Official Inspection and Control

Workshop on enhancing aquatic animal health and biosecurity

26-29 October 2025, Jeddah, Saudi Arabia

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Norway

Norwegian Veterinary Institute

World Organisation for Animal Health | Organisation mondiale de la santé animale | Organización Mundial de Sanidad Animal

وزارة البيئة والمياه والزراعة
Ministry of Environment Water & Agriculture
Kingdom of Saudi Arabia المملكة العربية السعودية

OUTLINES

THE COMPETENT AUTHORITY

EU-REGULATIONS

LISTING OF DISEASES BY EU: CATEGORIES A-E

MANUALS FROM WOAH AND EURL

NORWEGIAN LEGISLATION

EXAMPLES FROM NORWAY:

- CUMULATIVE MORTALITY RISK
- SLAUGHTER QUALITY
- NUMBER OF LICE AND LICE TREATMENTS
- INFECTIOUS SALMON ANEMIA
- PANCREAS DISEASE

SUMMARY

Source: COLOURBOX

THE COMPETENT AUTHORITY

Mattilsynet

Norwegian Food Safety Authority

Source: Norwegian Food Safety Authority

EU-REGULATIONS

I

(Legislative acts)

REGULATIONS

REGULATION (EU) 2017/625 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 15 March 2017

on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No 999/2001, (EC) No 396/2005, (EC) No 1069/2009, (EC) No 1107/2009, (EU) No 1151/2012, (EU) No 652/2014, (EU) 2016/429 and (EU) 2016/2031 of the European Parliament and of the Council, Council Regulations (EC) No 1/2005 and (EC) No 1099/2009 and Council Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC, and repealing Regulations (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council, Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC and 97/78/EC and Council Decision 92/438/EEC (Official Controls Regulation)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

COMMISSION DELEGATED REGULATION (EU) 2020/687

of 17 December 2019

supplementing Regulation (EU) 2016/429 of the European Parliament and the Council, as regards rules for the prevention and control of certain listed diseases

(Text with EEA relevance)

Official Journal of the European Union
EN
L series
2024/216
12.1.2024

COMMISSION IMPLEMENTING REGULATION (EU) 2024/216

of 11 January 2024

amending the Annex to Implementing Regulation (EU) 2018/1882 concerning listed diseases of aquatic animals and the list of species and groups of species posing a considerable risk for the spread of those listed diseases

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

LISTING OF DISEASES BY EU: CATEGORIES A-E

AKVAKTISKE DYR

ENGELSK BETEGNELSE	NORSK BETEGNELSE	KAT.
Epizootic haematopoietic necrosis	Epizootisk hemapoietisk nekrose	A+D+E
Infection with *Mikrocytos mackini*		A+D+E
Infection with *Perkinsus marinus*		A+D+E
Infection with Taura syndrome virus		A+D+E
Infection with yellow head virus		A+D+E
Viral haemorrhagic septicaemia	Viral hemorrhagisk septikemi	C+D+E
Infectious haematopoietic necrosis	Infeksiøs hemapoietisk nekrose	C+D+E
Infection with *Bonamia exitiosa*	Infeksjon med *Bonamia exitiosa*	C+D+E
Infection with HPR-deleted infectious salmon anaemia	Infeksiøs lakseanemi, HPR-deletert	C+D+E
Infection with white spot syndrome virus	Hvitflekksykdom hos krepsdyr	C+D+E
Infection with *Bonamia ostreae*	Infeksjon med *Bonamia ostreae*	C+D+E
Infection with *Marteilia refringens*	Infeksjon med *Marteilia refringens*	C+D+E
Koi herpes virus disease	Koi Herpes virus sykdom	E

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Koi herpes virus disease	Koi Herpes virus sykdom	E

Category A:

- Inspection and sampling by competent authority
- Immediate eradication if disease is confirmed
- Also implies categories D and E

Category C:

- Inspection and sampling by competent authority
- Voluntary eradication
- Also implies categories D and E

Category D:

- Trade measures

Category E:

- Surveillance

MANUALS FROM WOAH AND EURL

CHAPTER 2.3.4.

INFECTION WITH HPR-DELETED OR HPR0 INFECTIOUS SALMON ANAEMIA VIRUS

1. Scope

Infection with infectious salmon anaemia virus (ISAV) means infection with the pathogenic agent highly polymorphic region (HPR)-deleted infectious salmon anaemia virus (ISAV), or the non-pathogenic HPR0 (non-deleted HPR) ISAV of the Genus *Isavirus* of the Family *Orthomyxoviridae*.

HPR-deleted ISAV may cause disease in Atlantic salmon (*Salmo salar*), which is a generalised and lethal condition characterised by severe anaemia, and variable haemorrhages and necrosis in several organs. The disease course is prolonged with low daily mortality (0.05–0.1%) typically only in a few cages. Cumulative mortality may become very high for a period lasting several months if nothing is done to limit disease dissemination (Rimstad *et al.*, 2011).

Detection of HPR0 ISAV has never been associated with clinical signs of disease in Atlantic salmon (Christiansen *et al.*, 2011). This virus genotype replicates transiently and has mainly been localised to the gills. A link between non-pathogenic HPR0 ISAV and pathogenic HPR-deleted ISAV, with some outbreaks potentially occurring as a result of the emergence of HPR-deleted ISAV from HPR0 ISAV has been suggested (Cardenas *et al.*, 2014; Christiansen *et al.*, 2017; Cunningham *et al.*, 2002; Gagné & Leblanc, 2017; Mjaaland, *et al.*, 2002).

European Union Reference Laboratory for Fish and Crustacean Diseases

NATIONAL INSTITUTE OF AQUATIC RESOURCES, TECHNICAL UNIVERSITY OF DENMARK

DIAGNOSTIC METHODS FOR THE SURVEILLANCE AND CONFIRMATION OF INFECTION WITH HPR-DELETED INFECTIOUS SALMON ANEMIA VIRUS (ISAV)

v2022.3

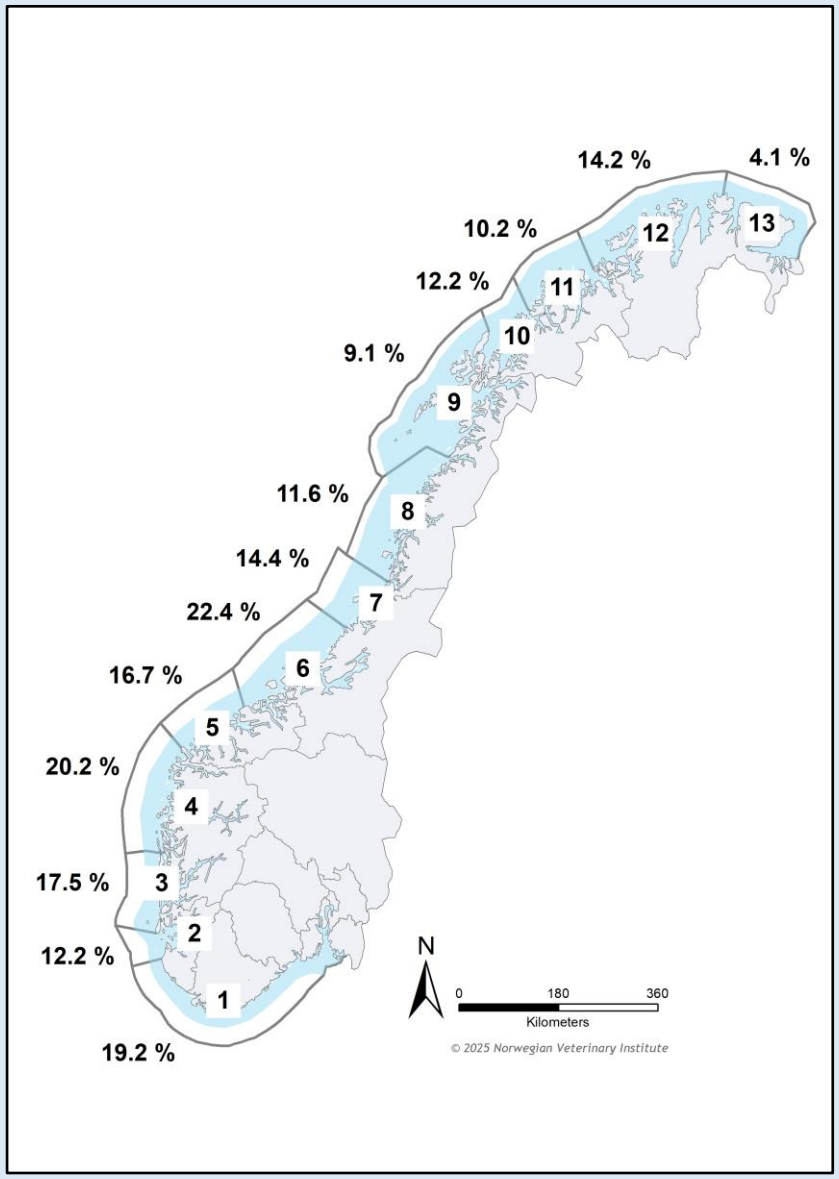
NORWEGIAN LEGISLATION

Legislation on operation of aquaculture facilities
National listing of diseases in addition to those listed by EU
Notification to the competent authority when a listed disease is suspected
Legislation on management of disease outbreaks
Reporting on biomass, losses, slaughtering, sea lice counts, lice treatments and sold vaccine doses and antimicrobials

Source: Norwegian Food Safety Authority

Source: COLOURBOX

EXAMPLE: CUMULATIVE MORTALITY RISK



Source: The Norwegian Fish Health Report 2024

Mortality can be used as a rough indicator of welfare

57.8 million salmon and 2.4 million rainbow dead in the sea phase last year

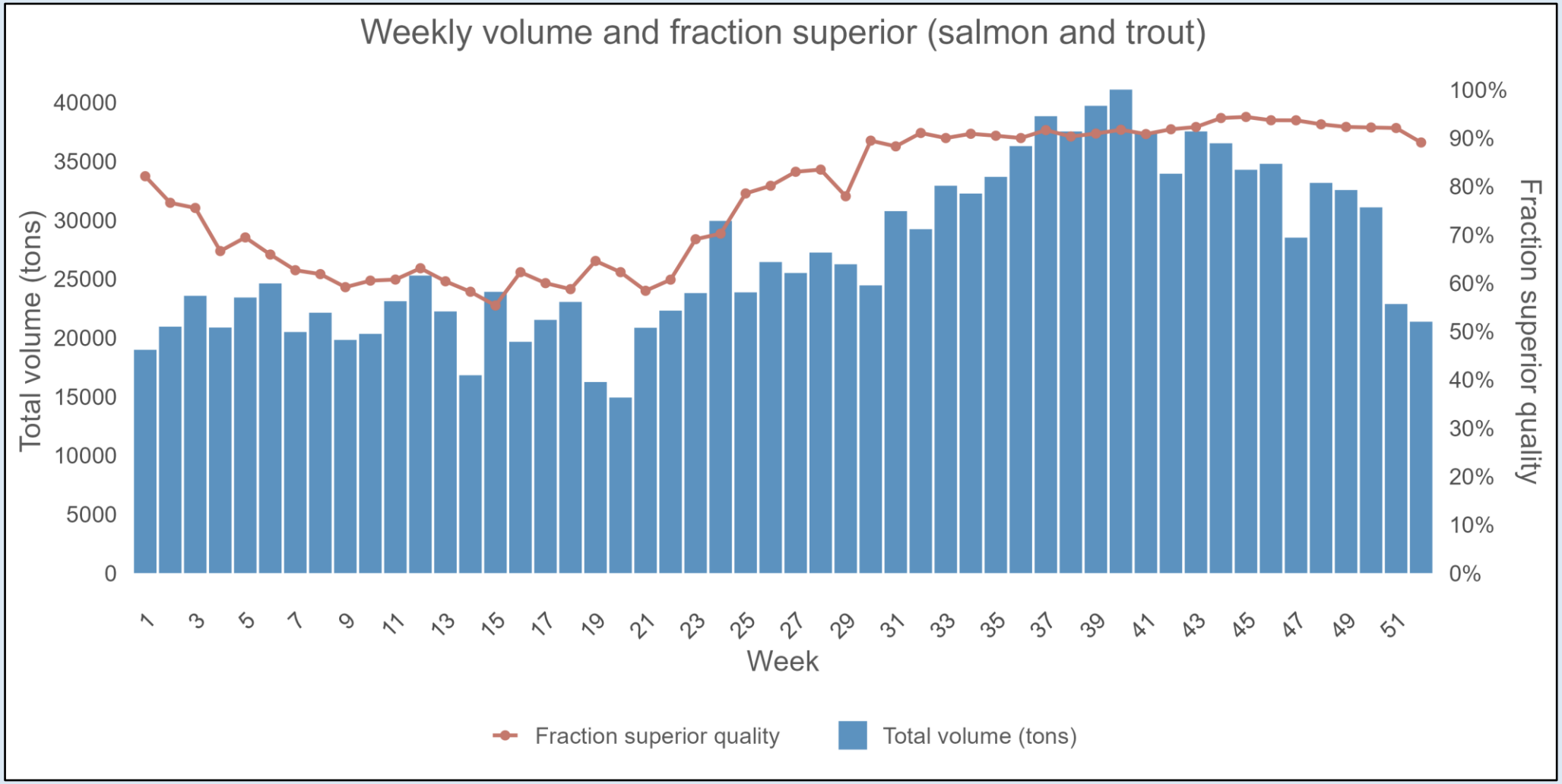
Nationwide: 15,4 percent for salmon and 15,0 per cent for rainbow trout

Lower risk for Atlantic salmon in 2024 than in 2023 nationwide

Large geographical variation

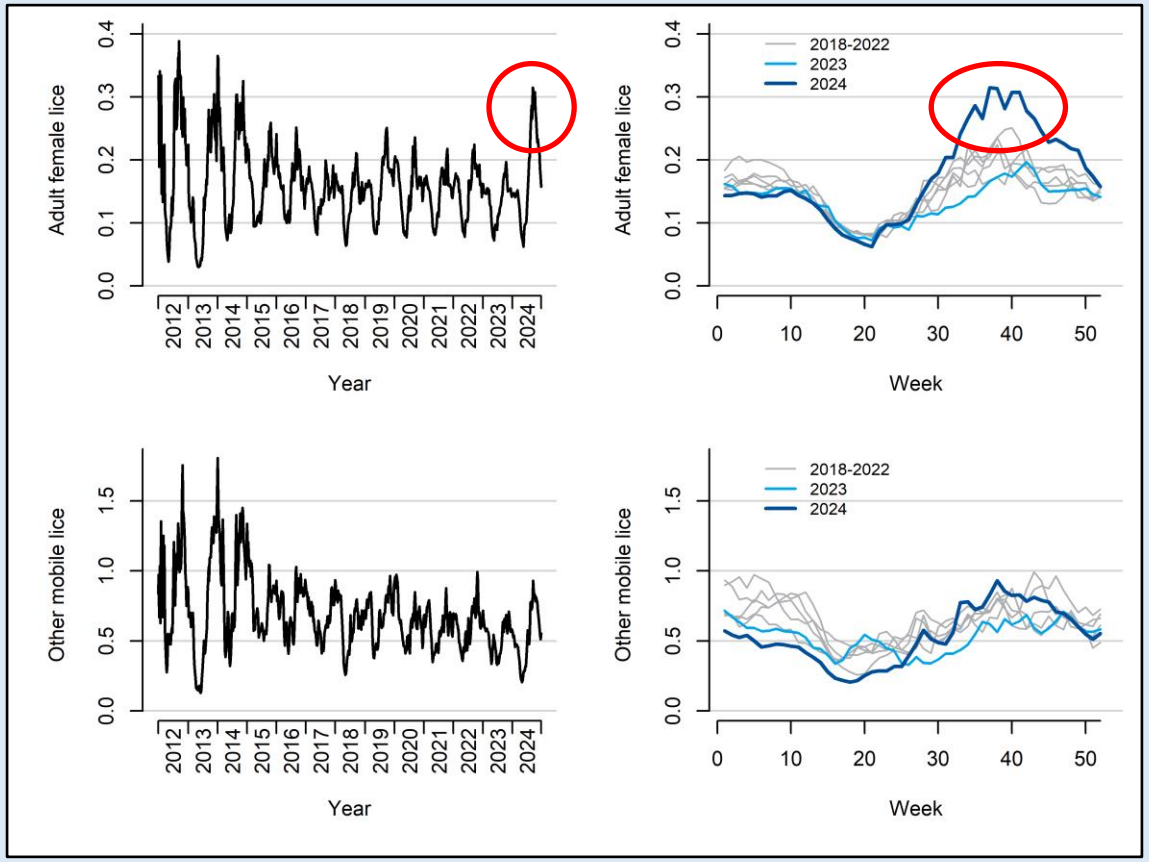
The government has launched a white paper on animal welfare where not more than 5% mortality is set as an aim

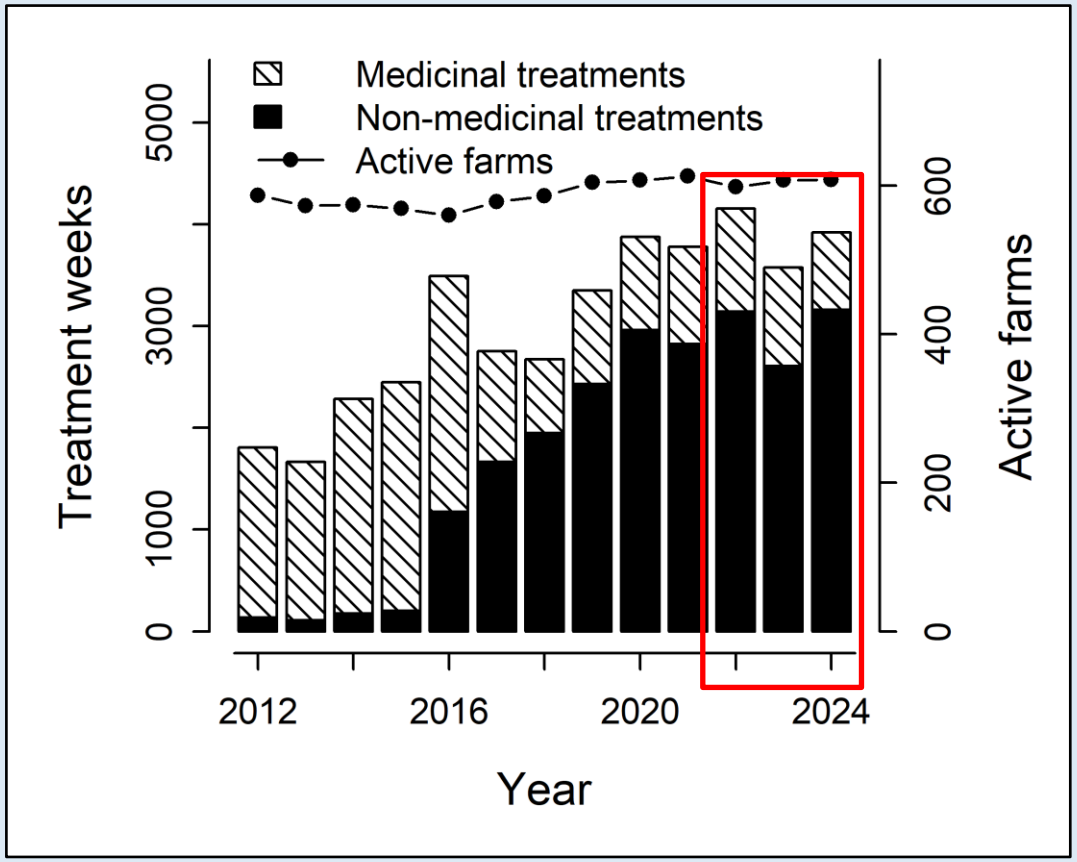
EXAMPLE: SLAUGHTER QUALITY



Source: The Norwegian Fish Health Report 2024

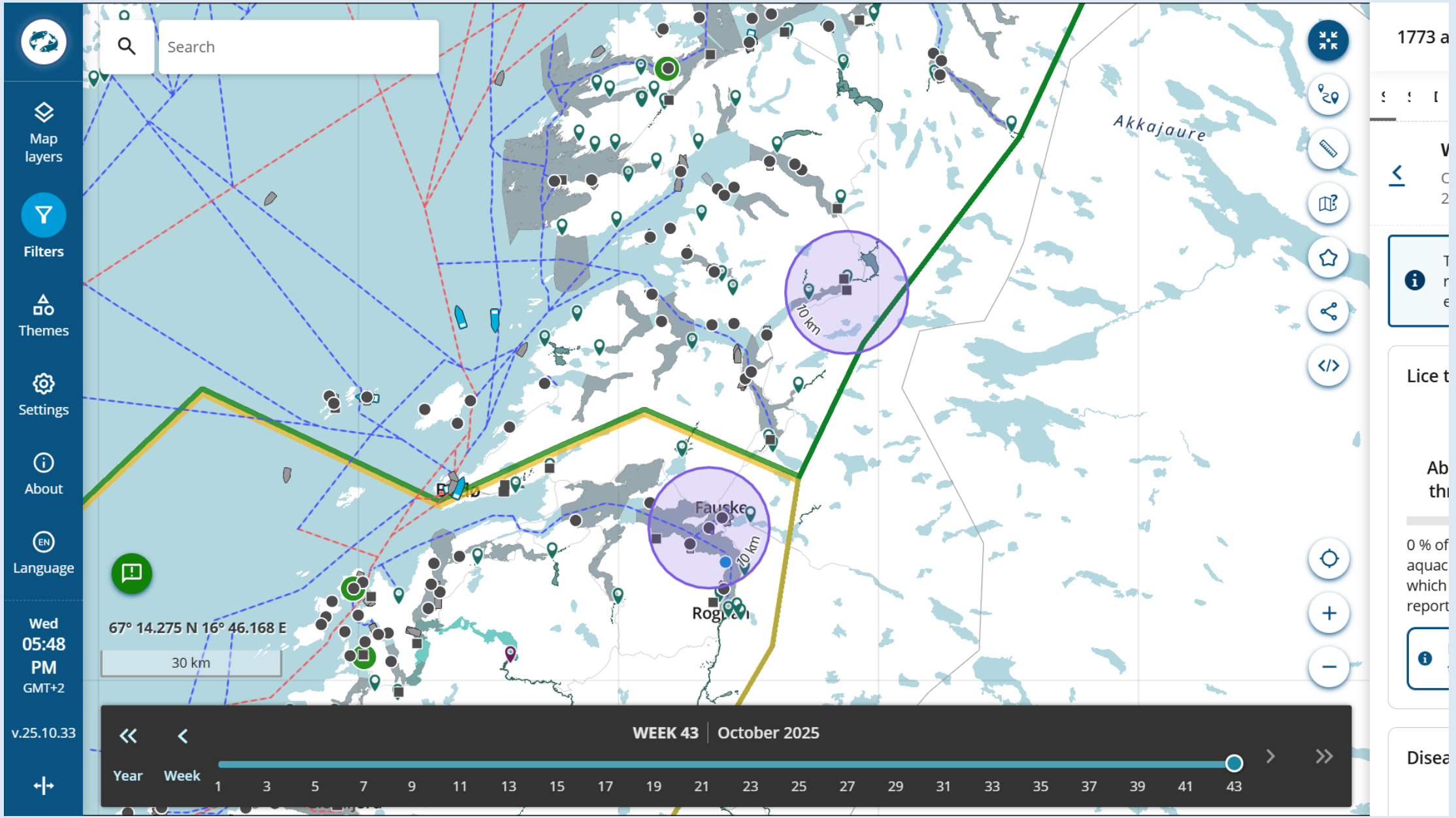
EXAMPLE: NUMBER OF LICE AND LICE TREATMENTS





Source: The Norwegian Fish Health Report 2024

EXAMPLE: INFECTIOUS SALMON ANEMIA



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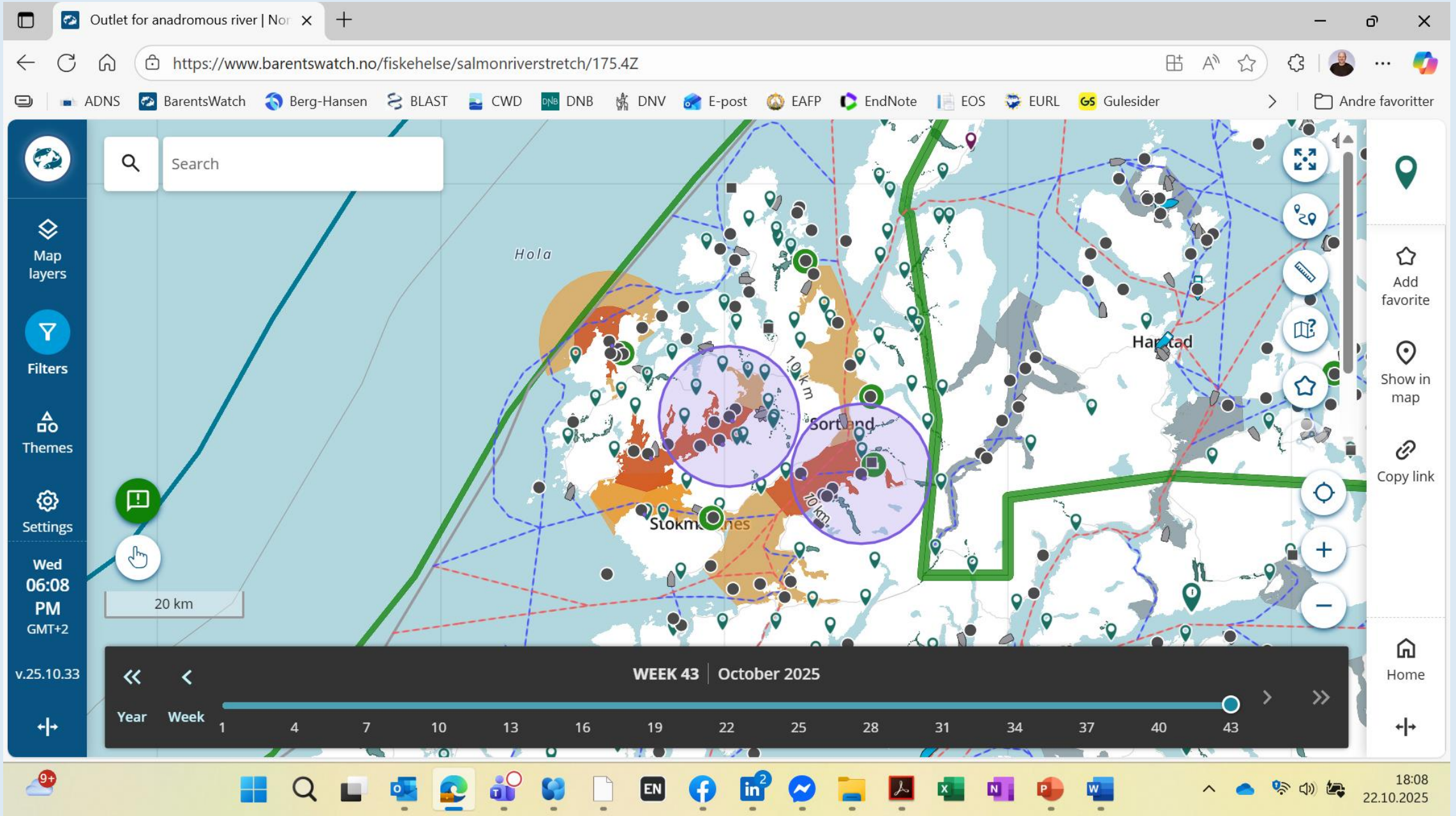
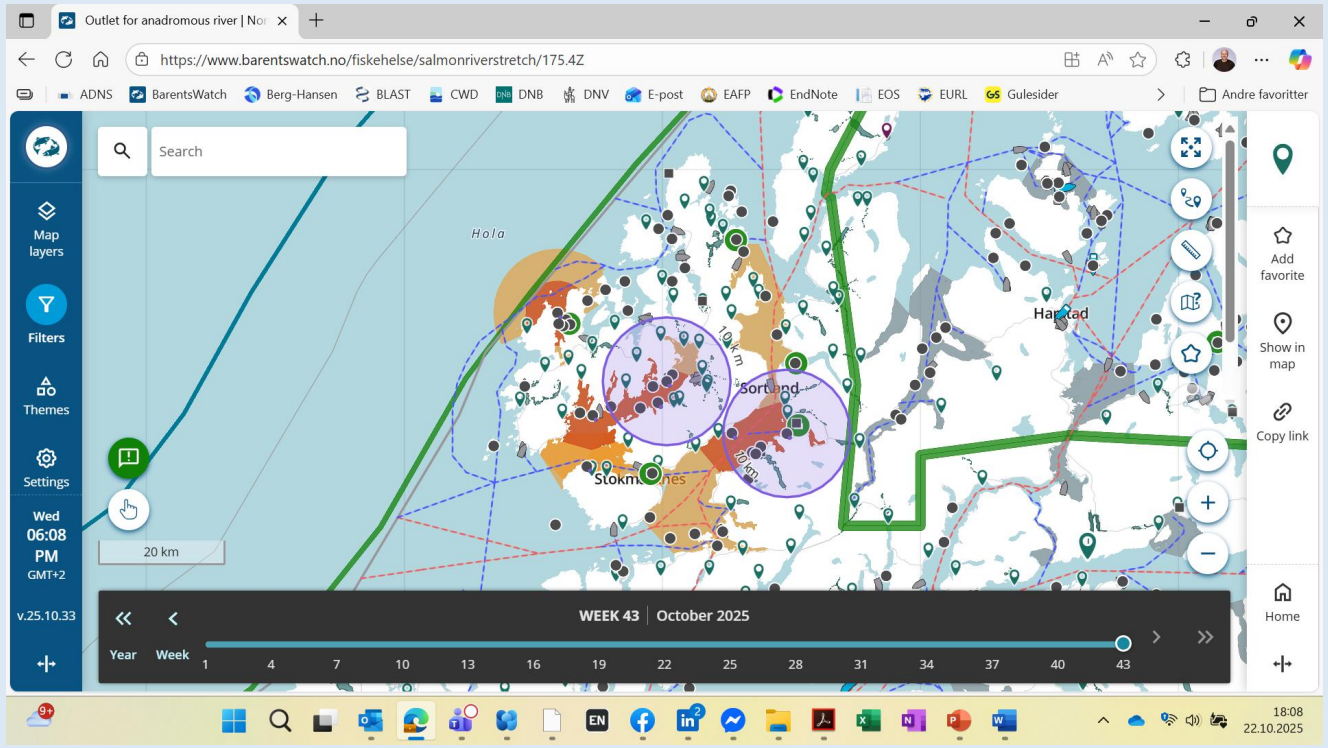


EXAMPLE: INFECTIOUS SALMON ANEMIA



Restricted zone when ISA is confirmed:

- Protection zone
- Surveillance zone

The outbreak site is usually emptied within short time

Monthly inspection by fish health personell and sampling of at least ten fish for real-time RT-PCR

Common fallowing of sites within the protection zone

Requirements on wash, desinfection and transport

DETECTION OF ISA-VIRUS IN EXPORTED SALMON FILET

Aquaculture 485 (2018) 220–224

Contents lists available at ScienceDirect

Aquaculture

journal homepage: www.elsevier.com/locate/aquaculture

Short communication

The first instance of HPR-deleted ISAV detection in eviscerated, fresh salmon at a Chinese entry-exit port

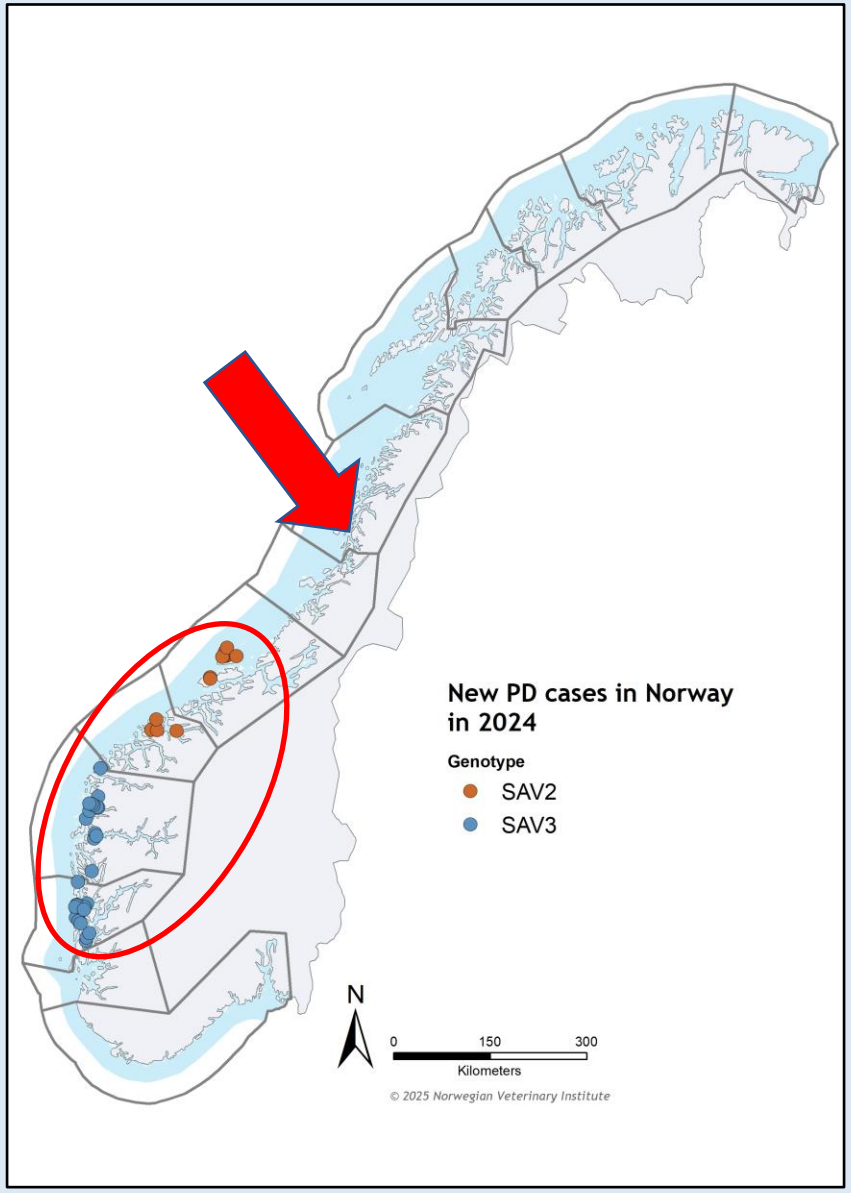
Lu Xiao[b], Hua Lin[a,1], Miao Yang[a], Shijie Chen[a,*], Wei An[a], Xulong Wu[c], Hong Liu[d], Dandan Li[e], Yubao Yan[a], Juan Hu[a], Jun Wang[a], Yingjie Sun[a]

[a] Sichuan Entry–Exit Inspection and Quarantine Bureau, Chengdu, China
[b] Sichuan Animal Science Academy, Chengdu 610066, China
[c] College of Veterinary Medicine, Sichuan Agricultural University, Chengdu, China
[d] Shenzhen Entry–Exit Inspection and Quarantine Bureau, Shenzhen, China
[e] Hainan Entry–Exit Inspection and Quarantine Bureau, Haikou, China

Source: COLOURBOX

- Salmon filet exported to China
- Import control revealed pathogenic ISA-virus
- The finding was later confirmed by our laboratory
- High mortality before slaughtering attributed to another disease
- No suspicion of ISA

EXAMPLE: PANCREAS DISEASE



Source: The Norwegian Fish Health Report 2024

Pancreas disease (PD) is listed nationally in category F

Salmonid alphavirus; SAV1-SAV7

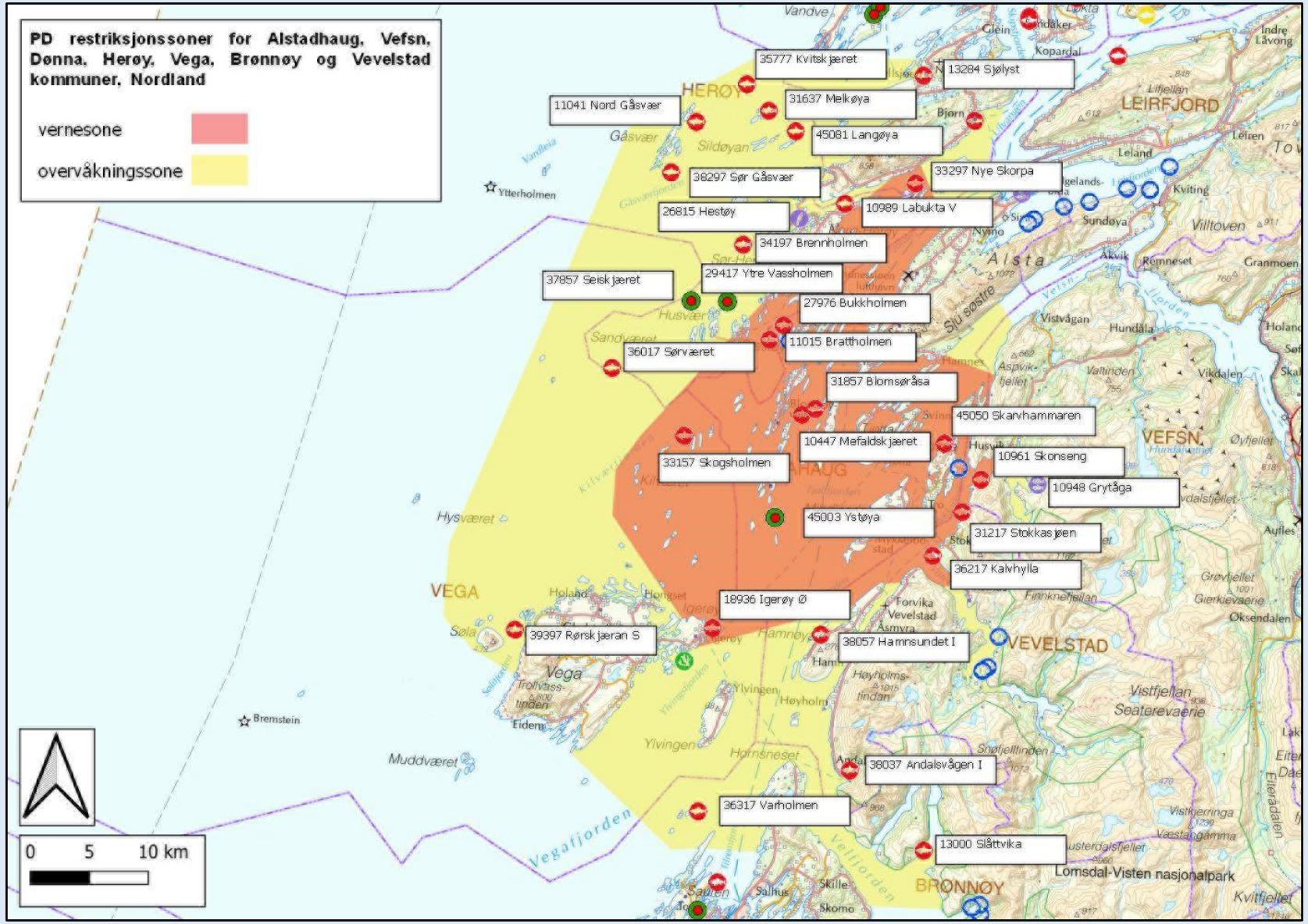
Monthly sampling of at least 20 fish for PCR by appointed laboratories since 2017

Confirmation of disease by the Norwegian Veterinary Insitute as National Reference Laboratory

Endemic area with SAV3 in Western Norway and SAV2 in Mid-Norway

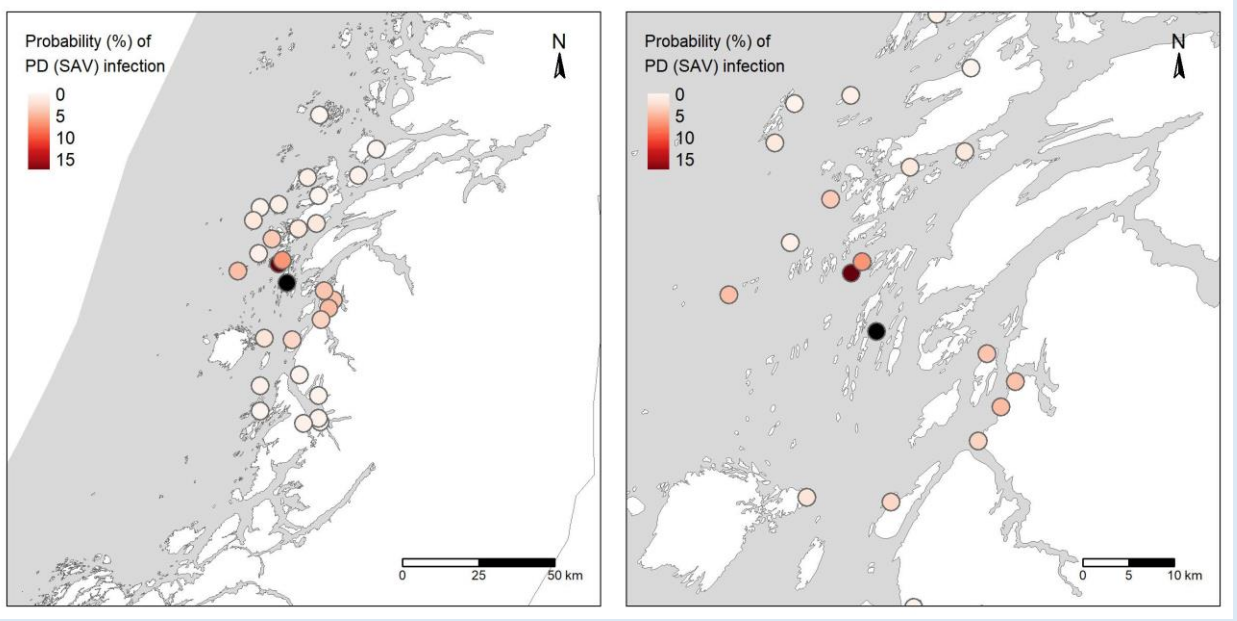
Outbreaks outside the endemic area are managed similar to ISA outbreaks

EXAMPLE: PANCREAS DISEASE

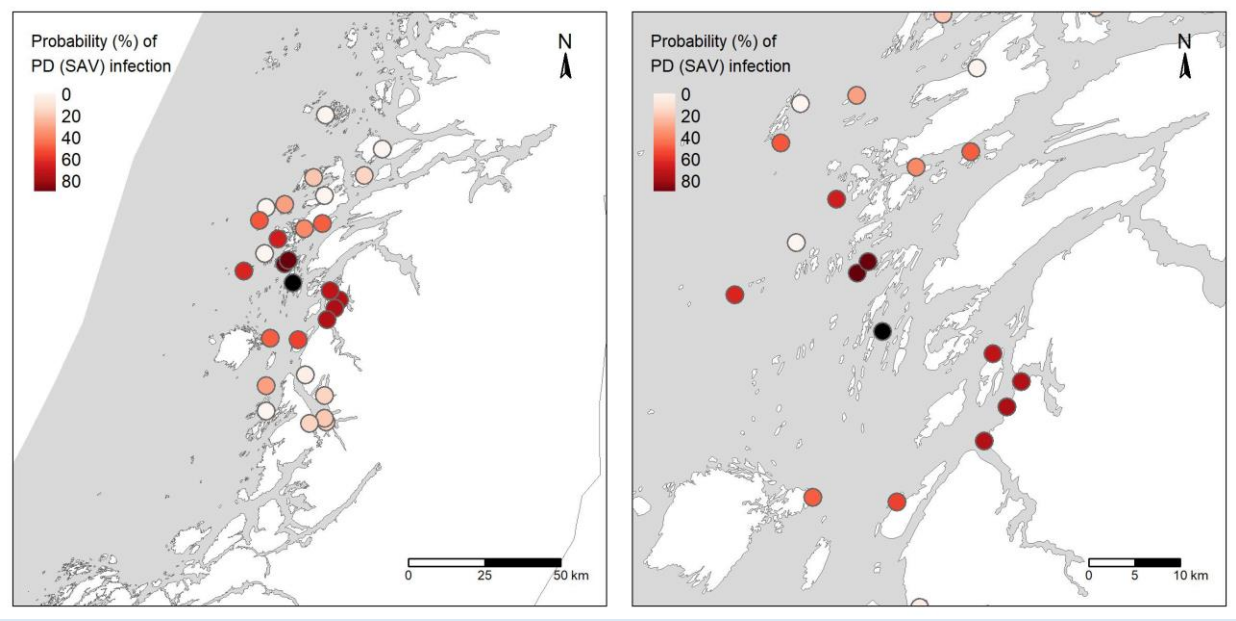


EXAMPLE: PANCREAS DISEASE

Immediate removal



Delayed removal



SUMMARY

The legislation in Norway is based on the legislation in the European union (EU)

Listing of diseases in EU in categories A-E

National listing in categories F and G

The Norwegian Food Safety Authority is the competent authority

- Inspections and sampling
- Management of disease outbreaks

Cumulative mortality risk and slaughter quality may be used a indicators for animal welfare

The number of sea lice should be kept under a certain level for the sake of wild salmonids

Thank you!

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