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Update of the disease situation in Norway

Brit Hjeltnes, Geir Bornø, Mona Dverdal Jansen, Cecilie S. Walde



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Norwegian Veterinary Institute



Data

Notifiable diseases:

Data from NVI

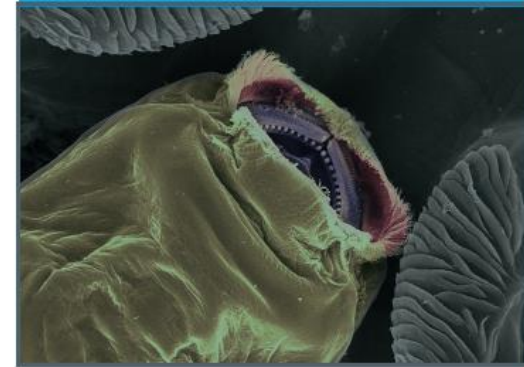
Non-notifiable diseases:

Data from NVI

Data from private laboratories

Data from a questionnaire

Impact score: 1-5



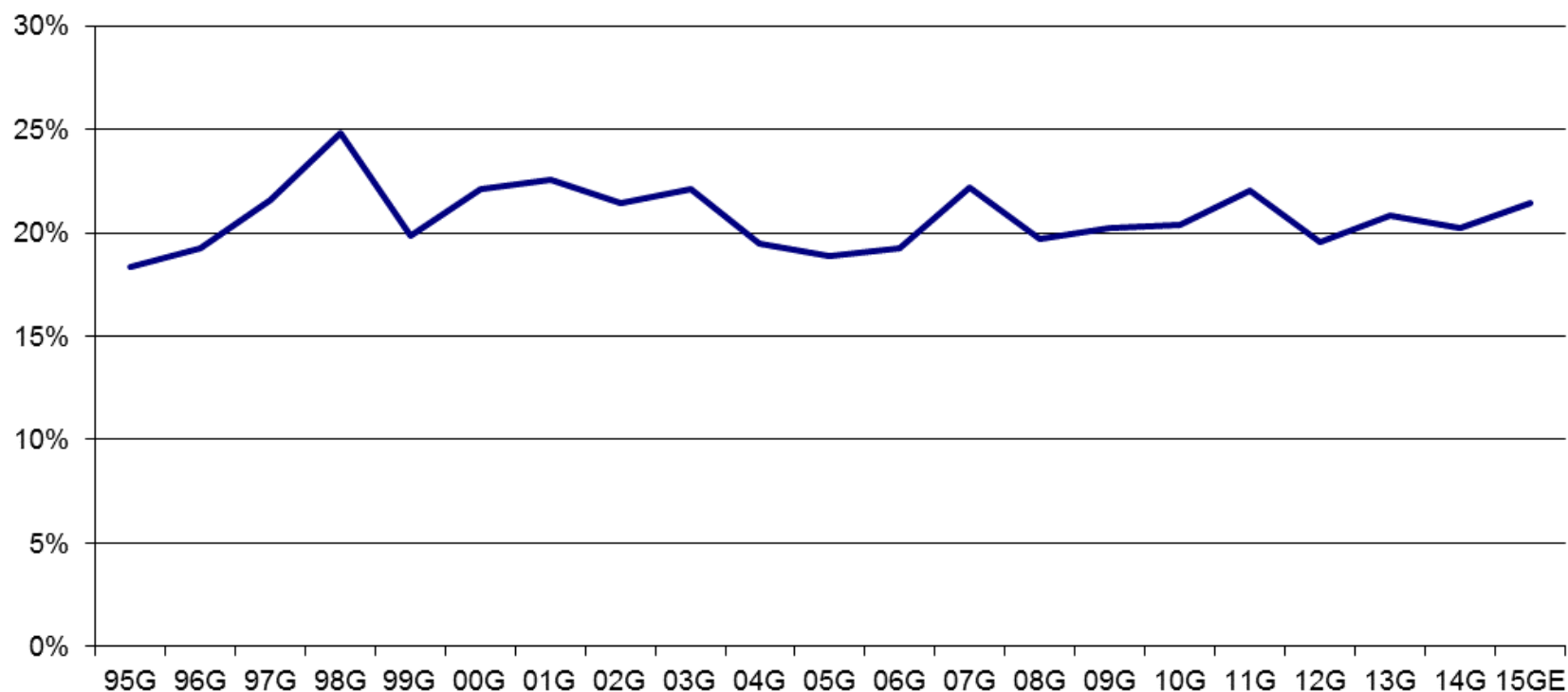
Official data

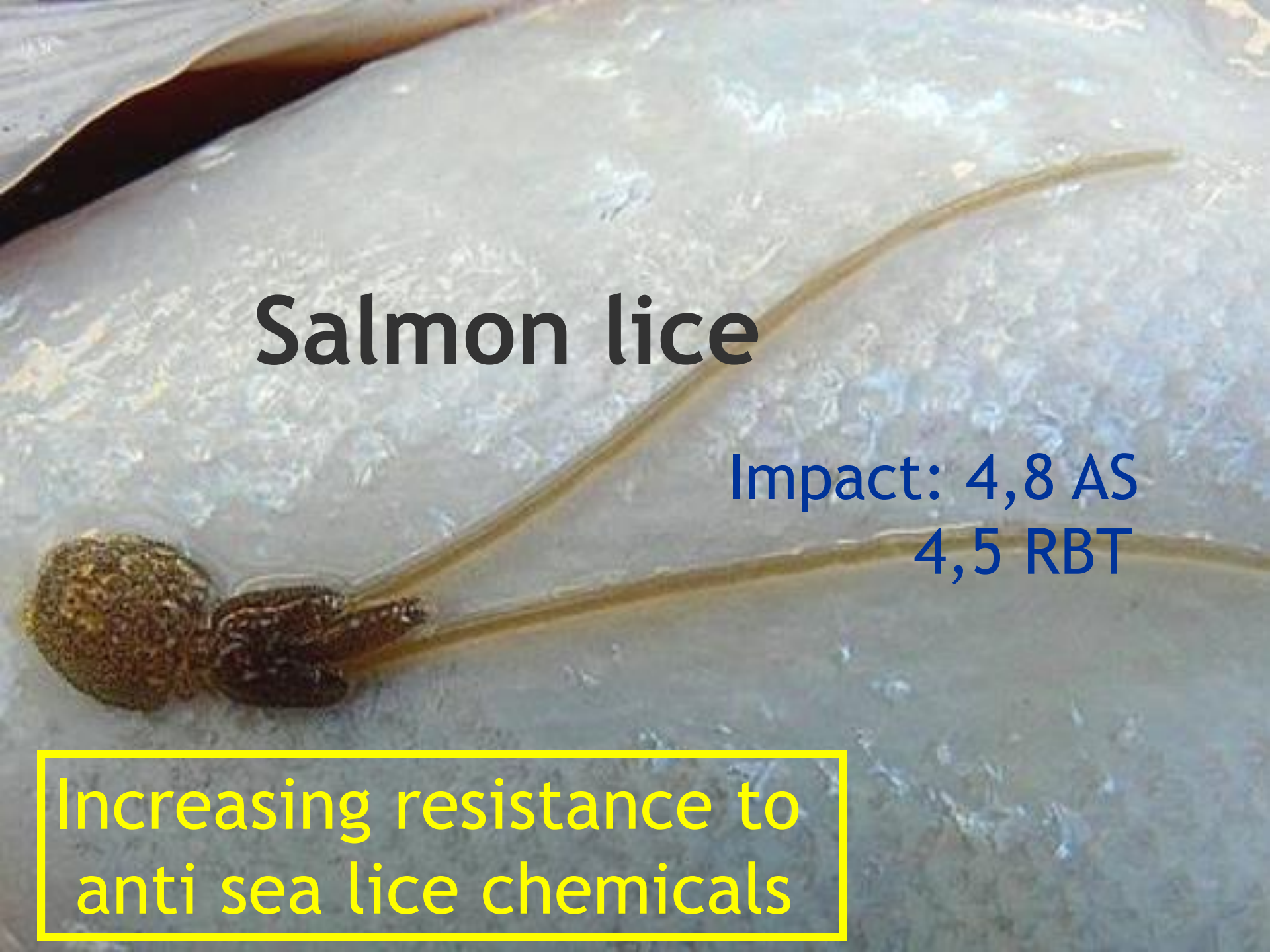


Losses in aquaculture after transfer to sea (Atlantic salmon)

Atlantisk laks Norge - Svinnutvikling*,
% av antall utsatt - per generasjon

Svinn %





Salmon lice

Impact: 4,8 AS
4,5 RBT

Increasing resistance to
anti sea lice chemicals



A shift to use of cleaner fish and mechanical treatment.



Impact mechanical injuries: 4,0

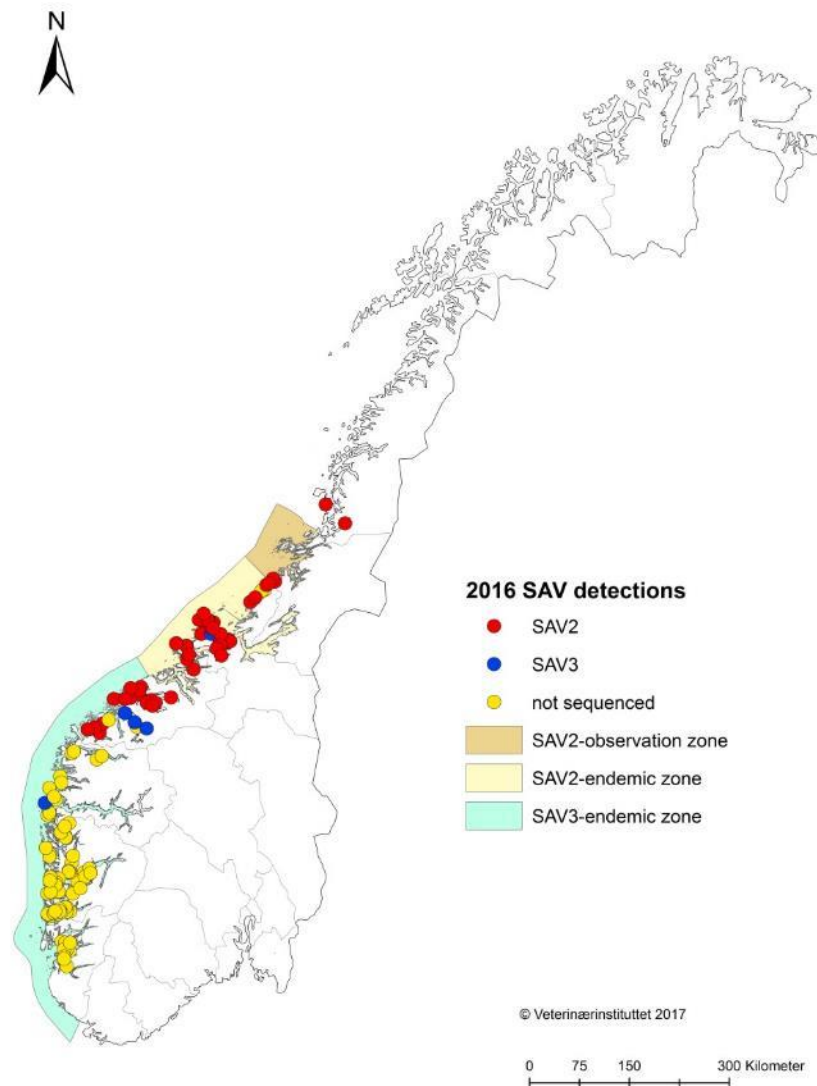


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Infections with Salmonid Alphavirus

(Salmon Pancreas Disease)



2017(30.7): 100

2016: 138

2015: 137

2014: 142

2013: 99

2012: 137

Impact:

Total: 3,4

Nord: 1,5

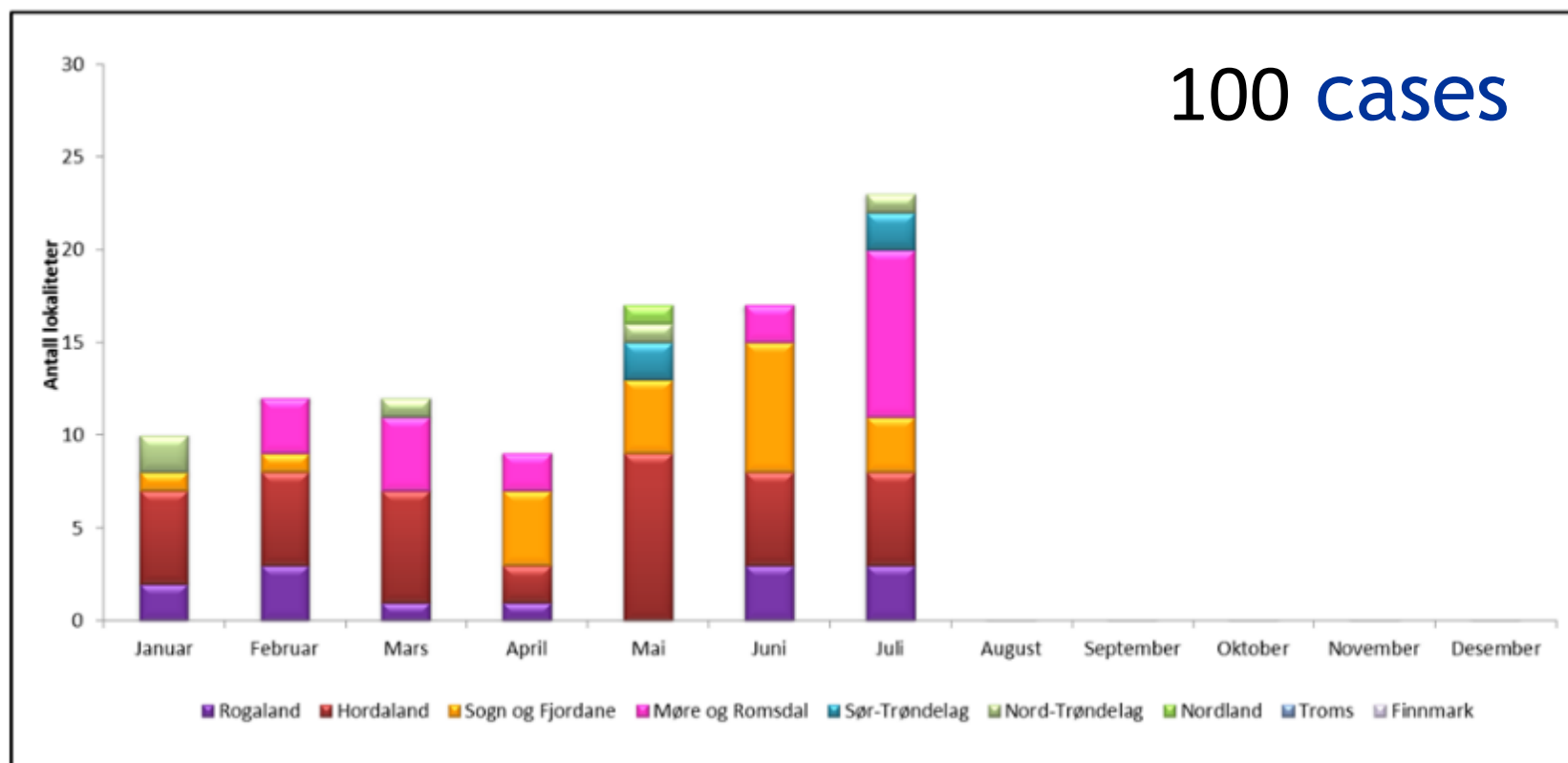
Midt: 3,3

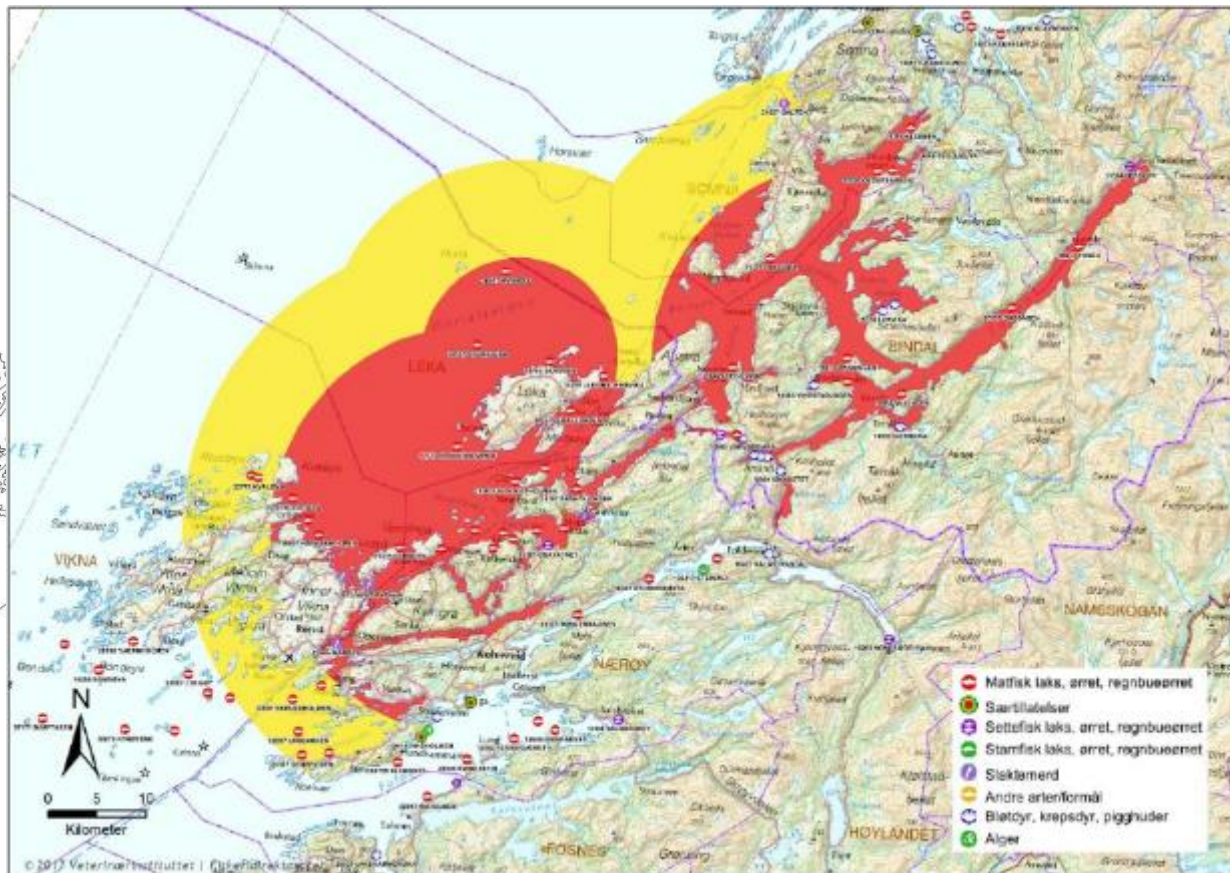
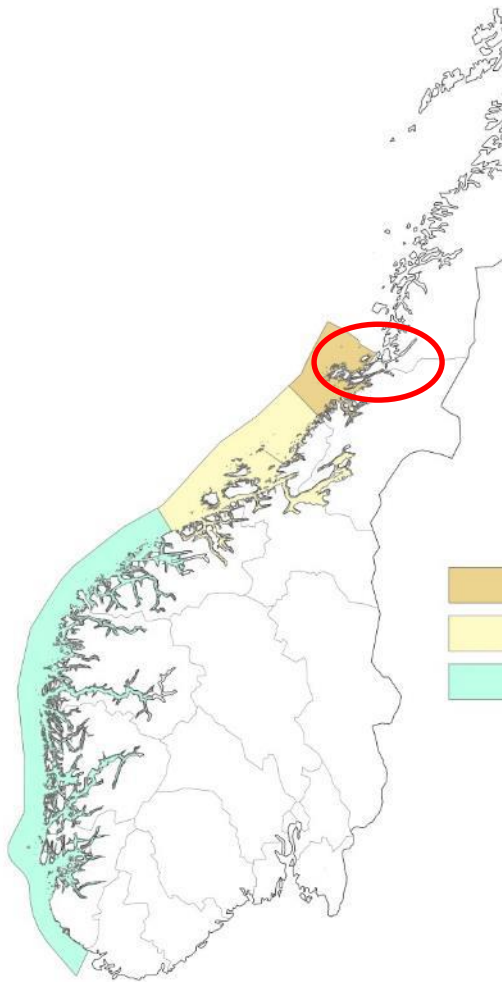
NordV : 4,2

SydV: 4,8



January – July 2017





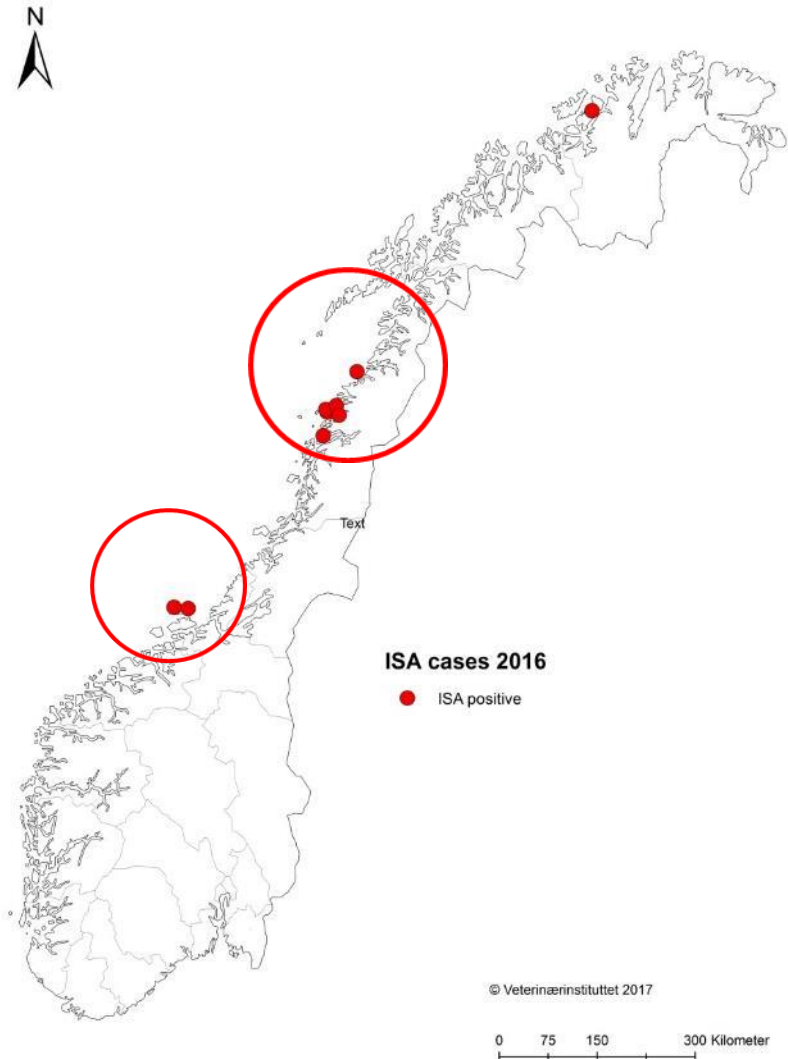
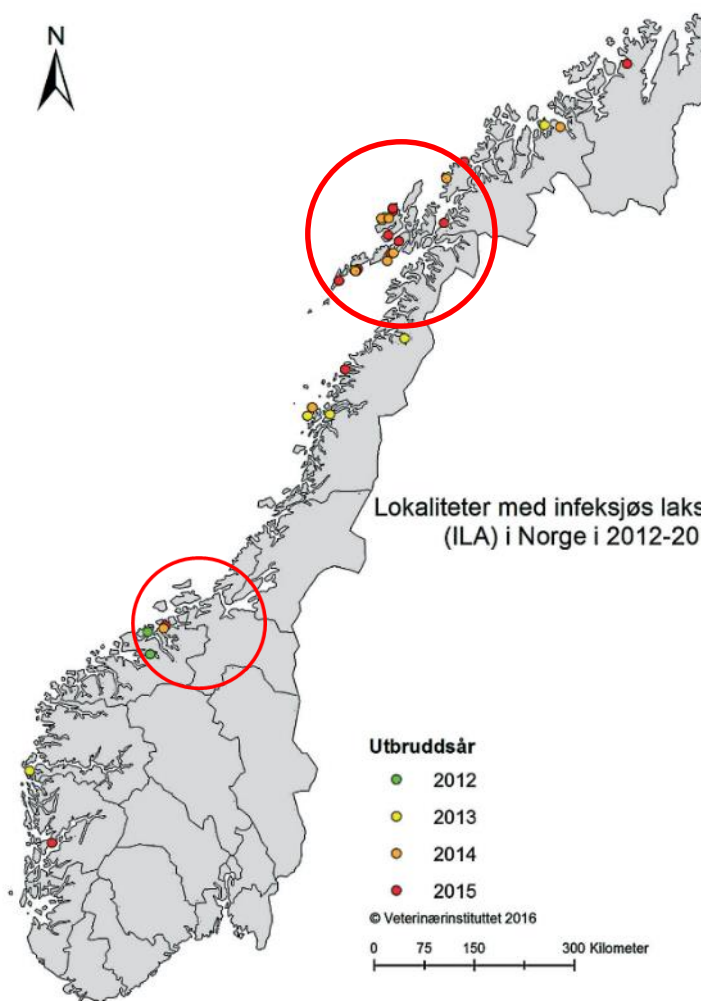
- SAV2-observation zone
- SAV2-endemic zone
- SAV3-endemic zone

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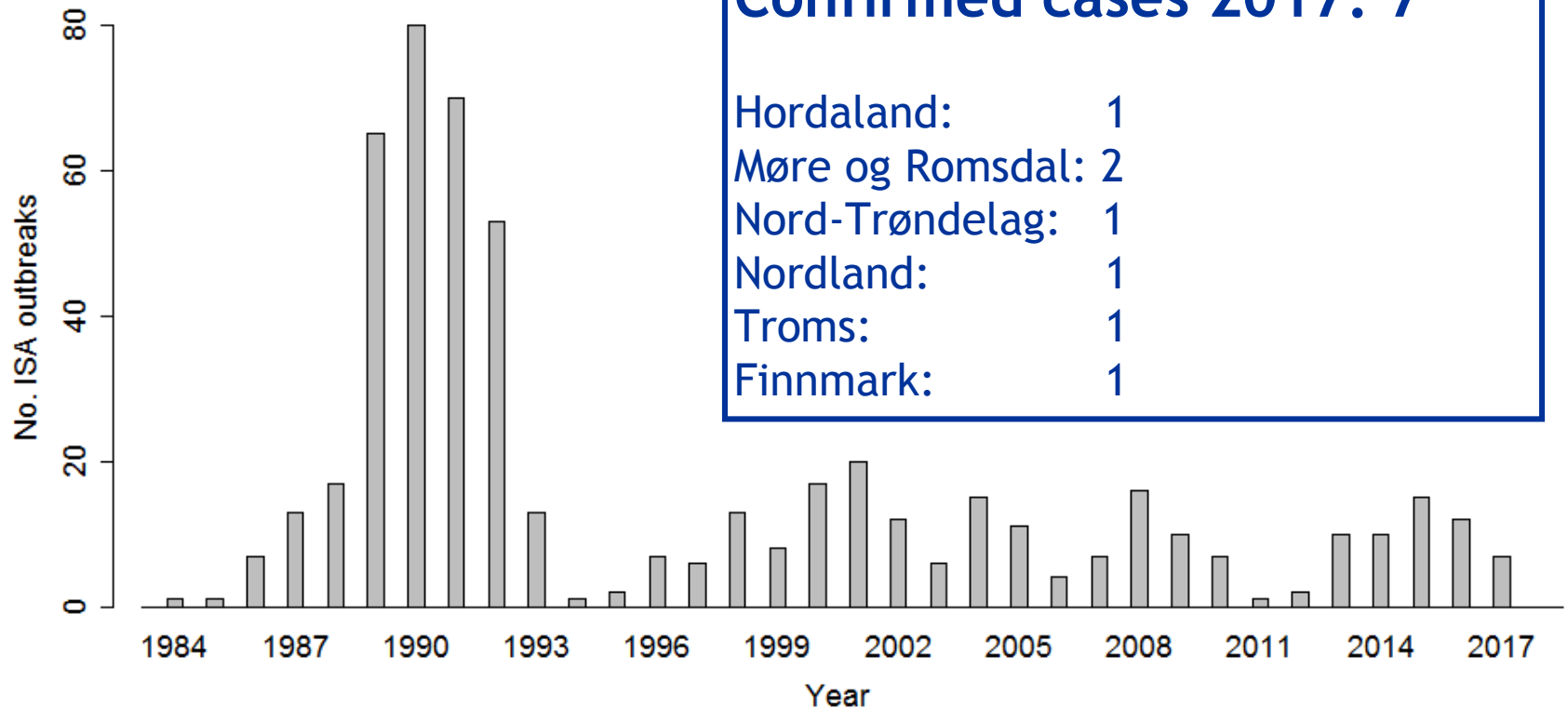
0 75 150 300 Kilometer



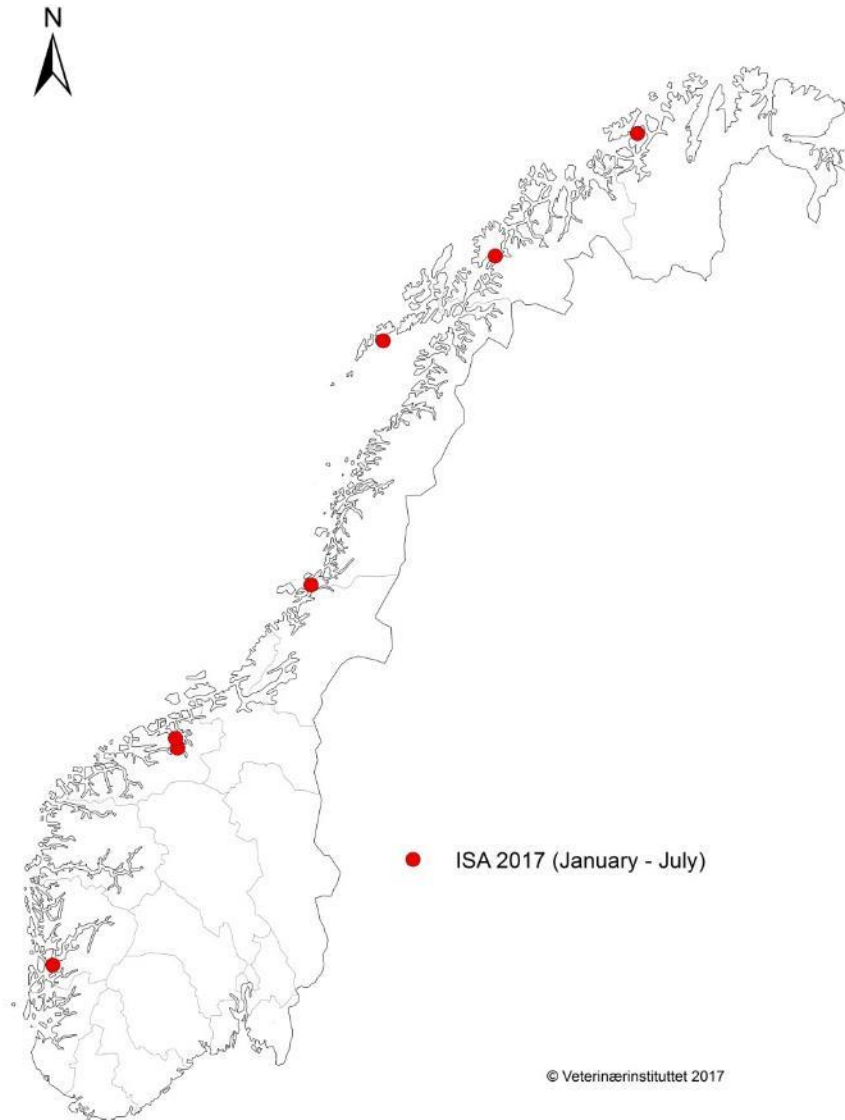
Infectious salmon anaemia (ISA) 2015-2016



ISA outbreaks 1984 - 2017



Infectious salmon anaemia (ISA) 2017

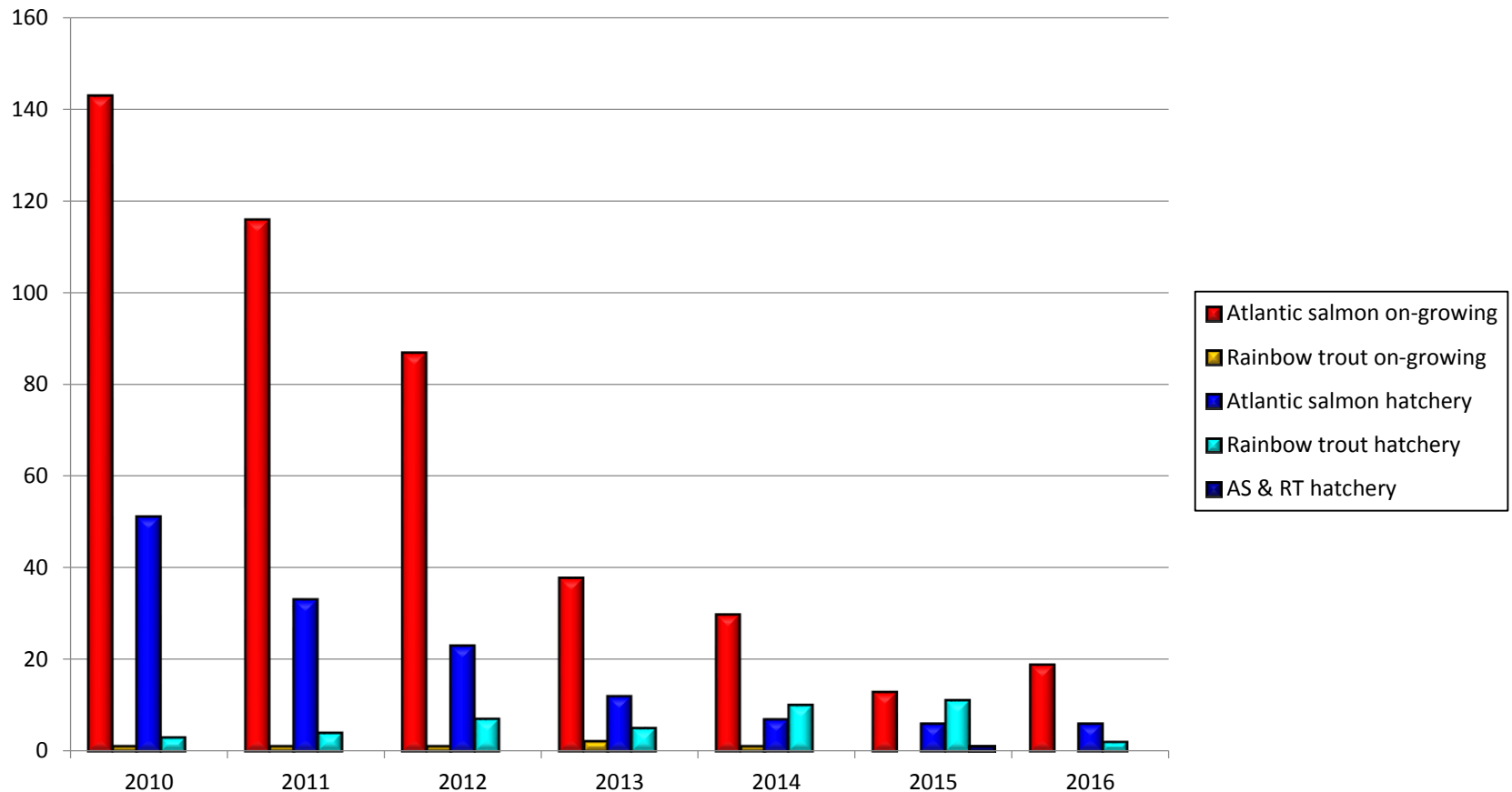


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Infectious pancreatic necrosis (IPN)



Number of sites with IPN, distribution in salmon, rainbow trout, hatcheries and ongrowing sites 2009-2016

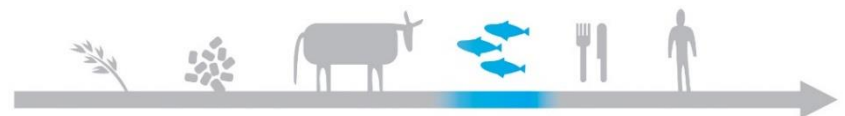
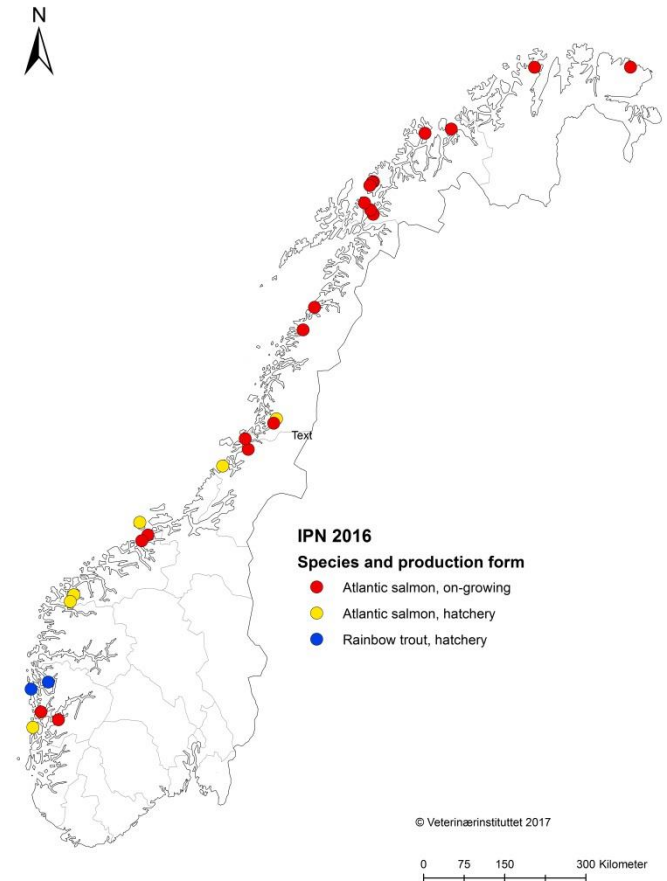


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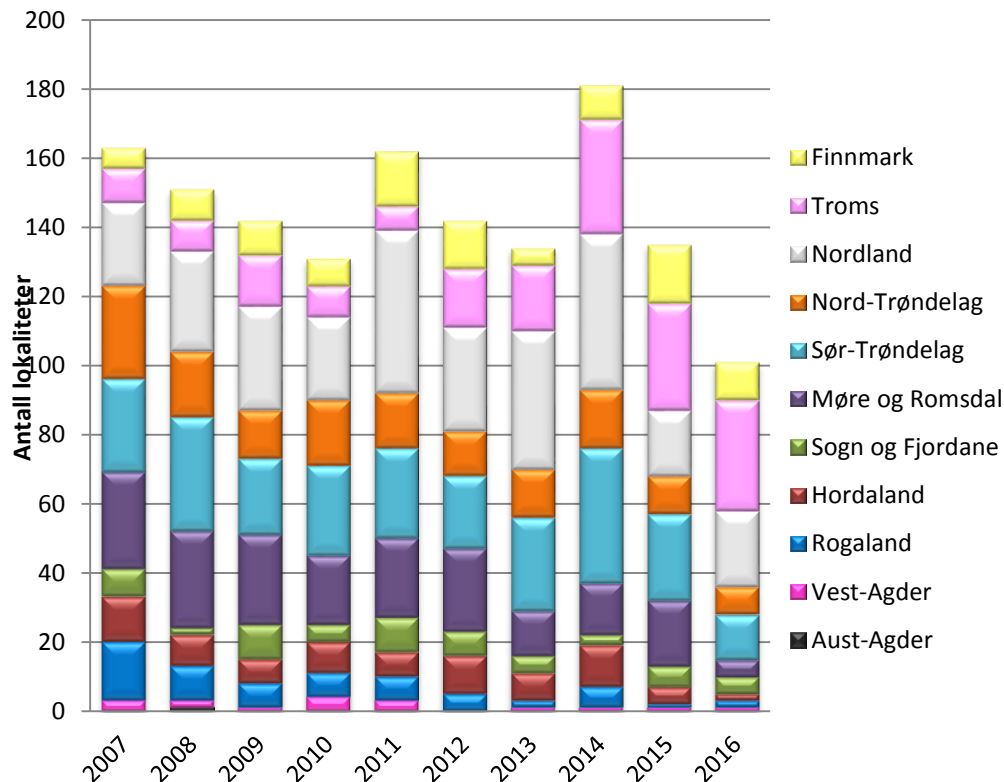


Infectious pancreatic necrosis (IPN)

	Total
2013:	56
2014:	48
2015:	30
2016	27



Heart and skeletal muscle inflammation (HSMI)



2016	101* (202**)
2015	135* (187**)
2014	181
2013	134
2012	142
2011	162
2010	131

Impact

Total : 3,6
 Nord: 4,4
 Midt: 3,8
 NordV : 3,0
 SydV: 3,0

*Data from NVI. Data from private laboratories included

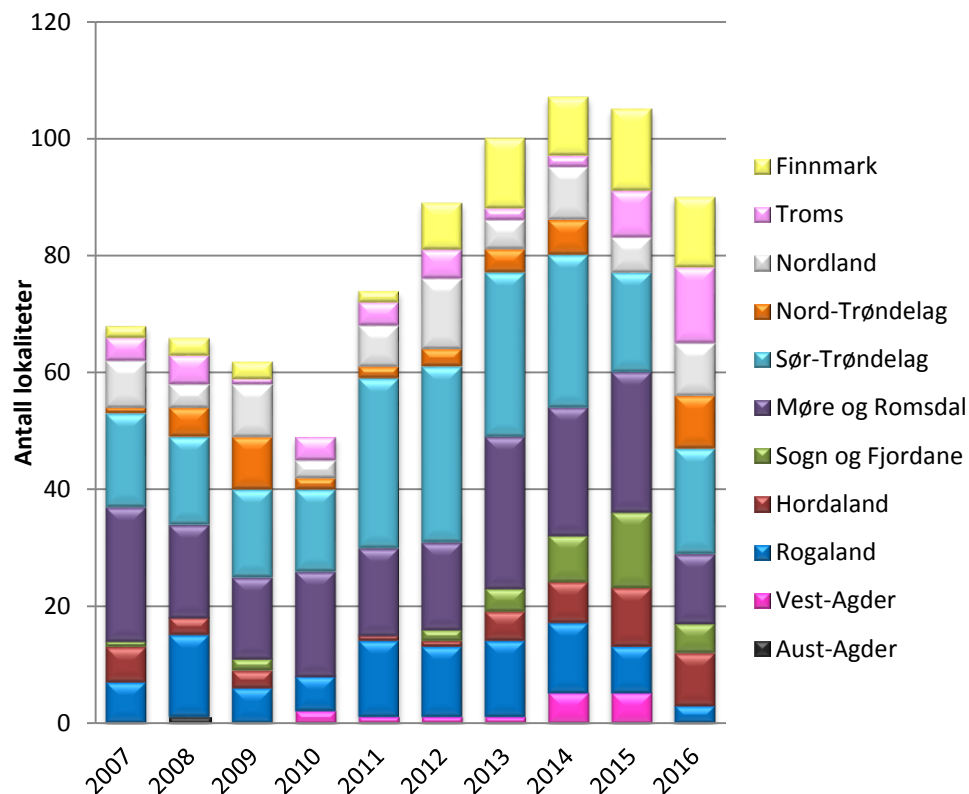
**Data from private laboratories included



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Cardiomyopathy syndrome (CMS)



2016	90*	(146**)
2015	105*	(129**)
2014	107	
2013	100	
2012	89	
2011	74	

Impact

Total:	3,7
Nord:	4,2
Midt:	3,6
NordV:	3,2
SydV:	3,5

*Data from NVI. Data from private laboratories included

** Data from private laboratories included



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Ulcers



Impact:

Total: 3,0

Nord: 3,6

Midt: 2,8

NordV: 2,0

SydV : 3,0



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AGD

Paramoeba perurans



2016

Detection (PCR) throughout the
year

From Agder to Nord-Trøndelag

Treatment from medio September



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Gill Health - an increasing problem

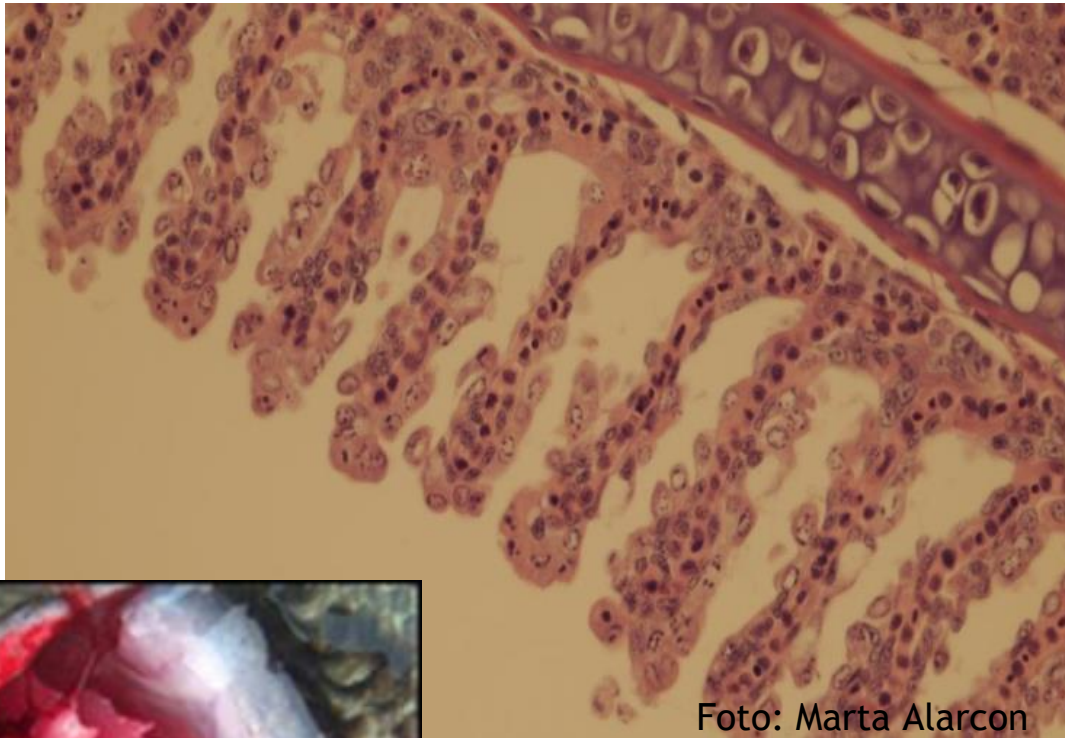


Foto: Marta Alarcon



Impact:

Total: 3,4

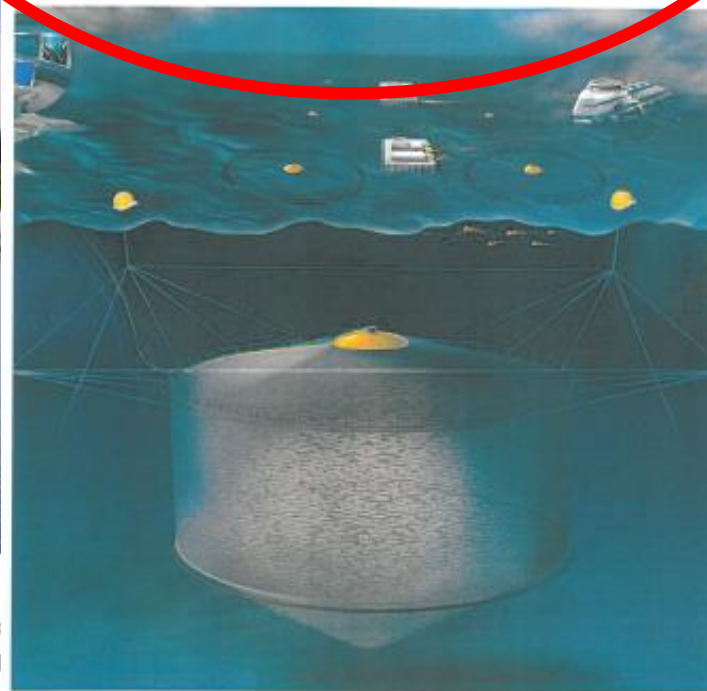
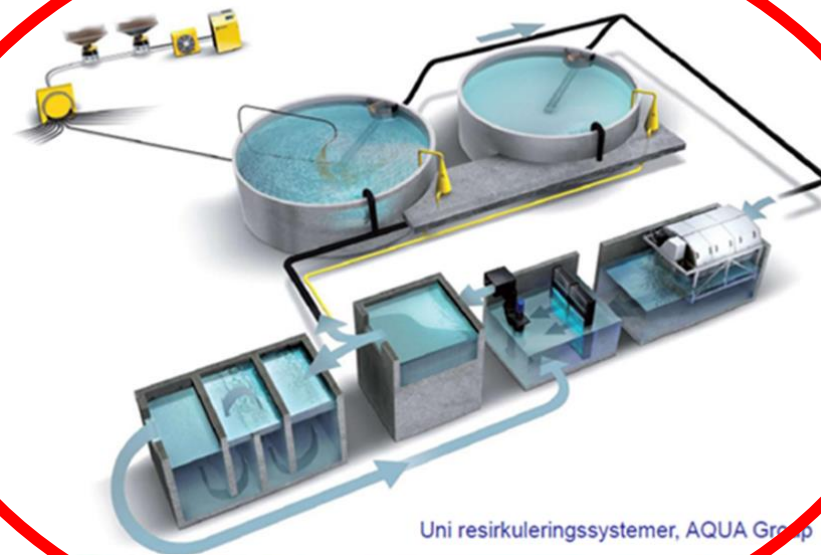
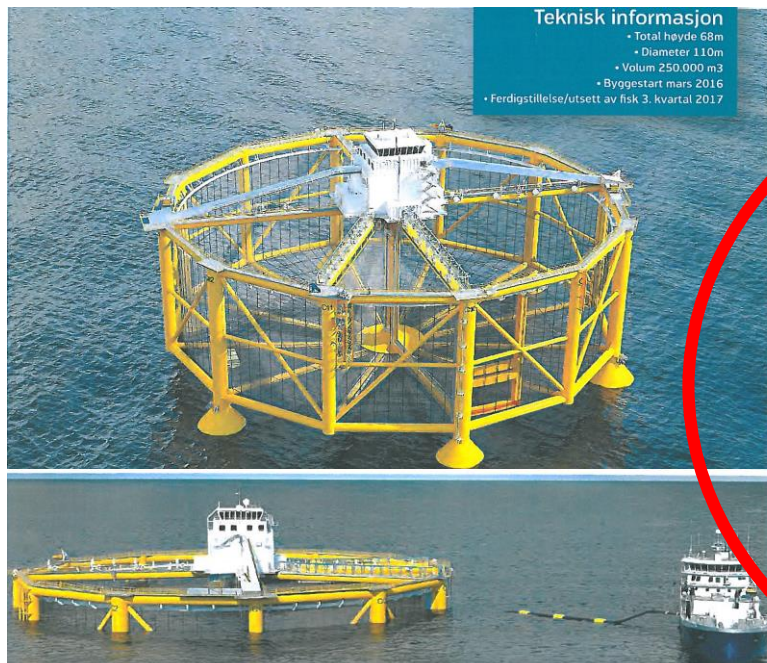
Nord: 2,8

Midt: 3,4

NordV: 4,5

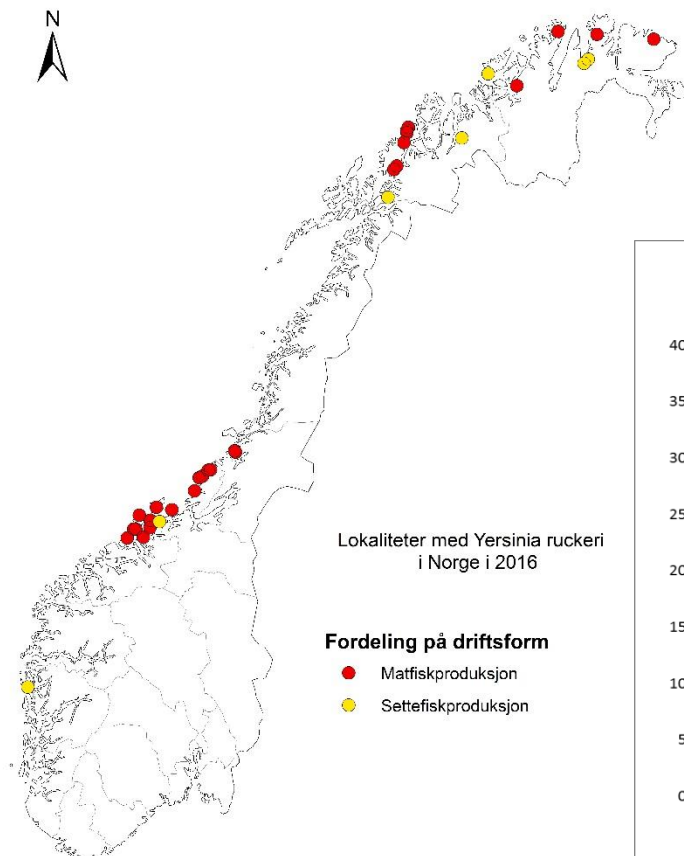
SydV: 4,3







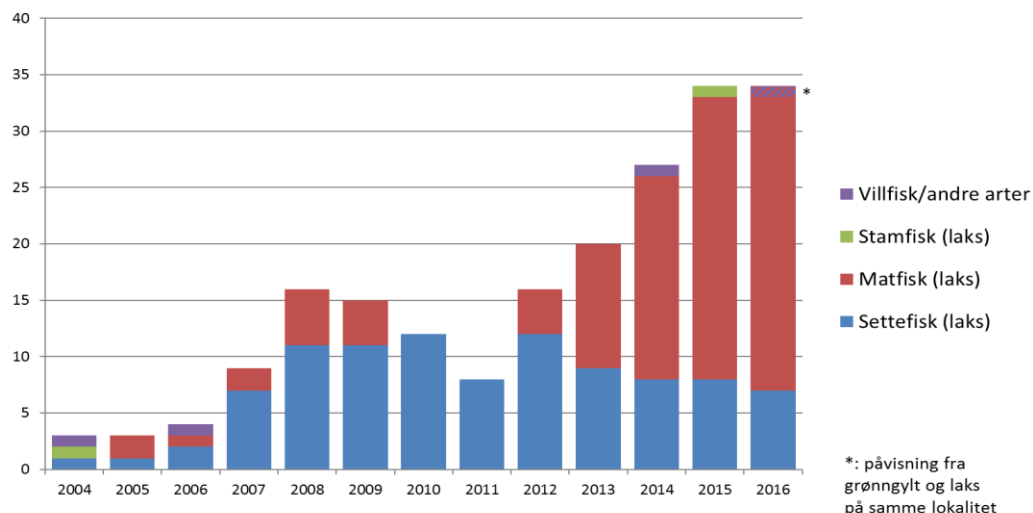
Yersinia



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0 75 150 300 Kilometer

Antall lokaliteter med *Y. ruckeri* påvisning hos Veterinærinstituttet per år



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Cleaner fish

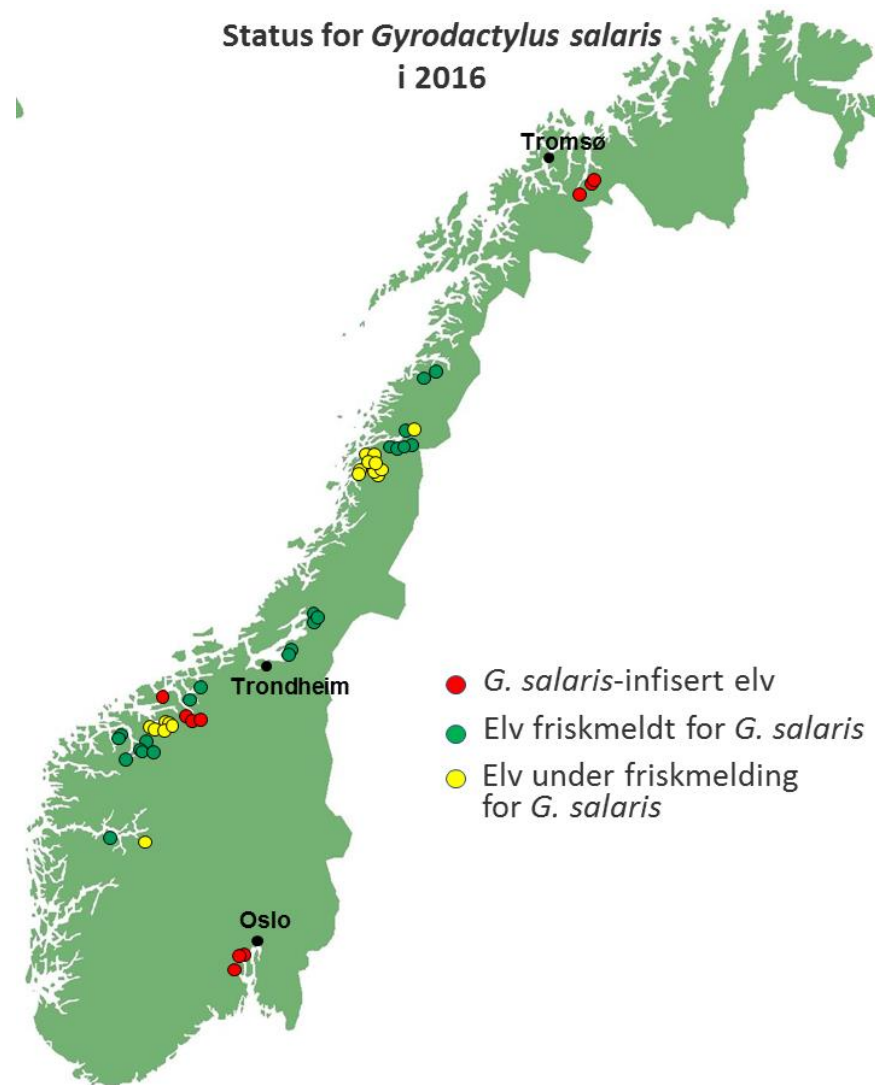


36 mil cleaner fish

16 mil farmed lumpfish



Gyrodactylus salaris in Norwegian rivers



CONCLUSIONS

- Sea lice: Resistance to anti sea lice chemicals. Increasing mortalities associated with treatment. Welfare issue.
- SAV: Similar situation to 2015 with a high number of cases.
- ISA: Similar no of cases, but new area of concern
- HSMI: Similar situation ?
- CMS: Tend to increase?
- IPN: Same situation.
- Ulcers are still a significant problem
- *Yersinia ruckeri*: Same situation
- AGD established in large parts of Norway. Positive detection (PCR) throughout the year, but a controlled situation.
- Production losses still high, but several companies shows decreasing losses.
- G.salaris: More rivers recovered

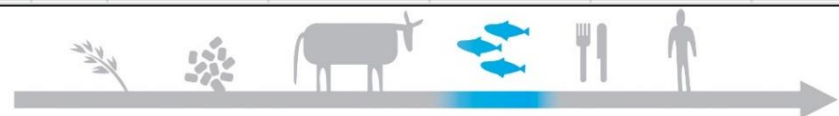
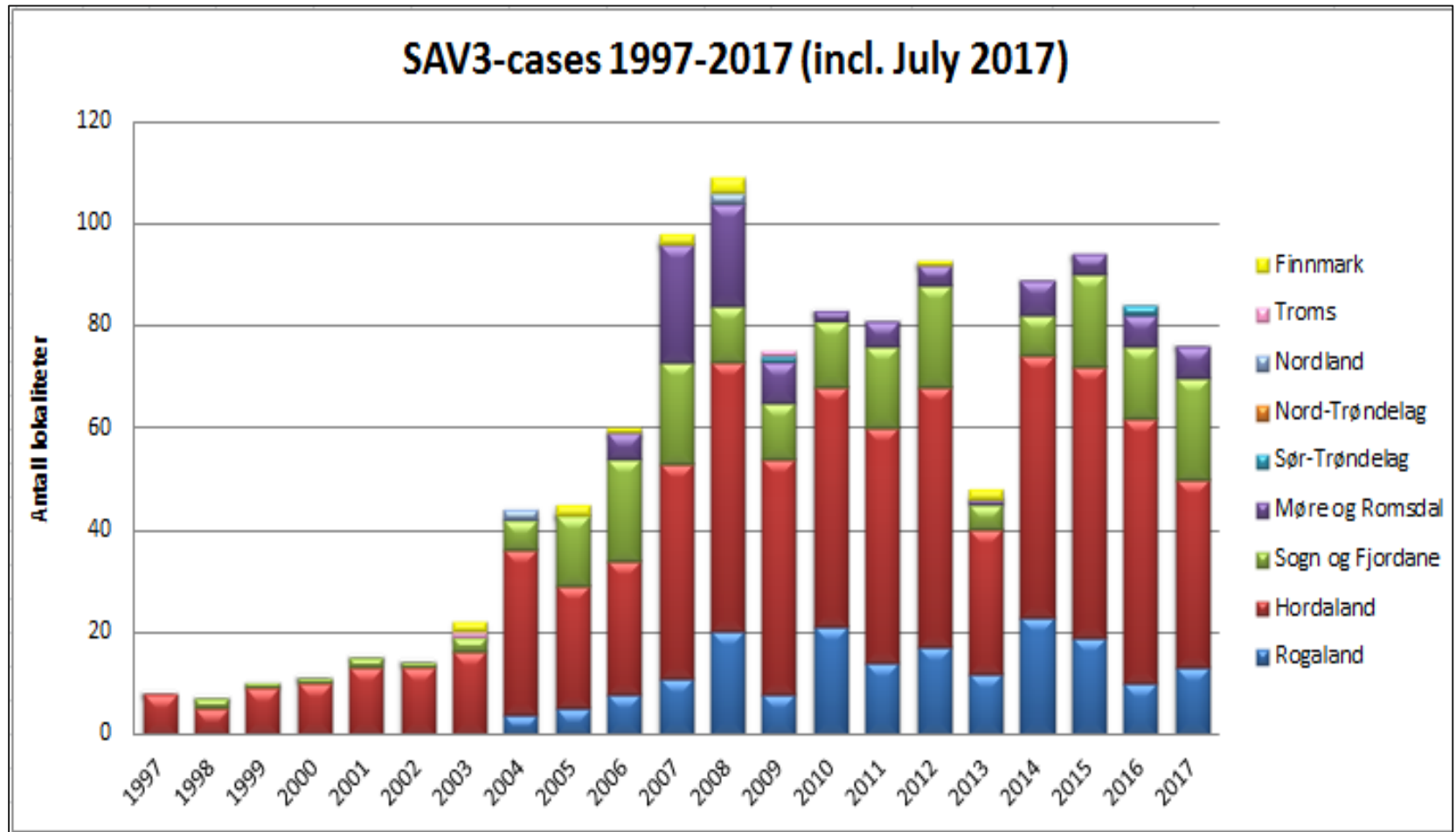


Thank you for your attention



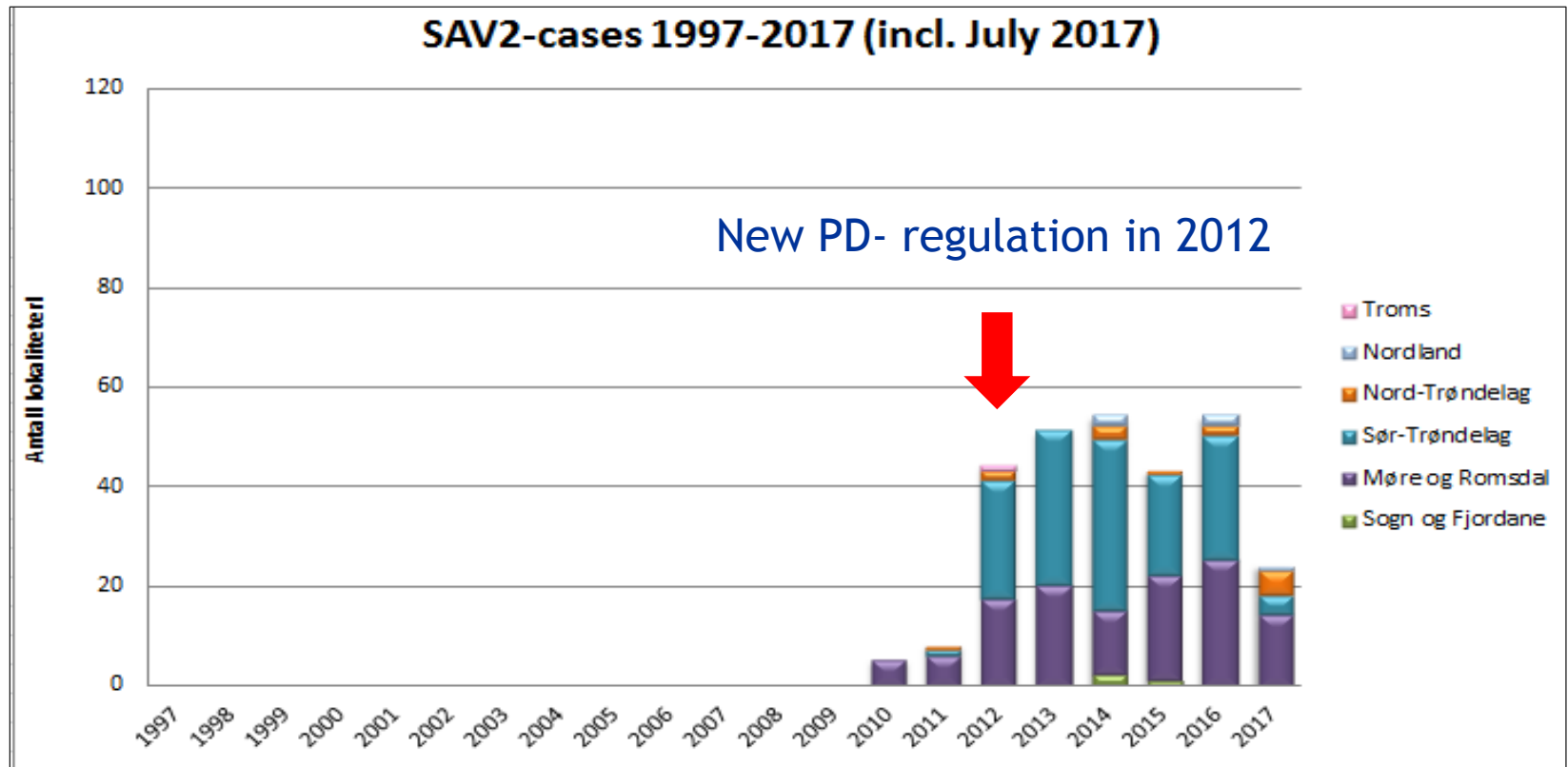
Occurrence by county, SAV3

January – July: 76



Occurrence by county, SAV2

January – July: 24



Cardiomyopathy syndrome (CMS)

