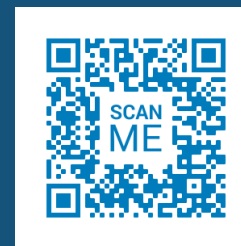




Lumpfish, a biological delouser

Martyrs of the salmon farming industry and the reasons for their high mortality rate



Alphabetical order: Hjörtur Methúsalemsson, Johanne Kleppe, Kristoffer Vestrheim, Malin Østervold, Mette Espedal Brynildsrud



What is the role of Lumpfish in the salmon farming industry?

- 🐟 Live in the sea cages with the salmon
- 🐟 Reduces mechanical treatment for delousing salmon
 - 🦋 Leading cause of mortality for salmon
 - 🦋 The second leading cause of mortality in lumpfish
- 🐟 What could be improved to increase the delousing effect in lumpfish?
- 🐟 What is causing the high mortality?

Material and methods

Veterinærinstituttet
Norges veterinærhøgskole

Rapport 41a/2021

Rapport 5a/2020



Veterinærinstituttet
Norges veterinærhøgskole

Analyse av dødelighetsdata fra spørreundersøkelse om velferd hos rensefisk



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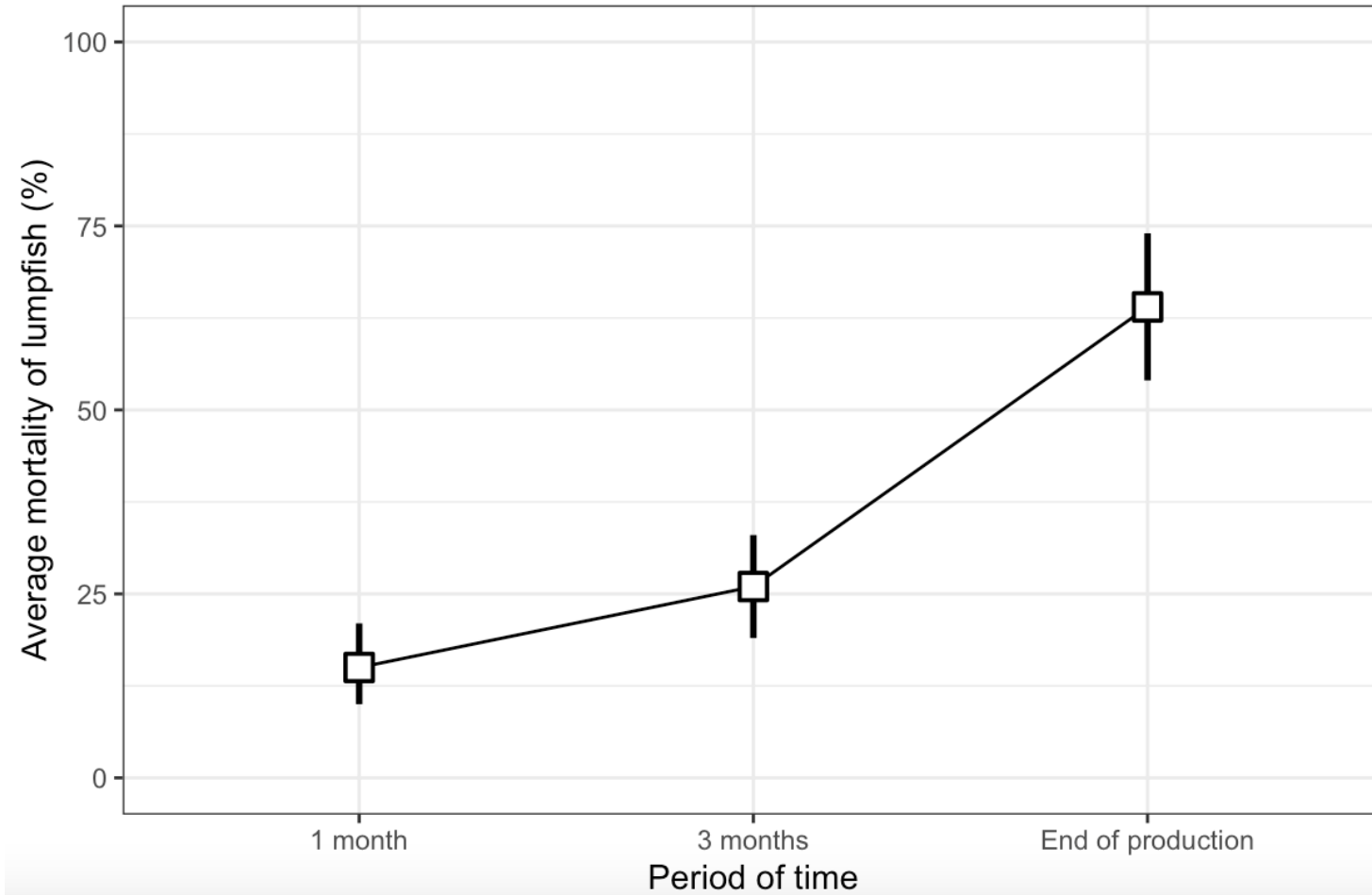
Forskningsgruppe(r): [Dyrevelferd](#) Tema: [Fiskevelferd](#) Program: [Miljøeffekter av akvakultur](#)

Forskningsgruppelider(e): Tore Kristiansen (Dyrevelferd) Godkjent av: Forskningsdirektør(er): Geir Lasse Taranger

Programleder(e): Terje Svåsand

Results

Average mortality of lumpfish during one production cycle of salmon



Assumed mortality rate

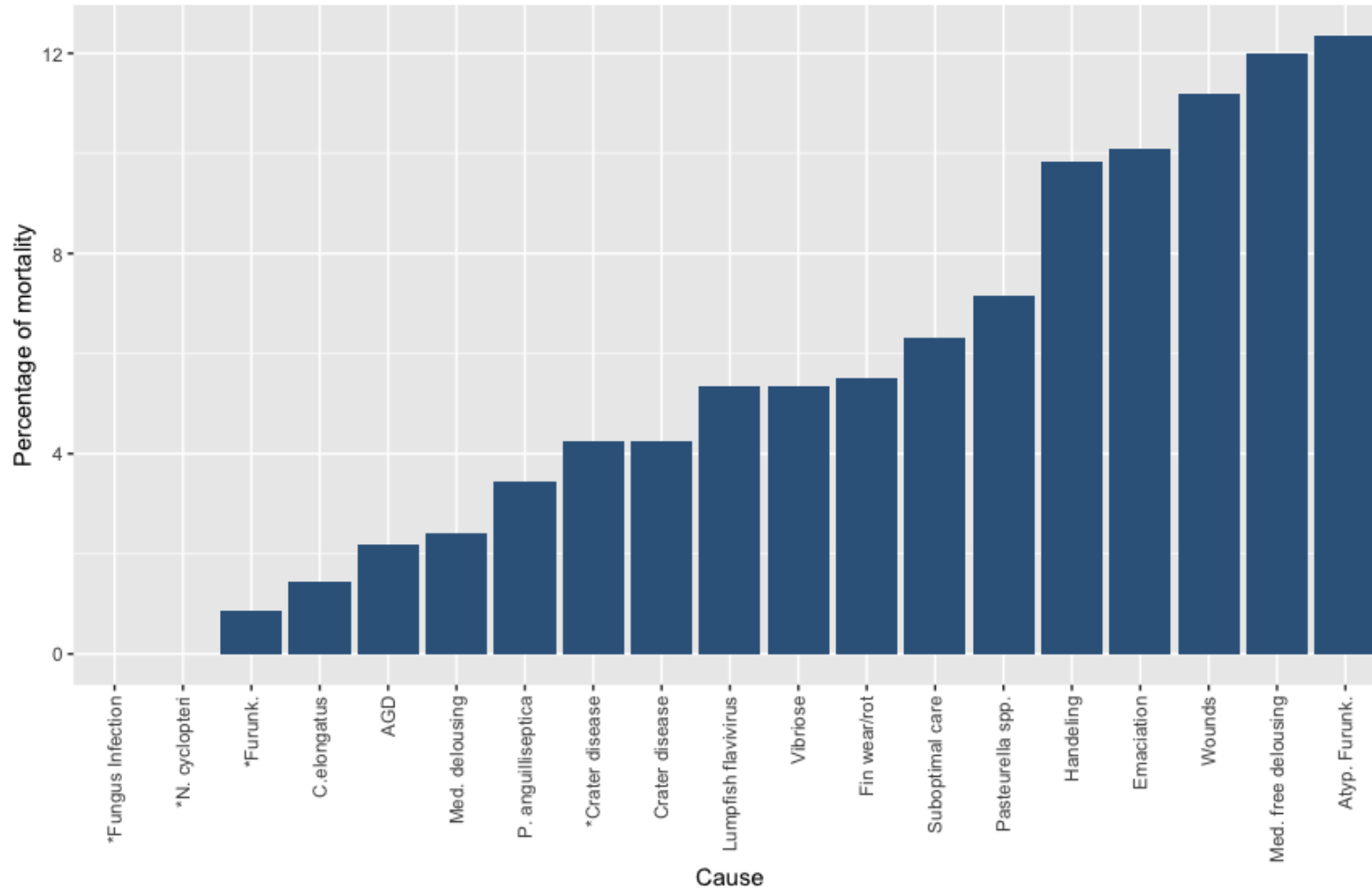
15 % - 1 month

26% - 3 months

64% - End of production

Results

Main causes for mortality in lumpfish



Main reasons for the mortality of lumpfish:



Bacterial infections



Mechanical treatment against sea lice on salmon



Wounds








Emaciation



Handling

Conclusion

-  Infections, mechanical treatment, wounds and handling could all be related
-  Emaciation requires further discussion
 -  Lack of feeding and housekeeping?
-  Lower mortality in lumpfish will lower the production cost
 -  Better welfare for the lumpfish, will result in more efficient delousing which benefits the welfare of the salmon.

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