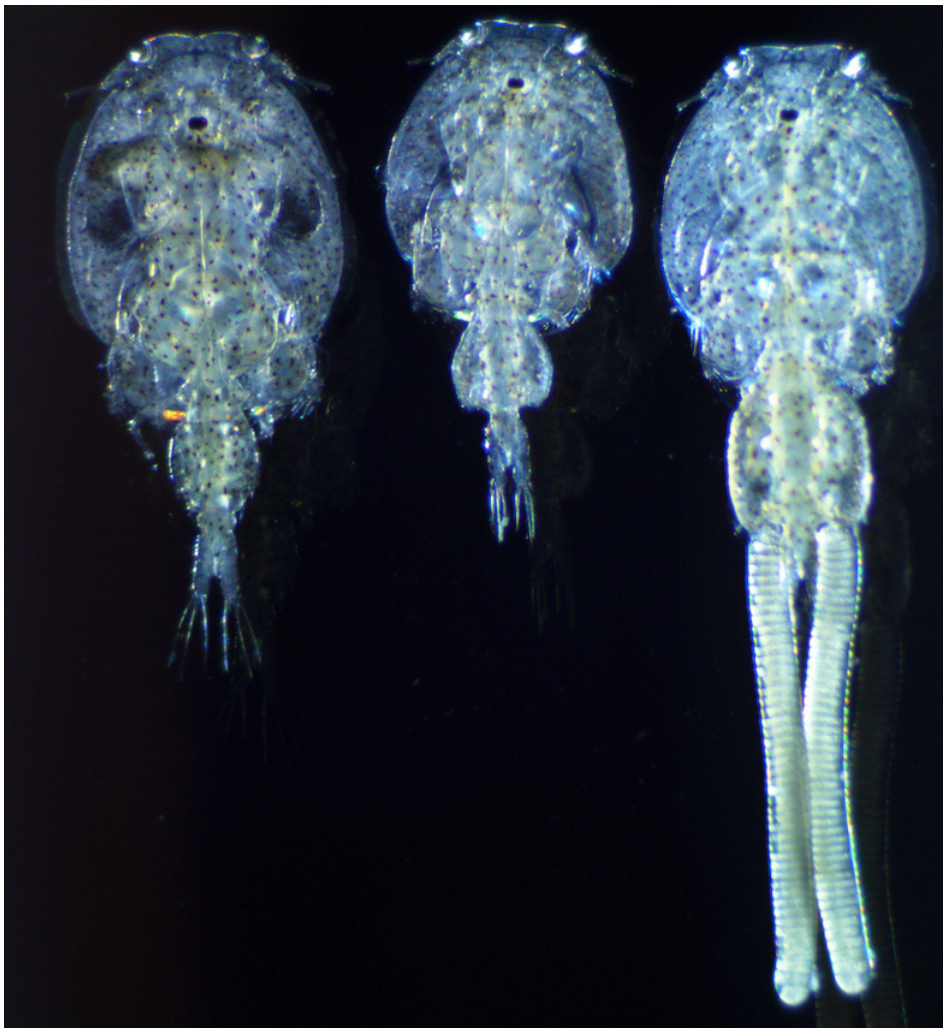

Foto: J.P. Cumillaf

Recovery of adult *Caligus rogercresseyi* after hydrogen peroxide and azamethiphos bath treatments

We tested the effect of hydrogen peroxide (H2O2) and azamethiphos on adults of *C. rogercresseyi* at 24 hours after therapeutic bath treatments performed in saltwater as well as in combination with freshwater.

The tests were performed "*in vitro*" in 2018 at the Laboratory for Crustacean Ecophysiology of Universidad Austral de Chile in Pelluco, Puerto Montt, supervised by Dr. (C) J.P Cumillaf[1].

"*In vitro*" trials (*C. rogercresseyi* adult stages)

- ***Close to 80% of adults of C. rogercresseyi recover after a 30 min bath treatment in saltwater with 750 ppm of hydrogen peroxide. It is therefore absolutely necessary to filter out the parasites that detach during the bath treatment to avoid re-attachment to fish of the same farm, wild fish or fish of neighbor farms.***

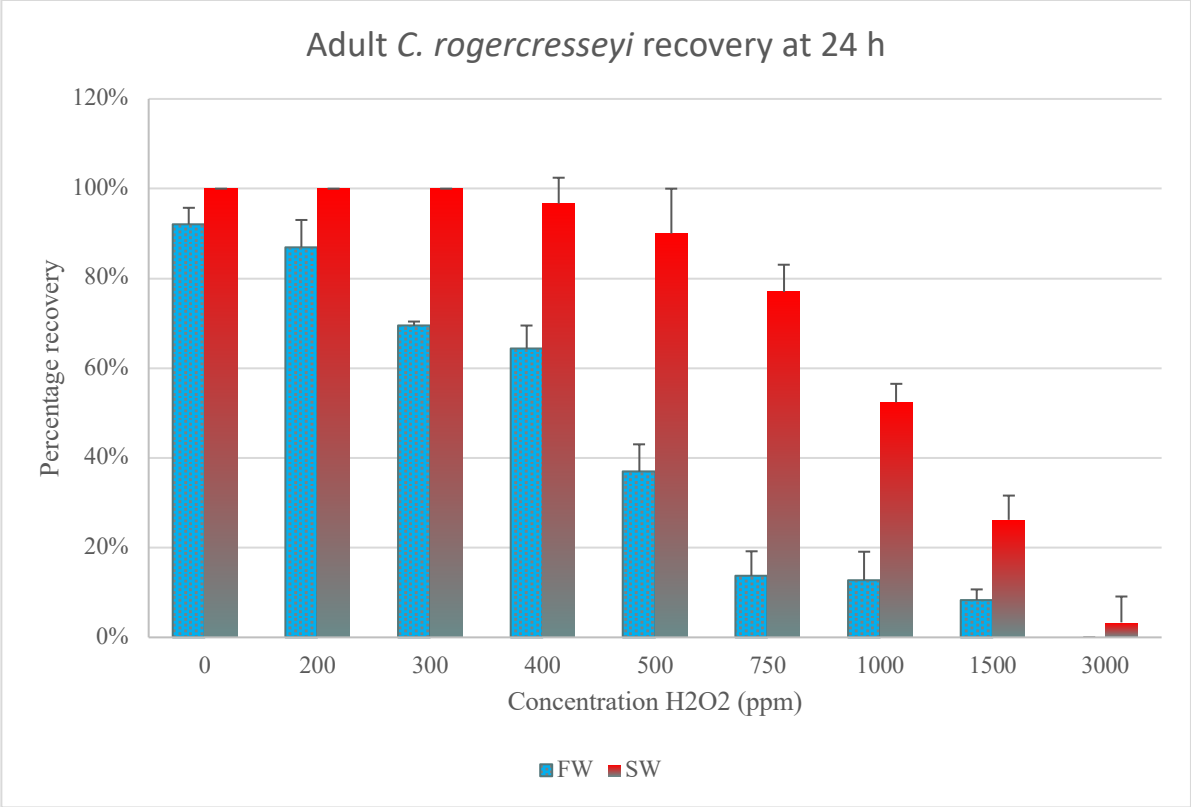

Figure 1: Effect of a 30 min bath treatment with hydrogen peroxide at different concentrations prepared with freshwater (FW) or saltwater (SW) on adult stages of *C. rogercresseyi*. Graph shows average percentage and standard deviation of adults that show normal behavior (recovery) at 24 hours after the respective bath treatment.

[1] For full details of the study contact us at info@salmoclinic.cl

⇨ ***It is very important to assure both the time of exposure as well as the concentration of azamethiphos during the bath treatment to avoid the recovery of adult C. rogercresseyi that detach during the treatment.***

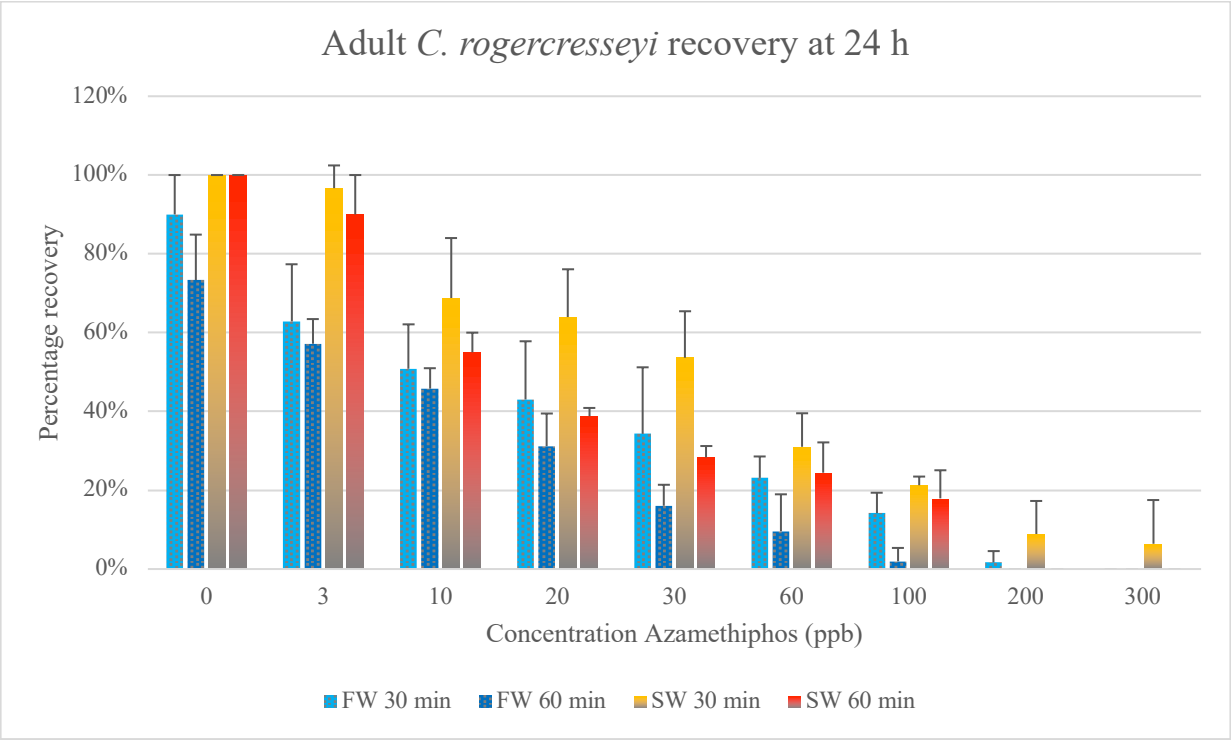

Figure 2: Effect of 30 or 60 min bath treatments prepared with freshwater (FW) or saltwater (SW) and different concentrations of azamethiphos on adult *C. rogercresseyi*. Graph shows average percentage and standard deviation of adults that show normal behavior (recovery) at 24 hours after the respective bath treatment.

At SalmoClinic we are working on innovative, cost effective and sustainable alternatives to control parasitic diseases affecting salmon, with special attention to fish welfare and reduced environmental impact.

⇨ Reduction of 70% or more in use of therapeutics
⇨ Freshwater or saltwater bath treatments (FW produced on board)
⇨ Precise therapeutics dose control (concentration and exposure time)
⇨ Released parasites retained/destroyed using several filtering stages

Contact us to know more about how SalmoClinic can improve your salmon health management strategies (*info@salmoclinic.cl*).