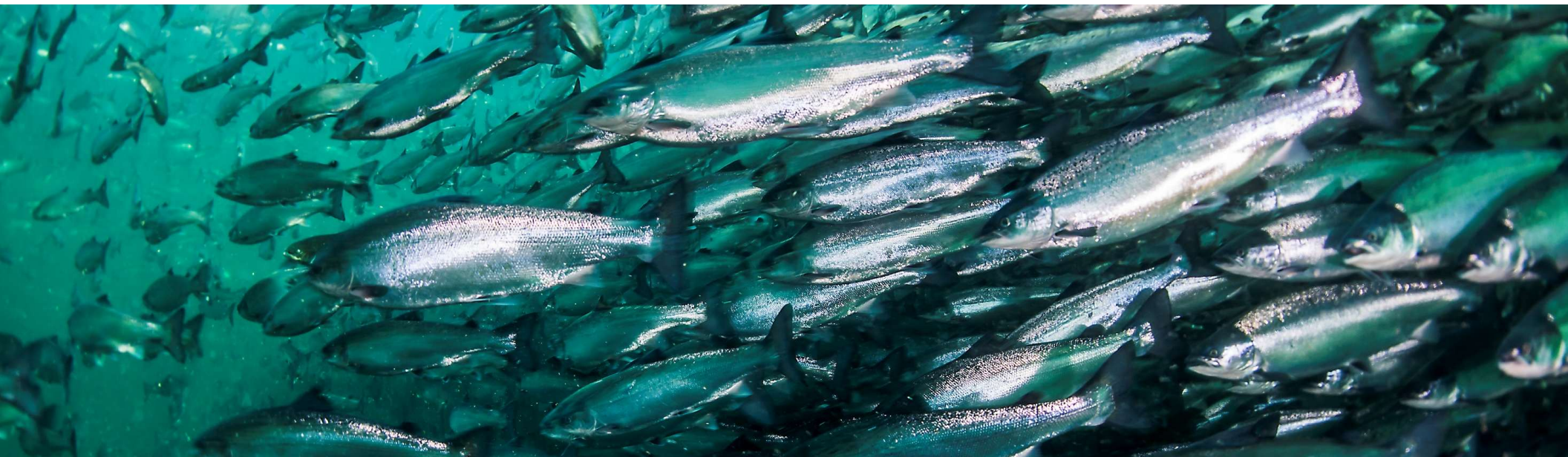
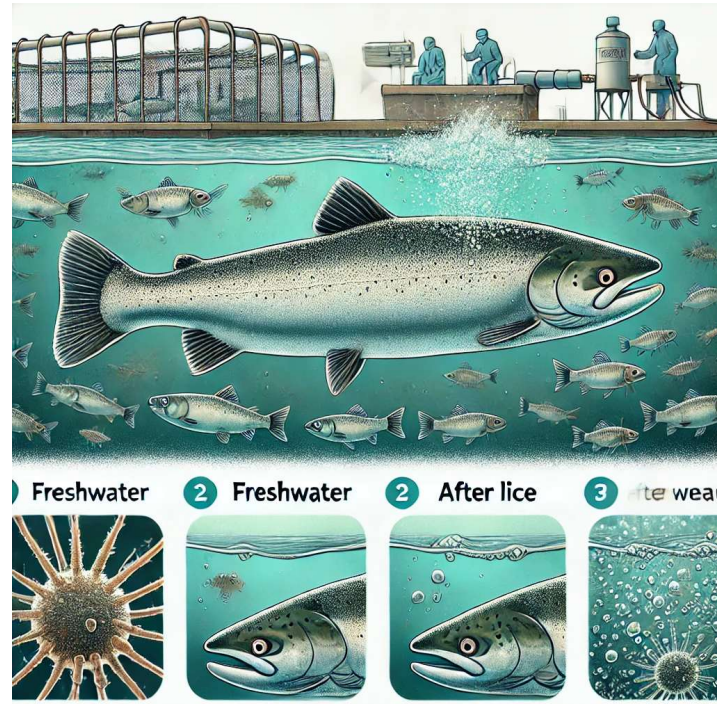


Lus, ferskvann og viten



Rasmus Skern-Mauritzen, Sussie Dalvin, Bjørnar Skjold, Stig Mæhle, Julie Aga og Kai Skaftnesmo.

Er ferskvannsavlusning problematisk?



Tilpasser lus seg til ferskvann?

Vitenskap og kunnskap

Gro har 'vist' at lakselus ikke kan tilpasse seg ferskvann

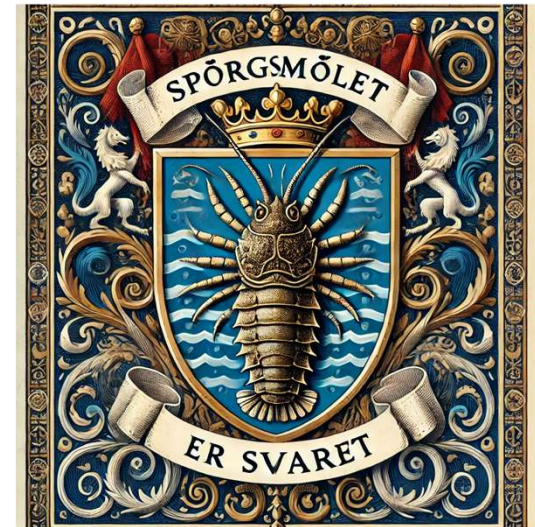
Rasmus vil 'vise' at lakselus kan tilpasse seg ferskvann



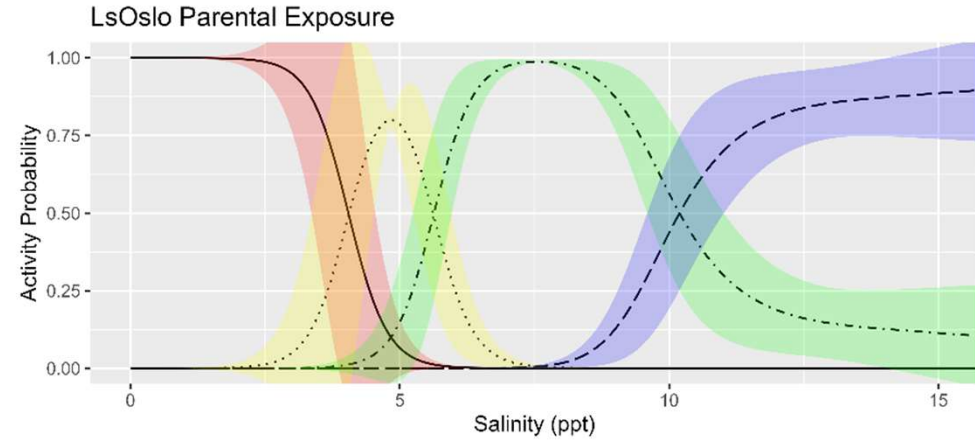
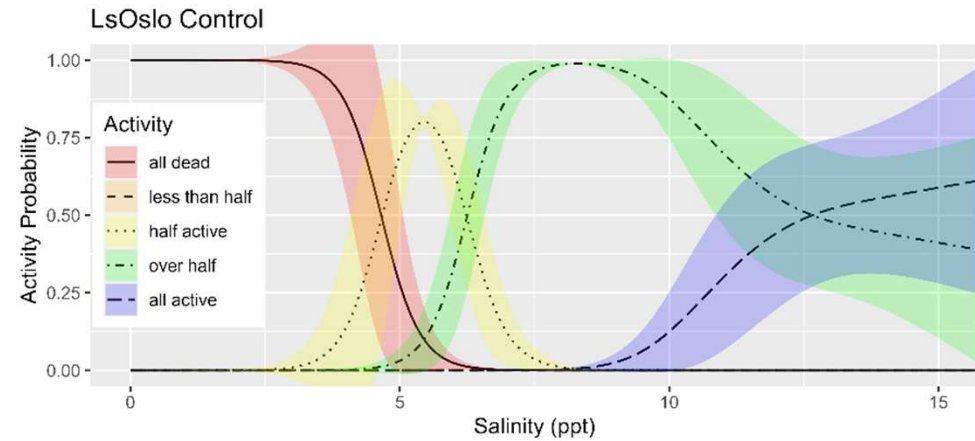
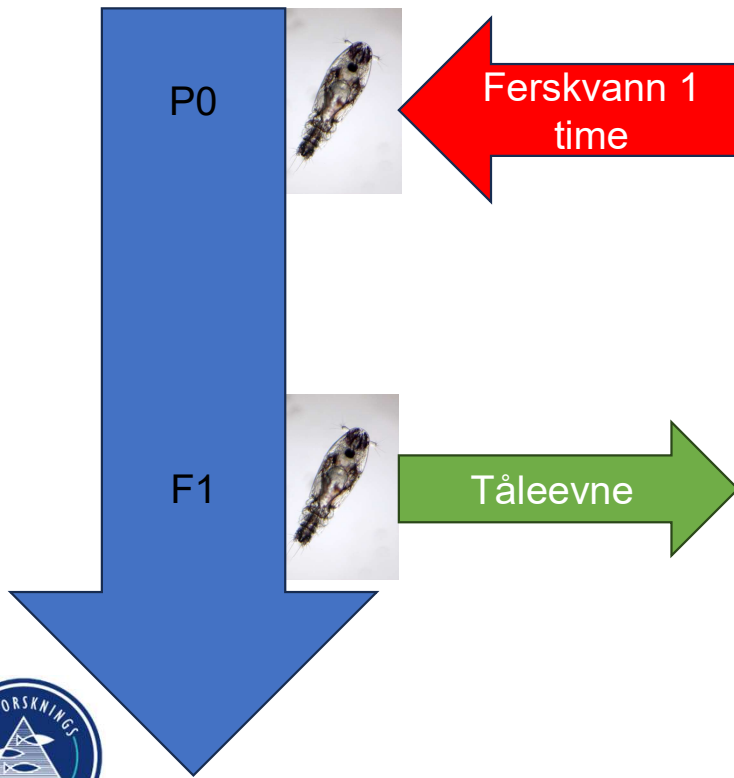
«Spørsmålet er svaret»

Når du får et svar skal du undersøke spørsmålet.
Grundig!

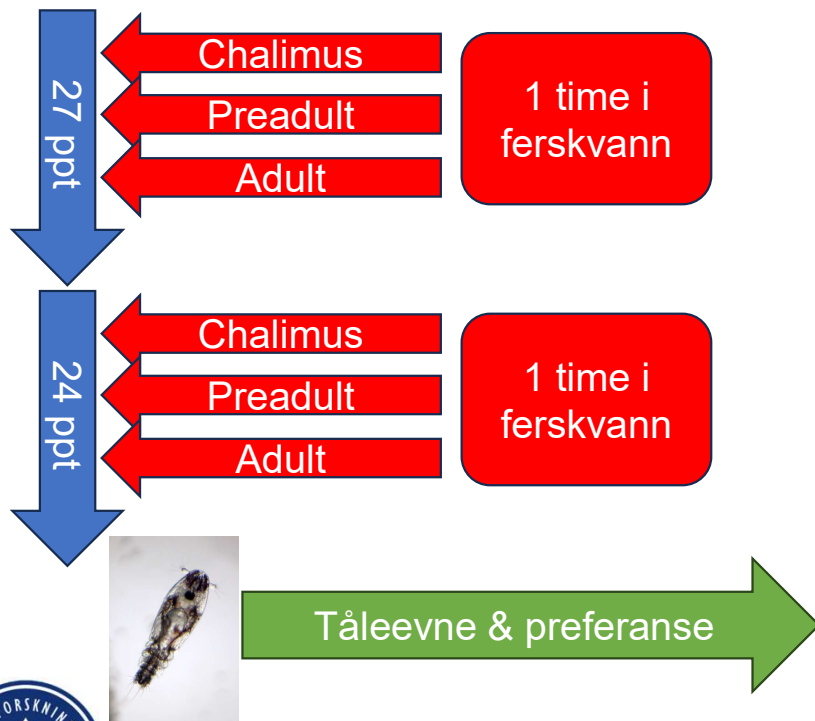
Når du gir et svar skal sikre at det avspeiler spørsmålet.
Nøyaktig!



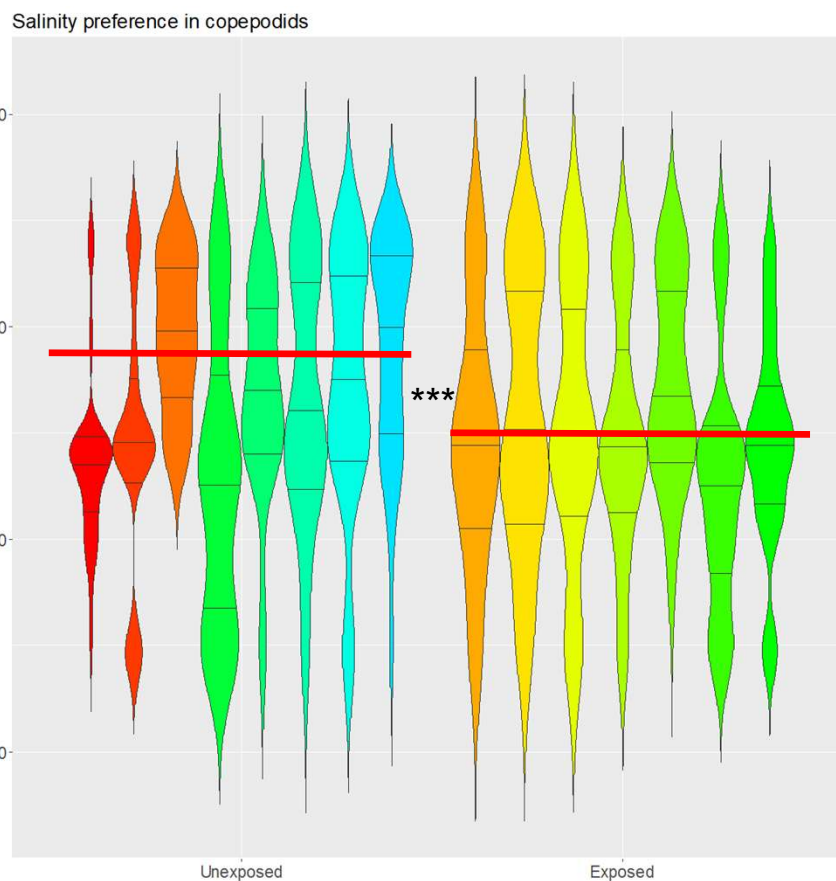
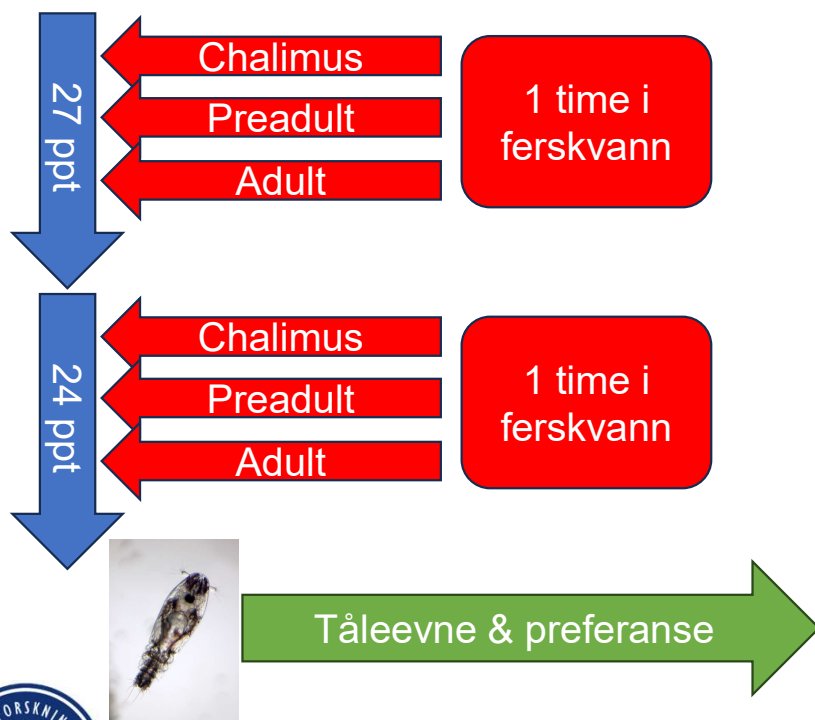
Optidelouse (FHF)



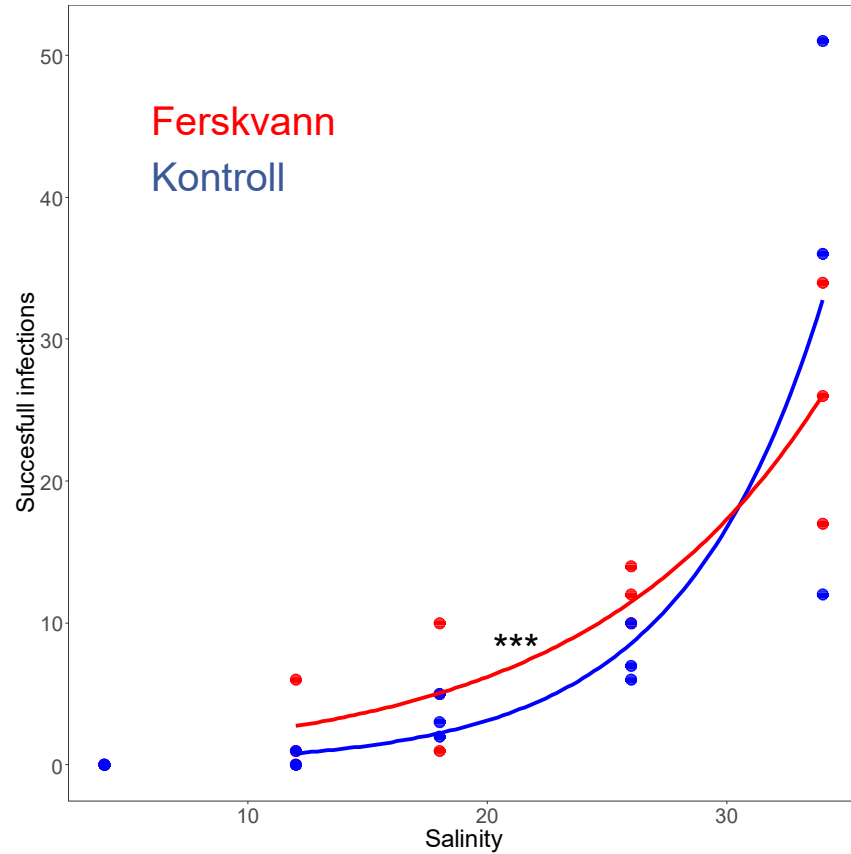
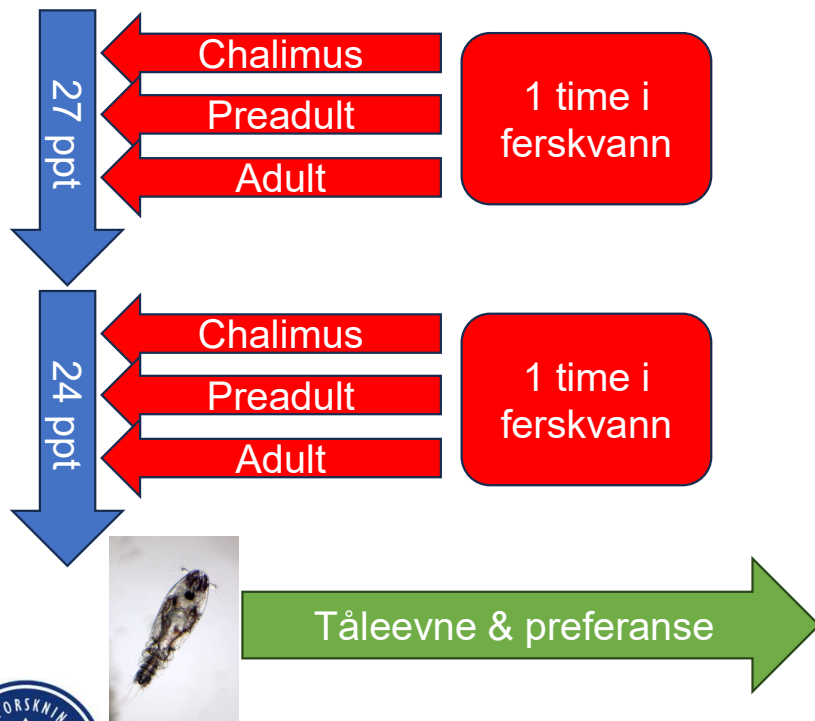
NALO biologi (HI)



NALO biologi (HI)



NALO biologi (HI)



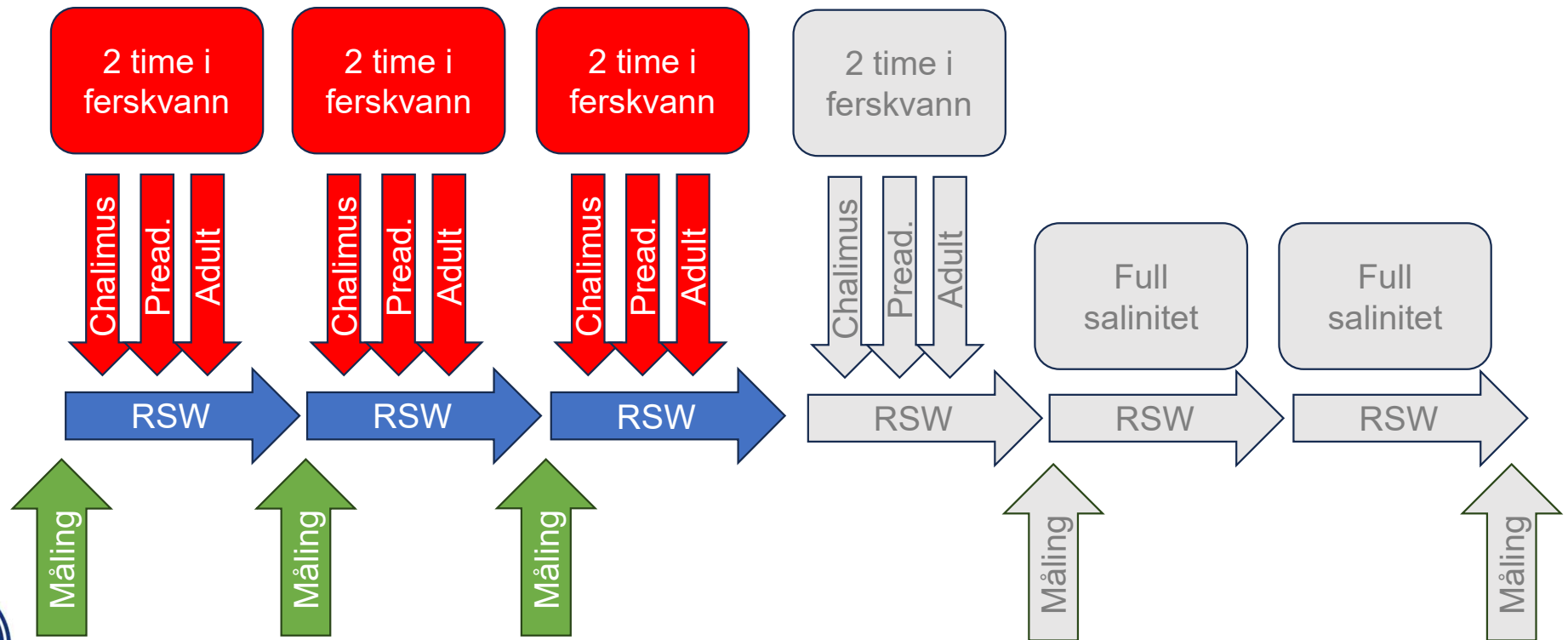
FERSKLUS

- Hvordan er tilpassingen over tid?
- Hvordan er tilpasningen hos ville lus?

5 ville lusestammer
+
LsOslo



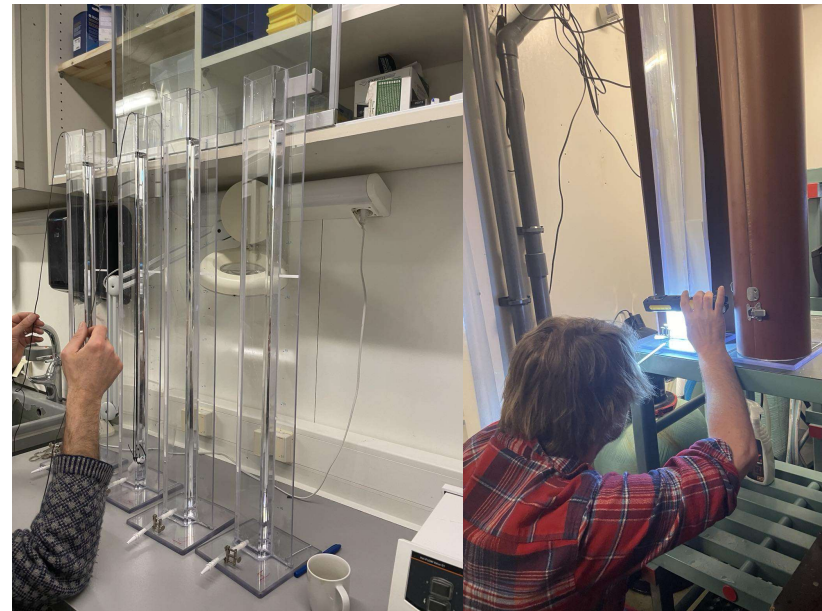
FERSKLUS



FERSKLUS



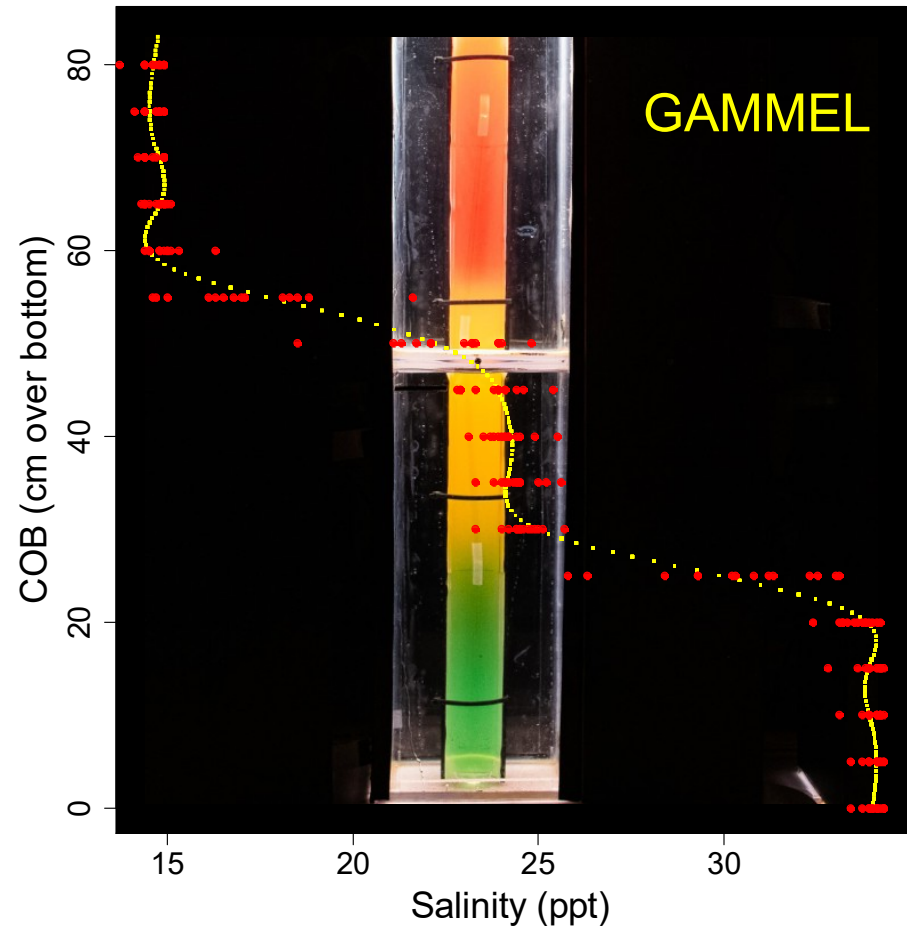
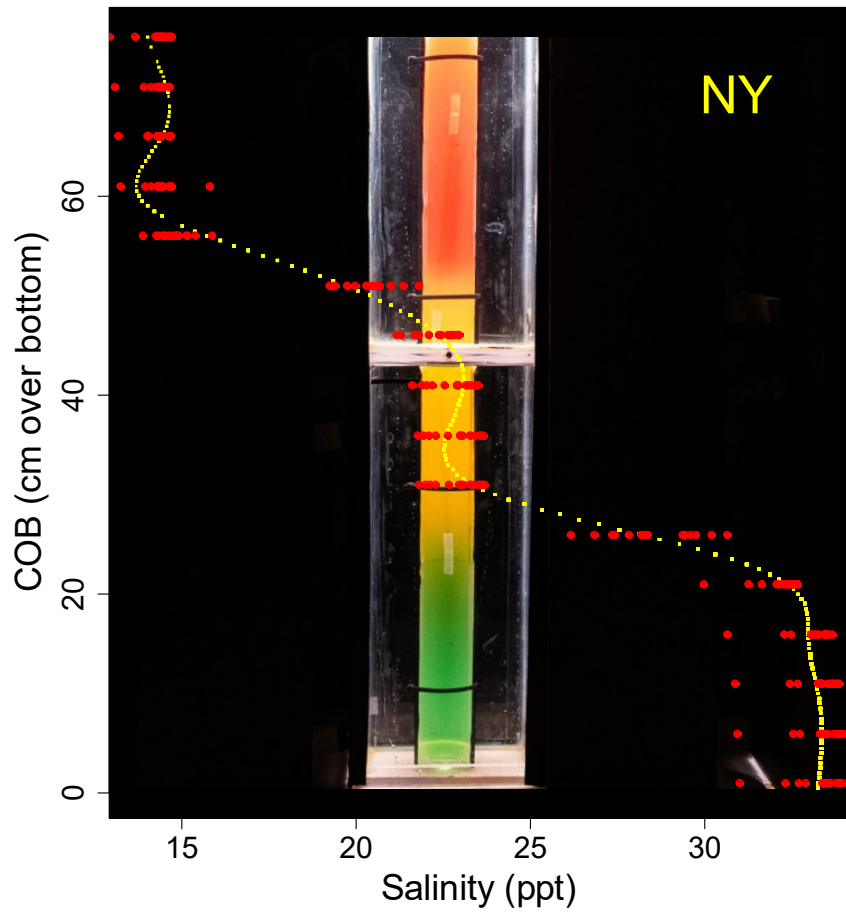
Gamle kolonner



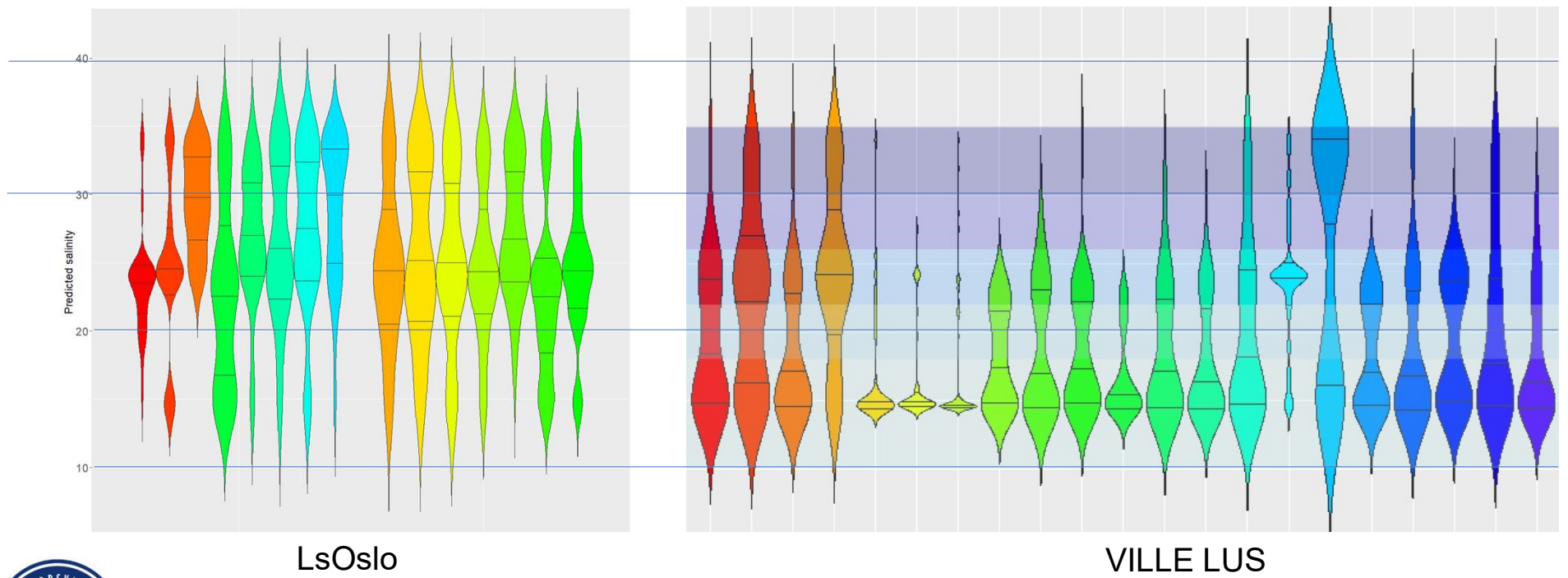
Nye kolonner



FERSKLUS



FERSKLUS



STOR FORSKJEL MELLOM LABSTAMMER OG VILLE LUS



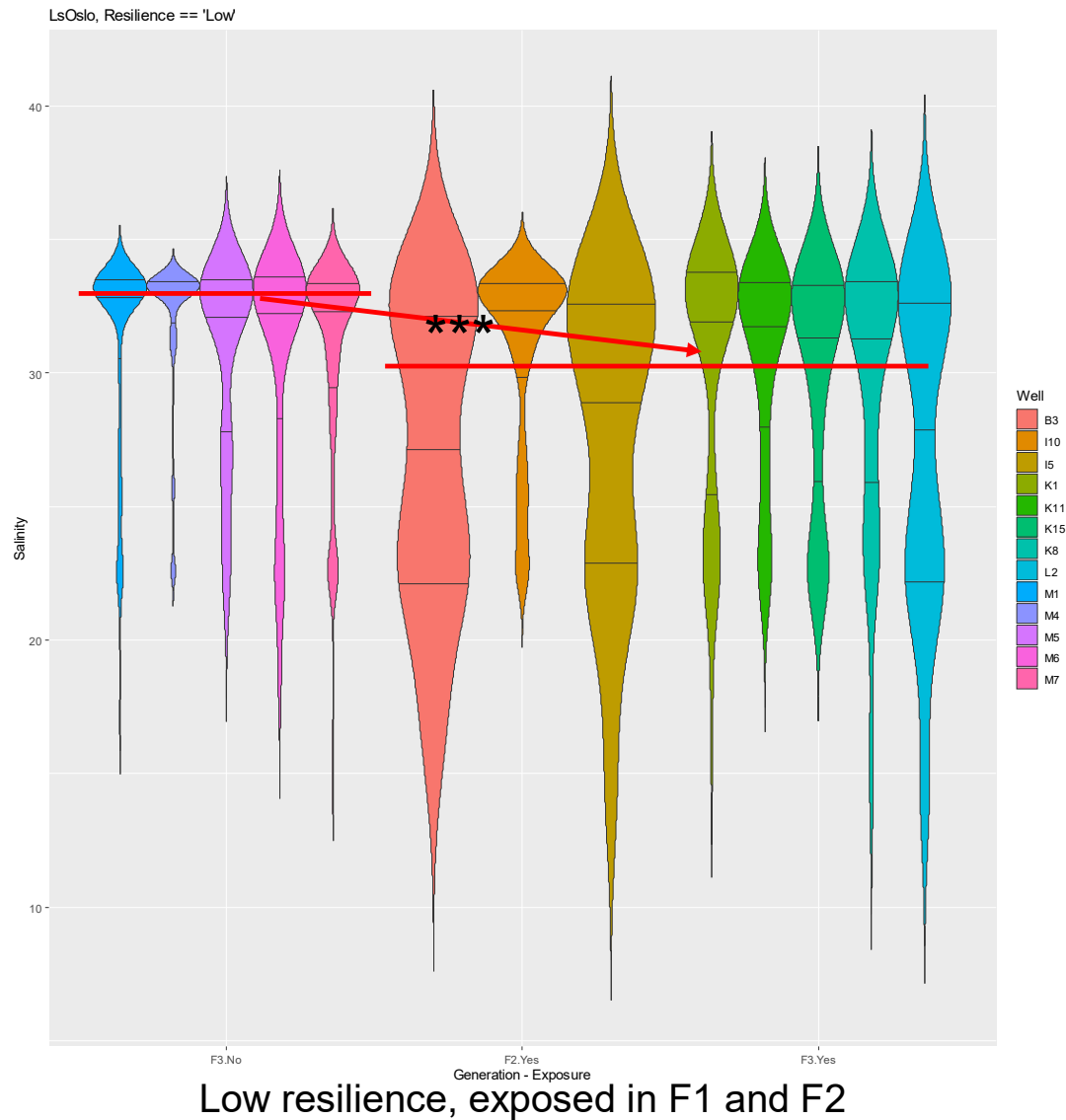
FERSKLUS

LsOslo

Nested Anova shows that low salinity preference differences between groups ($p=0,0022$).

The treated lice are found at significantly lower salinities than untreated lice ($p=7.759e-09$)

No significant difference between Exposed F2 and F3 ($p=0,399$).



FERSKLUS

Vill-stammer med lav tolerance

Nested anova:

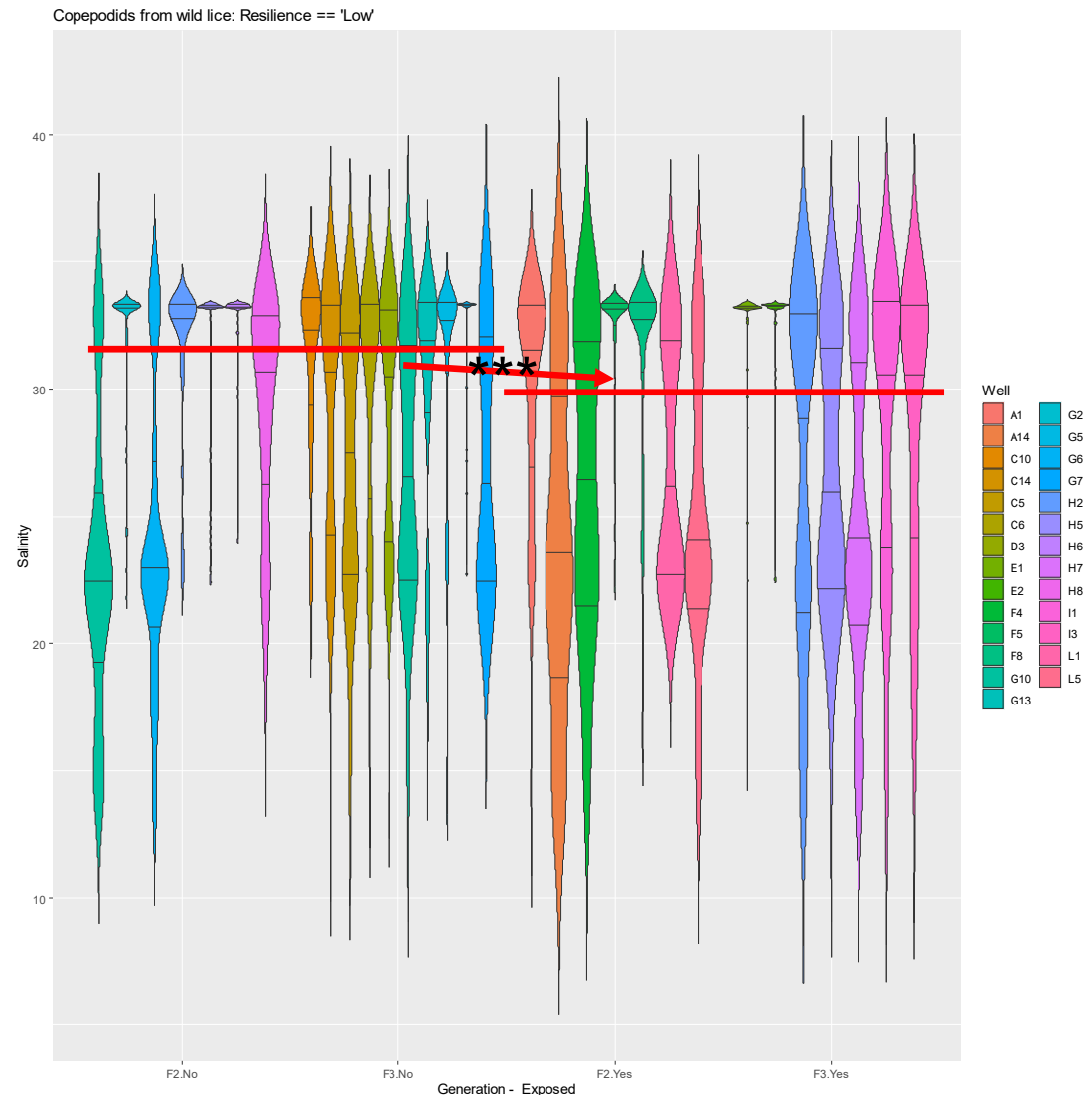
$Salinity \sim Generation * Exposed / well$

Exposed ($p < 10^{-4}$) is highly significant

Generation ($p = 0,008$) is significant

Their interaction is not significant

Interaction with well ($p < 10^{-16}$) is very highly significant



Low resilience, exposed and unexposed

FERSKLUS

Konklusjoner:

Eksposering kan endre tålegrenser

LsOslo endrer sin salinitetspreferanse (aquired inheritance)

Lavsensitive ville lus endrer tilsyneladende sin tålegrense

Ekspérimentell eksposering av ville lus endrer ikke tålegrenser mellom generasjoner

Ingen signifikante endringer fra F1 til F2 i ferskvannseksponerte lus

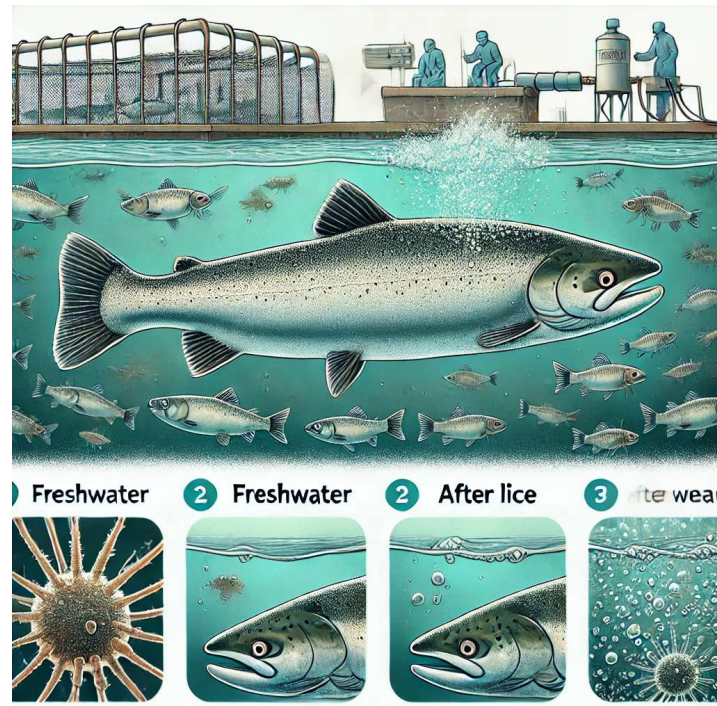
Ingen sammenlikning m. P0 pga. metodiske utfordringer

Vår tolkning:

eksposeringen for lus i naturligt miljø er **sannsynligvis** mer seleksjonsdrivende enn 3*2 timers ferskvannseksponering / generasjon.



Er ferskvannsavlusning problematisk?



ChatGPT



Tilpasser lus seg til ferskvann?

