

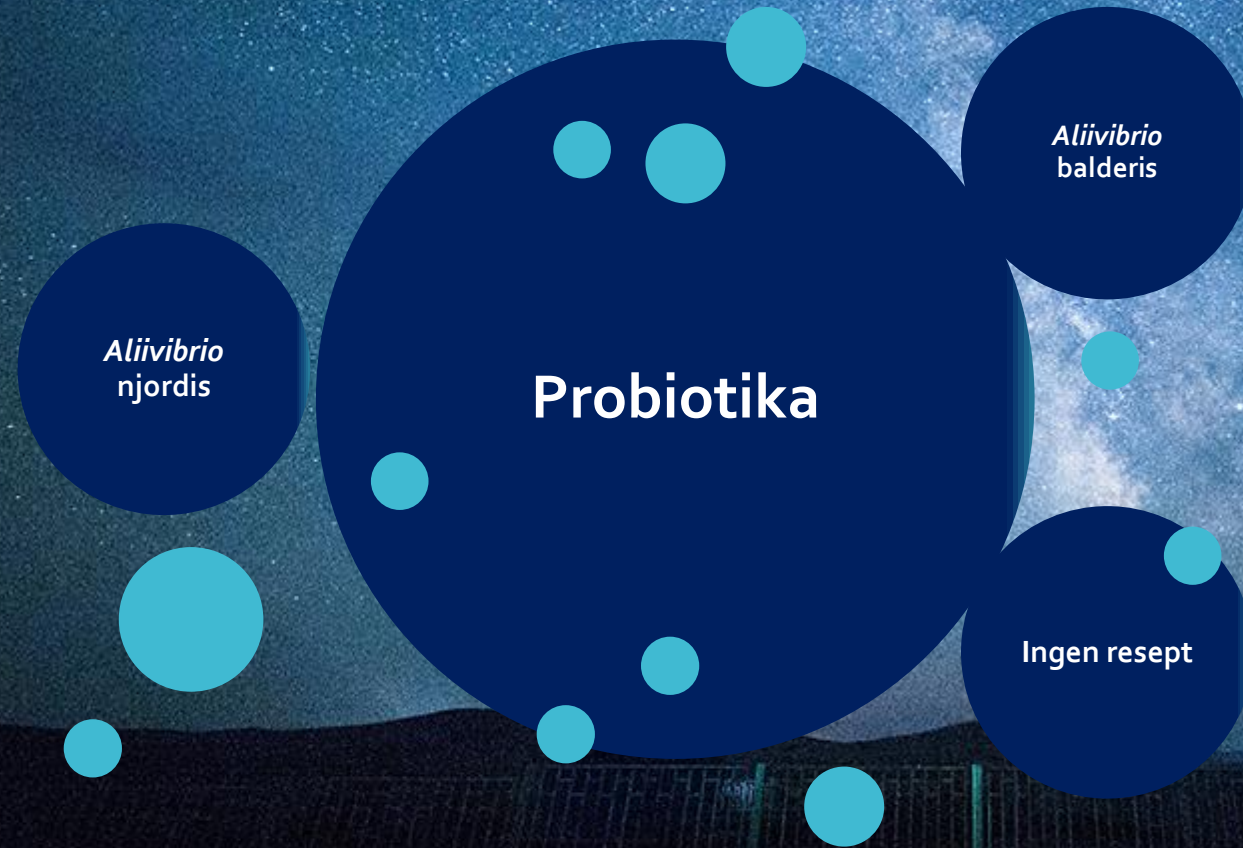
A microscopic view of various bacteria, including rod-shaped and spherical forms, some with flagella, set against a blue background. The image is used as a background for the slide.

# Lusekontroll med mikrobiell forsterkning

Marius Steen Dobloug,  
NMBU/Previwo



# Stembiont



*Aliivibrio*  
njordis

Probiotika

*Aliivibrio*  
balderis

Ingen resept

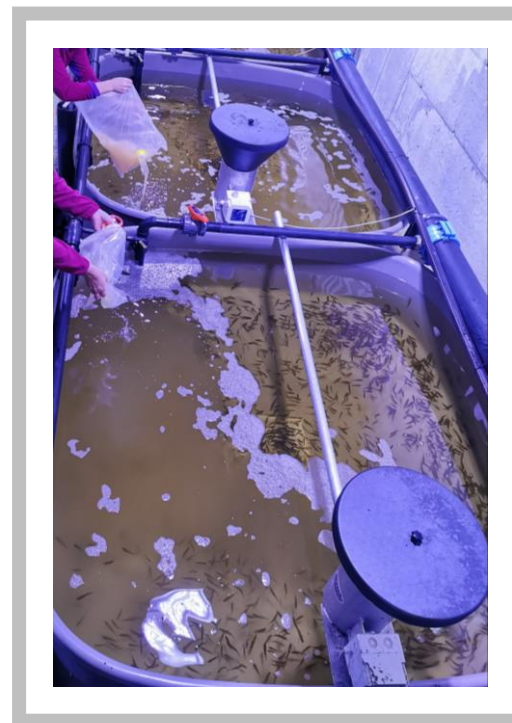
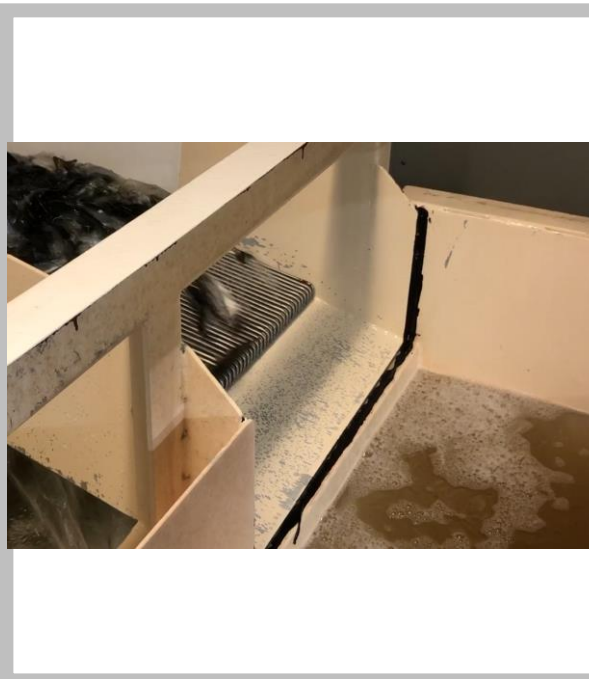


# Applikasjon

Dypp

Bad

Spray





# Stembiont



# Studie 1

# Studie 1

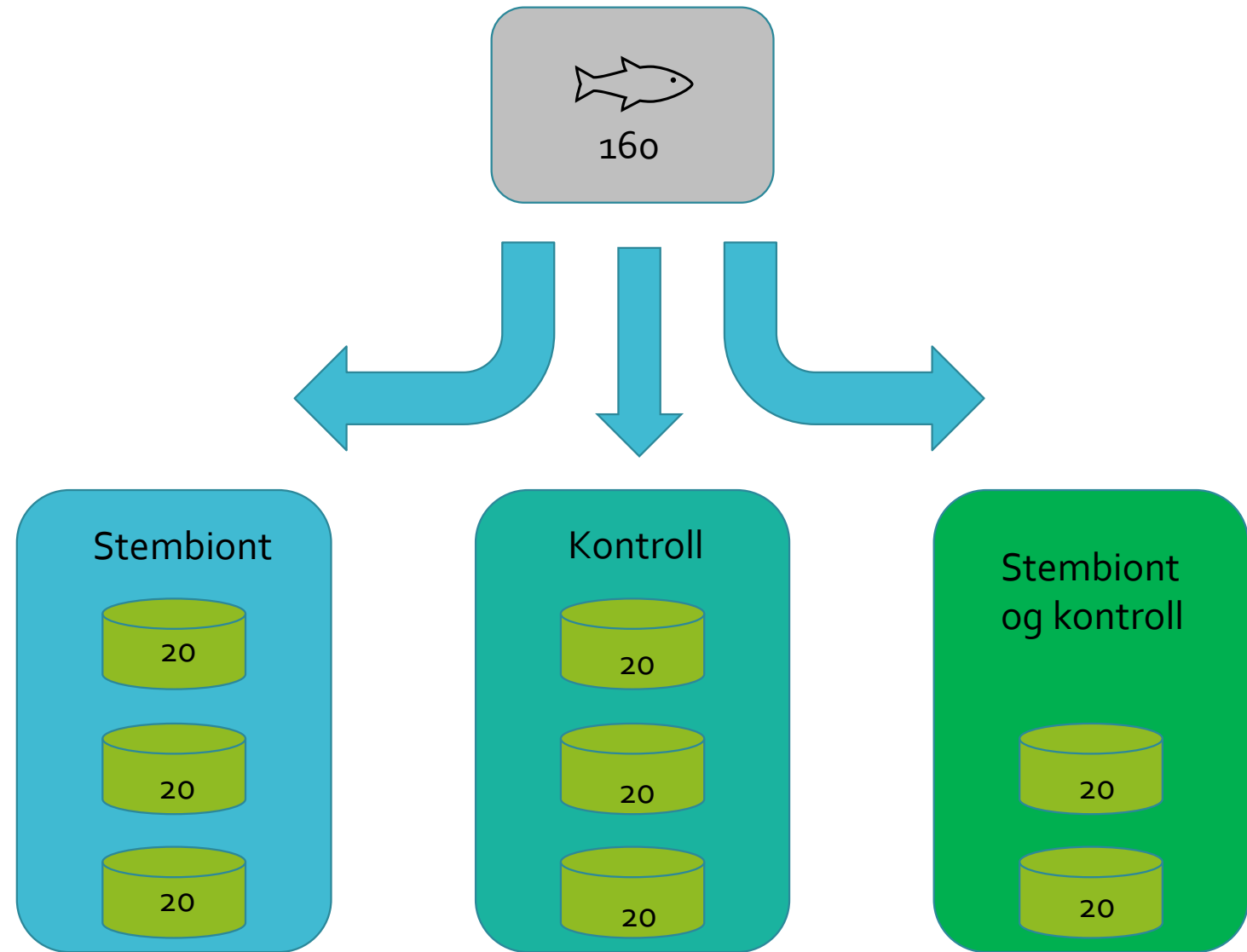
Oppsett

- Vurdere lusebeskyttelse 5,5 måneder etter Stembiont-applikasjon

# Studie 1

Oppsett

Kar



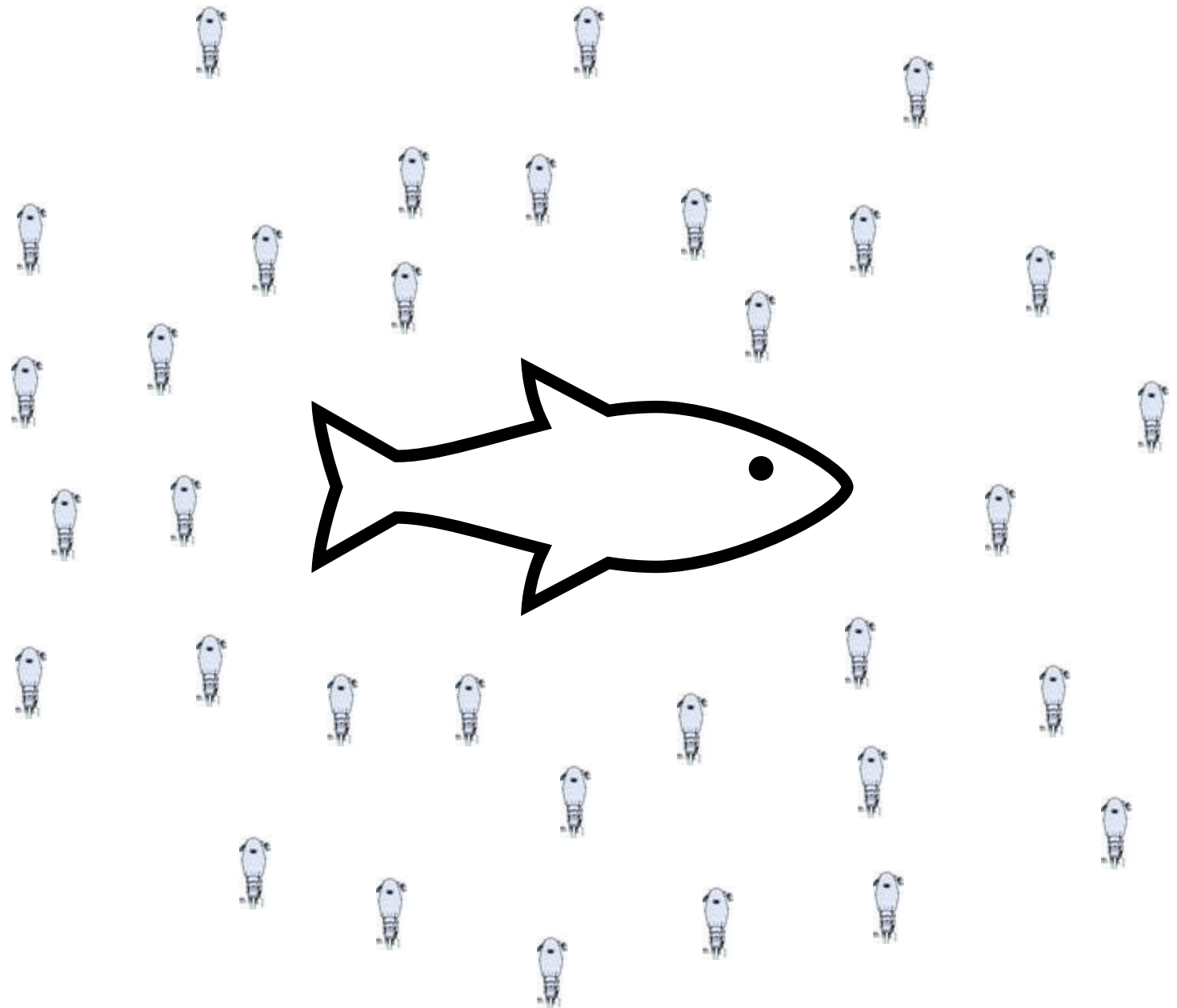


# Studie 1

Oppsett

Kar

Smitte

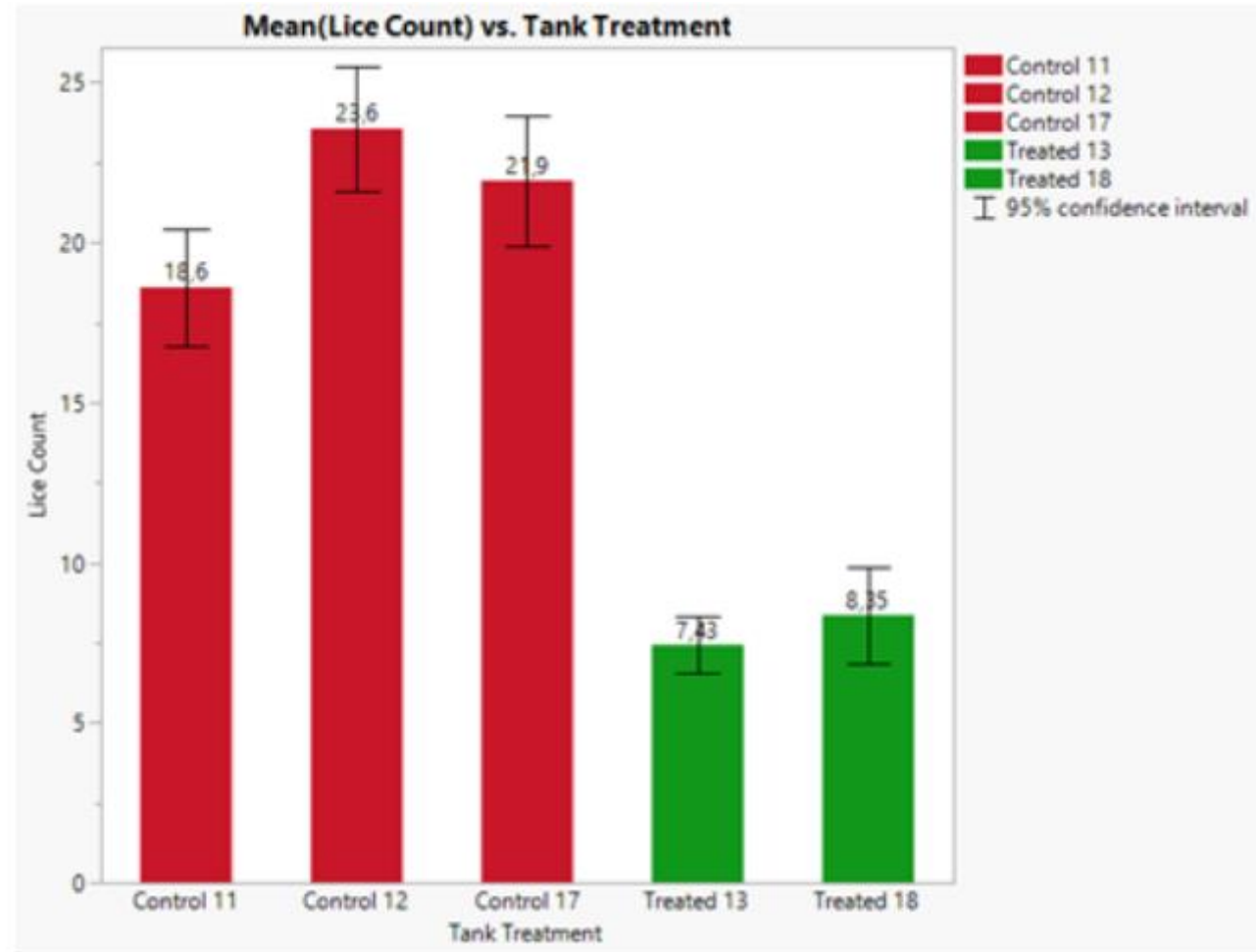




# Mindre lus i Stembiontkar

RPP 63,4 %

( $p \leq 0,0001$ )

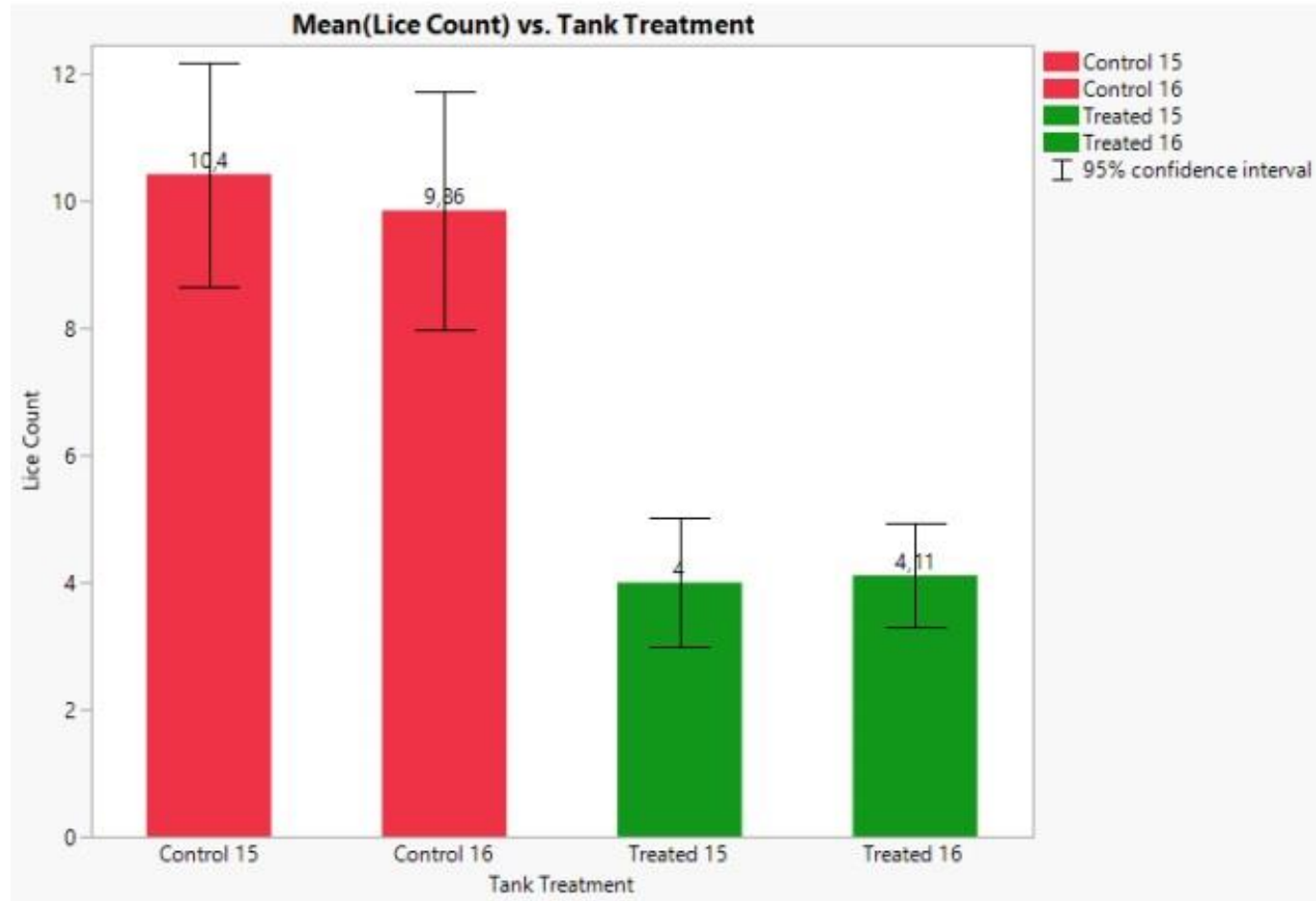


# Kohabitantkar

Mindre lus på Stembiontfisk.

RPP 60 %, men lavere enn tidligere.

( $p \leq 0,0001$ )



# Studie 2



# Studie 2

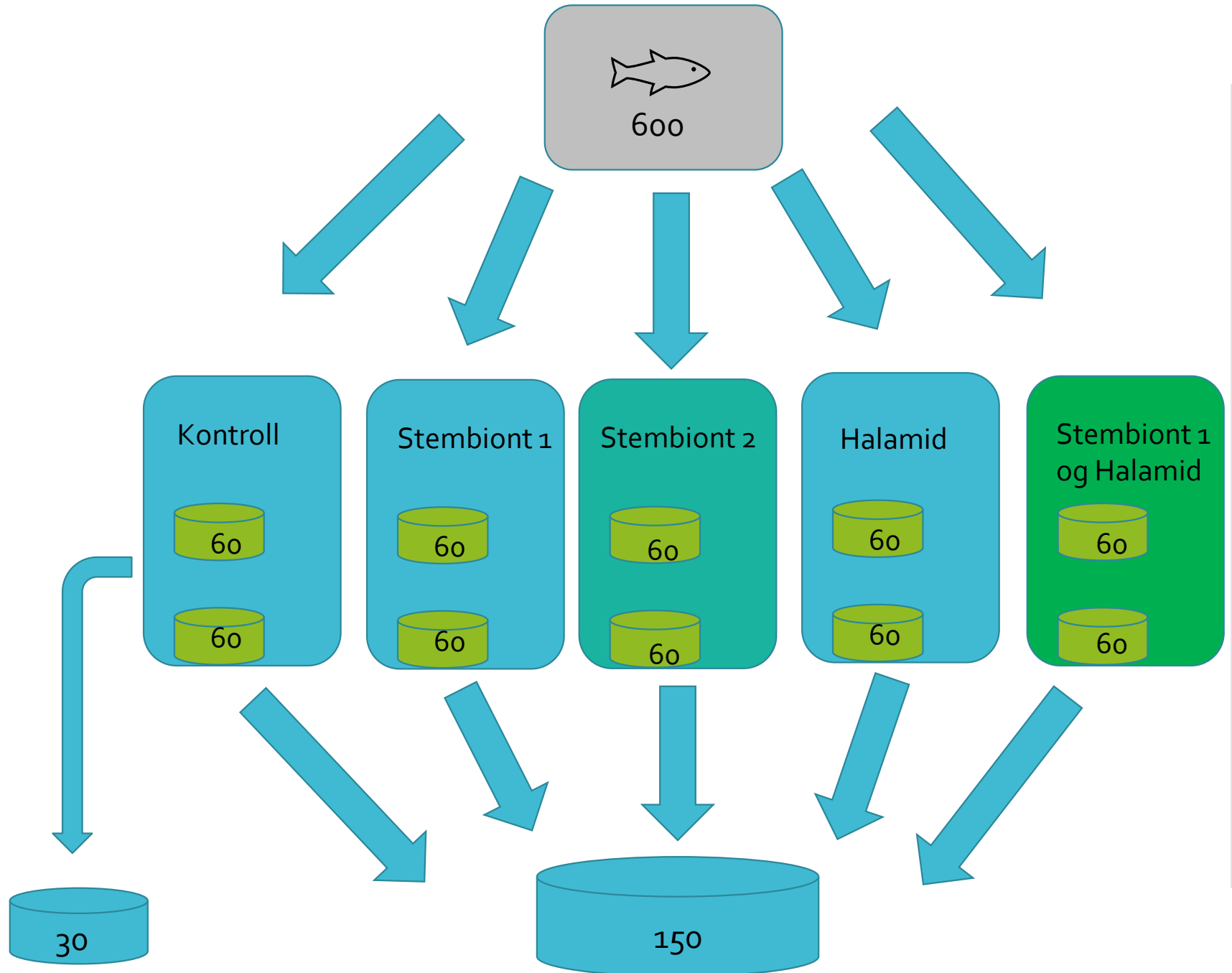
Oppsett

- Har Stembiont en kohabitanteffekt?
- Pro-mikrobiell vs. Anti-mikrobiell

# Studie 2

Oppsett

Kar

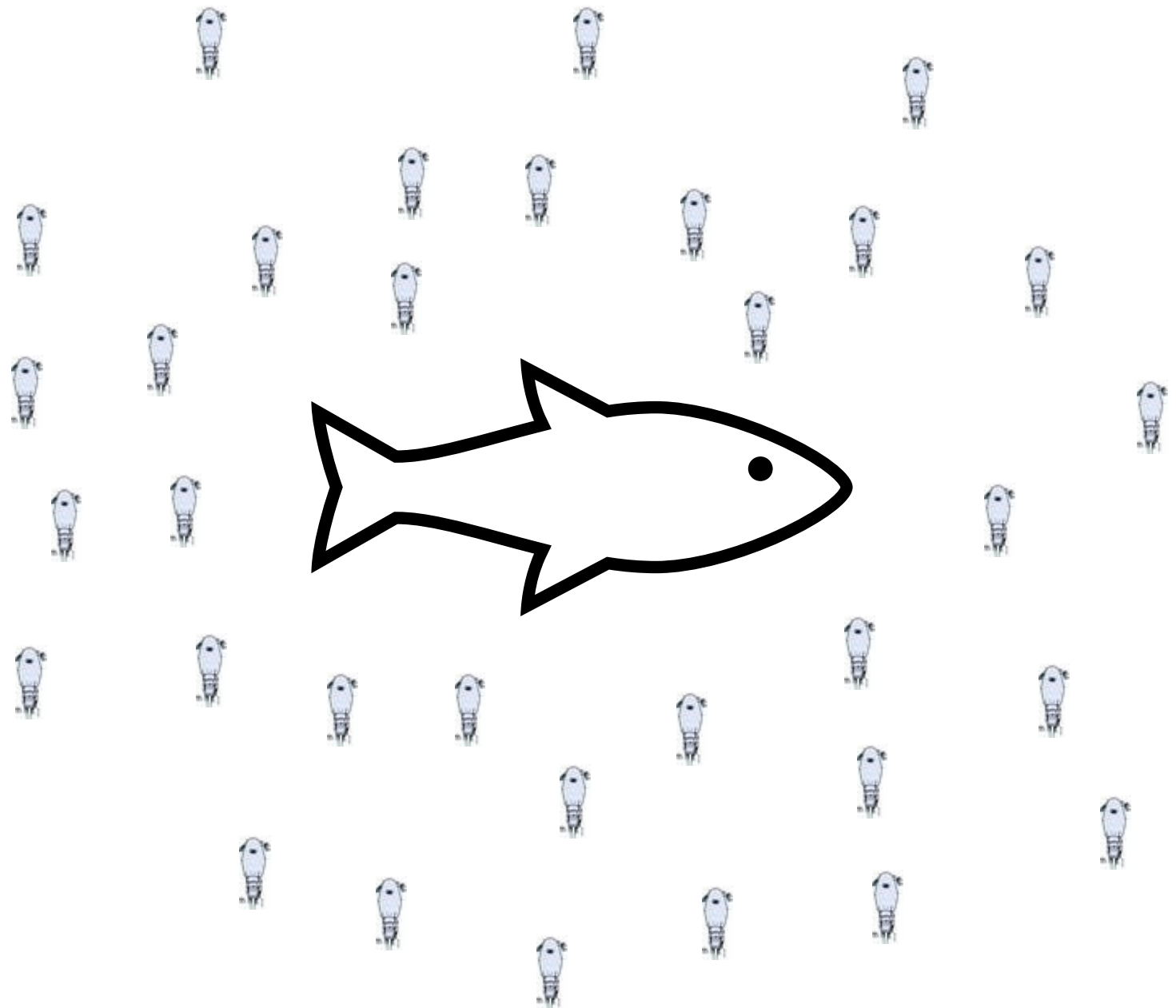


# Studie 2

Oppsett

Kar

Smitte

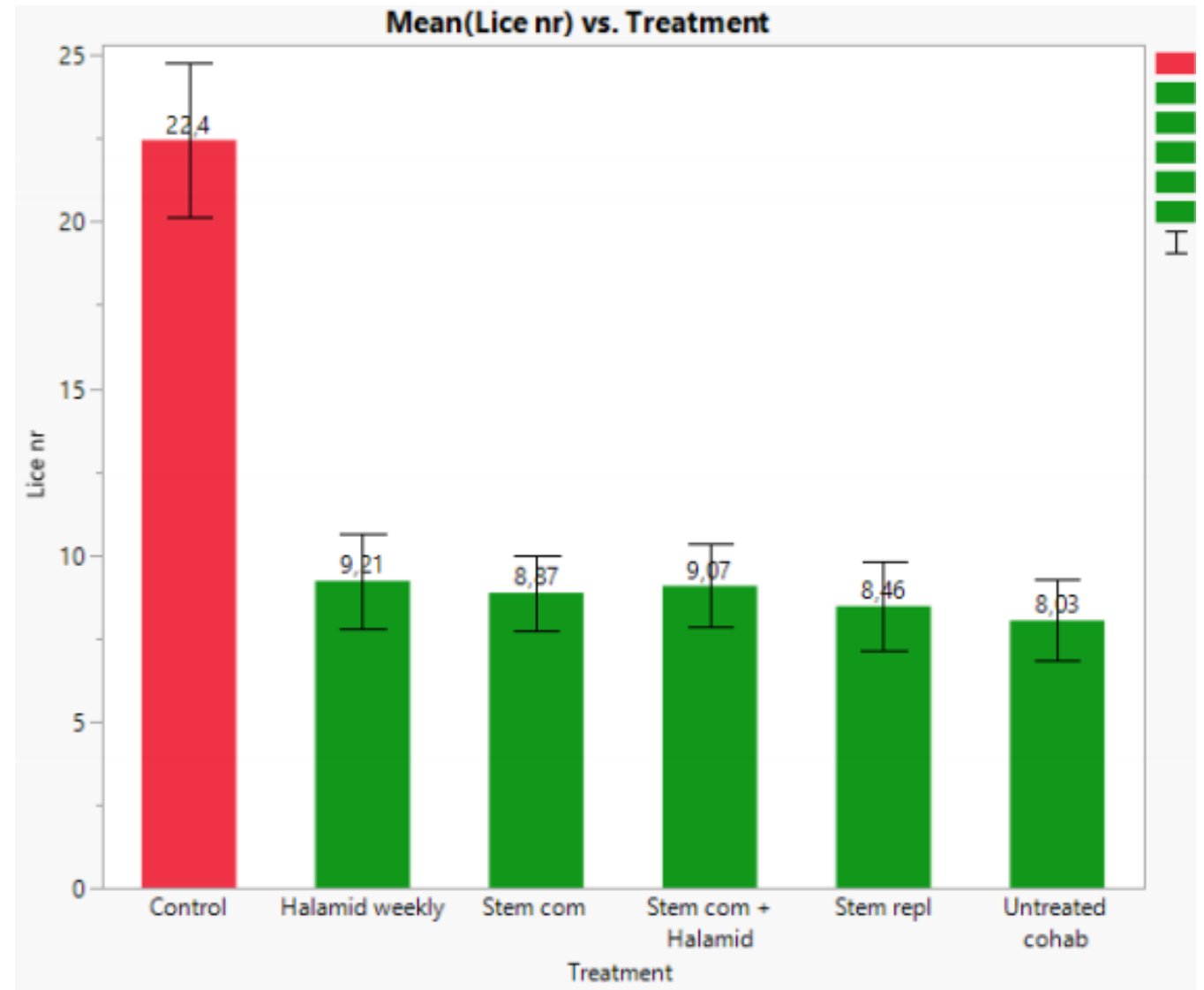




# Mindre lus i Stembiontkar

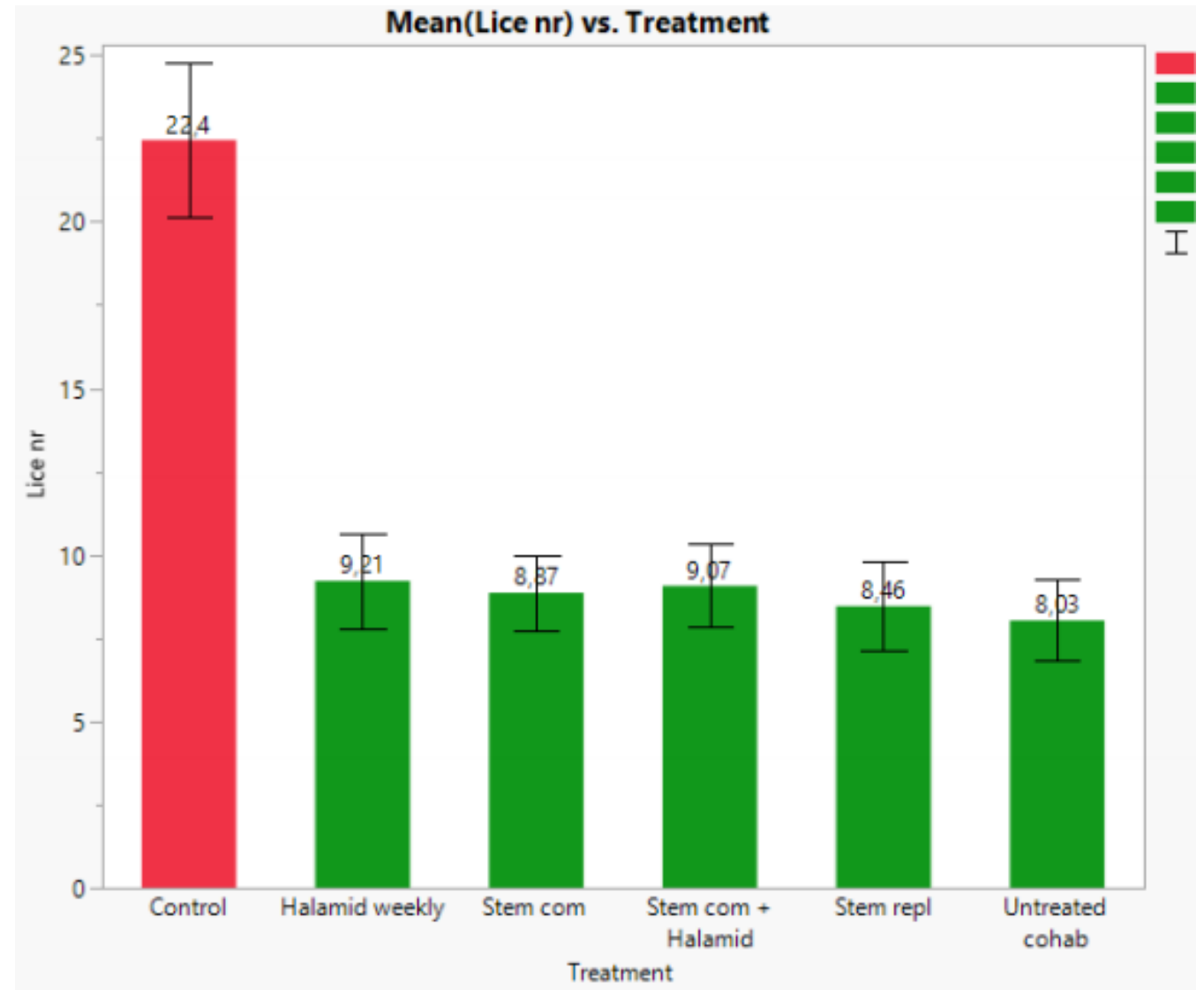
RPP 59-64 %

( $p \leq 0,0001$ )



# Mindre lus i Stembiontkar

## Kohabitanteffekt



# Underutvikling i Stembiontkar

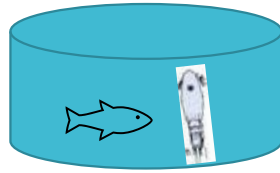
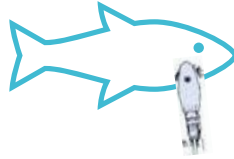
- Fargeendring
- Løsere feste
- Kjønnsmoden lus i hoderegion
- Færre kjønnsmodne
- Eggstrenger



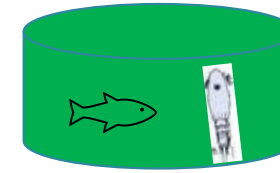
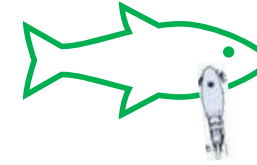


Underutviklede  
eggstrenger

Kontroll



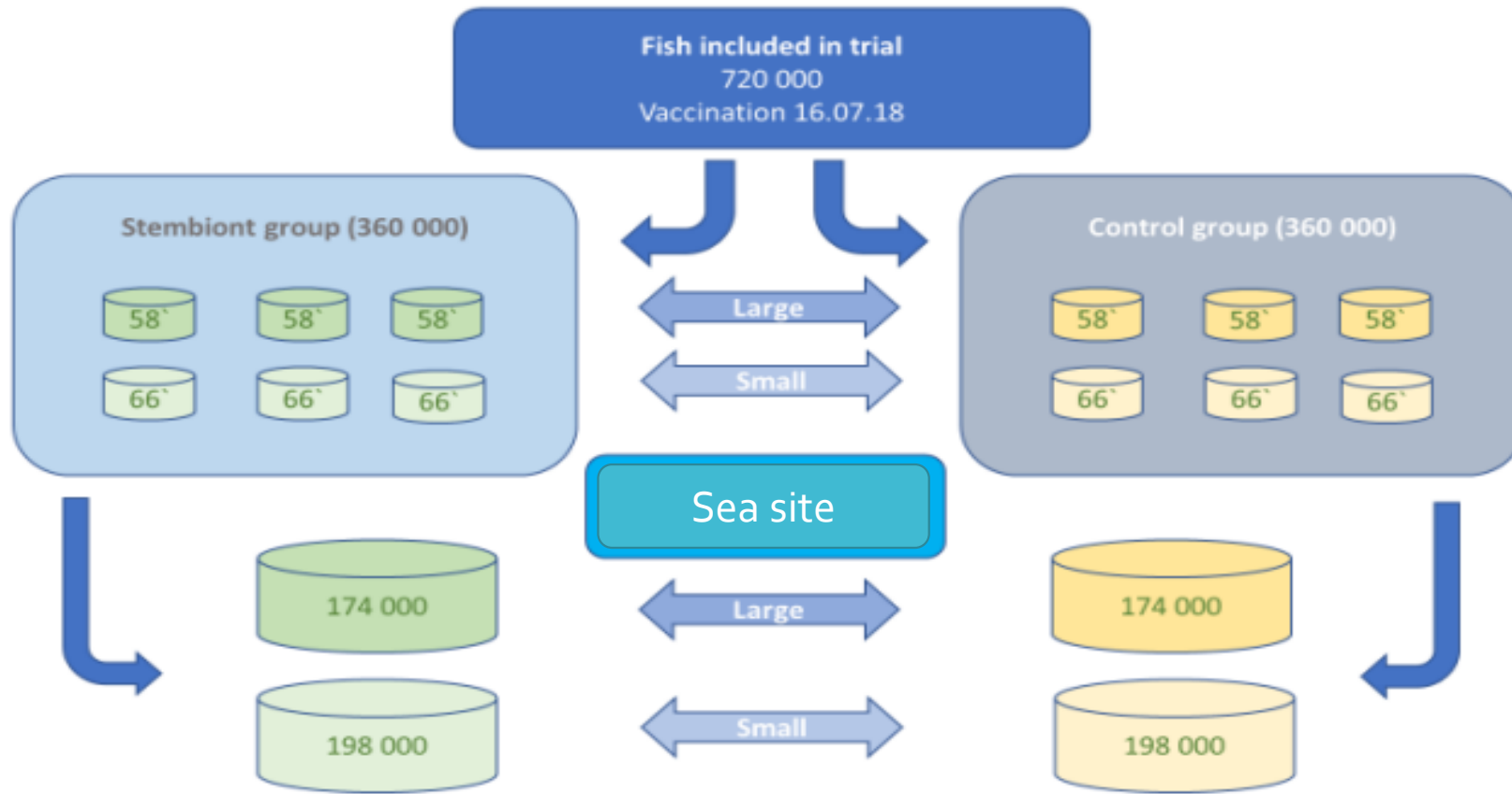
Stembiont



Lavere klekkeprosent

Mindre bevegelighet

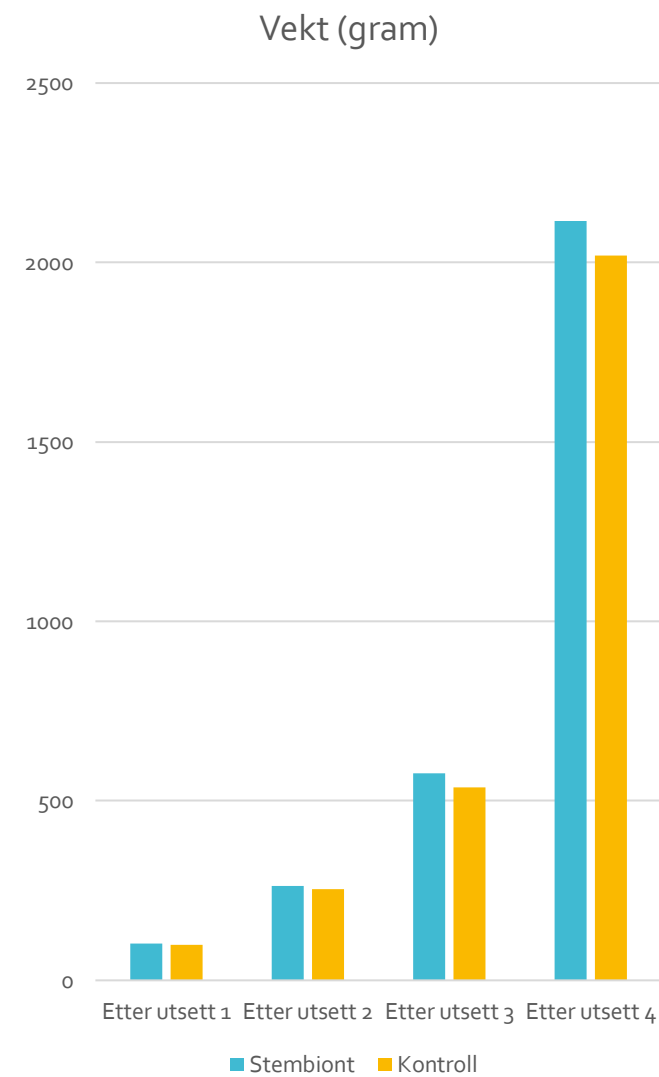
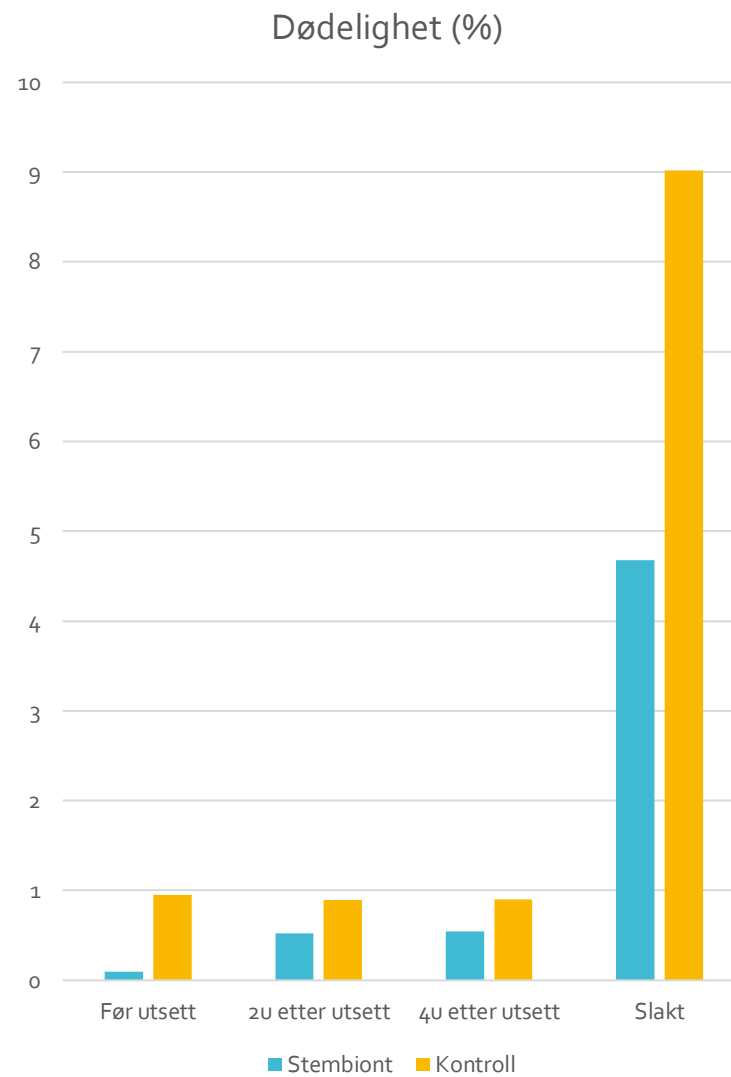
Døde raskt



# Studie 3

Feltforsøk

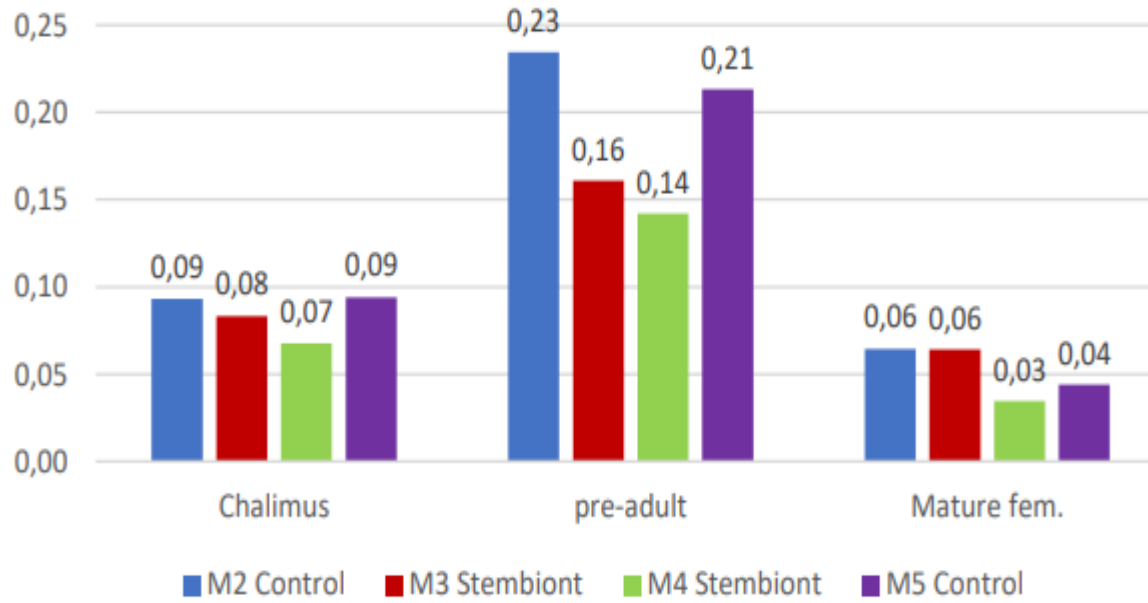
Lavere  
dødelighet og  
høyere vekst





# LUS

## Mindre lus



## Færre avlusinger

Stembiont	Kontroll
9	10

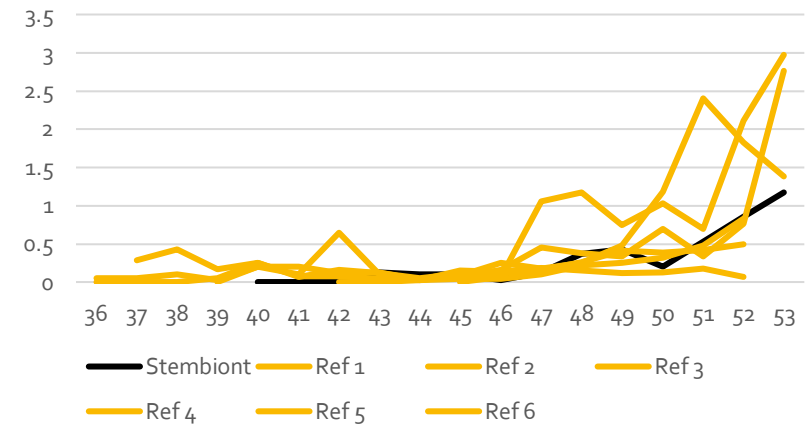
## Færre brudd på lusegrensen

Stembiont	Kontroll
9	16

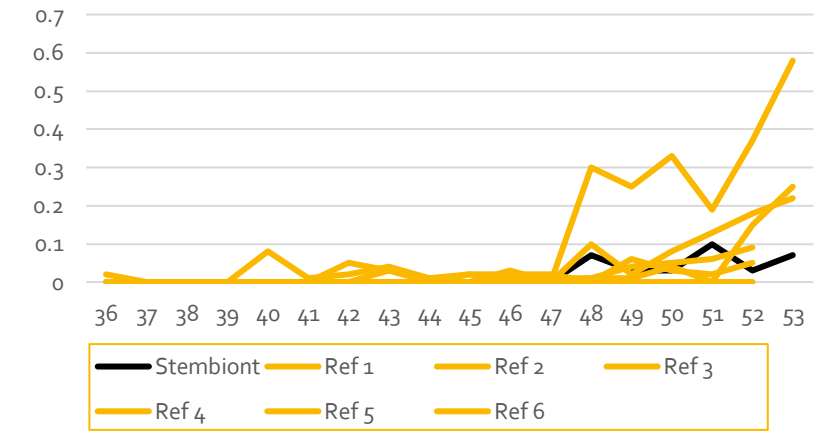
# Feltdata

1

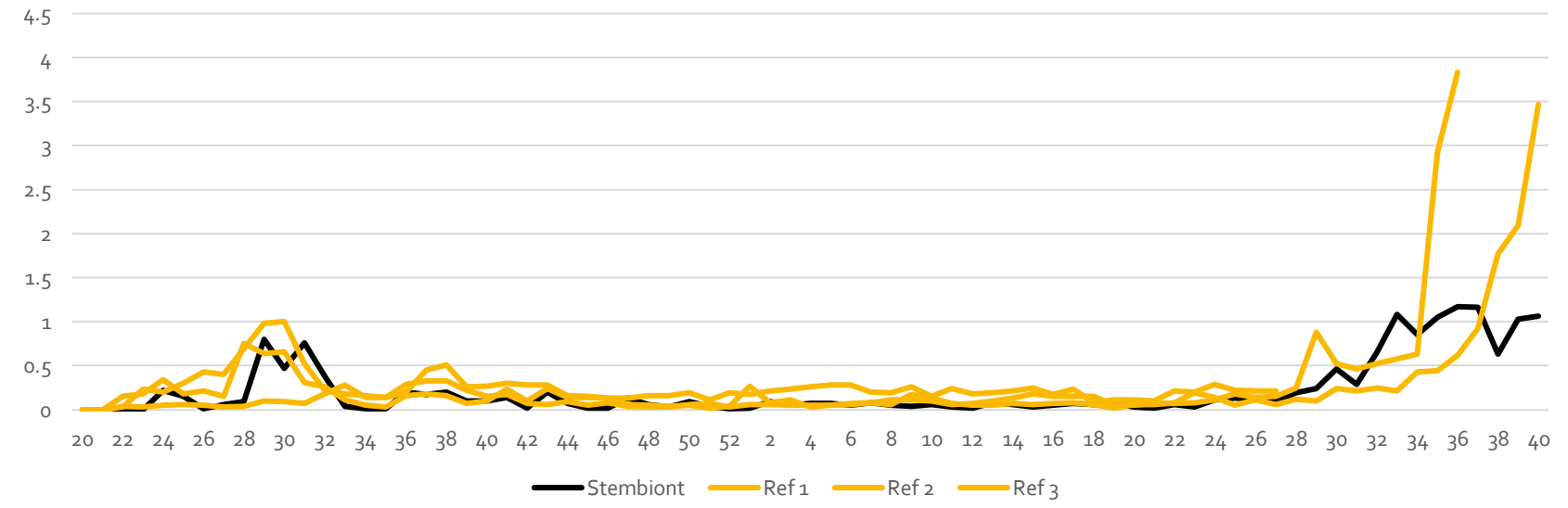
### Lus totalt 2020



### Kj.m. hunnlus 2020

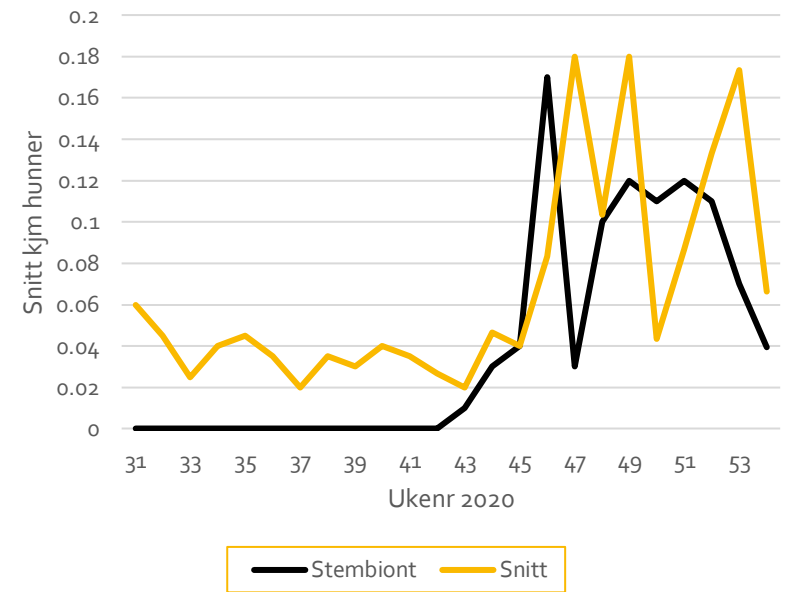
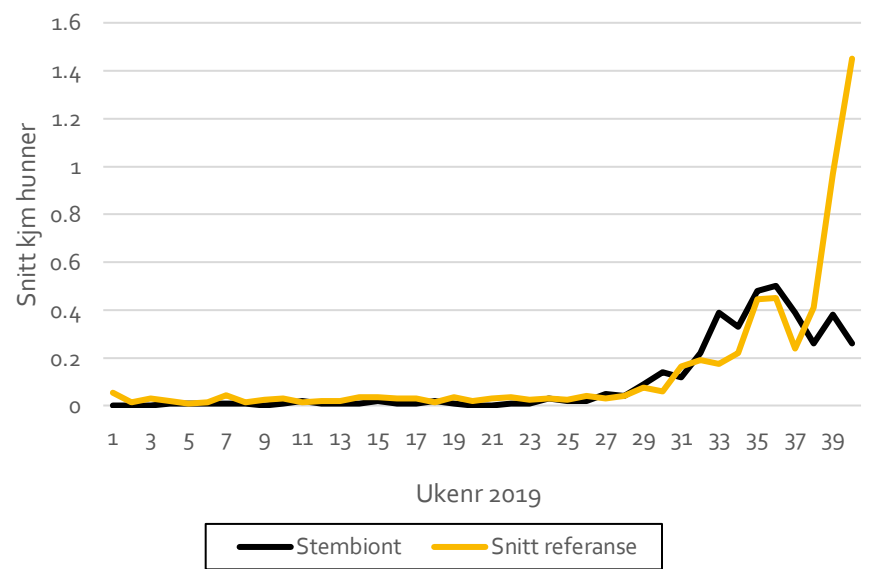
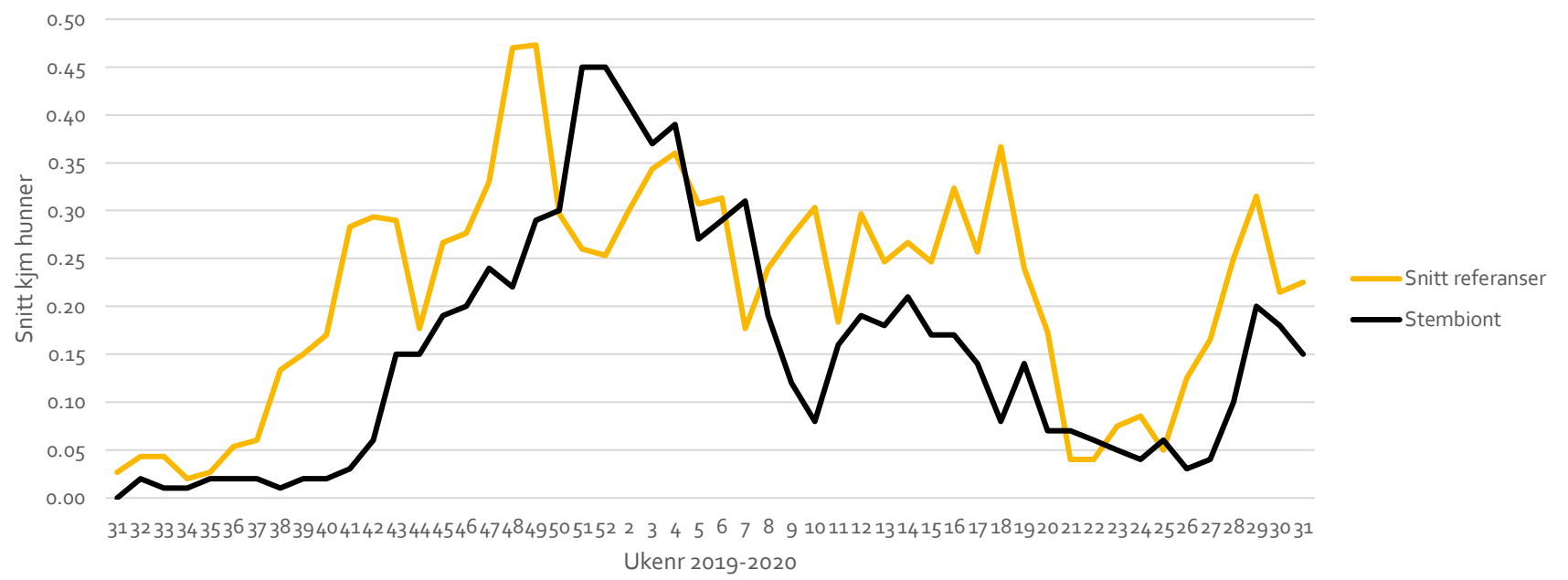


### Lus totalt 2019-2020



# Feltdata

2



# Konklusjon

Klar forebyggende  
effekt mot lus

Fisk i samme miljø  
beskyttes også



Takk for meg

Spørsmål?

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