



Veterinærinstituttet
Norwegian Veterinary Institute

Sår og sårbakterier

...hos norsk laks

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Photo: Anne Tjessem



‘Vintersår’

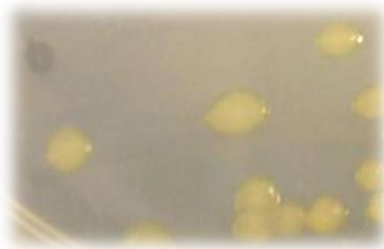
- Særnorsk problem men forekommer også på Island, Skottland og Kanada
 - Kaldt vann
 - Varierende dødelighet..kan være høy
 - Stor økonomisk tap
 - Alvorlige velferdsproblem



Infeksjonsbilde kan bli komplisert

Moritella viscosa

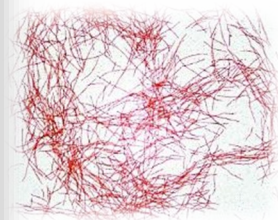
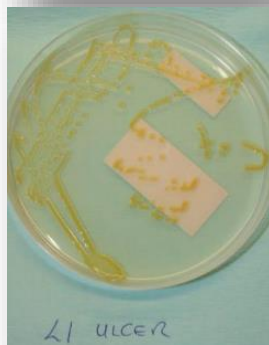
Tenacibaculum spp.



Aliivibrio wodanis ?
Aliivibrio logei ?

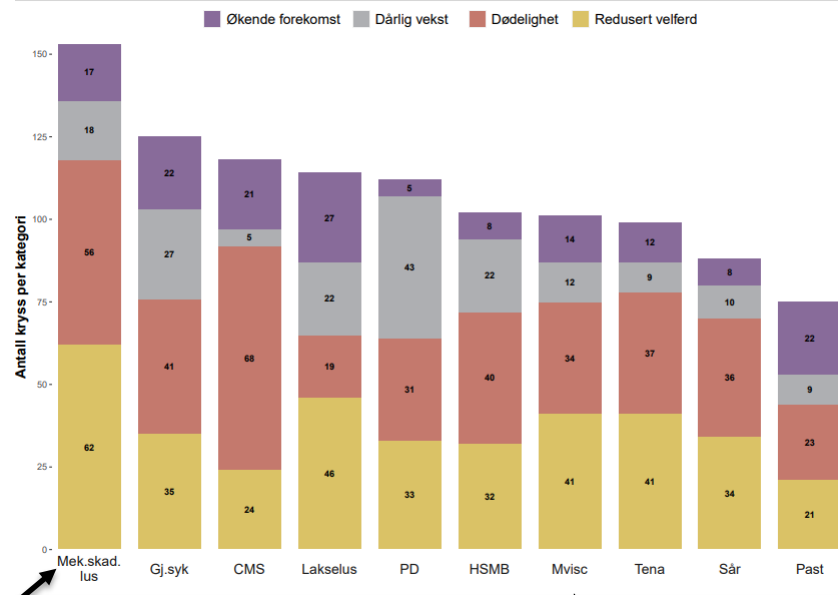
Moritella og *Tenacibaculum*

- Ikke meldepliktige
- Lett å 'diagnostisere'
- 'Mørke' tall!





Sår - 2020

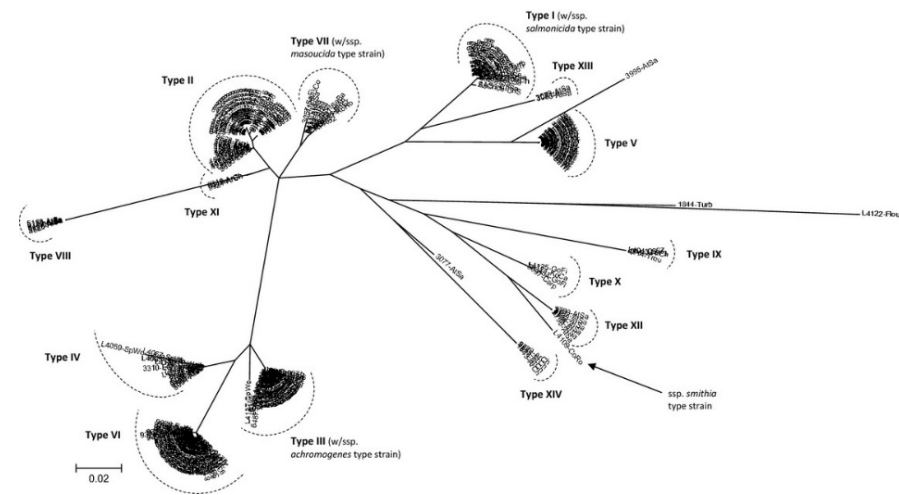


Mekanisk skade 2020

Spørreundersøkelsen Fiskehelse rapporten 2020

Fiskebakteriologi ved VI

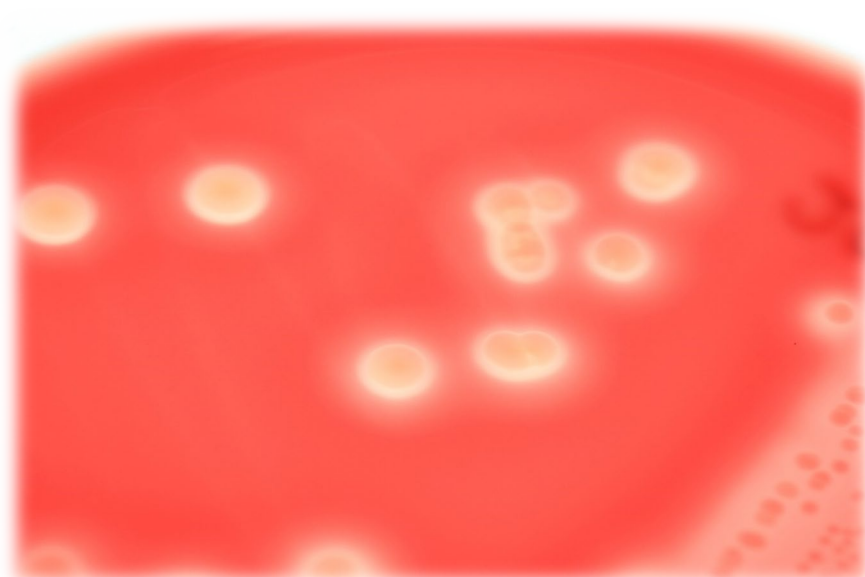
- Diagnostikk
- Karakterisering
- Molekylær epidemiologi
 - Smittesporing
 - Identifisere egnet vaksine stammer



Moritella viscosa- ikke helt like.....

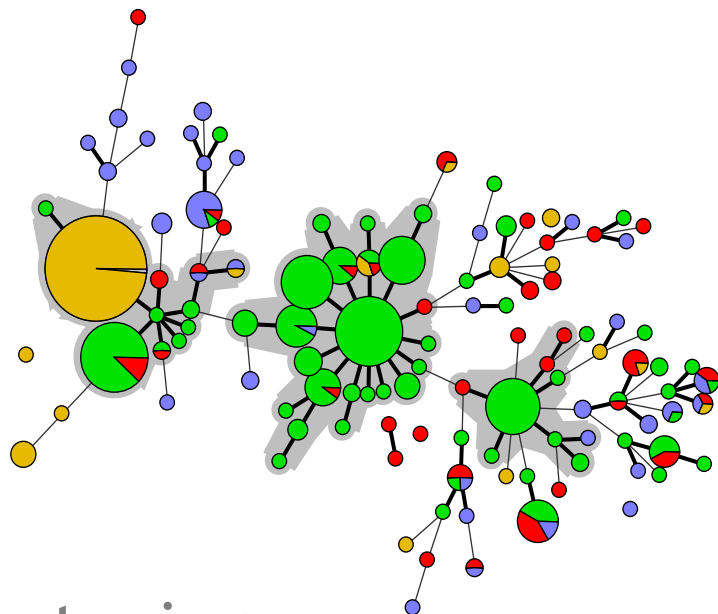


Klassisk/vaksine type (Laks)



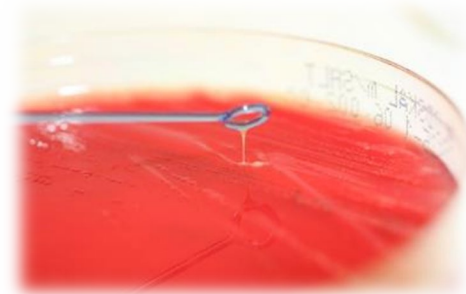
Variant type (RØ)

Moritella viser vertsspesifisitet....

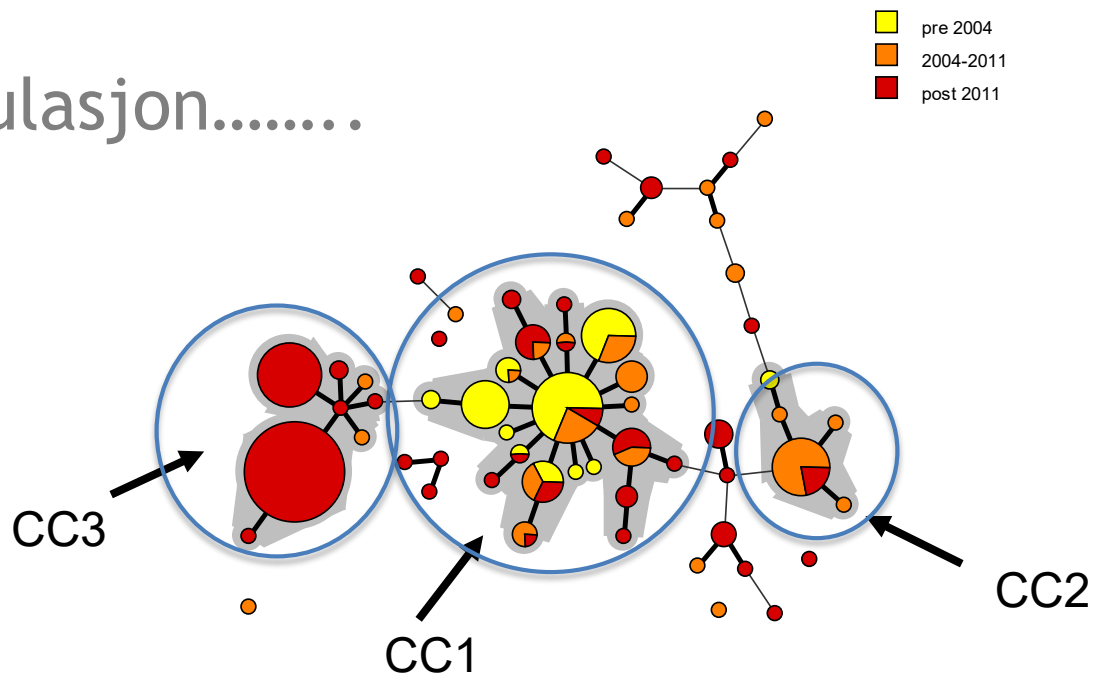


- Atlantic salmon
- Lumpsucker
- Rainbow trout
- Other

MLVA genotyping

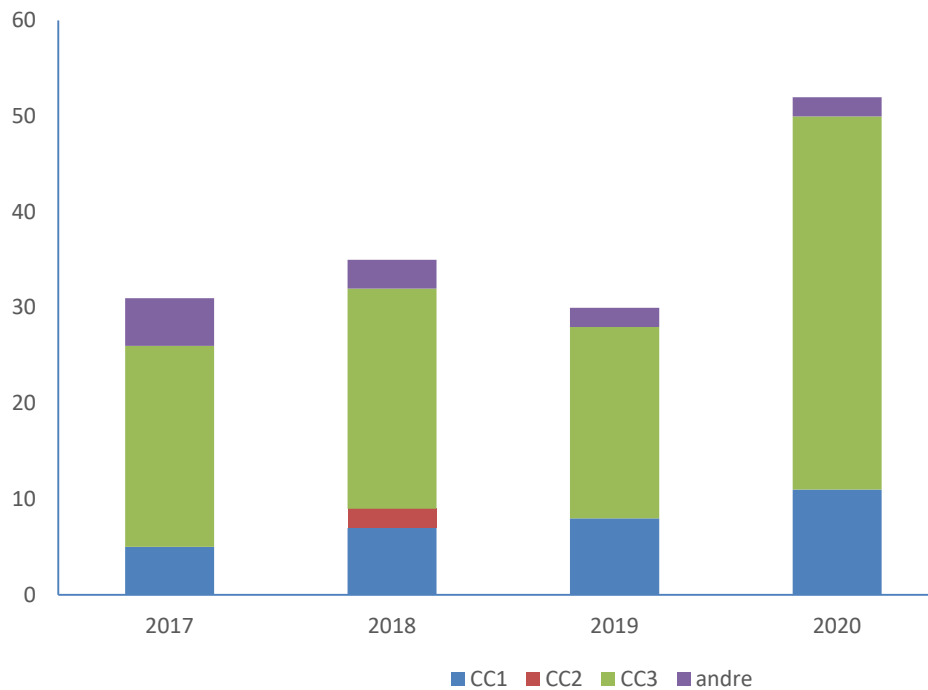


Moritella viscosa en skiftende populasjon.....

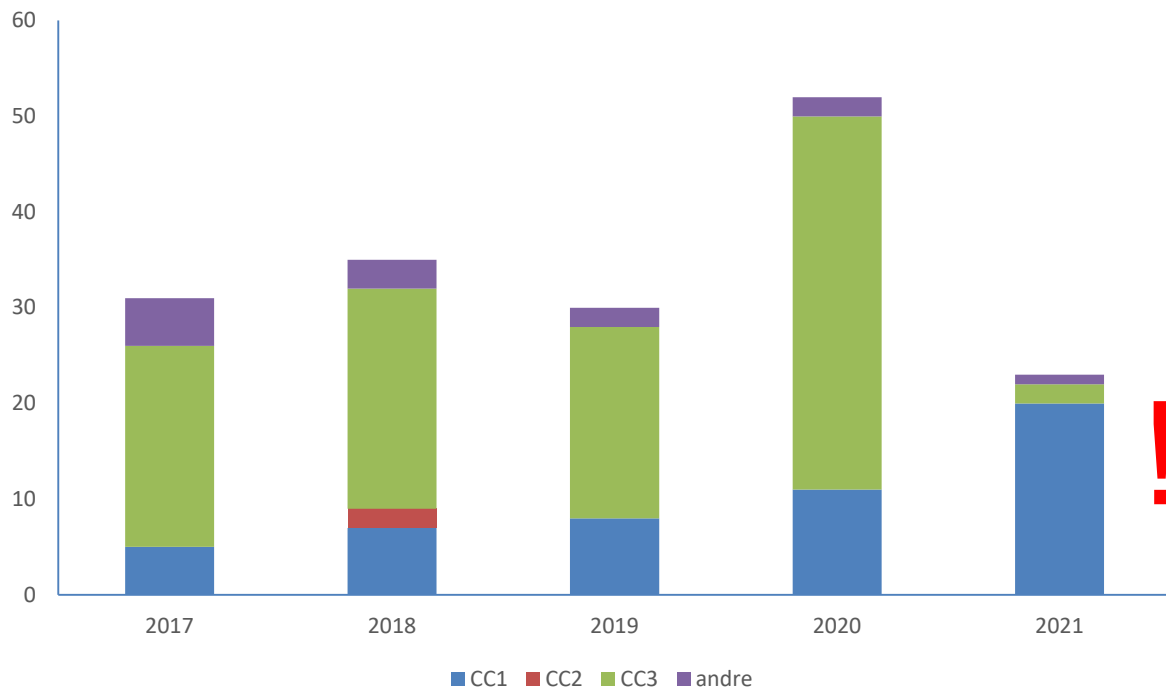


MLVA genotyping

Ca. 400 laks stammer analysert

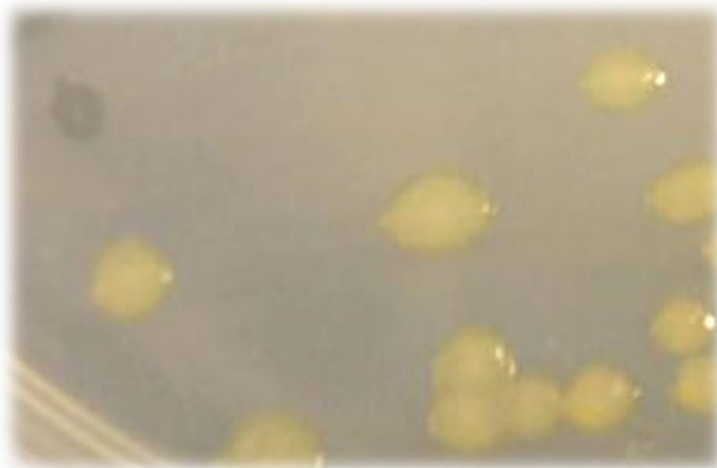


M. viscosa – dominerende klonale grupper

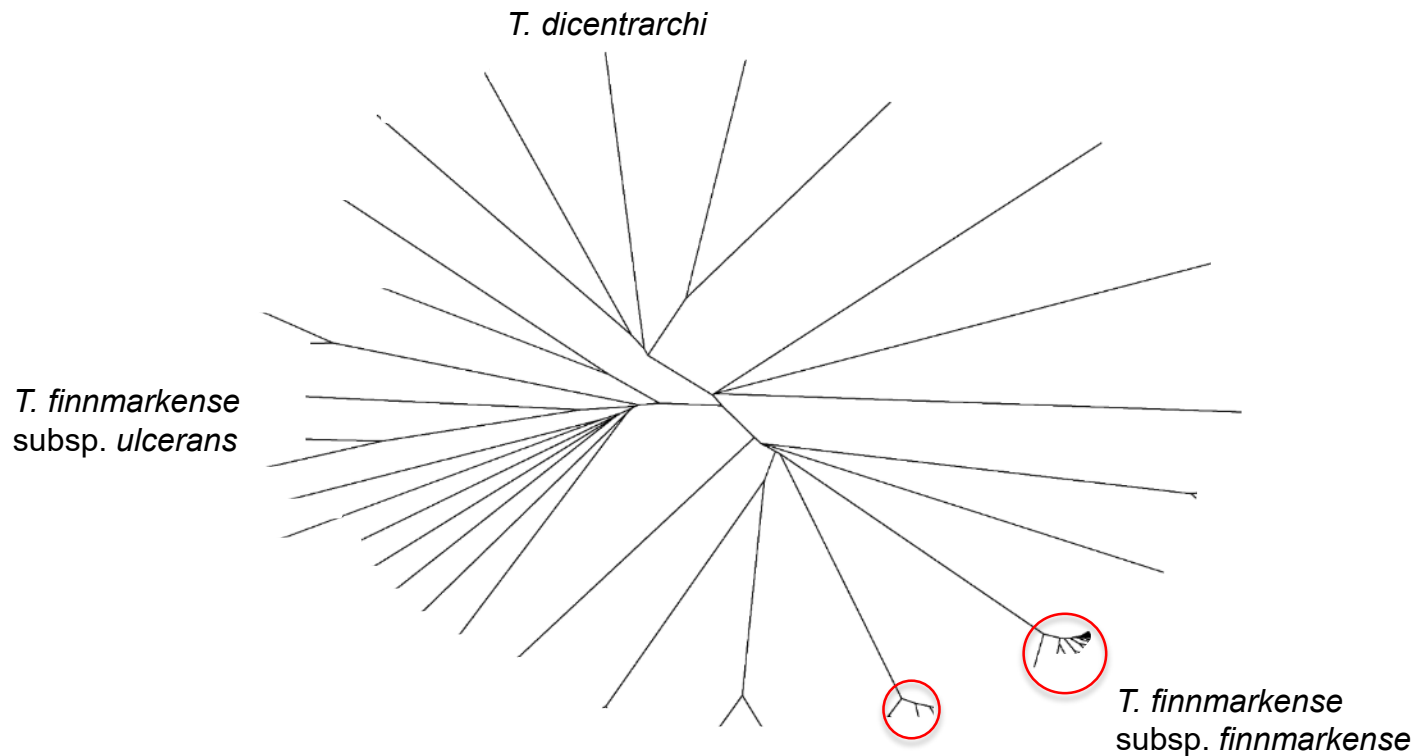


M. viscosa – dominerende klonale grupper

Tenacibaculose hos Norske laks

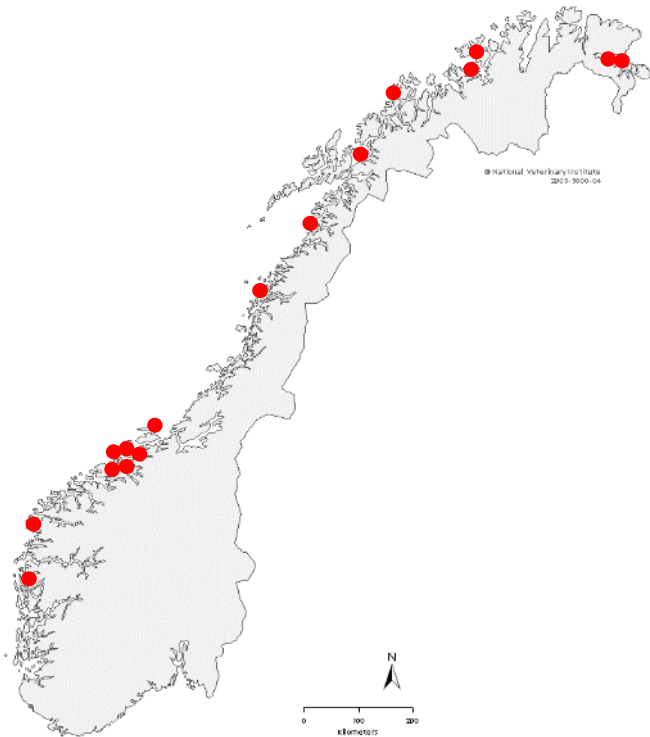
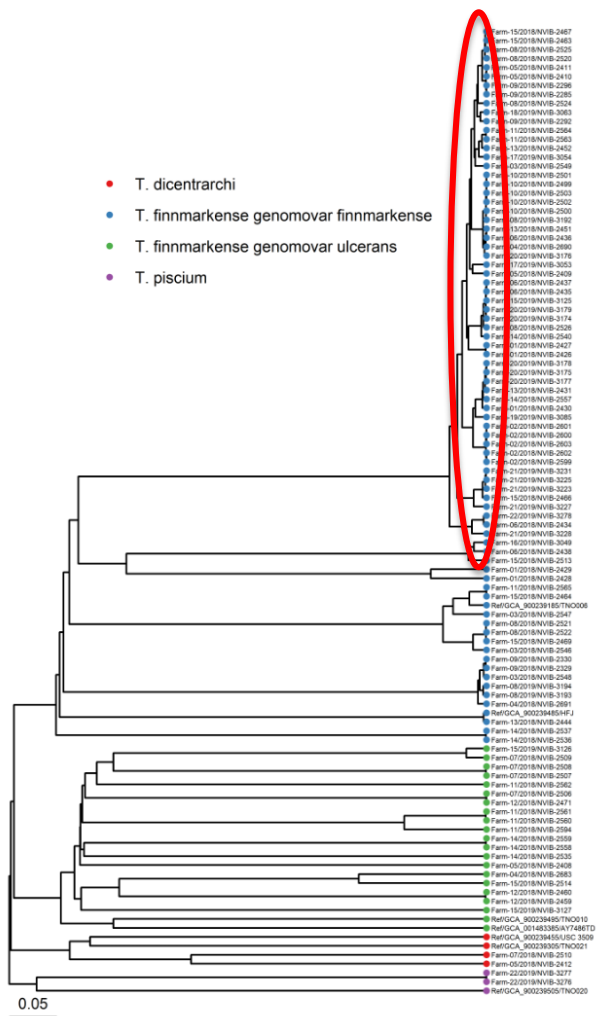


Tenacibaculum hos Norske laks -slektskap

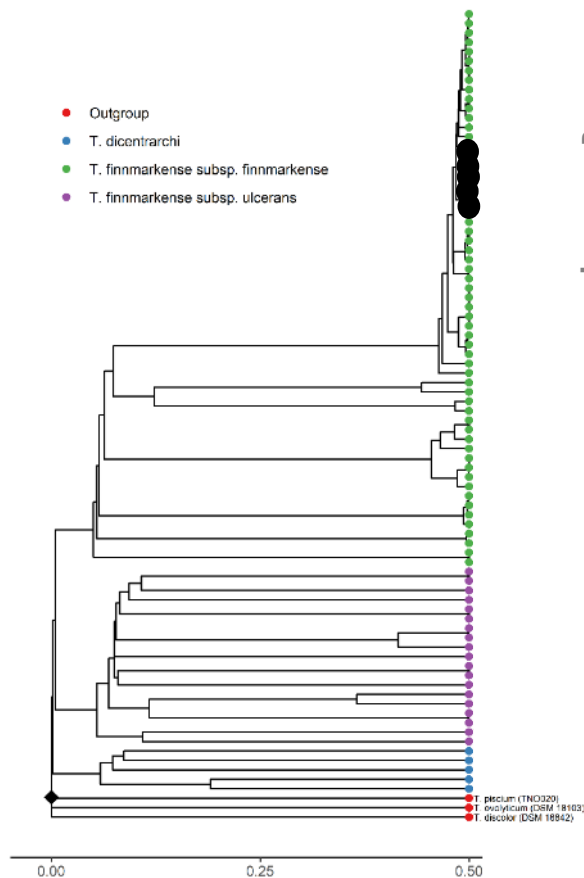




- *T. dicentrarchi*
- *T. finnmarkense* genomovar *finnmarkense*
- *T. finnmarkense* genomovar *ulcerans*
- *T. piscium*



Utbrudd 1

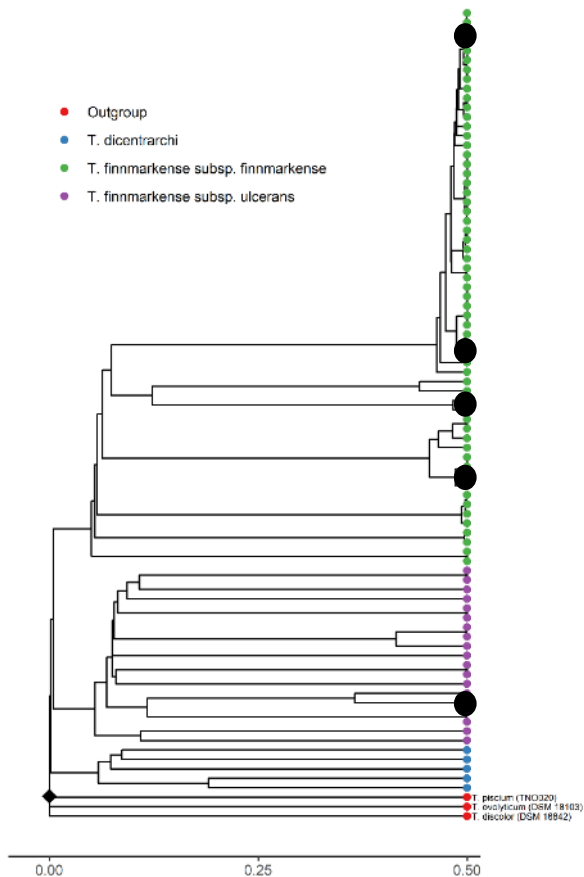


‘Klonal’ utbrudd

- Fisk til fisk transmisjon?



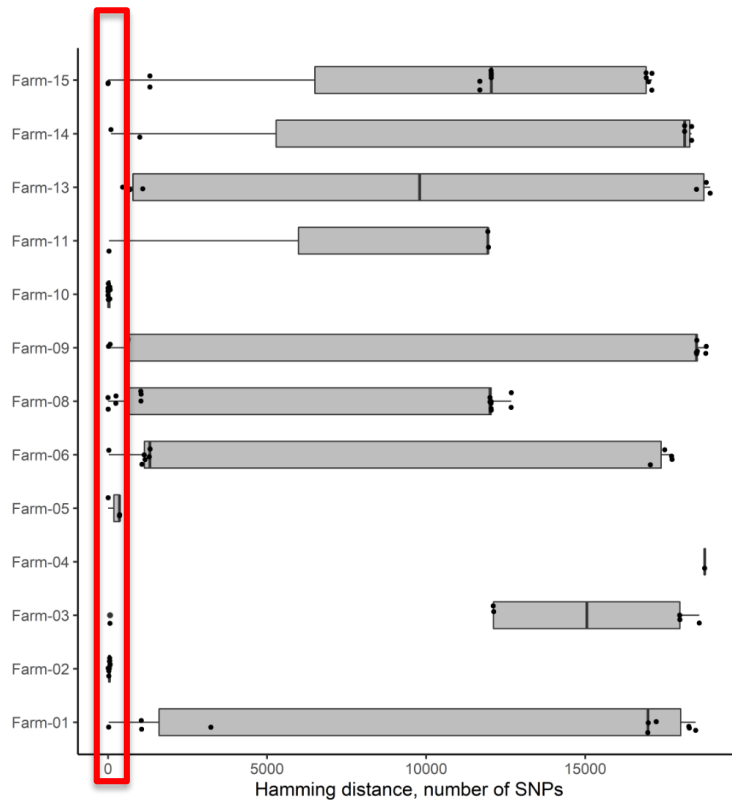
Utbrudd 2



‘Ikke-klonal’ utbrudd

- sjøvann-fisk transmisjon?





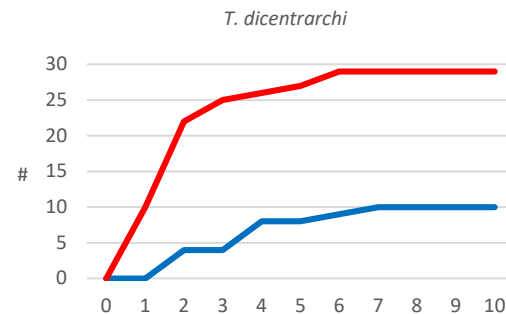
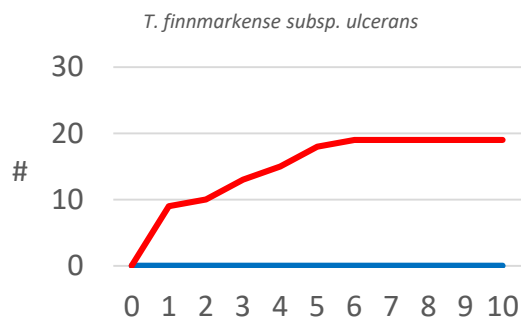
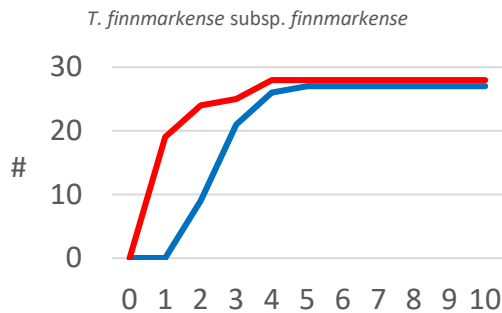
15 utbrudd:

-samme kloner til stede i 13!





Håndtering øker mottakelighet

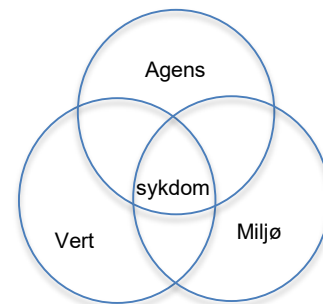


— håndtert

— Ikke håndtert



Grunn til ettertanke?



*Faglig ambisiøs, fremtidsrettet og
samspillende - for Én helse!*



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— *Norwegian Veterinary Institute*

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