



Veterinærinstituttet  
*Norwegian Veterinary Institute*

# Økende problemer med pasteurellose hos laks

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# Pasteurellose – ny sykdom ?

20200220  
Hanne Nilsen

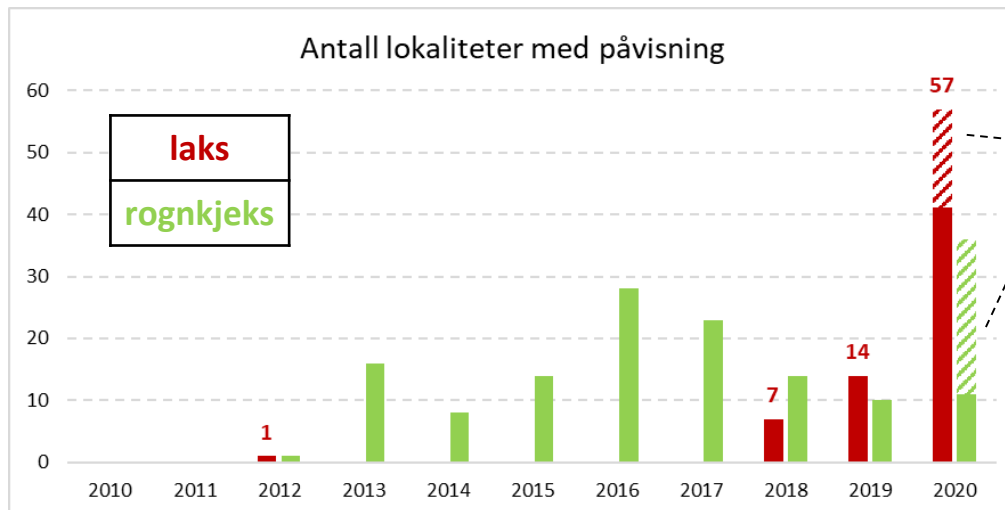


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Pasteurellose:  
Sykdom forårsaket av bakterier i *Pasteurella*-slekten

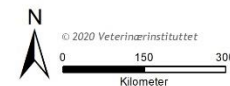
# Pasteurellose i norsk akvakultur siste år



private  
laber

**laks (VI) 2018-2020:**

- 2020
- 2019
- 2018



# Questback 2020 - pasteurellose



'økende forekomst' for hele landet

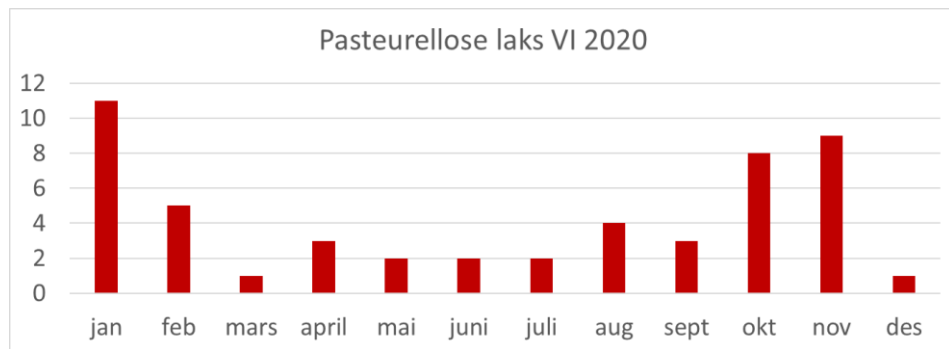


'økende forekomst' PO 1-5



# Klinikk

## Stor laks i sjø



Hele året, men mest i vintermånedene

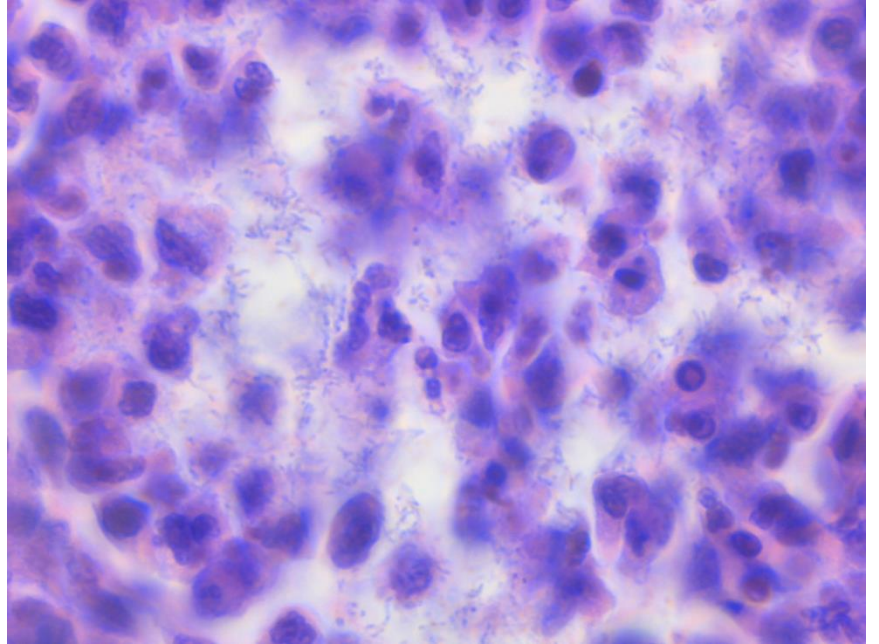
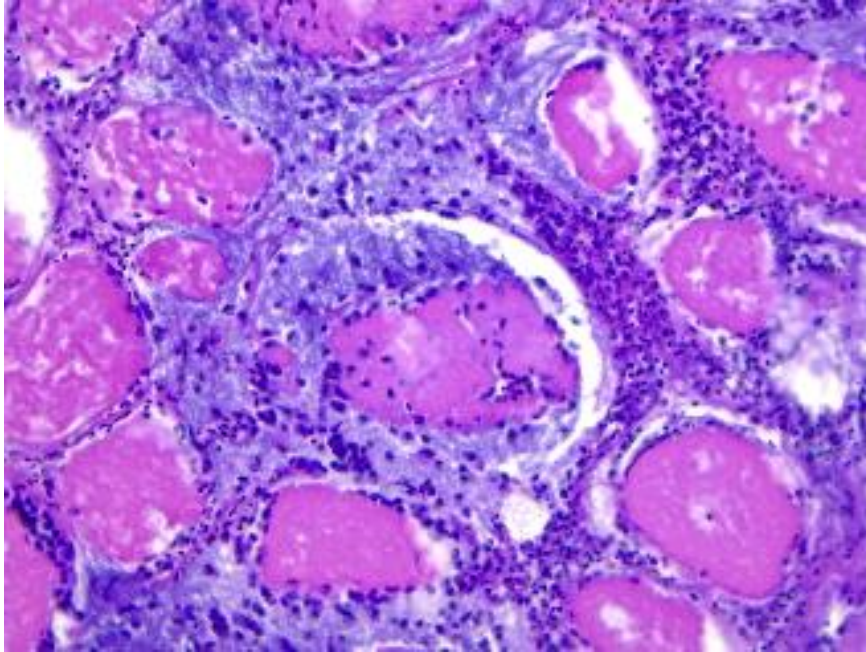
# Makropatologi



Bilder: Britt Kari Legård, Marianne Rauboti Viken (FOMAS), og Hanne Nilsen (VI)



# Histopatologi

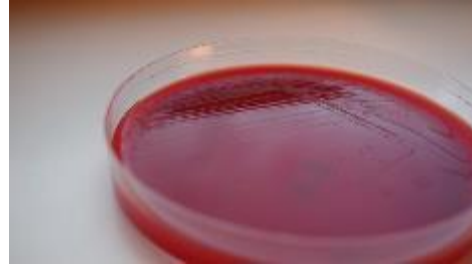


Bilder: Hanne Nilsen (VI)

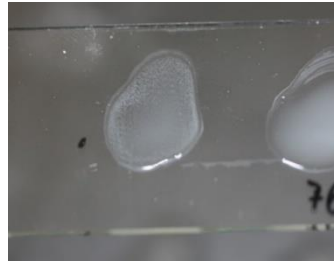
# Fenotypisk karakterisering

blod m. 2% NaCl

22° C 2-3 dager



serotyping



MALDI-TOF



# Pasteurellose før 2012

## *Pasteurella skyensis*

CLINICAL DISEASE IN SEAFARMED ATLANTIC SALMON (*SALMO SALAR*) ASSOCIATED WITH A MEMBER OF THE FAMILY PASTEURELLACEAE - A CASE HISTORY

M.W.JONES AND D.I.COX  
Fish Vet Group, 39 Carsegate Road, Inverness IV3 6LL, UK.

***Pasteurella skyensis* sp. nov., isolated from Atlantic salmon (*Salmo salar* L.)**

T. H. Birkbeck,<sup>1</sup> L. A. Laidler,<sup>2</sup> A. N. Grant<sup>2</sup> and D. I. Cox<sup>3</sup>

Isle of Harris 1998



Isle of Skye 1995-1999



Ardnamurchan 2003



+2001



Ullsfjorden 1989-1992

## 'Varracalbmi'

***Varracalbmi*: a new bacterial panophthalmitis in farmed Atlantic salmon, *Salmo salar* L.**

M Valheim,<sup>1</sup> T Håstein,<sup>2</sup> E Myhr,<sup>3</sup> L Speilberg<sup>4</sup> and H W Ferguson<sup>5</sup>



Sognefjorden 2012



Bjørnafjorden 1999-2000



Figure 2 Salmon with *Varracalbmi* showing complete loss of the eye.

# Pasteurellose etter 2012

2018-d.d.: pågående epizooti  
i laks i vest-Norge

2012-d.d.: rognkjeks  
Norge og Skottland

2017-d.d.: pågående epizooti  
i laks vest i Skottland

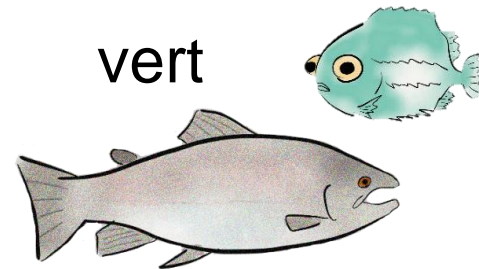
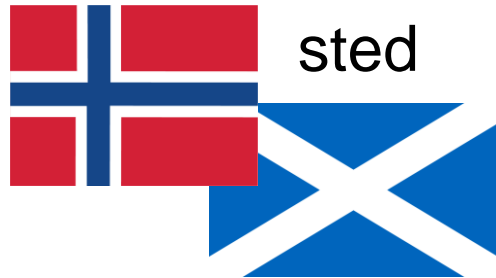
Hardangerfjorden 2020



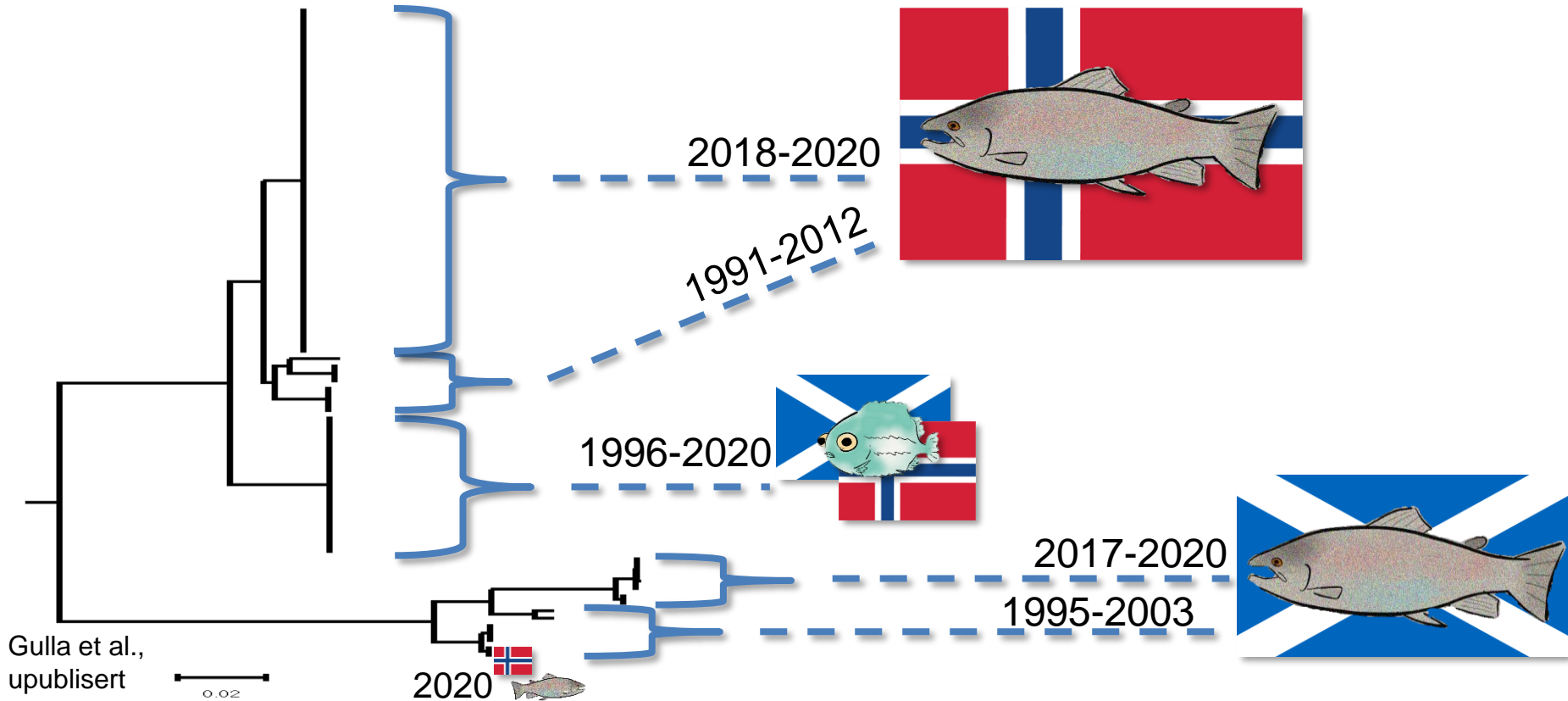
# Internprosjekt Veterinærinstituttet

Helgenom-sekvensering:

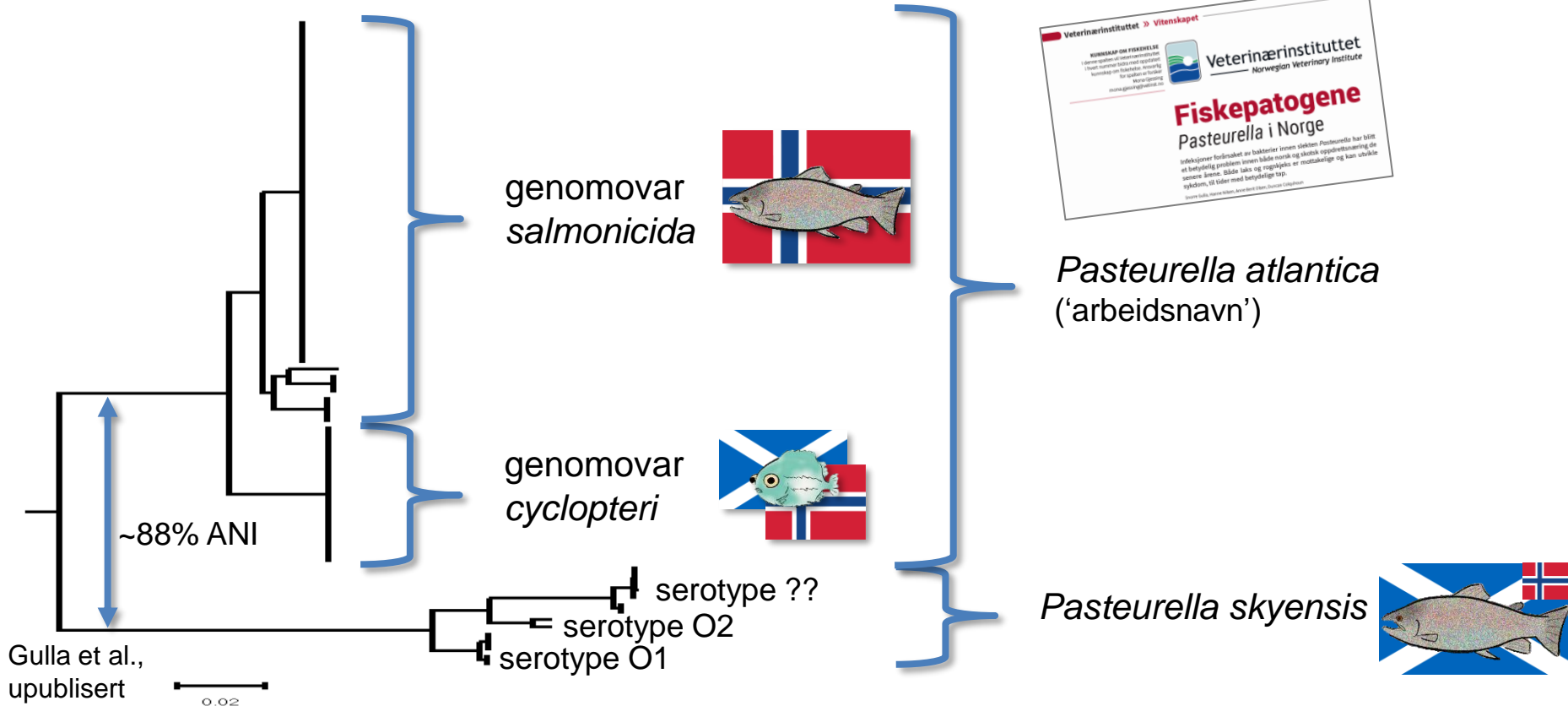
~90 *Pasteurella* spp. isolater  
vidt spredt mtp...



# Helgenom-fylogeni

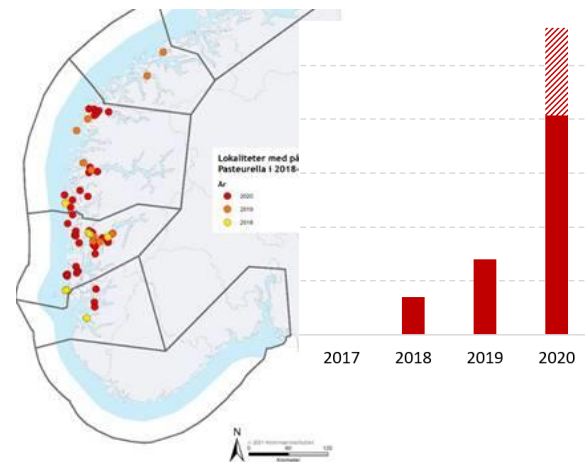
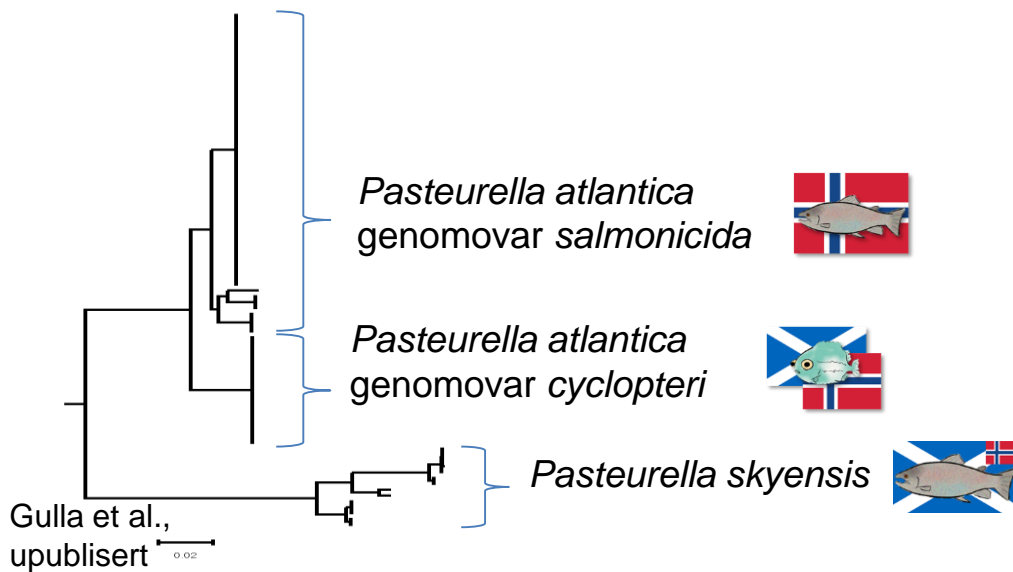


# Helgenom-fylogeni



# Oppsummert pasteurellose norsk akvakultur

Tilnærmet eksponensiell vekst hos laks på Vestlandet 2018-2020



Tre hovedvarianter tilknyttet tid, sted og vert