

Salmon Lice

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Salmon lice- a parasite of salmonoid fish

Photo: frontiersiceland.com



Photo: Anglers.is



Photo: Tripadvisor



Salmon louse and *Caligus elongatus*



Salmon lice life cycle

- 8 stages, separated by molt-new exoskeleton
- 3 larval stages: nauplius 1,2 and the copepodite (infective stage): planktonic and non-feeding
- Remaining 5 stages on fish
- Long lived, continuous egg production

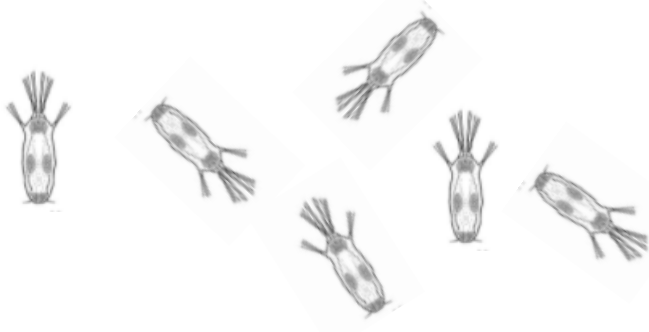


News on Larval Behaviour

- Larvae prefer high salinity and low pressure



Brackish

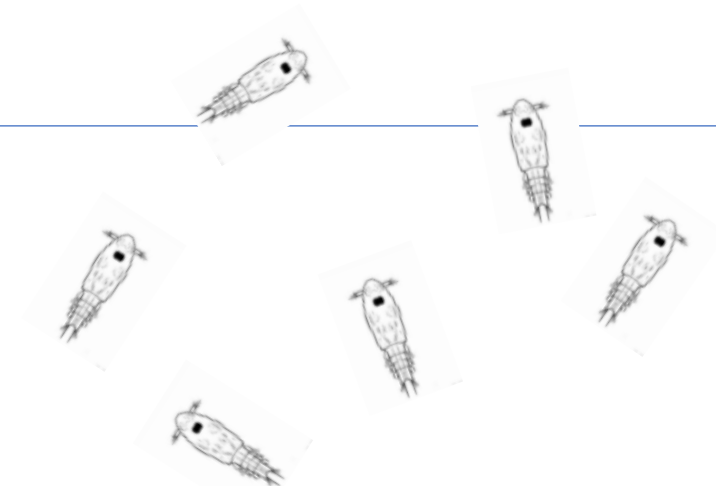


Full salt

- But, naupli prefer cold water, and copepodites tolerate more brackish water



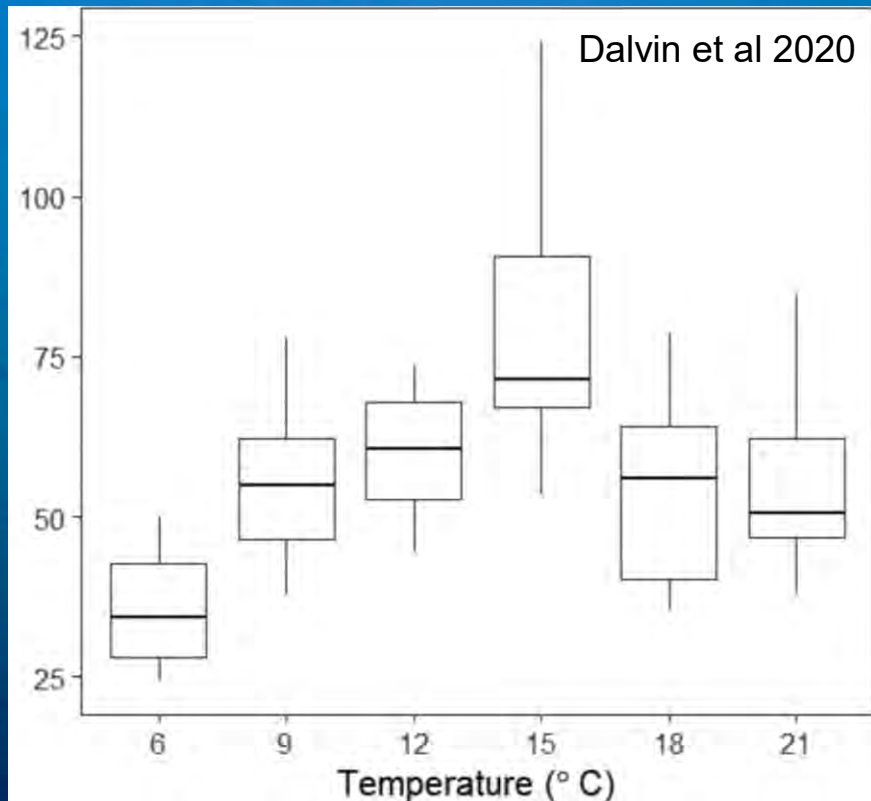
Brackish



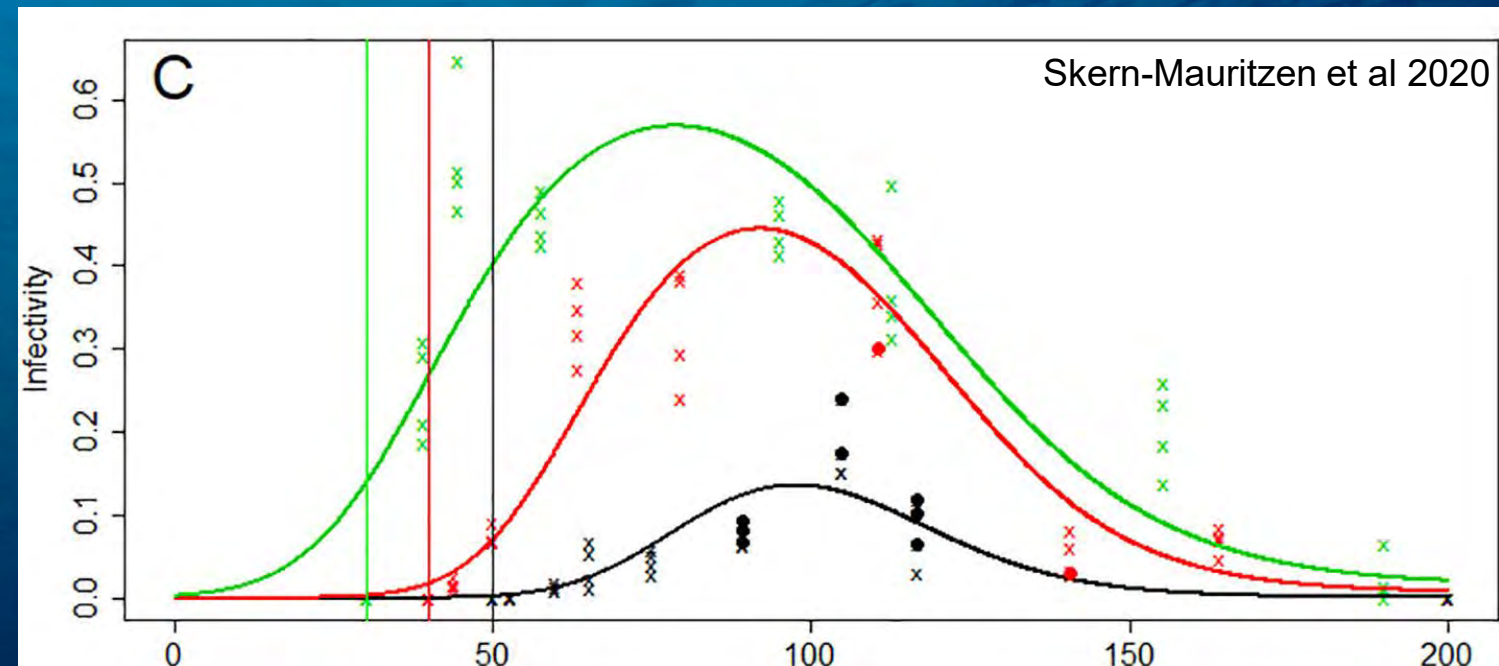
Full salt

News on infectivity and survival

Parasite success: Settlement and survival



Copepodites has the highest and fastest infection rate at 15°C (green)



Salmon louse on farmed fish

Highly dependent on number of lice/g

Heavy infections: wounds and negative effects on fish health

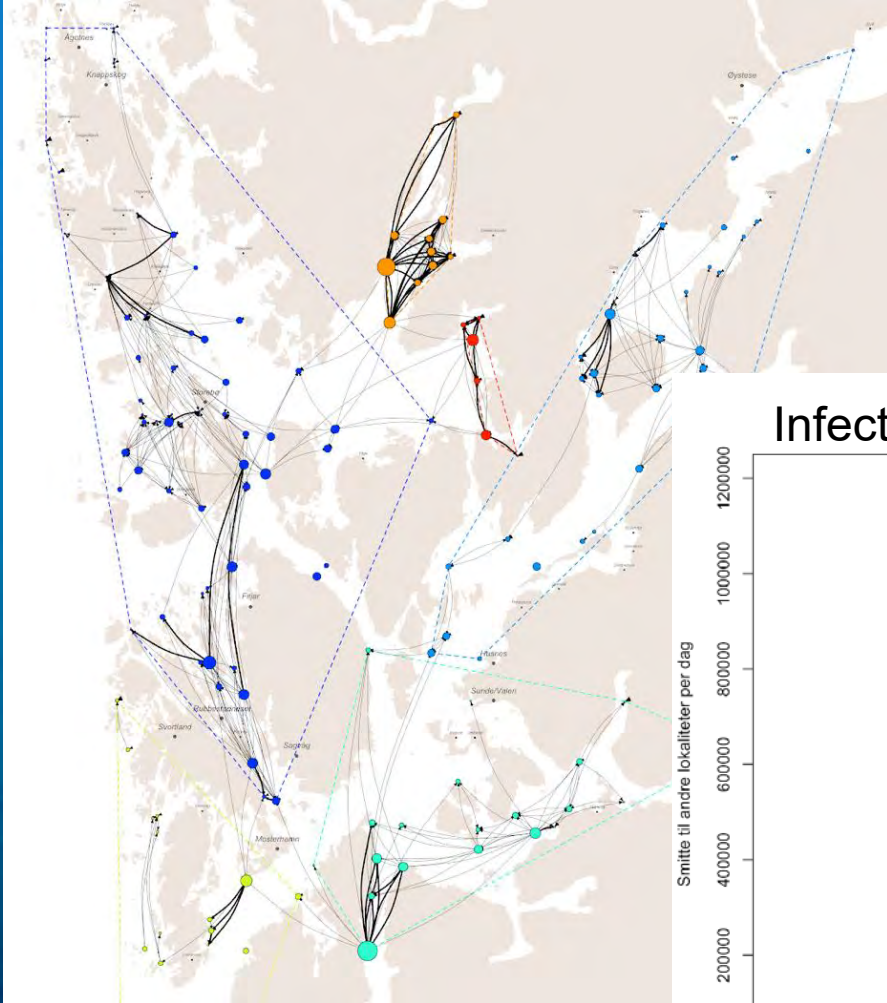
Salmonid fish are rather tolerant to salmon lice

BUT salmon lice produce MANY offspring

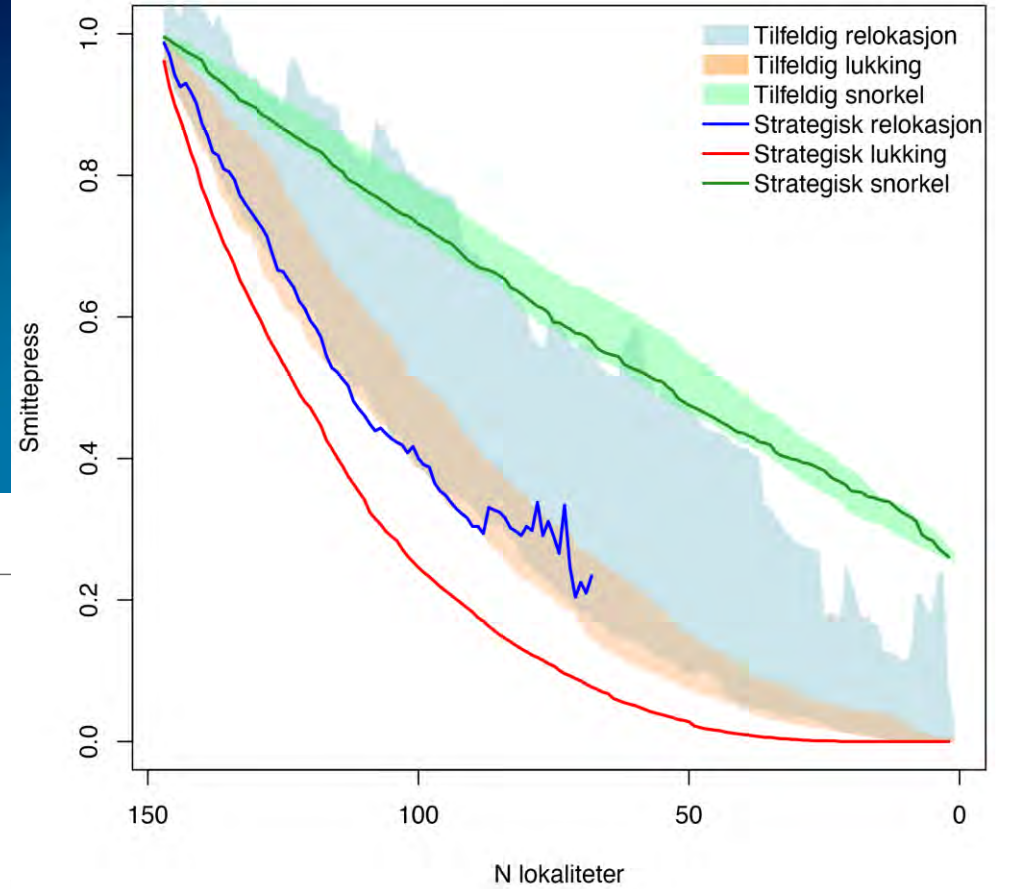
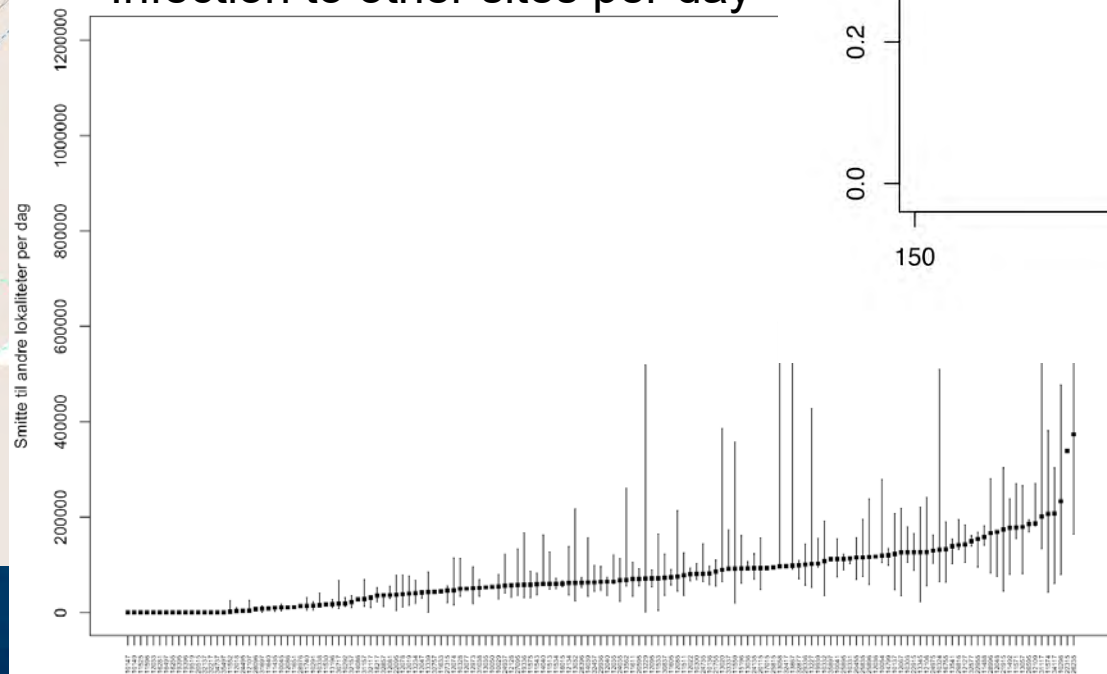
0.1 female/fish, 500.000 fish=1.5 mil nauplii/day



Connectivity



Infection to other sites per day



Huserbråten et al 2020: Endret lokalitetsstruktur i produksjonsområde 3

Challenges



Treatments

Prevention,
Infrastructure,
Planning, prod.
methods

Biology



Successful management of a difficult parasite

Awareness
in the
industry

Regulatory
authorities

Researchers

Fishermen,
NGOs

Communication!

Sjálfboðavinna-
everybody has to
contribute

Long term plans



Acknowledgements

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Looking for *C. elongatus*, 50-100 lice, store in ethanol, note date and location, contact me.



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