Snorkel merder

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Luselarver finnes mest i øvre vannlag

Dyptsvømmende laks har mindre lus

Hvordan kan vi få laksen til å svømme dypt/ dypere

- Lys
- Fôring
- Nedsenkte merder
- Tak på merden

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The effect of artificial light treatment and depth on the infestation of the sea louse *Lepeophtheirus salmonis* on Atlantic salmon (*Salmo salar* L.) culture

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Abstract

Two field studies were carried out with farmed Atlantic salmon (*Salmo salar* L.) in sea cages to examine various effects of artificial light (AL) and the vertical distribution of salmon on lice infestation. The use of AL light caused an overall increase in lice infestation in both experiments. The first study showed that salmon held at 0–4 m depth in cages developed higher infestation than salmon held at greater depths (4–8 and 8–12 m) under both natural light (NL) and AL. In the second study, salmon maintained in 14-m deep sea cages that were exposed to AL with different light intensities. The AL treatments resulted directly in different diel and seasonal patterns of vertical distribution of the salmon and also different temporal patterns in lice infestations. So indirectly the infestation pattern appeared to be correlated with median day-time swimming depth of the salmon.

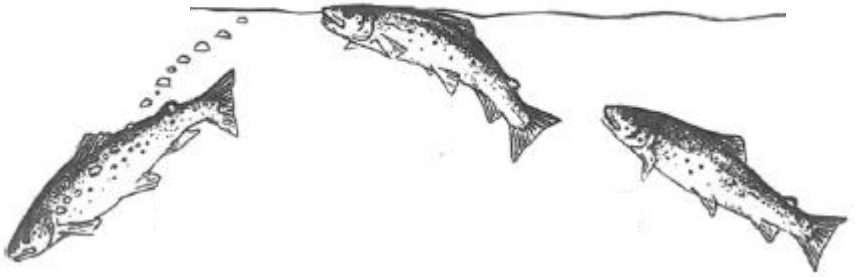
Keywords: Swimming behaviour; Artificial light; Sea lice; *Lepeophtheirus salmonis*; Infestation; Atlantic salmon; *Salmo salar*

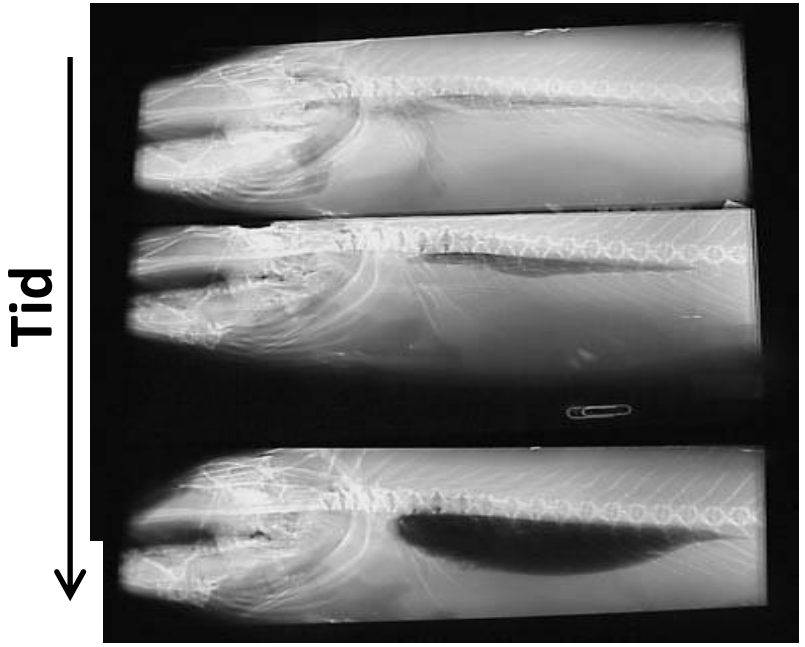
1. Introduction

The louse *Lepeophtheirus salmonis* (Krøyer, 1837) infestation on cultured Atlantic

Laks har åpen svømmblære

Laks må ha jevnlig tilgang til overflate for å fylle svømmeblære





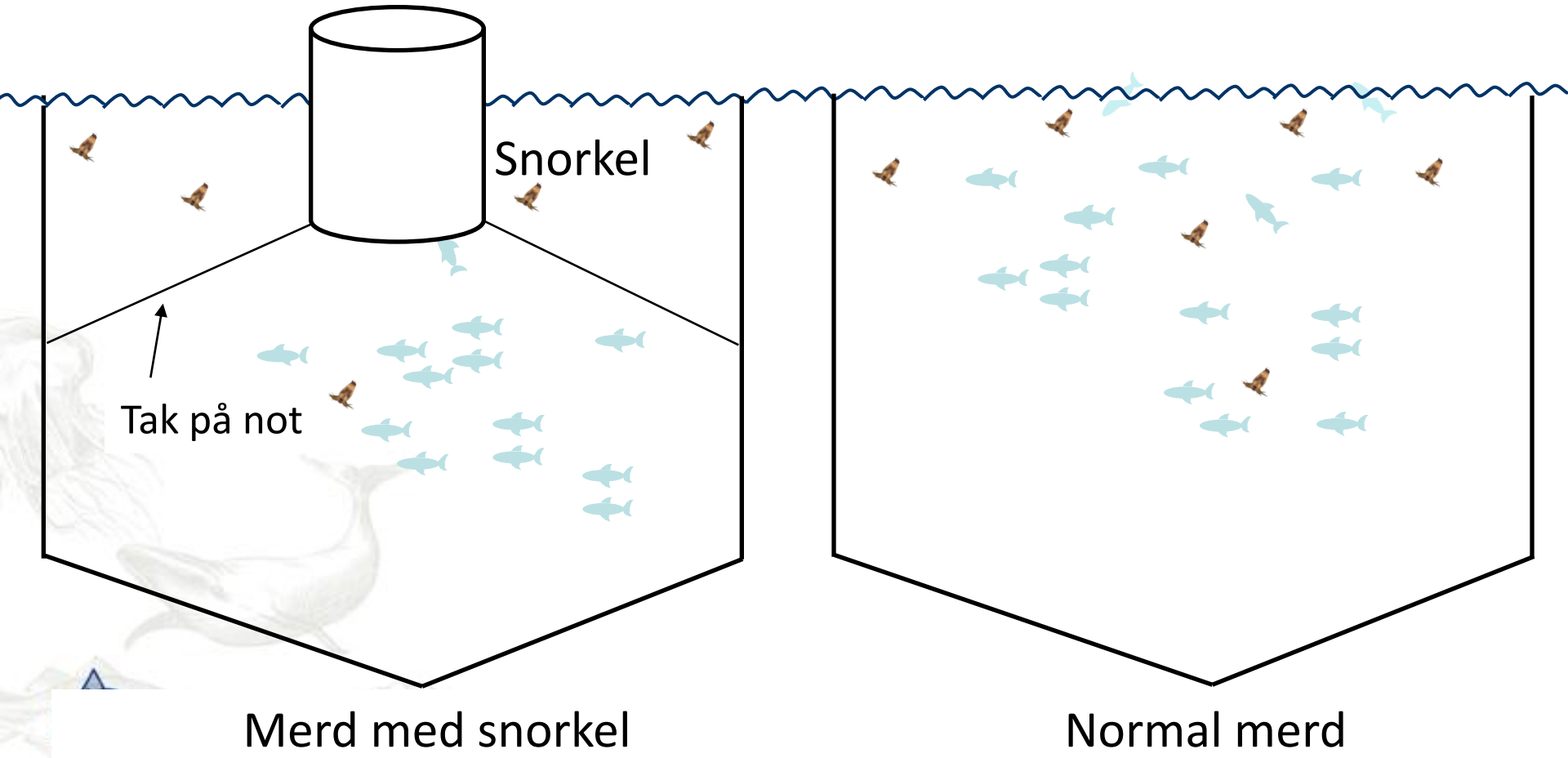
Hvis ikke tømmes svømmeblære slik at oppdriftkontroll svekkes

- Økt svømmehastighet, tiltet svømming
- Redusert appetitt, vekst, kondisjon, fôrfaktor
- Økt finne- og snuteslitasje, komprimert ryggrad

- Uakseptabel velferd

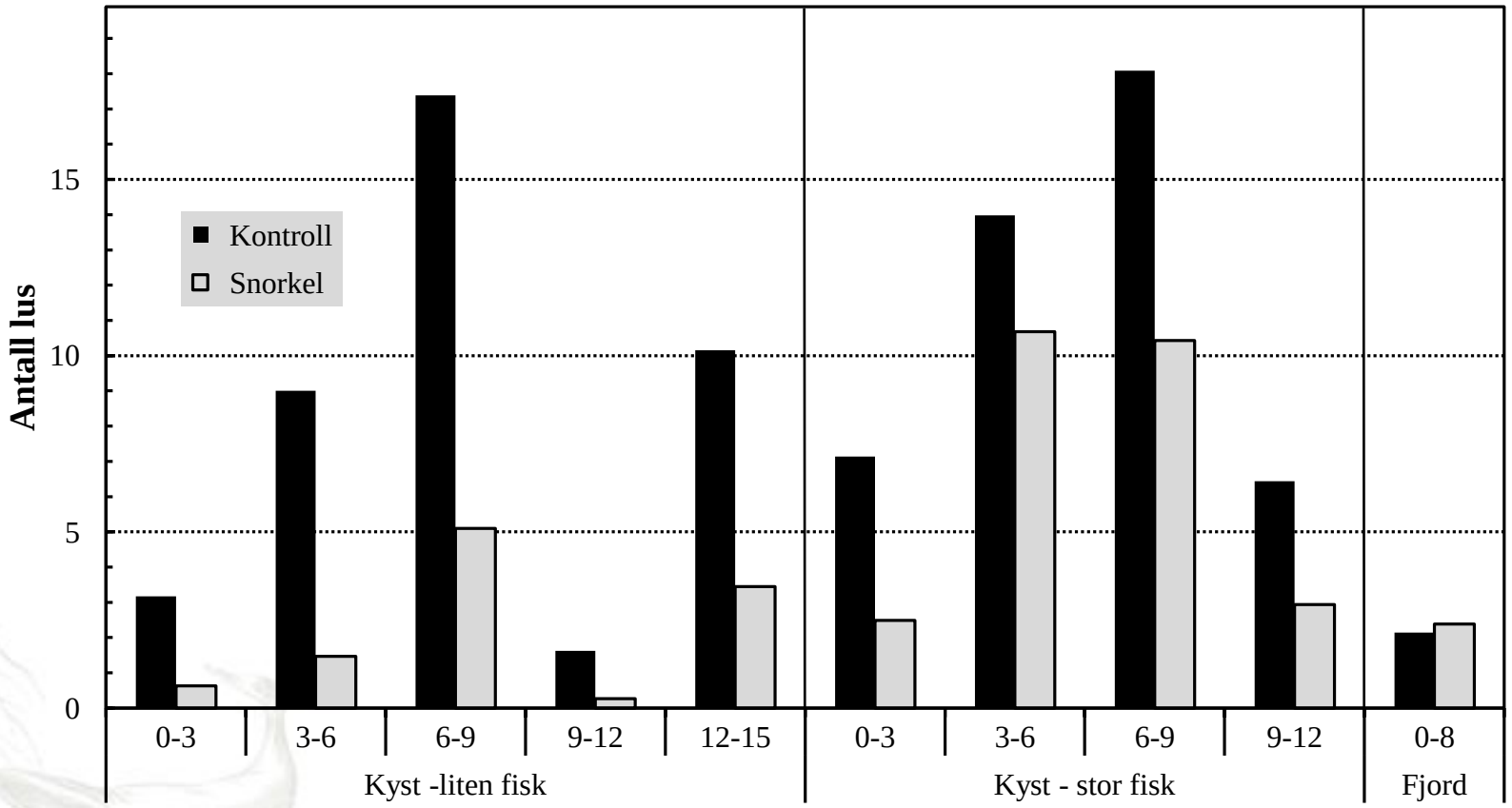
Snorkelmerd

Laks i snorkelmerder svømmer ikke de øverste 3-5 m, men har tilgang til å fylle svømmeblæren gjennom snorkelen



Opp til 84% redusert lusepåslag

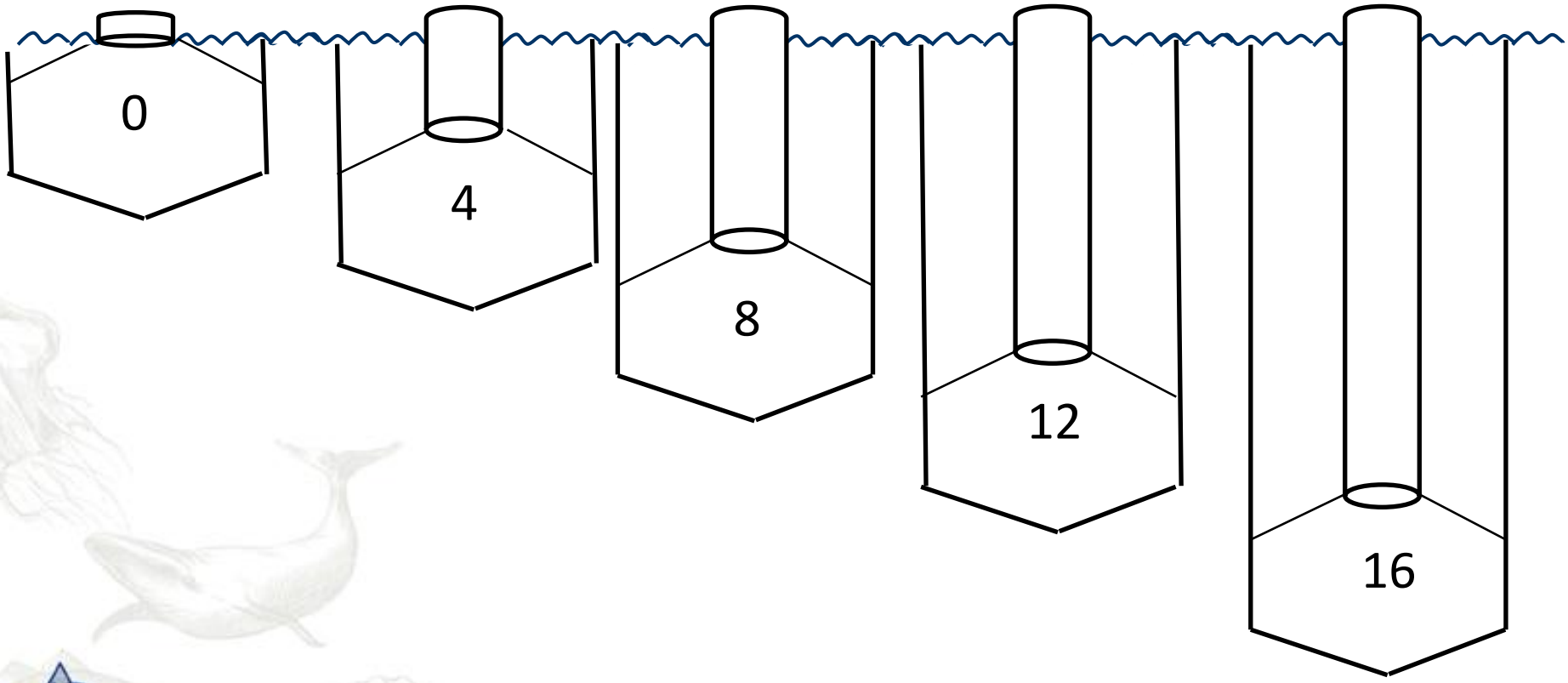
3-4 m dyp snorkel



80% 84% 71% 84% 66% 65% 24% 42% 54% -11%

Kan vi oppnå 0 lus og god dyrevelferd?

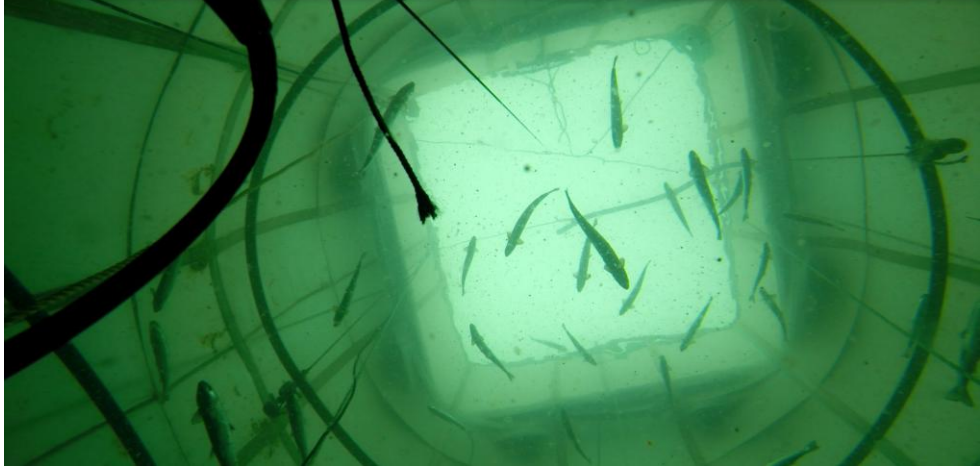
- Forsøksoppsett nov 2014 – feb 2015
  - Lusetall, apetitt, vekst, atferd

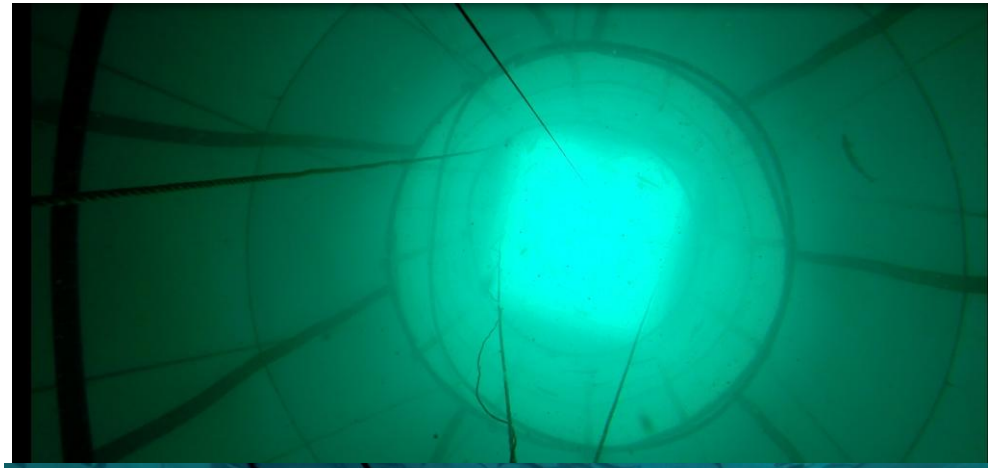


16 m dyp snorkel

-pilot forsøk juni 2014

- Logistikk testet
- Laksen benyttet snorkel
- Normal
  - atferd
  - Apetitt
  - vekst
- Lusetall
  - Kontroll: 27±8
  - Snorkel: 0.2±0.5
- **<u>99% reduksjon!</u>**





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