	North-East Atlantic Commission *Report of the Meeting of the Working Group on* **Gyrodactylus salaris** *in the North-East Atlantic Commission Area*	**NEA(26)03** **Agenda item: 8**

Report of the Meeting of the Working Group on Gyrodactylus salaris *in the North-East Atlantic Commission Area*

Purpose

The purpose of this paper is to present the Report of the Meeting of the Working Group on *Gyrodactylus salaris* in the North-East Atlantic Commission Area, which met in Edinburgh in March 2026, and to seek decisions on its recommendations.

Decisions

The North-East Atlantic Commission is asked to consider the Working Group's recommendations as contained in this report, namely:

- to adopt Best Practice Guidance for the Development of *Gyrodactylus salaris* Contingency Plans, as contained in GSWG(26)15 (Annex 8);
- to agree the proposed amendments to the 'Revised Road Map to Enhance Information Exchange and Co-operation on Monitoring, Research and Measures to Prevent the Spread of *G. salaris* and Eradicate it if Introduced', as contained in GSWG(26)18 (Annex 17);
- to convene an *ad hoc* Sub-Group of the Working Group on of *Gyrodactylus salaris* to:
    - produce generic publicity materials regarding *Gyrodactylus salaris*, based on those already available within the members of the Group;
    - develop a template for reporting on progress on implementing the Road Map / Action Plan;
    - consider whether recommendations on new developments with regard to monitoring for, and detection of, *Gyrodactylus salaris* should be developed for inclusion in international guidelines; and
    - compile a standard list of references related to *Gyrodactylus salaris*;
- to encourage all relevant Parties and jurisdictions to consult with the European Commission to ensure that the use of rotenone meets the exemptions in the EU Biocides Regulation 528/2012; and
- to hold the next meeting of the Working Group on *Gyrodactylus salaris* after the 2028 Annual Meeting of NASCO, reporting to the 2029 Annual Meeting of NASCO.

Background

Gyrodactylus salaris (*G. salaris*) is a parasite which poses a great risk to Atlantic salmon populations. Mortality of salmon parr in some Norwegian rivers due to *G. salaris* has reached 98%. While Atlantic salmon is the parasite's preferred host, it is also found on other species such as farmed rainbow trout, grayling and Arctic char. However, it has a much lower impact on these species and may not be detected without careful monitoring and surveillance.

In response to this threat, the North-East Atlantic Commission (the Commission) adopted a 'Road Map to Enhance Information Exchange and Co-operation on Monitoring, Research and Measures to Prevent the Spread of *G. salaris* and Eradicate it if Introduced' in 2004. There

have been various revisions to this document over the years, with the most recent version adopted by the Commission in 2023 and available as document NEA(23)14.

Under this Road Map, NASCO's Working Group on *Gyrodactylus salaris* should meet every three years. At its 2025 Annual Meeting, the Commission adopted Terms of Reference, NEA(25)14, for a meeting of the Working Group to be held in 2026.

This document contains the report of meeting of the Working Group held in March 2026.

Secretariat
Edinburgh
10 April 2026

GSWG(26)22

Report of the Meeting of the Working Group on Gyrodactylus salaris *in the North-East Atlantic Commission Area*

NASCO Headquarters, Rutland Square, Edinburgh, Scotland

10 – 12 March 2026

1. Opening of the Meeting

1.1 In the absence of the Chair of the Working Group on *Gyrodactylus salaris* (Haakon Hansen (Norway)), Asle Moen (Norway) opened the meeting and acted as Chair throughout.

1.2 The Acting Chair noted that *Gyrodactylus salaris* (*G. salaris*) is a parasite which poses a great risk to Atlantic salmon populations. Mortality of salmon parr in some Norwegian rivers due to *G. salaris* has reached 98%. While Atlantic salmon is the parasite's preferred host, it is also found on other species such as farmed rainbow trout, grayling and Arctic char. However, it has a much lower impact on these species and may not be detected without careful monitoring and surveillance. In response to this threat, NASCO's North-East Atlantic Commission (the Commission) adopted a 'Road Map to Enhance Information Exchange and Co-operation on Monitoring, Research and Measures to Prevent the Spread of *G. salaris* and Eradicate it if Introduced' in 2004. He noted that there have been various revisions to this document over the years, with the most recent version adopted by the Commission in 2023 and available as document NEA(23)14 (the Road Map).

1.3 A list of participants is contained in Annex 1.

2. Adoption of the Agenda

2.1 The Working Group adopted its Agenda, GSWG(26)09 (Annex 2).

3. Consideration of the Terms of Reference

3.1 The Working Group considered its Terms of Reference (ToRs), NEA(25)14, as agreed by the Commission in 2025. These request that the Working Group undertake the following tasks:

- review progress in relation to the measures contained in the revised Road Map, NEA(23)14;
- review and update the Commission's revised Road Map to ensure action-oriented content such that it better reflects the seriousness of infection by the parasite;
- review the Contingency Plans presented at its meeting and offer guidance on best practice for these Plans to Commission members where relevant; and
- develop recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced.

3.2 The Acting Chair advised the Working Group that the report of the meeting and its recommendations would be considered by the Commission at its Annual Meeting in June 2026.

4. Presentation and Review of Contingency Plans

4.1 The Acting Chair reminded the Working Group that during its previous meeting in 2022, the Group had felt that the most important and urgent aspect of the Road Map was the action stating that 'NEAC Parties and their relevant jurisdictions should have contingency plans in place for treatment, containment or eradication' of the parasite. The Working Group had noted concern with the lack of progress with regards to the development, publication and testing of contingency plans in its Report, NEA(23)09, and had recommended that Contingency Plans be presented at the next meeting of the Working Group. The Commission accepted this recommendation at its 2023 Annual Meeting, NEA(23)13. In response to this recommendation, the ToRs for the 2026 meeting of the Working Group included reviewing the Contingency Plans presented at the meeting and offering guidance on best practice for these Plans to Commission members where relevant.

4.2 Presentations on the work being undertaken to develop Contingency Plans were given by:

- EU-Finland, GSWG(26)10 (Annex 3);
- EU-Ireland, GSWG(26)11 (Annex 4);
- Iceland, GSWG(26)12 (Annex 5);
- Norway, GSWG(26)13 (Annex 6); and
- UK-Scotland, GSWG(26)14 (Annex 7).

4.3 The Acting Chair noted that UK-Northern Ireland had also intended to present its draft Contingency Plan. However, due to unforeseen circumstances, the participant from Northern Ireland had been unable to attend the meeting.

4.4 The Acting Chair noted that much progress had been made in the development of Contingency Plans since the last Working Group meeting, with Plans in draft or almost final form for several Parties / jurisdictions. The Working Group welcomed this progress.

4.5 The Working Group discussed the information provided in the presentations and, where relevant, offered advice and best practice recommendations for each Contingency Plan presented. As the Contingency Plans were not yet ready for publication, the Working Group agreed not to include individual advice and recommendations in this Report.

4.6 Kristján Freyr Helgason (Ministry of Industries, Iceland) shared details of the website of the Icelandic Food and Veterinary Authority which details the provisions in place on the import of used fishing equipment to Iceland: https://www.mast.is/en/import-export/import-of-fishing-equipment#legislation.

4.7 The Working Group discussed the challenges its members had faced in developing and reviewing Contingency Plans. Based on the experiences discussed, the Working Group noted a number of Best Practices for the future development, review or potential execution of Contingency Plans. These are contained in 'Draft Best Practice Guidance for the Development of *Gyrodactylus salaris* Contingency Plans', GSWG(26)15, (Annex 8).

4.8 The Working Group also noted that the Commission had adopted several Best Practices in relation to Contingency Planning at its 2023 Annual Meeting (paragraph 7.7 of NEA(23)13) and considered whether these remained relevant. The Working Group

agreed that the second and third bullets of paragraph 7.7 of NEA(23)13 remain relevant and these are contained as bullets 3.1.b. and 3.1.a. of the Draft Best Practice Guidance contained in Annex 8.

4.9 However, the Working Group felt that the first bullet of paragraph 7.7 of NEA(23)13 should be amended as shown (included as bullets 3.1.c. and 3.1.d. of Annex 8:

> *'any suspicions or positive detections of* Gyrodactylus salaris *in an area previously free of the parasite must immediately be reported to the Competent Authorities of the jurisdiction. // Samples must ~~and not~~ be investigated through a designated laboratory ~~non-designated laboratory~~. Samples should be available for investigation by the Competent Authority'.*

4.10 The Working Group also felt that the fourth bullet of paragraph 7.7 of NEA(23)13 should be replaced as shown (included as bullets 3.2.a., 3.2.b.i. and 3.2.b.ii. of GSWG(26)15):

> '~~*the use of chlorine be considered in the development of Contingency Plans as a potential eradication method if* Gyrodactylus salaris ~~*becomes established. However, chlorine should not be considered as an initial treatment in response to an outbreak where fast action is necessary*~~~~.'

> *Fast action is extremely important on detection of the parasite. Legislation should be in place which provides for eradication of the parasite.*
>
> *Eradication programmes should consider:*
>
> - *At present, the use of rotenone is considered essential for the successful eradication of the parasite;*
> - *Where rotenone is not considered a feasible option as the principal treatment method, chlorine can be used in conjunction with rotenone. Sole use of chlorine without rotenone will not result in successful eradication of the parasite;'*

4.11 The Working Group recommends that the Commission adopt these changes, along with the new draft best practice recommendations referred to in paragraph 4.7 above. The Working Group further recommends that, for ease of reference, any adopted Best Practice Guidance related to contingency planning be available in a single document. The Working Group therefore recommends that the Commission adopt 'Draft Best Practice Guidance for the Development of *Gyrodactylus salaris* Contingency Plans', GSWG(26)15, (Annex 8) as Best Practice Guidance for the Development of Contingency Plans.

5. Progress in Relation to the Measures Contained in the Commission's Road Map on *G. salaris*

5.1 The Acting Chair noted that reports on progress in relation to the measures contained in the Road Map had been submitted by:

- UK-Northern Ireland, GSWG(26)04 (Annex 9);
- EU-Finland, GSWG(26)05 (Annex 10);
- EU-Ireland, GSWG(26)06 (Annex 11);
- UK-Scotland, GSWG(26)07 (Annex 12); and

- Norway, GSWG(26)08 (Annex 13).

5.2 The Acting Chair referred the Working Group to the 'Update from the Secretariat on the Implementation of the Road Map', GSWG(26)03 (Annex 14), which provided an update on those recommendations in the Road Map directed towards the Commission or the Secretariat.

5.3 The Working Group received a presentation from EU-Sweden on a new detection of the parasite in Sweden, GSWG(26)16 (Annex 15).

5.4 The Working Group received a presentation from UK-England and Wales on a non-lethal sampling method for detecting *G. salaris*, GSWG(26)17 (Annex 16).

5.5 The Working Group considered the reports submitted in relation to the measures contained within the Road Map and noted that, in general, good progress has been made by all jurisdictions present in relation to the Actions included in the Road Map. The Working Group wished to highlight the following:

- The Working Group noted that reviewing progress in implementing the Road Map as requested under Recommendation 2.b) would be greatly simplified by the use of a standard reporting template. The Working Group felt that this template should be developed following the Commission's consideration of the proposed changes to the Road Map under item 6. The Working Group noted that such a template may also help members of the Commission in preparing their annual reports to the Commission and should be made available as an option to Commission members for this purpose. The Working Group recommends that this template be developed by the Sub-Group referred to in paragraph 5.6 of this report, or in consultation between the Chair of the Working Group and Secretariat if the Sub-Group is not convened;

- In relation to Recommendation 3, the Working Group noted the work being undertaken on eDNA sampling across various jurisdictions and the non-lethal sampling method developed in UK-England and Wales (see paragraph 5.4). The Working Group noted that the Sub-Group referred to in paragraph 5.6 below could consider whether recommendations on monitoring methods should be made;

- The Working Group noted that, in accordance with Recommendation 4.b) of the Road Map, the Secretariat had contacted those members / jurisdictions of the Commission with wild Atlantic salmon that had not recently participated in the work of the Group to seek information on progress in relation to the measures contained in the Road Map. No information had been provided at the time of the meeting. The Working Group expressed concern that the situation in these areas was unknown and encouraged all members of the North-East Atlantic Commission with wild Atlantic salmon stocks to participate in, and contribute to, future meetings of the Working Group; and

- In relation to Recommendation 5 of the Road Map, the Working Group noted that limited resources often make it difficult to conduct such research.

5.6 In relation to Recommendation 7 of the Road Map, the Working Group recommends that an *ad Hoc* Sub-Group of the Working Group should be convened to produce generic publicity materials, based on those already available within the members of the Group. This Sub-Group could also develop the reporting templates referred to in the first bullet of paragraph 5.5 above and whether recommendations should be made in relation to Recommendation 3 of the Road Map.

5.7 The Working Group recommends that the next meeting of the Working Group on *Gyrodactylus salaris* be held after the 2028 NASCO Annual Meeting, reporting to the 2029 NASCO Annual Meeting.

6. Review of, and Recommendations for Updates to, the Road Map

6.1 The Acting Chair noted that the Group had been asked to '*review and update the Commission's revised Road Map to ensure action-oriented content such that it better reflects the seriousness of infection by the parasite*' and referred to Recommendation 27 of the 2023 'Report of the Third NASCO Performance Review', CNL(23)17rev. This recommendation stated that:

> *'The Panel recommends that NASCO should consider the following actions to prevent the spread of* G. salaris *and its eradication:*
>
> *a) Replace the title of the Road Map with wording that better reflects the seriousness and urgency of the situation (e.g. Action Plan) and its action-oriented content (e.g. measures to be taken instead of merely cooperation in that regard);*
>
> *b) Integrate all the recommendations made by the GSWG at its 2022 meeting; and*
>
> *c) Revise the terms of reference of the GSWG to give it a more action-oriented mandate, including making specific recommendations for measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced, rather than merely developing recommendations to enhance cooperation in that regard.'*

6.2 The Acting Chair stated that the Commission had already adopted all of the recommendations made during the 2022 Meeting of the Working Group and that the ToRs for this meeting had been revised in light of bullet c). He noted that the task before the Working Group under this item was to review the Road Map in accordance with these ToRs, taking bullet a) of Recommendation 27 of the Performance Review into account, and to propose any updates the Working Group recommends to the Commission for consideration at its Annual Meeting in June 2026.

6.3 The Working Group's recommended updates to the Road Map are contained in 'Proposed Amendments to the 'Revised Road Map to Enhance Information Exchange and Co-operation on Monitoring, Research and Measures to Prevent the Spread of *G. salaris* and Eradicate it if Introduced', NEA(23)14', GSWG(26)18 (Annex 17).

7. Recommendations for Enhanced Measures to Prevent the Further Spread of the Parasite and for its Eradication in Areas where it has been Introduced

7.1 The Acting Chair noted that the Working Group's ToRs tasked the Group with developing recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced.

7.2 The Acting Chair gave a presentation on the latest treatment methods against *G. salaris* in Norway GSWG(26)19 (Annex 18).

7.3 Jarle Steinkjer (Norwegian Environment Agency) gave a presentation on the eradication work undertaken to-date in Norway, GSWG(26)20 (Annex 19). The Working Group recognised that eradication programmes involve extremely high costs

(both financial and socio-economic) and noted that preventing the spread of the parasite is key.

7.4 The representative of the NGOs asked about potential spread of the parasite through water transported by tanker from an infected area to a non-infected area. The Working Group noted that this was unlikely to be a concern for *G. salaris* as the parasite will only live for two-to-three days without a host, however it could be a concern for other pathogens and invasive non-native species and should be considered in drought management planning.

7.5 The Working Group expressed concern at the potential implications of the EU Biocides Regulation 528/2012 for the use of rotenone in eradication programmes. The Working Group recommends that relevant Parties and jurisdictions consult with the European Commission to ensure that the use of rotenone meets the exemptions in the Regulation.

7.6 The Working Group considered the information presented under this item and its recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced are included in the 'Draft Best Practice Guidance for the Development of *Gyrodactylus salaris* Contingency Plans', GSWG(26)15, Annex 8.

8. Other Business

8.1 The Working Group discussed a standard list of scientific references related to *G. salaris*. The Working Group recommends that such a list is compiled by the Sub-Group referred to in paragraph 5.6 above and is made available on the NASCO website.

8.2 The Working Group discussed proficiency testing for gyrodactylids and recommended that the NASCO Secretariat be asked to contact the World Organisation for Animal Health (WOAH) to see if this can be made available to members of the Working Group.

9. Report of the Meeting

9.1 The Working Group agreed a report of its meeting.

10. Close of the Meeting

10.1 The Acting Chair thanked the participants for their contributions and closed the meeting.

Annex 1

List of Participants – G *salaris* Working Group Meeting March 2026

Chiara Bosco, CEFAS

Hampus Hällbom (Virtual Participant), National Veterinary Institute, Sweden

Laura Härkönen, Natural Resources Institute Finland (Luke)

Petri Heinimaa (Virtual Participant), Natural Resources Institute Finland (Luke)

Kristján Freyr Helgason, Ministry of Industries Iceland

Solveig Strand Johnsen, Norwegian Food Safety Authority

Hanna Kuukka-Anttila, Finnish Food Authority

Sarah McLean, Loughs Agency

Asle Moen (Acting Chair), Norwegian Veterinary Institute

Neil Purvis, Marine Scotland (Science) Scottish Government

Mark Owen, European Anglers Alliance

Jarle Steinkjer, Norwegian Environment Agency

Jessica Witt, CEFAS

Clare Cavers, Assistant Secretary, NASCO

Louise Forero, Information and Publications Officer, NASCO

Annex 2

GSWG(26)09

Meeting of the Working Group on Gyrodactylus salaris *in the North-East Atlantic Commission Area*

NASCO Headquarters, Rutland Square, Edinburgh, Scotland

10 - 12 March 2026

Agenda

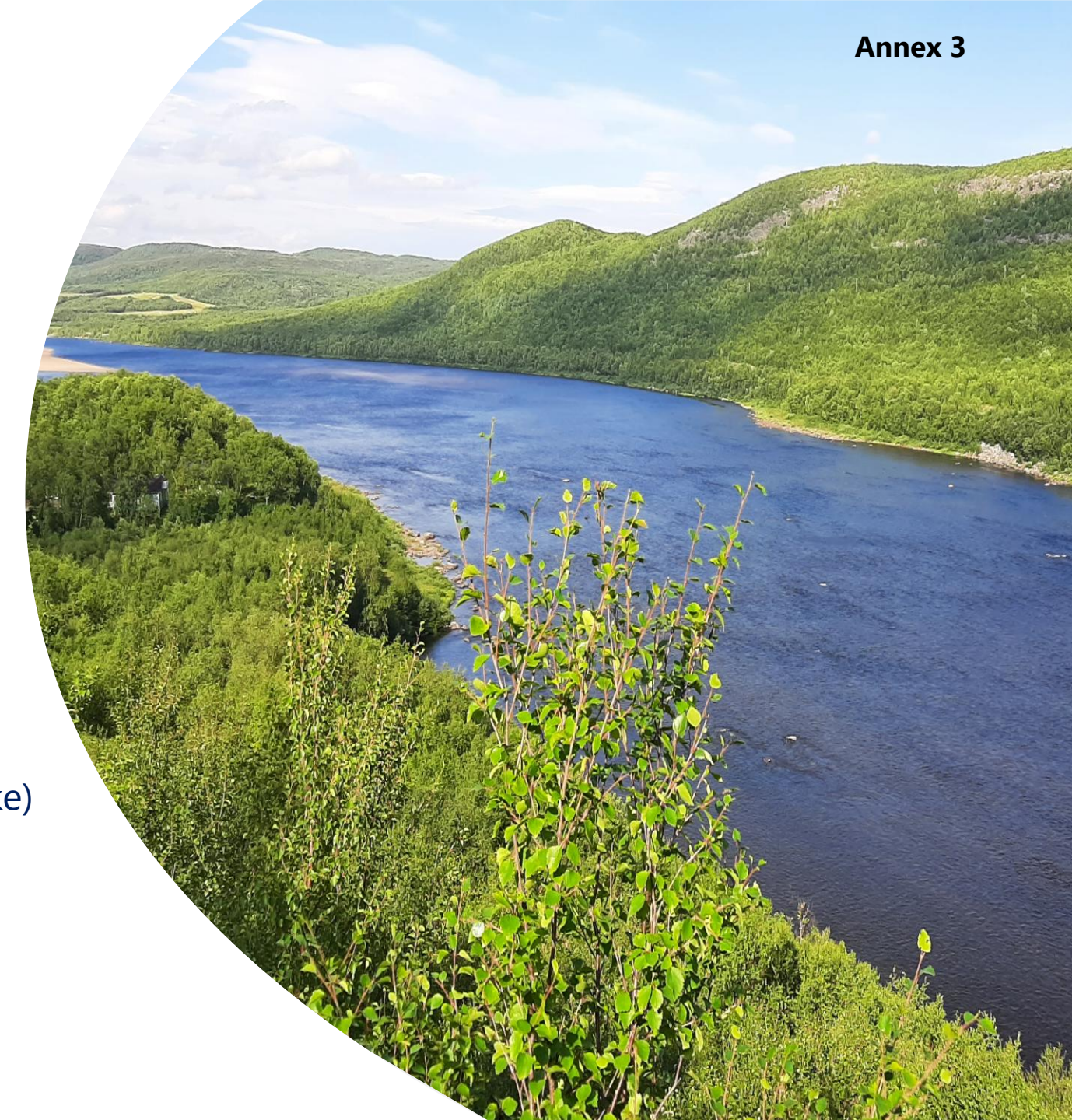
1. Opening of the Meeting
2. Adoption of the Agenda
3. Consideration of the Terms of Reference
4. Presentation and Review of Contingency Plans
5. Progress in Relation to the Measures Contained in the Commission's Road Map on *G. salaris*
6. Review and Recommendations for Updates to the Road Map
7. Recommendations for Enhanced Measures to Prevent the Further Spread of the Parasite and for its Eradication in Areas where it has been Introduced
8. Other Business
9. Report of the Meeting
10. Close of the Meeting

GSWG(26)10

Gyrodactylus salaris contingency planning in Finland

Laura Härkönen, Natural Resources Institute (Luke)

Hanna Kuukka-Anttila, Finnish Food Authority



Contingency planning is in progress

FINNISH FOOD AUTHORITY
Ruokavirasto • Livsmedelsverket

The Finnish Food Authority is a central authority responsible of animal health in Finland operating under the Ministry of Agriculture and Forestry. The agency is responsible for both the implementation of legislation concerning animal diseases and the operation of the reference laboratory.

Luke

The Natural Resources Institute Finland (Luke) is a research organisation operating under the Ministry of Agriculture and Forestry of Finland. Luke received project funding from the EU Interreg Aurora Fund and The Regional Council of Lapland and is preparing a contingency plan for use by the Finnish Food Authority as part of the project.

Luke

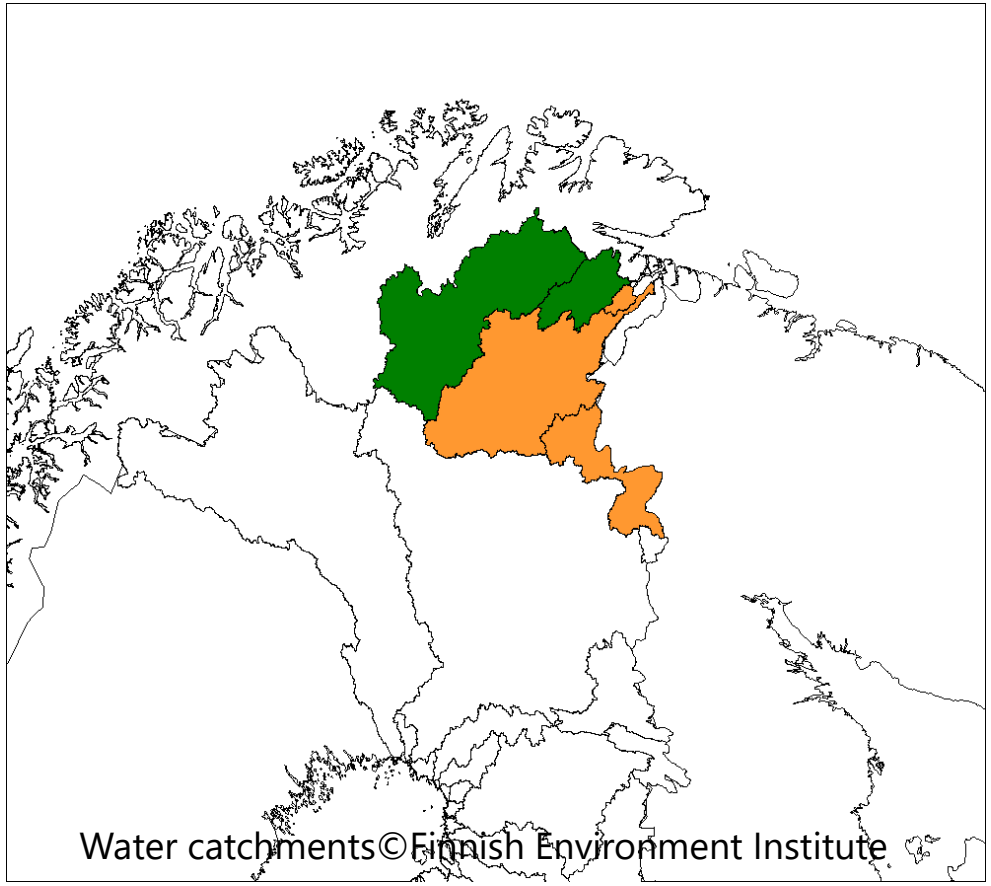
Interreg
Co-funded by the European Union
Aurora
Our Precious Transboundary Waters

GS in Finland

- In Finland, waters in the Upper Lapland run north and drain to Barents Sea - waters elsewhere in Finland run south and drain to Baltic Sea
- Upper Lapland rivers have remained free of GS but are at risk
- In other parts of Finland GS is more or less endemic.
- But, GS does not cause significant harm to Baltic salmon

Free zone and buffer zone

- GS free area consists of two water catchments both shared with Norway
  - Teno/Tana (255 km, 16 386 km2)
  - Näätämö/Neiden (100 km, 2 962 km2)
- Paats River, Uutua River and Tuuloma River catchments form a buffer zone.
  - There's no salmon in the buffer zones on Finnish side
- In addition to salmon, several potential host species are present
  - brown trout (migratory and resident), Arctic char, grayling, invasive pink salmon?

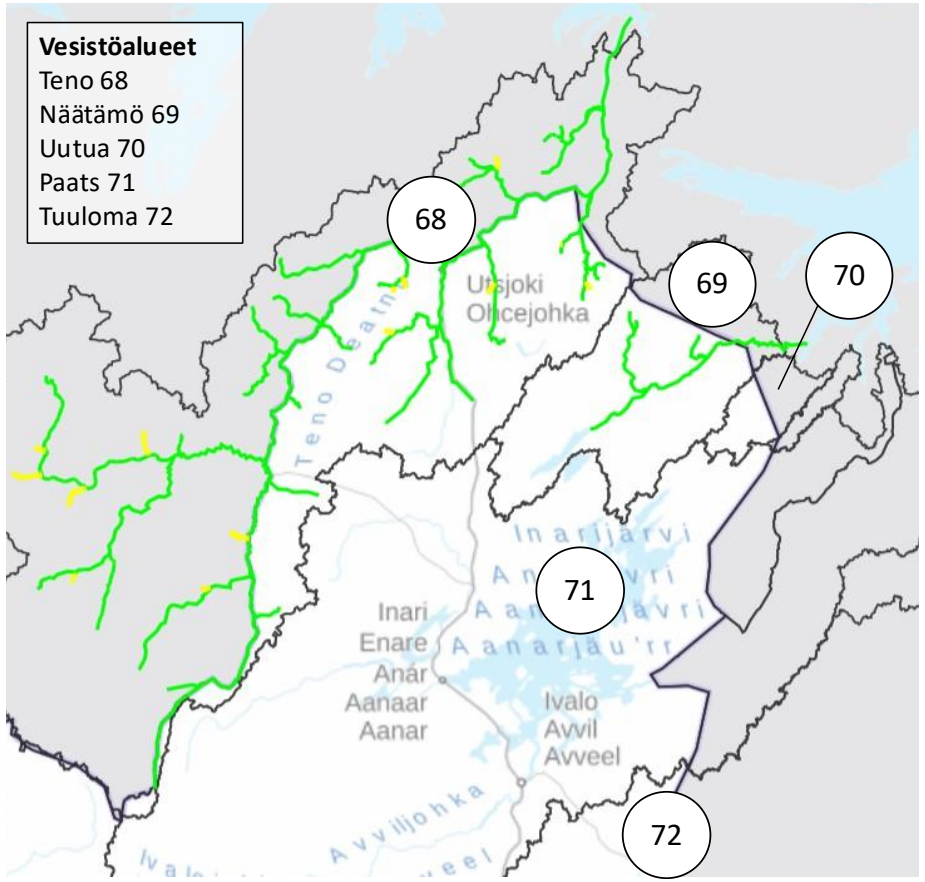


Water catchments©Finnish Environment Institute

Protecting Atlantic salmon in Upper Lapland

A unique and sensitive salmon region

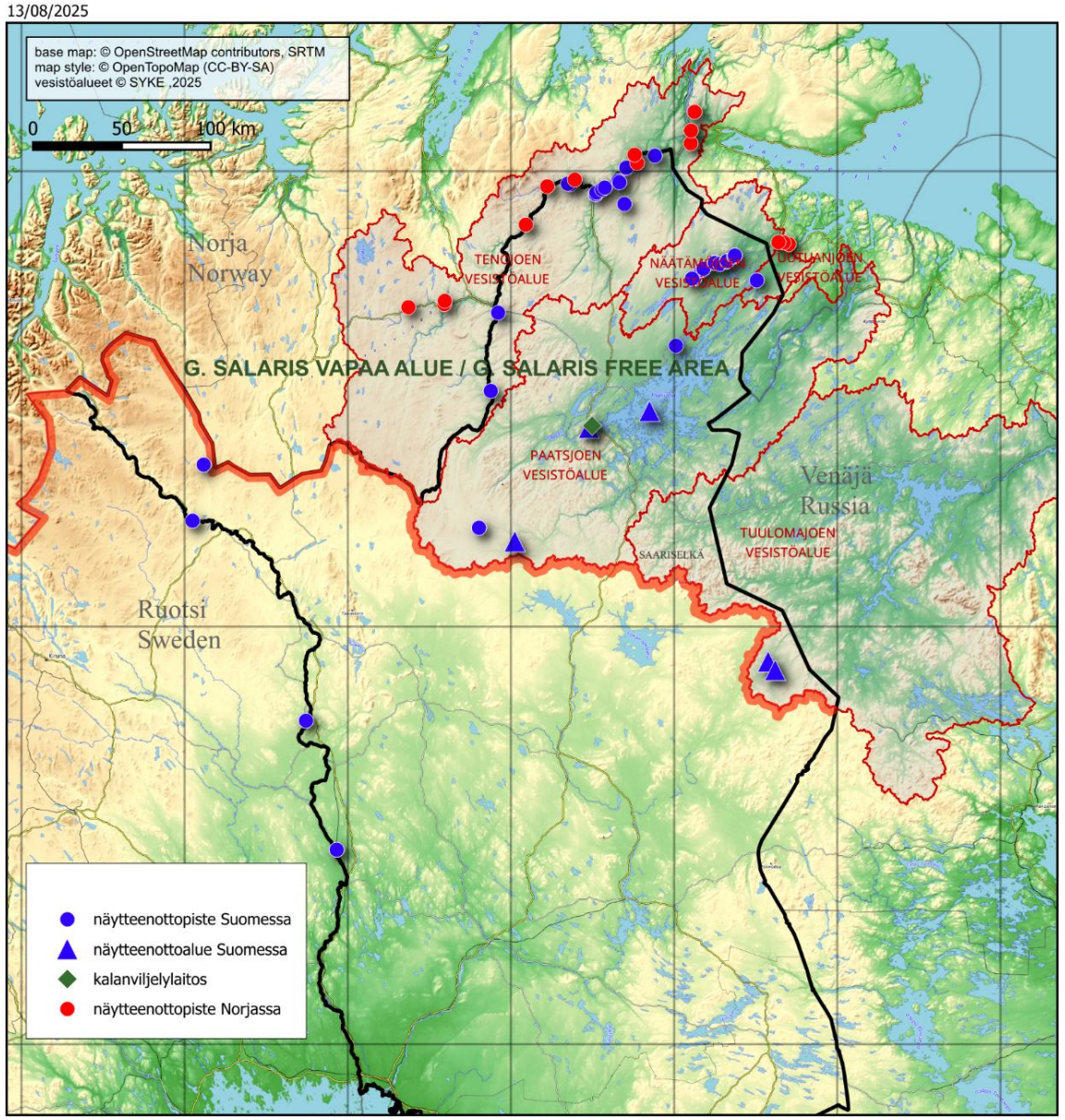
- Tana and Neiden are salmon rivers of significant importance on a European scale
- One of Europe's most genetically diverse Atlantic salmon areas
  - approx. 30 distinct salmon populations in the Teno system
- 2/4 of the remaining free-flowing salmon rivers in Finland
- Salmon stocks have declined markedly in the 2020s



Water catchments©Finnish Environment Institute
Salmon distribution data©Natural Resources Institute Finland
Base map©National Land Survey of Finland

Monitoring program

- Long-term surveillance (since 1993) in Tana and Neiden, supported by buffer zone and River Tornionjoki monitoring
  - Annual electrofishing of wild juvenile Atlantic salmon; additional sampling of grayling and farmed Arctic charr in buffer areas
  - PCR-based confirmation; no confirmed infections in Upper Lapland
- Declining salmon abundance and large catchment areas require risk-based optimisation of sampling sites
- Development focus: faster diagnostics and expansion of non-lethal methods, especially environmental DNA (eDNA), to improve early detection and spatial coverage



Contingency plan for *Gyrodactylus salaris* in Finland

Long-term prevention foundation

- Protection measures in place since the mid-1980s
  - Ban to transport live fish, non-disinfected eggs or bait fish to the protected area
  - Mandatory drying/disinfection of fishing equipment, boats, canoes, etc. when transferring them to protected area
  - Regular communication to increase the awareness
  - Only one state-owned fish farm in the buffer zone farming endangered northern species.
  - Small-scale farms shut down years ago
- Preliminary assessment for a national contingency plan (Evira, 2013)

- **Current contingency approach**
  - Establish a structured national contingency framework
  - A clear, scenario-based structure from initial suspicion to confirmed widespread infection
  - Pre-defined actions linked to each stage
  - Strengthen cross-border preparedness and rapid response
  - Close coordination between authorities, research institutions and Norway

Luke

Regional context and special considerations

Transboundary waters

- The Tana and Neiden river systems are shared between Finland and Norway, requiring close bilateral coordination.
- Contingency planning should be aligned across borders to ensure consistent surveillance, information exchange and response measures in the event of a detection.
- Effective cooperation is essential for rapid decision-making and for preventing cross-border spread of *Gyrodactylus salaris*.
- Lot's of experience in Norway

Sámi participation and rights

- Region in consideration is located within the Sámi homeland area. Salmon fisheries are culturally and socially significant.
- The contingency planning process must respect Sámi cultural rights and traditional livelihoods, as protected under the Finnish Constitution.
- Obligation to ensure early consultation and meaningful participation of the Sámi Parliament and local Sámi communities.

Luke

Content of the *Gyrodactylus salaris* contingency plan

1. **Background**
   - Biology and impact of *G. salaris*
   - Salmon stocks in Upper Lapland
   - Roles and responsibilities of different stakeholders
   - Relevant legislation
2. **Monitoring and early detection**
   - Enhancing risk-based monitoring and diagnostic procedures (eDNA)
3. **Scenario-based approach to possible infections**
   - Spatial and temporal dimensions (early/late detected; widespread/limited infection)
   - Cross-border dimension
4. **Response framework**
   - From eDNA suspicion to confirmed wide-spread infection
   - Organisations, roles and decision-making chain
   - Notification and communication procedures
5. **Control and eradication measures**
   - Restrictions on fishing, equipment transfers etc.
   - Control of fish movements (barriers, stock management)
   - **Eradication**
   - Prerequisites, resources and responsibilities for each
6. **Support and recovery measures, *e.g.***
   - By-product management
   - Laboratory capacity
   - Broodstock protection and gene banking
   - Post-eradication monitoring and stock recovery planning
   - Financing options, compensations?

Luke

3. Scenarios

Scenario and probability assessment	Example situation	Source of information	Measures
1. Potential exposure event Probability: moderate	Exposure event (e.g. illegal actions), no biological evidence	Notification, observation	Risk assessment, targeted sampling, communication
2. Strong suspicion Probability possible	Collapse of juvenile production, positive eDNA detection	Monitoring programme, eDNA, notifications	Intensified monitoring, area-specific restrictions, preparatory response actions, communication
3. Confirmed infection in a limited area (Finland) Probability possible	Laboratory-confirmed Gyrodactylus salaris finding in a sample (e.g. juvenile fish)	Laboratory-confirmed sample	Targeted eradication measures and restrictions, communication
4. Confirmed infection in multiple limited areas (Finland) Probability low, severe risks	Multiple positive samples, not in the main stem	Laboratory-confirmed samples, follow-up monitoring	Expanded eradication measures and restrictions, communication
5. Confirmed infection in the main stem (Finland + Norway) Probability low, extremely severe risks	Positive detection in the main stem	Laboratory-confirmed sample, follow-up monitoring	Comprehensive eradication and restoration planning, international cooperation, communication
6. Widespread infection (Finland + Norway) Probability low, extremely severe risks	Infection confirmed widely, impacts multiple local stocks	Multiple confirmed sources	Comprehensive eradication and recovery programme, international cooperation, communication

Luke

Questions

- Is eradication a demand in the legislation in other countries?
- Which authority is responsible of the eradication in wild fish? Who gives the order? Who pays?
- The actual sensitivity of Tana and Neiden stocks is not known, but assumed to be high.
- Differences in resistence in a population?
- What are the actual options if GS spreads in Finnish Lapland

- By-product classification for Rotenon-killed fish?

Loughs Agency
Gníomhaireacht na Lochanna
Factrie fur Loughs

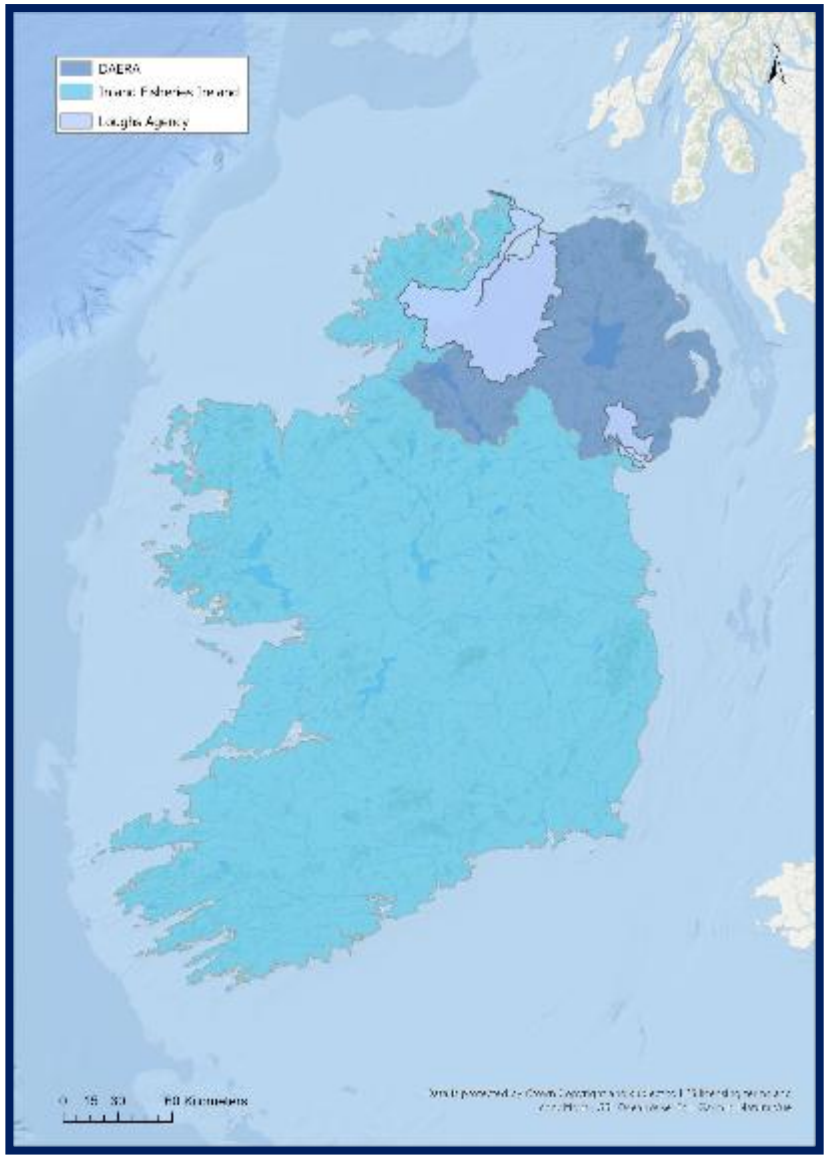
NASCO *G.salaris* Working Group 2026 Ireland

Foras na Mara
Marine Institute

Iascach Intíre Éireann
Inland Fisheries Ireland

Salmon Management Areas Island of Ireland

- **Inland Fisheries Ireland**, Department of Climate, Energy and the Environment
- **Inland Fisheries Department of Agriculture, Environment and Rural Affairs Northern Ireland**
- **Loughs Agency** – Foyle and Carlingford catchments (Joint Sponsor Depts)



Loughs Agency
Gníomhaireacht na Lochanna
Factrie fur Loughs

Current *G.salaris* status

- *Gyrodactylus salaris* is listed as a notifiable disease in Ireland
- *G. salaris* has not been recorded on the island of Ireland to date
- Marine Institute responsible for taking action to;
  - Prevent
  - Control
  - Eradicate
- If suspected or confirmed on island of Ireland MI will liaise with DAERA also – "All Island approach"
- All actions listed in detailed Contingency Plan "**Fish Disease Operations Manual for Ireland; Operations Manual for Dealing with Outbreaks of *Gyrodactylus salaris* in Ireland**".
- Plan produced in 2017 – plans to update in 2026.

Loughs Agency
Gníomhaireacht na Lochanna
Factrie fur Loughs

Foras na Mara
Marine Institute

"Fish Disease Operations Manual for Ireland; Operations Manual for Dealing with Outbreaks of *Gyrodactylus salaris* in Ireland".

Operational responsibilities and actions to be taken in the event of a suspected outbreak.

- The convening of the National Disease Strategy Group (NDSG)
- The establishment of a National Control Centre (NCC)
- A communications strategy.
- Detailed actions to be implemented on suspicion or confirmation of an outbreak.
- Sampling, testing and fish disposal protocols.
- Containment, eradication and treatment options.

Loughs Agency
Gníomhaireacht na Lochanna
Factrie fur Loughs

Policy Objective

1. Maintain Ireland's high fish health status

2. Obtain and Maintain disease-free status for listed aquatic diseases, including GS, in accordance with Regulation (EU) 2016/429 and its delegated and implementing acts.

- Achieved via (*summarised*);

    - Identification of zone or compartment where GS is suspected or confirmed
    - Imposition of control measures in that area, including the placing of movement restrictions
    - Containment and, if necessary, withdrawal of all stock from infected areas
    - Major publicity drive to prevent further spread

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Foras na Mara
Marine Institute

Administrative Framework

- Policy responsibility for control, containment and eradication Marine Institute
- Operational responsibilities Fish Health Unit MI
- **Implementing contingency plans** carried out by National Disease Strategy Group (NDSG)
- NDSG will be multi-disciplinary and made up of representatives from multiple bodies
- NDSG will establish a National Control Centre (NCC) to **co-ordinate control and eradication** measures
- Both NDSG and NCC cross-border make up

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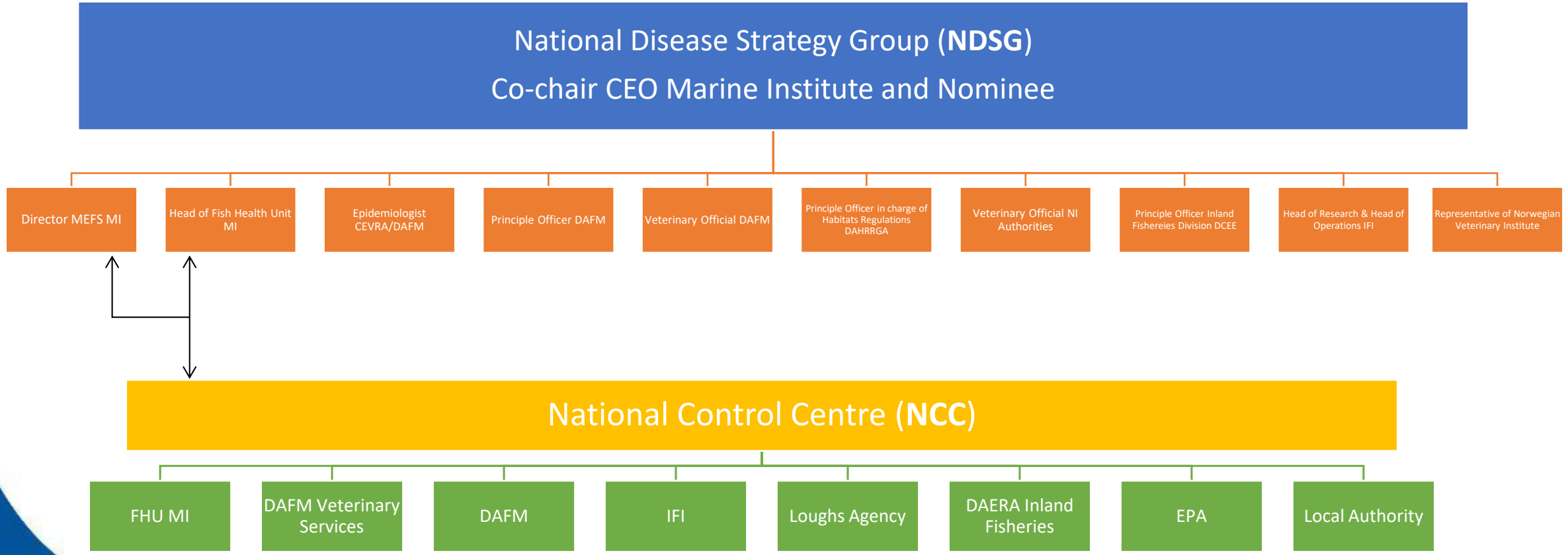
Administrative Framework



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Action in the event: SUSPICION or CONFIRMATION

INITIAL SUSPICION (LEVEL 1)

Some evidence to suggest might be present of may become present

- Observations of clinical signs or mortalities
- Discovery of illegal importation of susceptible/vector fish – pathway
- Significant reduction in stocks or notable changes in behaviours
- Claims by external scientist to have identified GS in Ireland

ACTION

- MI issue initial restriction notice
- MI initiate epizootic investigation

CONFIRMATION (LEVEL 2)

Evidence sufficient to declare premise/water body infected

- Positive laboratory identification one or more fish samples
- And subsequent corroboration by reference laboratory

ACTION

- NDSG convened
- Contingency Plan activated
- NCC established
- Multi level decision making on actions to be taken to control and eradicate

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Current Monitoring and Research

- Currently no ongoing or planned specific *G.salaris* research in Ireland

- IFI conduct an annual monitoring programme
    - Monitoring 2005-2025 ongoing
    - 59 sites each sampled at least once (2005-2025)
    - Representative of multiple catchments
    - In conjunction with catchment-wide electrofishing programme
    - Analysis by FHU MI

- MI responsible for investigating unexplained, abnormal or significant fish mortalities - testing for GS

Catchment	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Avoca (Aughrim)										X											
Ballynahinch																X					
Bandon																					X
Barrow (Greese)					X																
Barrow (Poulmounty)			X							X											
Boyne trib.									X												
Bride						X									X				X		
Bunowen															X						
Corrib (Abbert)						X		X													
Corrib (Cong)														X							
Corrib (Owenriff)														X			X				
Cloonee															X						
Colligan															X						
Crana																		X			
Dawros																	X				
Dunkellin						X										X			X		
Eanymore						X															
Emlagh							X														
Erne										X											
Erne (Aughnacliffe)				X																	
Erne (Bunnoe)			X																		
Erne (Burrin)			X																		
Erne (Swanlinbar)			X																		
Erriff						X	X						X	X	X	X	X	X			
Feale					X				X												X
Garavogue						X														X	
Glen							x														
Inny																		X		X	
Laune										X			X								
Leannan							X				X			X		X	X	X			
Lee		X																			
Liffey																	X				
Maine											X		X								X
Moy								X													
Mulkear (Bilboa)					X																
Munster Blackwater										X	X	X	X	X					X *		
Munster Blackwater (Araglin)								X													
Munster Blackwater (Finnow)								X				X									
Munster Blackwater (Owentaraglin)																		X			
Newport (Mayo)																			X		
Nore																	X			X	
Owenascaul																X					
Owennacurra																X					X
Owenboliska						X															
Owenea														X				X			
Owentocker																		X			
Owenwee							X														

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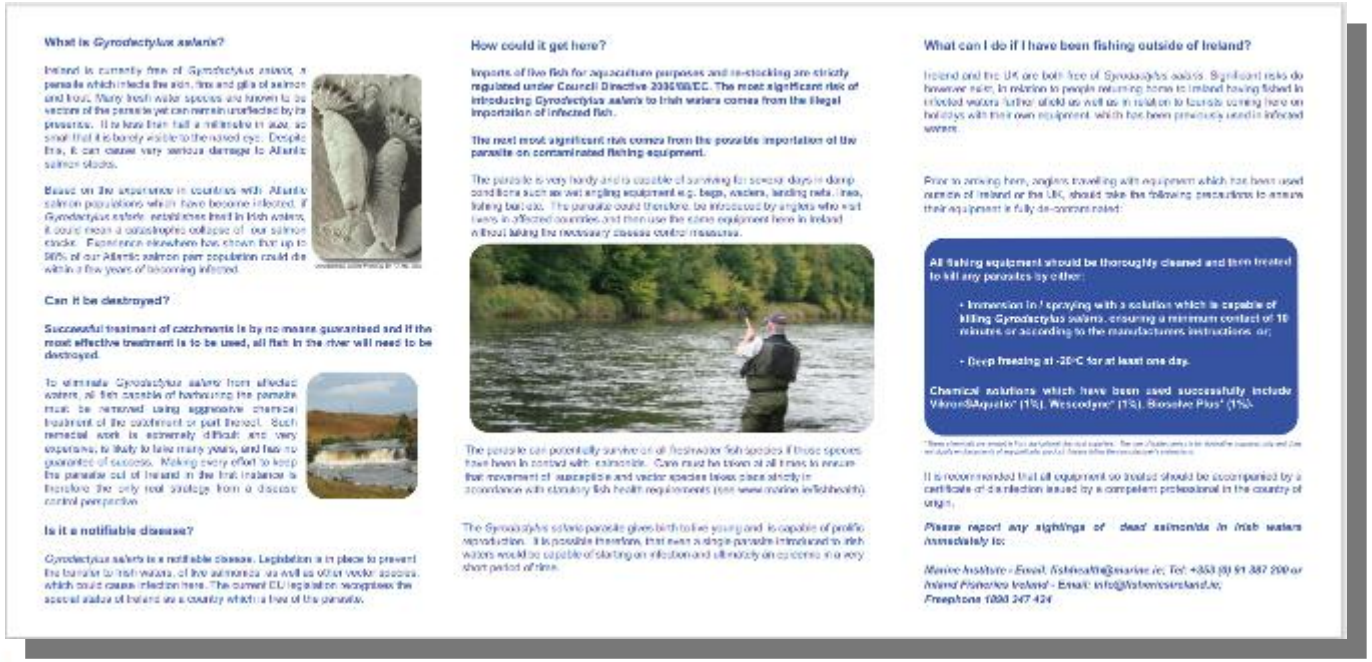
Iascach Intíre Éireann
Inland Fisheries Ireland

Awareness Literature

- IFI and Marine Institute co-produced awareness literature
- Widely circulated
- Available on respective websites
- Detailed information on biosecurity measures



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Factrie fur Loughs

Annex 5

10 March 2026

Kristján Freyr Helgason

GSWG(26)12

G. Salaris and Iceland

Government of Iceland
Ministry of Industries

Act No. 25/1993

The main legislation on animal diseases in Iceland is Act No. 25/1993, which aims to prevent and eradicate infectious diseases in animals. It gives the Icelandic Food and Veterinary Authority (MAST) the authority to restrict animal keeping, prohibit the transport of animals/products and apply measures such as culling and disinfection to protect animal health.

Main points of the Act on Animal Diseases and Prevention (No. 25/1993):

Objective: To prevent, control and eradicate infectious diseases in animals.

Measures against diseases:

The Icelandic Food and Veterinary Authority may prohibit or restrict the keeping of animals in certain areas if there is a risk of travel.

Transport restrictions:

The Chief Veterinary Officer is authorised to restrict or prohibit the transport of animals, products and equipment that could carry infection.

Infection control:

It is mandatory to destroy vectors, disinfect equipment and apply culling if necessary

Regulation (52/2014) on the notification and registration of animal diseases

(Act 25/1993)

Notifiable diseases.
Article 1
If an investigation reveals or a veterinarian suspects that a notifiable disease or an infectious disease previously unknown in this country is involved, the veterinarian shall immediately notify the Icelandic Food and Veterinary Authority. The precautions necessary if a notifiable infectious disease is suspected or if it is detected again shall be governed by the provisions of Act No. 25/1993 on animal diseases and their prevention.

Contingency Plan for Serious Animal Diseases

June 2021

The response plan is for terrestrial and aquatic animals, but the main focus of the plan is on aquaculture, and we may need to adapt the plan to a disease in wild fish.

In the plan, a response team for animal diseases is specified. The leader of the team is the specialized veterinary officer for the relevant animal species. When MAST receives a notification of a serious animal disease, the captain team calls a meeting. The team decides whether the contingency plan should be activated.

Provisions on animal diseases and protection against them can be found in Act no. 25/1993.

More detailed provisions on response to infectious diseases can be found in regulation 665/2001 on response to infectious diseases. The regulation applies to notifiable diseases defined in Annex 1 A and B of *Act No. 25/1993 on animal diseases and their prevention and new, previously unknown infectious diseases in Iceland*

Serious notifiable diseases.

B413	EHN-veiki	Epizootic haematopoietic necrosis - *Iridoviridae*
B415	Herpesveiki/ OMV-veiki	*Herpesvirus salmonis/H. scophthalmi Oncorhynchus masou* virus disease
B405	IHN-veiki	Infectious haematopoietic necrosis - *Rhabdoviridae*
I701	IPN-veiki	Infectious pancreas necrosis - *Birnaviridae*
I702	ISA-veiki	Infectious salmon anemia - *Orthomyxoviridae*
I703	Roðflyðrusýki	Gyrodactylosis - *Gyrodactylus salaris*
B404	SVC-veiki	Spring viraemia of carp - *Rhabdoviridae*
B401	VHS-veiki	Viral haemorrhagic septicaemia - *Rhabdoviridae*
I704	VNN-veiki	Viral nervous necrosis - *Nodaviridae*

Other notifiable diseases.

I705	Blóðfrumuveirusótt	Erythrocitic inclusion body syndrome (EIBS) - *Togaviridae*
I706	Hindberjaveiki	Proliferative kidney disease (PKD)
I707	Hitraveiki	Coldwater vibriosis - *Vibrio salmonicida*
I708	Hvirfilveiki	Whirling disease - *Myxobolus cerebralis*
I709	Kýlaveiki	Furunculosis - *Aeromonas salm.* spp. *salmonicida*
I710	Laxalús/Fiskilús	Salmon louse infection - *Lepeophtheirus salmonis*
		Marine louse infection - *Caligus elongatus*
I711	Nýrnaveiki	Bacterial kidney disease (BKD) - *Renibacterium salmoninarum*
I712	PD-veiki/Brisveiki	Pancreas disease (PD) - *Togaviridae*
I713	Piskirikketsíuveiki	Piscirickettsiosis - *Piscirickettsia salmonis*
I714	Rauðmunnaveiki	Enteric red mouth (ERM) - Yersiniosis - *Yersinia ruckeri*
I715	Spírónúkleusveiki	Systemic spironucleosis - *Spironucleus barkhanus*
I716	Sundmagasótt	Swimbladder nematode of eel - *Anguillicola crassus*

Notifiable diseases.

I718	Fiskaberklar	Mycobacteriosis - *Mycobacterium marinum*
I719	Kýlaveikibróðir	Ulcer disease - *Aeromonas salm.* spp. *achromogenes*
I720	Klamydíuveiki	Epitheliocystis - *Chlamydia* spp.
I721	Roðdrep í klaklaxi	Ulcerative dermatic necrosis (UDN)
I722	VEN-veiki	Viral erythrocytic necrosis - *Iridoviridae*
I723	Vetrarsár	Winter ulcers - *Moritella viscosa*
I724	Víbríuveiki	Vibriosis - *Vibrio anguillarum*
I725	Vörtuveiki	Papillomatosis - *Herpesviridae*

Fish Disease Control Act No. 60 of 2006

https://www.althingi.is/lagas/nuna/2006060.html

Article 1. Objective.

The objective of this Act is to protect aquatic life, aquatic fish and aquatic animals raised in farms on land or in the sea by combating diseases and parasites.

Article 2. Scope.

This Act applies to aquatic fish and the import of fish and eggs into Icelandic territory. In implementing this Act, consistency shall be ensured with the implementation of the Act on Salmon and Trout Fishing, the Act on Fish Farming and the Act on Aquaculture.

Fish Disease Control Act No. 60 of 2006

https://www.althingi.is/lagas/nuna/2006060.html

Article 8. Disinfection of fishing gear and fishing equipment.

Fishing gear, fishing equipment, boats and other comparable equipment that have been used abroad must be disinfected before they are permitted to be used for fishing in Icelandic fishing waters, provided that it is not accopnanied with a valid certificate, in the opinion of the Icelandic Food and Veterinary Authority, that the equipment has been disinfected before entering Iceland.

The Icelandic Food and Veterinary Authority may entrust the operators of fishing lodges with the implementation of measures pursuant to this article in accordance with rules set by the Authority, in addition to entrusting the customs authorities with the implementation of measures, as appropriate.

Fish Disease Control Act No. 60 of 2006

https://www.althingi.is/lagas/nuna/2006060.html

Article 10. Response to diseases and parasites in freshwater or fish farms.

If an infectious disease or parasite occurs in rivers and lakes or in a fish farm, the Food and Veterinary Authority is authorized, after consultation with the Fish Disease Committee and taking into account the Act on Animal Diseases and Prevention, to take necessary measures to prevent their spread. In implementing such measures, the relevant fishing association and fish farm operator shall also be consulted, as far as possible. In the case of measures to prevent diseases or parasites in sea cage farming, consultation shall be sought on the measures with the Marine Research Institute.

Fish Disease Control Act No. 60 of 2006

https://www.althingi.is/lagas/nuna/2006060.html

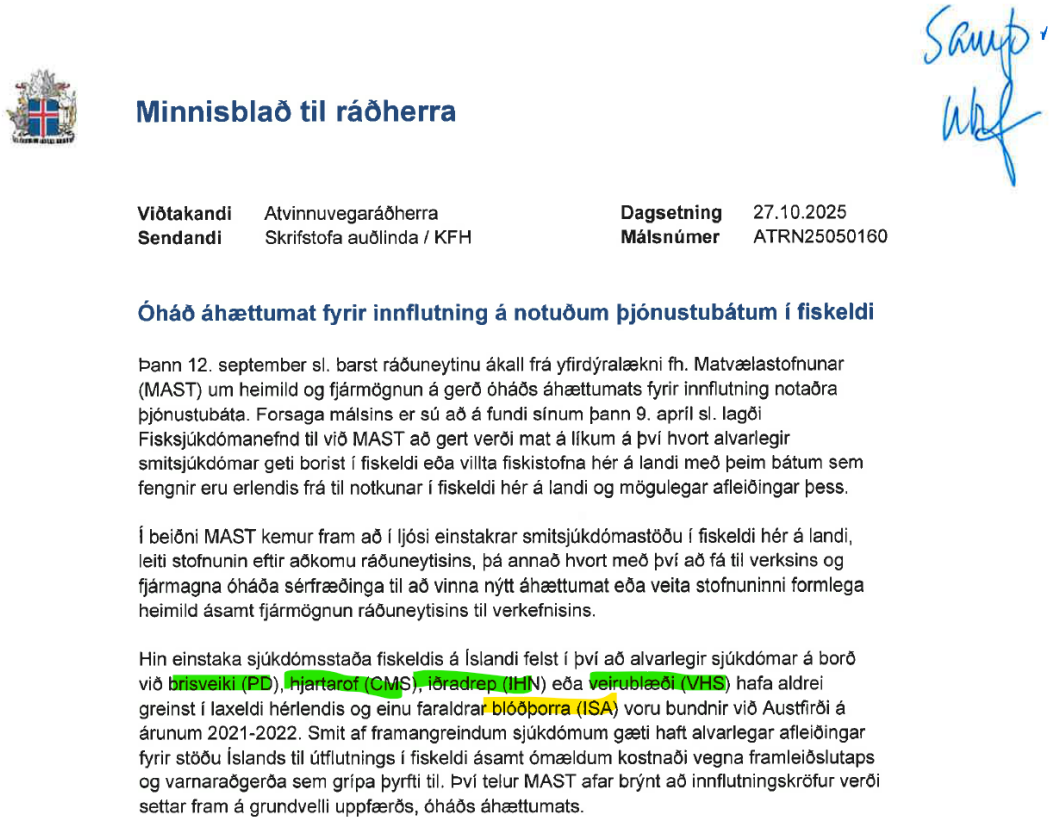
Article 11. Establishment of regulations.

The Minister shall, after consultation with the Food and Veterinary Authority, the Fish Disease Committee, MFRI and the Agricultural Genetics Committee, as appropriate, establish further provisions on the implementation of this Act in a regulation.

A regulation shall prescribe the conditions for the import of live fish, roe and gills, which shall, among other things, stipulate that a health certificate is available and that the Fish Disease Committee does not recommend against such import. Further provisions shall also be made for the disinfection of roe, containers and packaging of imported fish, as well as their treatment in other respects. **Furthermore, a regulation shall prescribe the implementation of the disinfection of fishing equipment**. Provision shall also be made for further conditions that the Food and Veterinary Authority may impose on the import of dead fish.

The regulation shall also prescribe health inspections in fish farms, the taking of samples, quarantine measures and the costs of necessary measures and other matters that may be deemed necessary to achieve the objectives of this Act of ensuring the health of aquatic fish. The Minister shall, after consultation with the Icelandic Food and Veterinary Authority, issue a regulation prescribing measures regarding parasites in fish farming, such as the obligation of operators to count sea lice and certain thresholds for responses and measures regarding the spread of sea lice.

Independent risk assessment for the import of used utility boats / well boats



Minnisblað til ráðherra

Viðtakandi	Atvinnuvegaráðherra	**Dagsetning**	27.10.2025
Sendandi	Skrifstofa auðlinda / KFH	**Málsnúmer**	ATRN25050160

Óháð áhættumat fyrir innflutning á notuðum þjónustubátum í fiskeldi

Þann 12. september sl. barst ráðuneytinu ákall frá yfirdýralækni fh. Matvælastofnunar (MAST) um heimild og fjármögnun á gerð óháðs áhættumats fyrir innflutning notaðra þjónustubáta. Forsaga málsins er sú að á fundi sínum þann 9. apríl sl. lagði Fisksjúkdómanefnd til við MAST að gert verði mat á líkum á því hvort alvarlegir smitsjúkdómar geti borist í fiskeldi eða villta fiskistofna hér á landi með þeim bátum sem fengnir eru erlendis frá til notkunar í fiskeldi hér á landi og mögulegar afleiðingar þess.

Í beiðni MAST kemur fram að í ljósi einstakrar smitsjúkdómastöðu í fiskeldi hér á landi, leiti stofnunin eftir aðkomu ráðuneytisins, þá annað hvort með því að fá til verksins og fjármagna óháða sérfræðinga til að vinna nýtt áhættumat eða veita stofnuninni formlega heimild ásamt fjármögnun ráðuneytisins til verkefnisins.

Hin einstaka sjúkdómsstaða fiskeldis á Íslandi felst í því að alvarlegir sjúkdómar á borð við brisveiki (PD), hjartarof (CMS), íðradrep (IHN) eða veirublæði (VHS) hafa aldrei greinst í laxeldi hérlendis og einu faraldrar blóðþorra (ISA) voru bundnir við Austfirði á árunum 2021-2022. Smit af framangreindum sjúkdómum gæti haft alvarlegar afleiðingar fyrir stöðu Íslands til útflutnings í fiskeldi ásamt ómældum kostnaði vegna framleiðslutaps og varnaraðgerða sem grípa þyrfti til. Því telur MAST afar brýnt að innflutningskröfur verði settar fram á grundvelli uppfærðs, óháðs áhættumats.

Certificate form

Icelandic Food and Veterinary Authority

VETERINARY CERTIFICATE

For importing sport fishing equipment to Iceland

Exporting country: _____

Responsible ministry: _____

Certifying department: _____

Name of consignee: _____

Address of consignee: _____

_____

Nature of the goods: _____

_____

Veterinary declaration:

I, the undersigned veterinary surgeon, certify that the above mentioned goods have been thoroughly cleaned and disinfected by

_____
(Name and concentration of the disinfectant)

_____
Place and date *(Issuing veterinary surgeon, name in capital letters)*

_____
Stamp: *(Issuing veterinary surgeon, signature)*

Mattilsynet

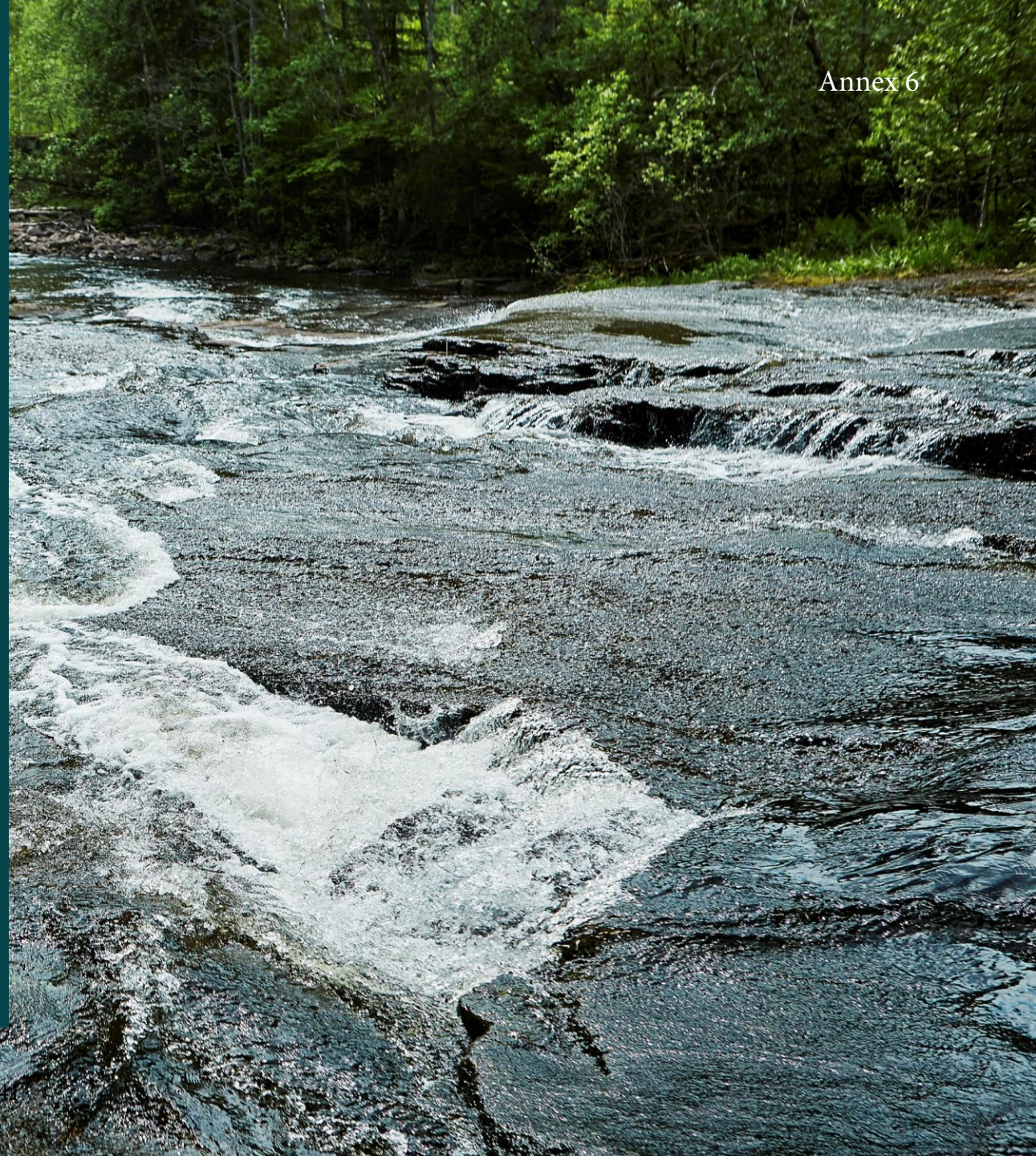
Annex 6

GSWG(26)13

The Norwegian Contingency Plan *Gyrodactylus salaris*

NASCO working group meeting, march 2026

Solveig Strand Johnsen
Veterinary / adviser
Mattilsynet / Norwegian Food Safety Authority, Head Office, Fish Health and Welfare



Legislation

- The Animal Health Regulation
- Animal Health Surveillance Regulation
- F-listed disease
- ESA approved eradication programme

Chapter II (§§ 6–7) and Chapter III (§§ 9–14) of the Animal Health Regulation:

§ 6: List of F-diseases – aquatic animals only

§ 7: Notification requirements for F-diseases

§ 9: Movement restrictions

§ 10: Restrictions on breeding and production

§ 11: Establishment of restriction zones

§ 12: Removal, slaughter, culling and destruction

§ 13: Fallowing

§ 14: Measures following detection in wild animals

Active restriction zone regulations:

- Forskrift om restriksjonssone for å forebygge, begrense og utrydde lakseparasittenGyrodactylus salarishos akvatiske dyr, Bærum, Asker, Lunner, Jevnaker, Drammen, Kongsberg, Ringerike, Hole, Lier, Øvre... – Lovdata
- Forskrift om restriksjonssone for å forebygge, begrense og utrydde lakseparasittenGyrodactylus salarishos akvatiske dyr, Sunndal, Oppdal, Tingvoll, Gjemnes, Hustadvika, Molde, Lesja og Dovre kommuner,... - Lovdata

Norwegian Food Safety Authority

- National surveillance and control programmes
- Implementing preventative and risk-reducing measures
- Develop local regulations, issuing orders of eradication and declaring a river system free of G. salaris
- Biosecurity measures during eradication treatments
- Handling and disposal of dead fish.
- Commissioning and utilising scientific research

Norwegian Environment Agency

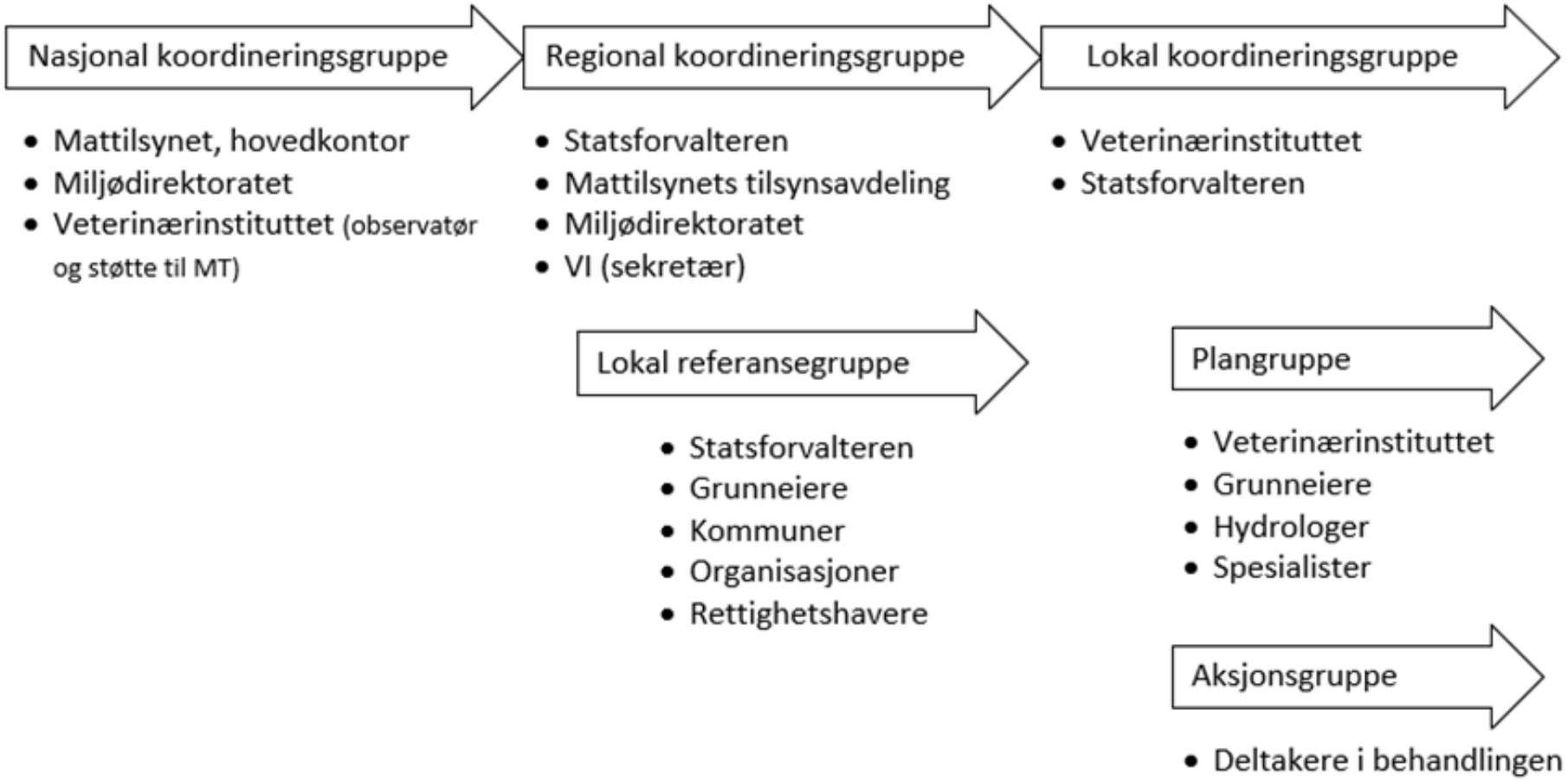
- Assess and develop eradication strategies
- National competance centre
- Prioritise which rivers or regions should be treated
- Carry out eradication measures
- Provide information of the effects of chemical treatment methods
- Evaluate and develop alternative eradication methods
- Support and conduct research related to eradication strategies
- Issue decisions and formal orders within their mandate

Norwegian Veterinary Institute

- Provides scientific advice and risk assessments to the NFSA
- National surveillance and control programmes
- National competence centre for the gene bank for wild atlantic salmon
- Map, plan and carry out eradication operation
- Establishes and leads a planning group which prepares a complete treatment plan
- Establishes an action group for implementing treatment

County governor

- The implementing authority responsible for activities carried out at regional level
- Establishing a regional coordination group and a reference group


Nasjonal koordineringsgruppe
Mattilsynet, hovedkontor
Miljødirektoratet
Veterinærinstituttet (observatør og støtte til MT)
Regional koordineringsgruppe
Statsforvalteren
Mattilsynets tilsynsavdeling
Miljødirektoratet
VI (sekretær)
Lokal koordineringsgruppe
Veterinærinstituttet
Statsforvalteren
Lokal referansegruppe
Statsforvalteren
Grunneiere
Kommuner
Organisasjoner
Rettighetshavere
Plangruppe
Veterinærinstituttet
Grunneiere
Hydrologer
Spesialister
Aksjonsgruppe
Deltakere i behandlingen

From detection to eradication

- Reasonable suspicion – «freeze», inspection, sampling, official notice, epidemiological investigations

- Diagnostic procedures follow the criteria set out in the World Organisation for Animal Health's diagnostic manual

- The relevant measures will primarily concern eliminating the parasite and minimizing further spread of infection and environmental contamination.

- Detection in a river system
- NSFA - Restriction zone, disease control measures, communication
- NEA – eradication strategy, treatment method, conservation and re-establishment
- County governor – regional project owner
- NVI – execute eradication treatment, leads scientific planning and operational teams

Post-treatment surveillance programme

- Aims to document the absence of the parasite in previously infested watercourses after the implementation of eradication measures
- Provides the basis for the Norwegian Food Safety Authority to declare the salmon populations free from infection
- Begins the year after the final treatment
- The Norwegian Veterinary Institute (NVI) coordinates the surveillance programme on behalf on the Norwegian Food Safety Authority (NFSA).
- The programme lasts for a minimum of 5 years (smolt age plus one year)
- If the smolt age is higher, the duration of the programme is extended accordingly.

Thank you for your attention

Source:
[Lakseregisteret kart]

Meeting of the Working Group on *Gyrodactylus salaris* in the North-East Atlantic Commission Area

Scottish Government
Riaghaltas na h-Alba

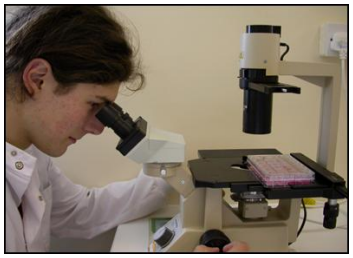
Update and contribution from the Marine Directorate

NASCO Headquarters, Rutland Square, Edinburgh, Scotland

10th to 12th March 2026

Marine Directorate – Competent Authority

Maintaining a high health status for Scotland



Differential diagnosis
Implementation of official controls

FHI

Surveillance and diagnostics

Disease control measures

Regulatory compliance

NRL

International recognition

Laboratory expertise

Testing & Screening

UKAS
UNITED KINGDOM ACCREDITATION SERVICE

Competent Authority

Implementation of official controls

Policy

Setting policy objectives

Stakeholder engagement

Ministerial support

Implementation of official controls

Scottish Government
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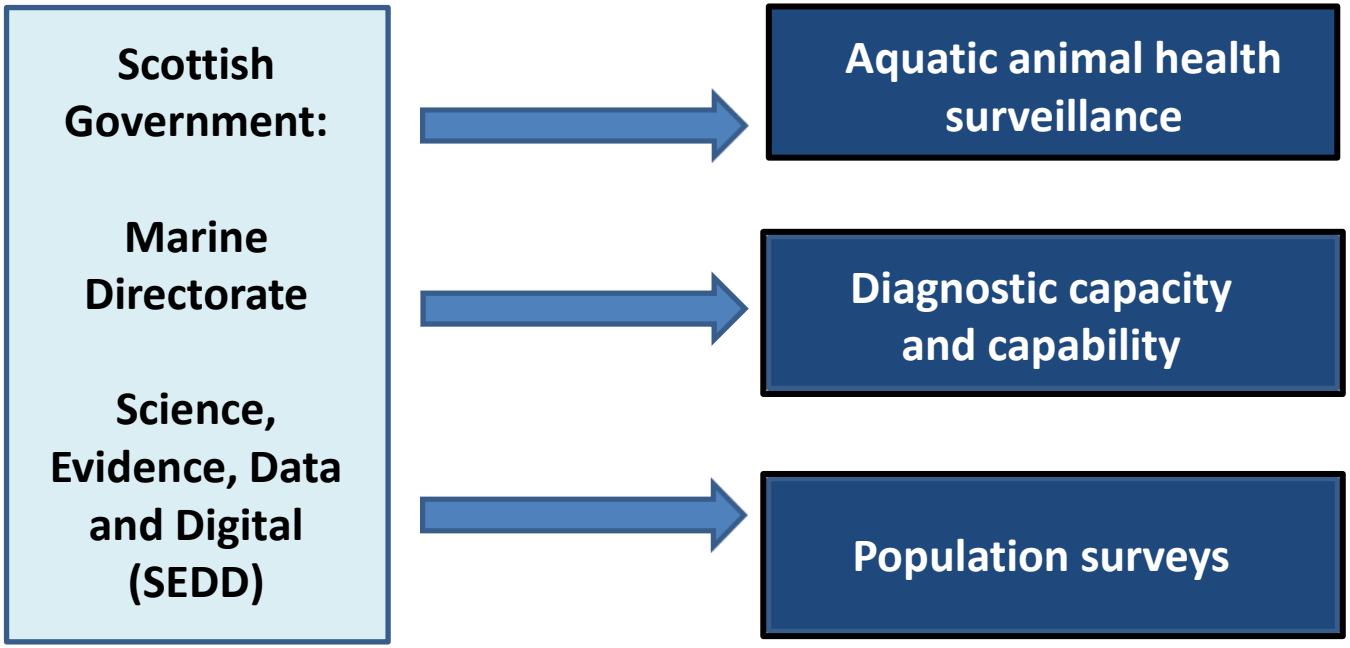
Monitoring and distribution

Scottish Government
Riaghaltas na h-Alba
gov.scot

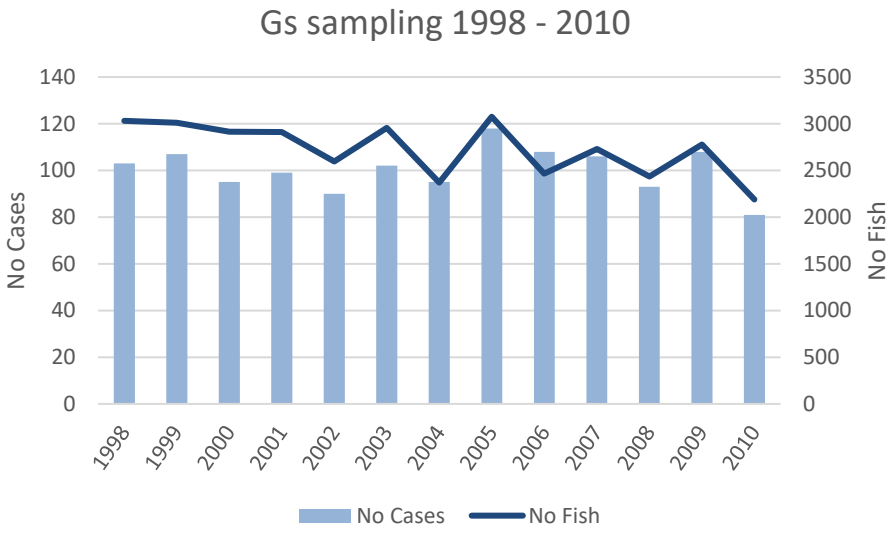
Scotland - approved Gs free (along with the rest of the GB health zone)

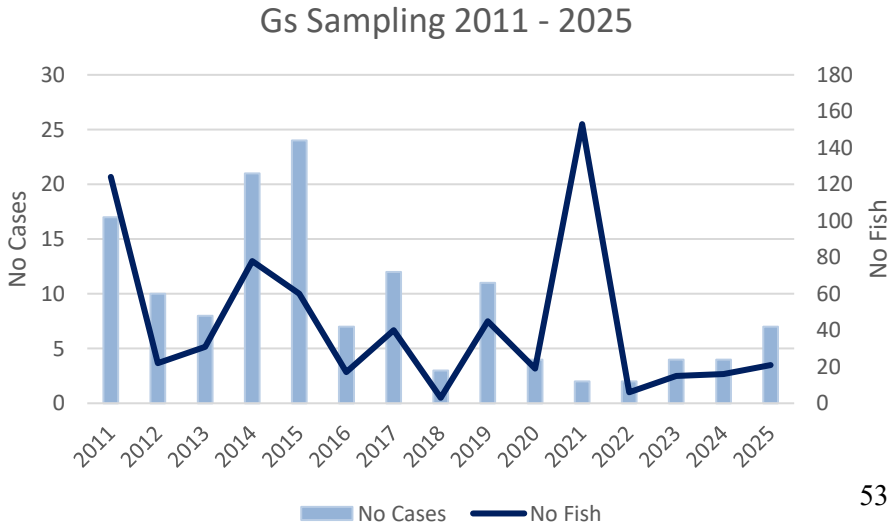
No evidence of the presence of the parasite has been found



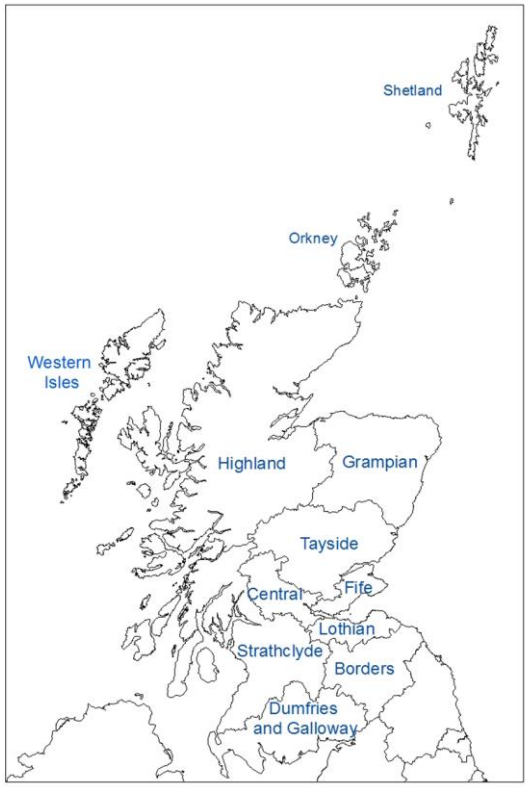
Monitoring has changed over time and been reduced since 2010

Historical actions and activity





Targeted surveillance – wild and farmed fish



Passive surveillance – response to suspicion & concerns – diagnostic sampling

Summary of samples taken 2022 to 2025

Scottish Government
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gov.scot

Year	Samples	*G. salaris*	Other Gyrodactylids
2022	Atlantic salmon 6 (all wild)	-ve	-ve
2023	Atlantic salmon 2 (both farmed) Rainbow trout 13 (all farmed)	-ve -ve	-ve **+ve *G. derjavinoides***
2024	Atlantic salmon 15 (all farmed) Rainbow trout 1 (farmed)	-ve -ve	-ve -ve
2025	Atlantic salmon 18 (all farmed) Brown trout 2 (wild) Stickleback 1 (wild)	-ve -ve -ve	-ve -ve **+ve *Gyrodactylus sp*.***

***not salmonid**

Measures to prevent spread

Scottish Government
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Trade restrictions

- Scotland (as part of GB health zone) - recognised Gs freedom
- Scottish territorial freedom specified through the Aquatic Animal Health (Scotland) Regulations 2009, and commission regulation 1251/2008 following EU exit
- Health certification on introductions and imports
- Stock origins - free from / held in saltwater / egg disinfection

SCOTTISH STATUTORY INSTRUMENTS

2009 No. 85

RIVER
FISH FARMING

The Aquatic Animal Health (Scotland) Regulations 2009

Made - - - - 5th March 2009
Laid before the Scottish Parliament - - - - 5th March 2009
Coming into force in accordance with regulation 1

The Scottish Ministers make these Regulations in exercise of the powers conferred by section 2(2) of, and paragraph 1A [F1] of Schedule 2 to, the European Communities Act 1972 [F2].
These Regulations make provision for a purpose mentioned in section 2(2) of the European Communities Act 1972 and it appears to the Scottish Ministers that it is expedient for any references to the following Community instruments to be construed as a reference to those instruments as amended from time to time:

(a) Commission Decision 2004/453/EC[F3] on implementing Council Directive 91/67/EEC as regards measures against certain diseases in aquaculture animals;

(b) Council Directive 2006/88/EC[F4] on animal health requirements for aquaculture animals and products thereof, and on the prevention and control of certain diseases in aquatic animals; and

Measures to prevent spread

Scottish Government
Riaghaltas na h-Alba
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National and regional initiatives

- Home & Dry campaign historical
- Check, Clean and Dry
- Wild fishery stakeholders – measures to prevent introduction
  - disinfection
  - site specific equipment
  - education
  - river specific contingencies
- Contingency plans - version 4, 2011 – in process of update

Fisheries Management Scotland

https://www.gov.scot/Topics/marine/Fish-Shellfish/18364/18610/previous/gswg/Gryrocontingency

[ARCHIVED CONTENT] Gyrodactylus salaris contingency plan

Contingency Plan - Review

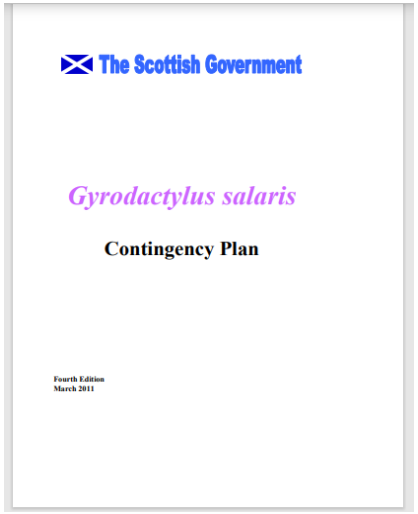
Scottish Government
Riaghaltas na h-Alba
gov.scot

Commenced September 2022 – paused due to staff resource and other work priorities

Commitment within WSS to update

Two aspects:

- Internal (within Scottish Government)
- External review – supporting agencies, stakeholders and third parties


The Scottish Government

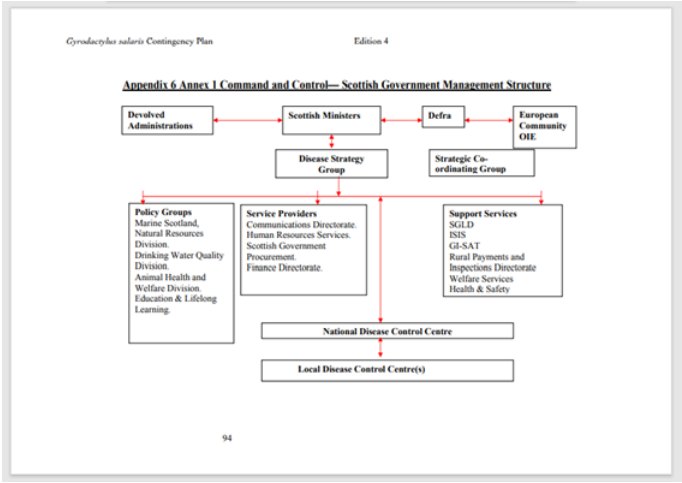
Gyrodactylus salaris

Contingency Plan

Fourth Edition
March 2011

Key areas:

- Structural and organisational changes
- Legislation, scientific and diagnostic updates
- Stakeholder involvement
- Agreements in place – MoU with Norway and agreements with Cefas and Defra


Gyrodactylus salaris Contingency Plan Edition 4

Appendix 6 Annex 1 Command and Control— Scottish Government Management Structure

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Existing Contingency Plan

Scottish Government
Riaghaltas na h-Alba
gov.scot

Version 4, from 2011. Number of sections supplemented by a series of supporting appendixes and annexes

- Disease response assumptions
- Command and Control
- SG headquarters – Structure and responsibilities
- Field Operations
- Communications
- Resource

Existing Contingency Plan

Scottish Government
Riaghaltas na h-Alba
gov.scot

Version 4, from 2011. Number of sections supplemented by a series of supporting appendixes and annexes

- Disease response assumptions
- Command and Control
- SG headquarters – Structure and responsibilities
- Field Operations
- Communications
- Resource

- Approach of containment and eradication depending upon severity and distribution, feasibility and economics – case by case
- Assumes some catchments may not be feasible to treat
- Resources made available – especially in terms of eradication
- Private contractors will be sanctioned
- Support from Defra and EA on any cross border issues
- Appropriate legislation is in place

Existing Contingency Plan

Scottish Government
Riaghaltas na h-Alba
gov.scot

Version 4, from 2011. Number of sections supplemented by a series of supporting appendixes and annexes

- Disease response assumptions
- Command and Control
- SG headquarters – Structure and responsibilities
- Field Operations
- Communications
- Resource

An outbreak of Gs in Scotland will be managed and controlled through SG Marine Directorate:

Disease Strategy Group – Strategic response

National Disease Control Centre – operational response

Plan details roles and responsibilities, job descriptions, organograms, expert and other groups, agencies and stakeholders

Existing Contingency Plan

Scottish Government
Riaghaltas na h-Alba
gov.scot

Version 4, from 2011. Number of sections supplemented by a series of supporting appendixes and annexes

- Disease response assumptions
- Command and Control
- SG headquarters – Structure and responsibilities
- Field Operations
- Communications
- Resource

In addition to the section on command and control – specific section focused on SG work areas / groups / divisions and associated responsibilities

Existing Contingency Plan

Scottish Government
Riaghaltas na h-Alba
gov.scot

Version 4, from 2011. Number of sections supplemented by a series of supporting appendixes and annexes

- Disease response assumptions
- Command and Control
- SG headquarters – Structure and responsibilities
- Field Operations
- Communications
- Resource

Detailed instructions within an Operations Manual detailing actions on:

- Suspicion
- Confirmation
- Movement restrictions
- Field investigations
- Epidemiological investigations
- Diagnosis
- Eradication
- Demonstrating freedom

Considerations for treatment, gene banking and restoration

An Operational Plan for a Norwegian river treatment incorporated as an Annex

Existing Contingency Plan

Scottish Government
Riaghaltas na h-Alba
gov.scot

Version 4, from 2011. Number of sections supplemented by a series of supporting appendixes and annexes

- Disease response assumptions
- Command and Control
- SG headquarters – Structure and responsibilities
- Field Operations
- Communications
- Resource

Strategy & policy awareness with responsibility focused around a **Communications Coordinator** – to ensure comms strategy is fully implemented;

- Internal chain of command
- Media briefing
- Publicity and information dissemination
- Helpline
- Regular progress reports
- Freedom of Information
- Draft minutes and briefings; letters; press release; meeting agendas
- Q&A brief

Existing Contingency Plan

Scottish Government
Riaghaltas na h-Alba
gov.scot

Version 4, from 2011. Number of sections supplemented by a series of supporting appendixes and annexes

- Disease response assumptions
- Command and Control
- SG headquarters – Structure and responsibilities
- Field Operations
- Communications
- Resource

- Field operations
- IT and telecommunication
- SG Procurement
- Laboratories

Also covers contractors e.g. for processes involving eradication, specialist skills, mapping, accommodation, stores and equipment

Annex on equipment needed to treat with Rotenone

Meeting of the Working Group on *Gyrodactylus salaris* in the North-East Atlantic Commission Area

Scottish Government
Riaghaltas na h-Alba

Update and contribution from the Marine Directorate

Thank you for listening

Questions?

neil.purvis@gov.scot

GSWG(26)15

Draft Best Practice Guidance for the Development of Gyrodactylus salaris *Contingency Plans*

1. Introduction

The following best practice guidance from NASCO's Working Group on *Gyrodactylus salaris* highlights the core points that should be considered in developing Contingency Plans.

Note that Contingency Plans should also be developed in accordance with the relevant Chapters of the World Organisation for Animal Health Aquatic Animal Health Code (currently Chapters 4.10 (Emergency Disease Preparedness) and 4.11 (Disease Outbreak Management)).

2. Roles and Responsibilities

a. Contingency Plans should clearly identify the key actors (such as government bodies, competent authorities, Indigenous Peoples, landowners and other key stakeholders) involved in the execution of the Plan.

b. The roles and responsibilities of each of the key actors should be clearly defined within the Contingency Plan.

c. The Contingency Plan owner should ensure full agreement between the key actors on their designated roles and responsibilities and processes to ensure that key persons are aware of these.

d. Roles and Responsibilities within the Contingency Plan should be reviewed annually to ensure details and agreements for the key actors remain up-to-date (e.g. department names, contact details, etc.).

3. Eradication, Monitoring and Control Measures

3.1 Monitoring and Control Measures

a. Where possible, only 1+ or older juvenile salmon[1] should be used for sampling.

b. Salmon restoration programmes[2] should consider the threat posed by *Gyrodactylus salaris* and undertake appropriate surveillance and mitigation measures.

c. Any suspicions or positive detections of *Gyrodactylus salaris* in an area previously free of the parasite must immediately be reported to the Competent Authorities of the jurisdiction.

d. Samples must be investigated through a designated laboratory. Samples should be available for investigation by the Competent Authority.

3.2 Eradication Measures

a. Fast action is extremely important on detection of the parasite. Legislation should be in place which provides for eradication of the parasite.

b. Eradication programmes should consider:

[1] Juvenile salmon older than one year

[2] See NASCO's Guidelines on the Use of Stock Rebuilding Programmes in the Context of the Precautionary Management of Salmon Stocks, CNL(25)50

i. At present, the use of rotenone is considered essential for the successful eradication of the parasite;

ii. Where rotenone is not considered a feasible option as the principal treatment method, chlorine can be used in conjunction with rotenone. Sole use of chlorine without rotenone will not result in successful eradication of the parasite;

iii. Members should consult relevant legislation to ensure that the use of rotenone or other chemicals is permitted, e.g. in the EU Biocides Regulation 528/2012.

GSWG(26)04

Progress in Relation to the Measures Contained in the Road Map: UK-Northern Ireland

The Terms of Reference (ToRs) for the 2026 Meeting of the Working Group on *G. salaris* task the Group with the following:

- *reviewing progress in relation to the measures contained in the revised Road Map, NEA(23)14;*
- *reviewing and updating the Commission's revised Road Map to ensure action-oriented content such that it better reflects the seriousness of infection by the parasite;*
- *reviewing the Contingency Plans presented at its meeting and offering guidance on best practice for these Plans to Commission members where relevant; and*
- *developing recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced.*

This template allows Parties / jurisdictions to provide information in response to the first of these ToRs. Only those recommendations that relate to Parties / jurisdictions are included.

The information provided will be annexed to the Report of the Meeting, which will be posted on the NASCO website.

Completing this template is optional but would provide a standardised method for reporting on progress which may enhance the efficiency of the Groups' work. Please provide any completed templates to the Secretariat **by your close of business on 27 February 2026**.

1.	**Preventive measures and contingency planning**
1. a)	Appropriate steps should be taken to prevent the spread of *G. salaris* on fishing equipment, boats, etc. by use of approved disinfection methods.

Please provide information on your Party's / jurisdiction's progress on this:

The Northern Ireland Environment Agency (NIEA) is an executive agency within the Department of Agriculture Environment and Rural Affairs (DAERA). NIEA's primary purpose is to protect and enhance Northern Ireland's environment, and in doing so, deliver health and well-being benefits and support economic growth. Invasive Species Northern Ireland is a public information website set up by the NIEA Invasive Non Native Species team https://invasivespeciesni.co.uk/ Invasive Species Northern Ireland acts as a focal point for disseminating information. This includes specific biosecurity guidance for anglers and boaters https://invasivespeciesni.co.uk/what-can-i-do/check-clean-dry/ including Check Clean Dry messaging. Border Biosecurity Posters have also been prepared https://invasivespeciesni.co.uk/wp-content/uploads/2024/11/NIEA-Check-Clean-Dry-Angling-Abroad.pdf A draft Angling Pathway Action Plan and Recreational Boating Pathway Action Plan have also been published https://invasivespeciesni.co.uk/pathway-action-plans/

1. b)	All movements of live fish should be recorded so that movements can be traced in the event of an outbreak of *G. salaris.*

Please provide information on your Party's / jurisdiction's progress on this:

All EU intratrade movements are recorded on Traces NT. All internal movements are made via an advanced notice and permit procedure and recorded on a database.

1. c)	Where possible, routine breaks in production and disinfection on rainbow trout and salmon freshwater aquaculture sites should be implemented as part of a control programme in infected areas.

Please provide information on your Party's / jurisdiction's progress on this:

N/A

1. d)	Permission to stock fish into infected river catchments should be based on an assessment of the increased risk of transmission of the parasite to non-infected rivers (e.g. through migration and other routes).

Please provide information on your Party's / jurisdiction's progress on this:

N/A Statutory authorisation would be required before stocking is allowed into river catchments.

1. e)	North-East Atlantic Commission (NEAC) Parties and their relevant jurisdictions should have contingency plans in place for treatment, containment or eradication. These plans should be developed in consultation with stakeholders. A legal base for the use of rotenone or other treatments, containment and eradication measures should be put in place. Contingency plans should be tested periodically and updated as required.

Please provide information on your Party's / jurisdiction's progress on this:

A generic contingency plan for all listed aquatic diseases, including GS has been developed, expected to be published on the DAERA website in the near future. An Operations Manual specific to the control of GS has been drafted, to be discussed at the up-coming working group meeting.

A desktop exercise took place in December 2025, exercising the generic Contingency Plan and Communications Plan using a scenario of an outbreak of the Category A disease EHN.

1. f)	NEAC Parties and their relevant jurisdictions should endeavour to ensure that adequate resources are available for the implementation of measures to contain and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

Resourcing arrangements in place as for the control of other EU listed diseases

2.	Cooperation on management
Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.	

Please provide a copy of and /or link to your Party's / jurisdiction's Contingency Plan, if available

Not available on DAERA website at present. Draft Operations Manual will be available by the next meeting.

3.	Monitoring methods for use in watercourses, lakes and in aquaculture
3.	The Working Group should review new developments with regard to monitoring for, and detection of, *G. salaris*, and develop recommendations for their inclusion in international guidelines.

Please provide information on your Party's / jurisdiction's progress on this:

Electrofishing of 8 rivers annually, sample 30 fish, all susceptible species (minority salmon)

Sampling of 9 approved establishments annually. Mostly Rainbow Trout. 1 salmon rearing establishment, low risk, sampled every 3 years.

4.	Distribution of *G. salaris* in the NEAC area and adjacent areas
4. a)	Existing monitoring programmes on salmonids in the wild and in aquaculture environments undertaken by NEAC Parties and their relevant jurisdictions should be retained and expanded as necessary. If requested, information from monitoring should be made available to the Working Group at their next meeting.

Please provide any relevant information from your Party / jurisdiction in relation to this:

No positive findings in NI surveillance carried out to date.

5.	Research to inform the effective management of *G. salaris*
5. a)	The NEAC Parties and their relevant jurisdictions should conduct research to inform the effective management of *G. salaris*, particularly the following: - the distribution and genetics of *G. salaris*; - the effects of salmon genetics on susceptibility to *G. salaris*; - the effect of environmental factors on pathogenicity; - to clarify the classification of *G. salaris* and *G. thymalli* and then develop a reliable method to distinguish between pathogenic and non-pathogenic strains; - general biology and mechanisms of spread of the parasite; - effect of environmental parameters and ecology on the distribution of *G. salaris*;

	- detection and diagnostic methods for *G. salaris;* - new environmental friendly treatment methods in rivers and lakes, e.g. acid aluminum and chloride.

Please provide information on your Party's / jurisdiction's progress on this:

No updates

7.	**Publicity, education, and awareness**
7. a) & b)	NEAC Parties and their relevant jurisdictions should develop publicity material on the threat of the parasite to wild Atlantic salmon and specify measures to prevent its spread; strategies for the effective dissemination of this material should be developed particularly with regard to targeting high risk groups. Existing material should be reviewed and updated as appropriate in the light of current knowledge. This material should be made available on the web sites and promoted on the social media platforms of the Competent Authorities and NASCO with a view to highlighting the serious risks posed by the spread of the parasite.

Please provide information on your Party's / jurisdiction's progress on this and links to any appropriate material for publication on the NASCO website / social media channels:

See DAERA website link Aquatic Disease Status | Department of Agriculture, Environment and Rural Affairs Invasive Species Northern Ireland and Gyrodactylus salaris (GS) - GOV.UK

8.	**Continuity of current measures in the EU Animal Health Law**
8.	Relevant NEAC Parties and their relevant jurisdictions should seek to ensure continuity in the provisions related to *G. salaris* in current EU animal health legislation (Regulation 2016/429) which should be retained, in particular with regard to additional guarantees.

Please provide information on your Party's / jurisdiction's progress on this:

UK(NI) listed as free from GS in EU 2021-21 and has adopted national measures in accordance with Article 226

9.	**Criteria for diagnosis and establishing *G. salaris* free zones**
9.	NEAC Parties and their relevant jurisdictions should implement the diagnostic standards in the WOAH Manual of Diagnostic Tests for Aquatic Animals.

Please provide information on your Party's / jurisdiction's progress on this:

Yes, WOAH Manual followed

10.	**Trade in live susceptible fish species**

10. a)	Trade in disinfected eggs is preferable to trade in live susceptible fish species. However, where movements of live susceptible fish species are approved, NEAC Parties and their relevant jurisdictions should ensure that trade in live susceptible fish species only takes place between areas of equal *G. salaris* status or from a higher to lower status area

Please provide information on your Party's / jurisdiction's progress on this:

RT ova imported from US and Denmark

10. b)	NEAC Parties and their relevant jurisdictions should ensure the health status of the traded live susceptible fish species and/or their eggs, and the competence of the certifying Authority.

Please provide information on your Party's / jurisdiction's progress on this:

Movement in of RT ova accompanied by animal health certification

11.	**Shared catchments**
11.	NEAC Parties and their relevant jurisdictions with shared catchments or having catchments in close proximity should implement appropriate mechanisms for cooperation, including the establishment and strengthening of inter-country working groups and the development of common contingency plans to control and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

Regular meetings with the Marine Institute in RoI. The need for cooperation in contingency planning was raised at the last meeting in January.

GSWG(26)05

Progress in Relation to the Measures Contained in the Road Map: EU-Finland

The Terms of Reference (ToRs) for the 2026 Meeting of the Working Group on *G. salaris* task the Group with the following:

- *reviewing progress in relation to the measures contained in the revised Road Map, NEA(23)14;*
- *reviewing and updating the Commission's revised Road Map to ensure action-oriented content such that it better reflects the seriousness of infection by the parasite;*
- *reviewing the Contingency Plans presented at its meeting and offering guidance on best practice for these Plans to Commission members where relevant; and*
- *developing recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced.*

This template allows Parties / jurisdictions to provide information in response to the first of these ToRs. Only those recommendations that relate to Parties / jurisdictions are included.

The information provided will be annexed to the Report of the Meeting, which will be posted on the NASCO website.

Completing this template is optional but would provide a standardised method for reporting on progress which may enhance the efficiency of the Groups' work. Please provide any completed templates to the Secretariat **by your close of business on 27 February 2026**.

1.	**Preventive measures and contingency planning**
1. a)	Appropriate steps should be taken to prevent the spread of *G. salaris* on fishing equipment, boats, etc. by use of approved disinfection methods.

Please provide information on your Party's / jurisdiction's progress on this:

In Finland the Tana and Neiden river catchment areas are free of GS and the Paatsriver, Tulomariver and Uutuanriver catchment areas form a buffer zone (protected area). The Ministry of Agriculture and Forestry has, by its decision, established a GS restriction area that covers the rest of Finland.

According to national legislation, boats and canoes, as well as fishing equipment and gear—such as reels, rods, lures, landing nets, boots, waders and gutting tools—brought from other river basins into the Tana, Neiden, Paatsjoki, Tuloma and Uutua river systems must be completely dried or disinfected before being used in these waters. Disinfection for fishing equipment is organized by authorities and private operators in Lapland.

According to national legislation It is also forbidden to transfer bait fish from other parts of Finland to the free and buffer zones and it is also forbidden to transfer bait fish between these watercourses. In the protected area, gutting of the fish originating from other Finnish watercourses is forbidden, as well as introducing gutting waste to waters of the protected area.

1. b)	All movements of live fish should be recorded so that movements can be traced in the event of an outbreak of *G. salaris.*

Please provide information on your Party's / jurisdiction's progress on this:

A fish farm located within the protected area must keep records of all fish and roe transferred there. Fish released into the wild must be reported to the stocking register.

1. c)	Where possible, routine breaks in production and disinfection on rainbow trout and salmon freshwater aquaculture sites should be implemented as part of a control programme in infected areas.

Please provide information on your Party's / jurisdiction's progress on this:

GS is not a listed disease and there's no control program for GS in the non-free areas in Finland (restriction area). GS is present in large parts of Finland, but Baltic salmon stocks are resistant to the parasite, unlike Atlantic or Arctic Ocean salmon stocks.

1. d)	Permission to stock fish into infected river catchments should be based on an assessment of the increased risk of transmission of the parasite to non-infected rivers (e.g. through migration and other routes).

Please provide information on your Party's / jurisdiction's progress on this:

In Finland, the water systems in the GS-free area flow north towards the Barents Sea, whereas in the restricted area the water flows south towards the Baltic Sea. The so-called watershed divide separates the free area from the restricted area. The river mouths of GS-free rivers are located on the Barents Sea coast, while the river mouths in the restricted area are on the Baltic Sea, far apart from each other. Within Finland, the risks are therefore associated with fish transfers over land or the movement of other potentially infectious material from the restricted area to the free area. There's no assessment applied of the GS risk when stocking fish to the rivers in the restricted area.

1. e)	North-East Atlantic Commission (NEAC) Parties and their relevant jurisdictions should have contingency plans in place for treatment, containment or eradication. These plans should be developed in consultation with stakeholders. A legal base for the use of rotenone or other treatments, containment and eradication measures should be put in place. Contingency plans should be tested periodically and updated as required.

Please provide information on your Party's / jurisdiction's progress on this:

Finland received separate funding to prepare the GS contingency plan as part of a project financed by the EU's Interreg Aurora programme and the Regional Council of Lapland. The contingency plan is being prepared by the Natural Resources Institute Finland (Luke). Unfortunately, the work has been delayed from the original schedule, but it will hopefully be completed during spring 2026. The project will continue until the end of July 2026. The contingency plan is intended to address the specific issues related to water areas located across the territories of two countries. The planning work is carried out in cooperation with the Norwegian Veterinary Institute and the Norwegian Food Safety Authority.

1. f)	NEAC Parties and their relevant jurisdictions should endeavour to ensure that adequate resources are available for the implementation of measures to contain and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

This will be part of the contingency plan.

2.	Cooperation on management
	Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.

Please provide a copy of and /or link to your Party's / jurisdiction's Contingency Plan, if available

3.	Monitoring methods for use in watercourses, lakes and in aquaculture
3.	The Working Group should review new developments with regard to monitoring for, and detection of, *G. salaris*, and develop recommendations for their inclusion in international guidelines.

Please provide information on your Party's / jurisdiction's progress on this:

The Finnish Food Authority (FFA) is currently developing an eDNA method for monitoring the GS parasite in collaboration with the Norwegian Veterinary Institute. It is clear that the method will improve the efficiency of parasite surveillance, but there is a need for a joint discussion on to what extent eDNA can replace traditional fish examinations and how to interpret a positive eDNA result if no parasites are found in fish samples.

The testing and implementation of eDNA methods are ongoing and preliminary results from the Neiden and Teno regions are consistent with expectations, and the method has also detected G. salaris–positive river samples. These findings indicate that the method offers sufficient sensitivity and specificity for potential use in future G. salaris monitoring. Collaboration with NVI continues, and the method will be further evaluated using samples collected during fieldwork in Finland in August 2025.

4.	Distribution of *G. salaris* in the NEAC area and adjacent areas
4. a)	Existing monitoring programmes on salmonids in the wild and in aquaculture environments undertaken by NEAC Parties and their relevant jurisdictions should be retained and expanded as necessary. If requested, information from monitoring should be made available to the Working Group at their next meeting.

Please provide any relevant information from your Party / jurisdiction in relation to this:

Monitoring of the GS parasite in Finland has been carried out continuously for decades in the GS-free zone and buffer zone. The monitoring is intended to be strengthened by developing an eDNA method for use by the FFA.

5.	**Research to inform the effective management of *G. salaris***
5. a)	The NEAC Parties and their relevant jurisdictions should conduct research to inform the effective management of *G. salaris*, particularly the following: - the distribution and genetics of *G. salaris*; - the effects of salmon genetics on susceptibility to *G. salaris*; - the effect of environmental factors on pathogenicity; - to clarify the classification of *G. salaris* and *G. thymalli* and then develop a reliable method to distinguish between pathogenic and non-pathogenic strains; - general biology and mechanisms of spread of the parasite; - effect of environmental parameters and ecology on the distribution of *G. salaris*; - detection and diagnostic methods for *G. salaris;* - new environmental friendly treatment methods in rivers and lakes, e.g. acid aluminum and chloride.

Please provide information on your Party's / jurisdiction's progress on this:

Distribution of GS has not been systematically studied in the Baltic drainage in Finland. We have, however, collected and sequenced *G. salaris* from several sampling sites, along with other *Gyrodactylus* species from the same locations, to improve our understanding of their genetic diversity and distribution.

The FFA is currently developing an eDNA method for monitoring the GS parasite in collaboration with the Norwegian Veterinary Institute. The testing and implementation of the method is ongoing. Grayling (*Thymallus thymallus*) specimens have been sampled with the specific aim of obtaining *Gyrodactylus thymalli* infections to support further eDNA assay development. However, *G. thymalli* have not been detected so far and sampling will be continued.

7.	**Publicity, education, and awareness**
7. a) & b)	NEAC Parties and their relevant jurisdictions should develop publicity material on the threat of the parasite to wild Atlantic salmon and specify measures to prevent its spread; strategies for the effective dissemination of this material should be developed particularly with regard to targeting high risk groups. Existing material should be reviewed and updated as appropriate in the light of current knowledge. This material should be made available on the web sites and promoted on the social media platforms of the Competent Authorities and NASCO with a view to highlighting the serious risks posed by the spread of the parasite.

Please provide information on your Party's / jurisdiction's progress on this and links to any appropriate material for publication on the NASCO website / social media channels:

The FFA has received funding for developing GS-related communication from the EU's Interreg Aurora programme and the Regional Council of Lapland. This is the same project under which the contingency plan is being prepared and eDNA method developed.

Eight signs warning about the parasite have been installed in Lapland at key locations known to be frequented by anglers and/or hikers. In addition, short informational and warning videos about the

parasite have been produced and are being produced with project funding. The videos feature a well-known Finnish journalist specialising in fishing and wilderness topics. The videos have been shared and will continue to be shared on social media. In spring 2026, a campaign will be organised to increase the visibility of the videos. Thirdly, two podcasts have been recorded in which an experienced GS researcher is interviewed, and the topic is explored in greater depth.

Traditional information about the parasite has also been distributed and will continue to be distributed, for example on the websites of the FFA and its partners.

8.	**Continuity of current measures in the EU Animal Health Law**
8.	Relevant NEAC Parties and their relevant jurisdictions should seek to ensure continuity in the provisions related to *G. salaris* in current EU animal health legislation (Regulation 2016/429) which should be retained, in particular with regard to additional guarantees.

Please provide information on your Party's / jurisdiction's progress on this:

Our jurisdiction is committed to ensuring that the provisions related to GS in Regulation 2016/429 remain in force. We recognize the value of the existing additional guarantees and will actively work to safeguard their continuity.

9.	**Criteria for diagnosis and establishing *G. salaris* free zones**
9.	NEAC Parties and their relevant jurisdictions should implement the diagnostic standards in the WOAH Manual of Diagnostic Tests for Aquatic Animals.

Please provide information on your Party's / jurisdiction's progress on this:

All diagnostic and analytical procedures were carried out in accordance with the standards outlined in the WOAH Manual of Diagnostic Tests for Aquatic Animals.

10.	**Trade in live susceptible fish species**
10. a)	Trade in disinfected eggs is preferable to trade in live susceptible fish species. However, where movements of live susceptible fish species are approved, NEAC Parties and their relevant jurisdictions should ensure that trade in live susceptible fish species only takes place between areas of equal *G. salaris* status or from a higher to lower status area

Please provide information on your Party's / jurisdiction's progress on this:

Trade in disinfected eggs is the preferred option. However, if movements of live GS-susceptible fish species are permitted, we will ensure that such trade takes place only between areas with the same GS status or from an area of higher status to one of lower status.

10. b)	NEAC Parties and their relevant jurisdictions should ensure the health status of the traded live susceptible fish species and/or their eggs, and the competence of the certifying Authority.

Please provide information on your Party's / jurisdiction's progress on this:

Agreed.

11.	Shared catchments
11.	NEAC Parties and their relevant jurisdictions with shared catchments or having catchments in close proximity should implement appropriate mechanisms for cooperation, including the establishment and strengthening of inter-country working groups and the development of common contingency plans to control and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

This will be taken into an account when preparing the contingency plan.

GSWG(26)06

Progress in Relation to the Measures Contained in the Road Map:

EU-Ireland

The Terms of Reference (ToRs) for the 2026 Meeting of the Working Group on *G. salaris* task the Group with the following:

- *reviewing progress in relation to the measures contained in the revised Road Map, NEA(23)14;*
- *reviewing and updating the Commission's revised Road Map to ensure action-oriented content such that it better reflects the seriousness of infection by the parasite;*
- *reviewing the Contingency Plans presented at its meeting and offering guidance on best practice for these Plans to Commission members where relevant; and*
- *developing recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced.*

This template allows Parties / jurisdictions to provide information in response to the first of these ToRs. Only those recommendations that relate to Parties / jurisdictions are included.

The information provided will be annexed to the Report of the Meeting, which will be posted on the NASCO website.

Completing this template is optional but would provide a standardised method for reporting on progress which may enhance the efficiency of the Groups' work. Please provide any completed templates to the Secretariat **by your close of business on 27 February 2026**.

1.	**Preventive measures and contingency planning**
1. a)	Appropriate steps should be taken to prevent the spread of *G. salaris* on fishing equipment, boats, etc. by use of approved disinfection methods.

Please provide information on your Party's / jurisdiction's progress on this:

Gyrodactylus salaris is listed as a notifiable disease in Ireland and legislation is in place preventing the transfer of live fish capable of carrying the parasite to or within Irish waters. The parasite is not listed in Council Directive 2006/88/EC, which has been applied since 1 August 2008, and replaces the previous fish health regime under Directive 91/67/EEC. However, Ireland retained additional guarantees under Decision 2004/453/EC in respect of *G. salaris* and can continue to impose controls on imports and suspected or confirmed outbreaks under the European Communities (Health of Aquaculture Animals and Products Regulations) 2008. These additional guarantees have been recognised as "national measures" under Article 43 of Council Directive 2006/88/EC. This has been reflected in Commission Decision 2010/221/EU, which replaces Commission Decision 2004/453/EC.

Gyrodactylus salaris has not been recorded on the island of Ireland to date.

A detailed contingency plan for dealing with any outbreak of *G. salaris* in Ireland was published in 2017 by the Fish Health Unit (FHU) of the Marine Institute (MI) with input from Inland Fisheries Ireland (IFI) and other stakeholders with statutory interests in salmonids "Operations Manual for dealing with Outbreaks of *Gyrodactylus salaris* in Ireland. Fish Disease Operations Manual for Ireland. Marine Institute, Ireland, 47 pp." This plan has been forwarded to the NASCO Secretariat and is currently being updated with a new version envisaged to be issued later in 2026.

The plan sets out in detail the operational responsibilities and actions to be taken in the event of a suspected outbreak of *gyrodactylosis*. This includes the following:

- The convening of the National Disease Strategy Group (NDSG) to activate and oversee the implementation of the contingency plan. The group will comprise senior representatives from relevant Government Departments and State Bodies as well as expert national and international veterinary scientists;
- The establishment of a National Control Centre (NCC) overseen by the NDSG for the purposes of co-ordinating control / eradication measures. The NCC will include representatives of the FHU, IFI, Departmental veterinary inspectors, the cross-border competent authority for salmon, Loughs Agency and relevant representation from Northern Ireland.
- A communications strategy.
- Detailed actions to be implemented on the suspicion or confirmation of a *gyrodactylosis* outbreak.
- Sampling, testing and fish disposal protocols.
- Containment, eradication and treatment options.

In general, Inland Fisheries Ireland (IFI) has been at the forefront in planning and implementing management measures to protect native species and habitats from the threat posed by aquatic invasive species (AIS). These include monitoring, control and eradication operations and protocols, research on AIS impacts, risk assessments, biosecurity guidelines and a programme of stakeholder engagement-related education and awareness initiatives. Biosecurity guidance has been developed for anglers, boaters, scuba divers, paddle sports enthusiasts and inland fisheries personnel which advise of appropriate prevention measures and disinfection protocols to minimise the risk of introducing or spreading AIS (https://tinyurl.com/y2qym83b).

In addition, IFI and MI have co-produced and widely circulated awareness literature to highlight the issue of *Gyrodactylus* among stakeholders and advise on biosecurity measures that can be taken to minimise the risk of introduction of the parasite to Ireland (i.e. A Guide to Protecting Freshwater Fish Stocks in Ireland from the Parasite *Gyrodactylus salaris* https://tinyurl.com/5bcmtmkf).

1. b)	All movements of live fish should be recorded so that movements can be traced in the event of an outbreak of *G. salaris.*

Please provide information on your Party's / jurisdiction's progress on this:

In Ireland, this practice is largely governed by European Communities (Health of Aquaculture Animals and Products) Regulations 2008 (S.I. 261 of 2008) based on the European Commission's Council Directive 2006/88/EC which applies to the import, movement, sale and supply of aquatic animals for fish stocking or ornamental purposes. Under the regulations, where appropriate, notification of the import and movement of fish must be made to the MI and this must be accompanied by an appropriate health certificate stating that the animals are free of the diseases listed in Part II Annex IV of the Directive and diseases for which Ireland has national measures granted under Commission Decision 2010/221/EU.

1. c)	Where possible, routine breaks in production and disinfection on rainbow trout and salmon freshwater aquaculture sites should be implemented as part of a control programme in infected areas.

Please provide information on your Party's / jurisdiction's progress on this:

This measure is listed as an option in the contingency plan for dealing with any outbreak of *G. salaris* in Ireland (Anon. 2017).

1. d)	Permission to stock fish into infected river catchments should be based on an assessment of the increased risk of transmission of the parasite to non-infected rivers (e.g. through migration and other routes).

Please provide information on your Party's / jurisdiction's progress on this:

Under the European Communities (Health of Aquaculture Animals and Products) Regulations 2008 (as amended):

- All fish movements require prior notification to the MI.
- The MI can immediately restrict movements of fish to and from fish farms in Ireland in the event of a suspicion of fish disease there.
- MI can restrict all movements of fish or gametes of fish along with feedstuffs for fish into and out of areas designated or suspected as being infected with *G. salaris*.

1. e)	North-East Atlantic Commission (NEAC) Parties and their relevant jurisdictions should have contingency plans in place for treatment, containment or eradication. These plans should be developed in consultation with stakeholders. A legal base for the use of rotenone or other treatments, containment and eradication measures should be put in place. Contingency plans should be tested periodically and updated as required.

Please provide information on your Party's / jurisdiction's progress on this:

A detailed contingency plan for dealing with any outbreak of *G. salaris* in Ireland was published in 2017 by the Fish Health Unit (FHU) of the MI with input from IFI and other stakeholders with statutory interests in salmonids (Anon. 2017).

As detailed in the contingency plan, the European Communities (Health of Aquaculture animals and products) Regulations 2008 (as amended) allow the MI to take the following measures where there is reason to believe *G. salaris* is present or is suspected to be present:

- To designate such an area as it considers appropriate to prevent or limit the spread of *G. salaris* by issuing in writing, a Restriction Notice.
- To regulate all movements of live fish, dead fish, eggs of fish and fish food to, from or within the restricted area. All movements can be prohibited except under the authority and in accordance with the conditions of a Movement Permit issued by the MI.

- To direct the operator of a fish farm to remove dead or dying fish from their premises and dispose of them in a specified manner.
- To authorise the removal of dead or dying fish from non-farmed waters.
- Where the MI has issued a Restriction Notice in respect of a specific Containment Zone, arrangements may be made to vary the extent of the containment zone, using the measures provided for under Regulation 12(3) of S.I. No 261 of 2008 (as amended).
- In addition, under the conditions of S.I. No 261 of 2008, all fish movements require prior notification of the MI. The MI can use this information to immediately restrict movements of fish to and from fish farms in Ireland in the event of a suspicion of fish disease there.

Under the Inland Fisheries Act 2010, the Minister of the Department of Climate, Energy and the Environment (DCEE) has the power to introduce bye-laws to protect wild salmonid fisheries under threat from any outbreak of *G. salaris* (e.g. impose fishing controls). The Minister may, at the request of IFI or on his or her own initiative, make such bye-laws as are in his or her opinion expedient for the more effectual protection of wild salmonid fisheries.

The use of rotenone in dealing with any outbreak of *G. salaris* in Ireland is considered in the contingency plan where it states that the relevant Local Authority must be consulted in the event of proposals to use this chemical. A comprehensive legal assessment has not been undertaken to date.

The contingency plan has not been tested to date. A new version of the plan is envisaged to be issued later in 2026.

1. f)	NEAC Parties and their relevant jurisdictions should endeavour to ensure that adequate resources are available for the implementation of measures to contain and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

As outlined in the contingency plan (Anon. 2017), the National Disease Strategy Group (NDSG) which is comprised of key Government and State Body officials is responsible for securing the financial and other resources required to implement the contingency arrangements.

2. Cooperation on management
Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.

Please provide a copy of and /or link to your Party's / jurisdiction's Contingency Plan, if available

Acknowledged. The Irish contingency plan was sent to the NASCO Secretariat in advance of the 2018 NASCO meeting. The Irish Contingency Plan was again sent to the NASCO Secretariat in advance of the 2026 *G.salaris* Working Group. The plans have not yet been made available on the websites of the Competent Authorities.

3.	**Monitoring methods for use in watercourses, lakes and in aquaculture**
3.	The Working Group should review new developments with regard to monitoring for, and detection of, *G. salaris*, and develop recommendations for their inclusion in international guidelines.

Please provide information on your Party's / jurisdiction's progress on this:

Acknowledged.

4.	**Distribution of *G. salaris* in the NEAC area and adjacent areas**
4. a)	Existing monitoring programmes on salmonids in the wild and in aquaculture environments undertaken by NEAC Parties and their relevant jurisdictions should be retained and expanded as necessary. If requested, information from monitoring should be made available to the Working Group at their next meeting.

Please provide any relevant information from your Party / jurisdiction in relation to this:

Since 2005, wild salmon juveniles from selected river systems are examined annually for the presence of *G. salaris* in Ireland (Appendix 1). This monitoring is undertaken in conjunction with the catchment-wide electrofishing programme overseen by IFI with sample analyses undertaken by the FHU of the MI. Further to this, the MI are responsible for investigating unexplained abnormal or significant fish mortalities encountered in Ireland which may be a result of fish disease.

5.	**Research to inform the effective management of *G. salaris***
5. a)	The NEAC Parties and their relevant jurisdictions should conduct research to inform the effective management of *G. salaris*, particularly the following: - the distribution and genetics of *G. salaris*; - the effects of salmon genetics on susceptibility to *G. salaris*; - the effect of environmental factors on pathogenicity; - to clarify the classification of *G. salaris* and *G. thymalli* and then develop a reliable method to distinguish between pathogenic and non-pathogenic strains; - general biology and mechanisms of spread of the parasite;

	- effect of environmental parameters and ecology on the distribution of *G. salaris*; - detection and diagnostic methods for *G. salaris;* - new environmental friendly treatment methods in rivers and lakes, e.g. acid aluminum and chloride.

Please provide information on your Party's / jurisdiction's progress on this:

Acknowledged. There is no ongoing or presently planned research on *G. salaris* in Ireland (as the parasite is not present), except for the ongoing annual monitoring programme. As outlined in the contingency plan, the FHU will provide training opportunities for all relevant persons to develop and maintain their skills in field and administrative procedures in relation to *G. salaris*.

Ireland intends to keep abreast of information concerning applied research on the effective management of *G. salaris via* participation in the *G. salaris* Working Group and NEAC.

7.	**Publicity, education, and awareness**
7. a) & b)	NEAC Parties and their relevant jurisdictions should develop publicity material on the threat of the parasite to wild Atlantic salmon and specify measures to prevent its spread; strategies for the effective dissemination of this material should be developed particularly with regard to targeting high risk groups. Existing material should be reviewed and updated as appropriate in the light of current knowledge. This material should be made available on the web sites and promoted on the social media platforms of the Competent Authorities and NASCO with a view to highlighting the serious risks posed by the spread of the parasite.

Please provide information on your Party's / jurisdiction's progress on this and links to any appropriate material for publication on the NASCO website / social media channels:

In general, Inland Fisheries Ireland (IFI) has been at the forefront in planning and implementing management measures to protect native species and habitats from the threat posed by aquatic invasive species (AIS). These include monitoring, control and eradication operations and protocols, research on AIS impacts, risk assessments, biosecurity guidelines and a programme of stakeholder engagement-related education and awareness initiatives. Biosecurity guidance has been developed for anglers, boaters, scuba divers, paddle sports enthusiasts and inland fisheries personnel which advise of appropriate prevention measures and disinfection protocols to minimise the risk of introducing or spreading AIS (https://tinyurl.com/y2qym83b).

In addition, IFI and MI have co-produced and widely circulated awareness literature to highlight the issue of *Gyrodactylus* among stakeholders and advise on biosecurity measures that can be taken to minimise the risk of introduction of the parasite to Ireland (i.e. A Guide to Protecting Freshwater Fish Stocks in Ireland from the Parasite *Gyrodactylus salaris* https://tinyurl.com/5bcmtmkf).

8.	**Continuity of current measures in the EU Animal Health Law**

8.	Relevant NEAC Parties and their relevant jurisdictions should seek to ensure continuity in the provisions related to *G. salaris* in current EU animal health legislation (Regulation 2016/429) which should be retained, in particular with regard to additional guarantees.

Please provide information on your Party's / jurisdiction's progress on this:

Acknowledged.

9.	**Criteria for diagnosis and establishing *G. salaris* free zones**
9.	NEAC Parties and their relevant jurisdictions should implement the diagnostic standards in the WOAH Manual of Diagnostic Tests for Aquatic Animals.

Please provide information on your Party's / jurisdiction's progress on this:

Diagnostic standards in the WOAH Manual of Diagnostic Tests for Aquatic Animals are referenced in the Irish Contingency Plan (Anon., 2017).

10.	**Trade in live susceptible fish species**
10. a)	Trade in disinfected eggs is preferable to trade in live susceptible fish species. However, where movements of live susceptible fish species are approved, NEAC Parties and their relevant jurisdictions should ensure that trade in live susceptible fish species only takes place between areas of equal *G. salaris* status or from a higher to lower status area

Please provide information on your Party's / jurisdiction's progress on this:

Under Irish regulations, notification of the import and movement of fish must be made to the MI and this must be accompanied by an appropriate health certificate stating that the animals are free of the diseases listed in Part II Annex IV of the Directive and diseases for which Ireland has national measures granted under Commission Decision 2010/221/EU.

10. b)	NEAC Parties and their relevant jurisdictions should ensure the health status of the traded live susceptible fish species and/or their eggs, and the competence of the certifying Authority.

Please provide information on your Party's / jurisdiction's progress on this:

Under Irish regulations, notification of the import and movement of fish must be made to MI and this must be accompanied by an appropriate health certificate stating that the animals are free of the diseases listed in Part II Annex IV of the Directive and diseases for which Ireland has national measures granted under Commission Decision 2010/221/EU.

11.	**Shared catchments**

11.	NEAC Parties and their relevant jurisdictions with shared catchments or having catchments in close proximity should implement appropriate mechanisms for cooperation, including the establishment and strengthening of inter-country working groups and the development of common contingency plans to control and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

The Irish contingency plan facilitates the involvement of relevant cross-border and Northern Irish authorities if required and outlines the mechanisms for cooperation which include representation on the National Disease Strategy Group and National Control Centre.

Appendix 1

Irish river systems sampled for the presence of *G. salaris* (2005 – 2025).

Catchment	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Avoca (Aughrim)										X											
Ballynahinch																X					
Bandon																					X
Barrow (Greese)					X																
Barrow (Poulmounty)			X							X											
Boyne trib.									X												
Bride						X									X				X		
Bunowen															X						
Corrib (Abbert)						X		X													
Corrib (Cong)														X							
Corrib (Owenriff)														X			X				
Cloonee															X						
Colligan															X						
Crana																		X			
Dawros																	X				
Dunkellin						X										X			X		
Eanymore						X															
Emlagh							X														
Erne										X											
Erne (Aughnacliffe)				X																	
Erne (Bunnoe)			X																		
Erne (Burrin)			X																		
Erne (Swanlinbar)			X																		
Erriff						X	X						X	X	X	X	X	X			
Feale					X				X												X
Garavogue						X														X	
Glen							x														
Inny																		X		X	
Laune										X			X								
Leannan							X				X			X		X	X	X			
Lee		X																			

Catchment	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Liffey																	X				
Maine											X		X								X
Moy								X													
Mulkear (Bilboa)					X																
Munster Blackwater										X	X	X	X	X					X *		
Munster Blackwater (Araglin)								X													
Munster Blackwater (Finnow)								X				X									
Munster Blackwater (Owentaraglin)																		X			
Newport (Mayo)																			X		
Nore																	X			X	
Owenascaul																X					
Owennacurra																X					X
Owenboliska						X															
Owenea														X				X			
Owentocker																		X			
Owenwee							X														
Screebe		X	X					X													
Shannon (Brosna)			X						X												
Shannon (Carrigahorig)		X								X											
Shannon (Little Brosna)			X																		
Shannon (Lower)															X						
Sheen																					X
Slaney	X																			X	
Suir											X										
Suir	X																			X	
Swilly																X					
Tullaghobegley									X												
Waterville (Currane)													X								

* Two sites sampled.

GSWG(26)07

Progress in Relation to the Measures Contained in the Road Map: UK-Scotland

The Terms of Reference (ToRs) for the 2026 Meeting of the Working Group on *G. salaris* task the Group with the following:

- *reviewing progress in relation to the measures contained in the revised Road Map, NEA(23)14;*
- *reviewing and updating the Commission's revised Road Map to ensure action-oriented content such that it better reflects the seriousness of infection by the parasite;*
- *reviewing the Contingency Plans presented at its meeting and offering guidance on best practice for these Plans to Commission members where relevant; and*
- *developing recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced.*

This template allows Parties / jurisdictions to provide information in response to the first of these ToRs. Only those recommendations that relate to Parties / jurisdictions are included.

The information provided will be annexed to the Report of the Meeting, which will be posted on the NASCO website.

Completing this template is optional but would provide a standardised method for reporting on progress which may enhance the efficiency of the Groups' work. Please provide any completed templates to the Secretariat **by your close of business on 27 February 2026**.

1.	**Preventive measures and contingency planning**
1. a)	Appropriate steps should be taken to prevent the spread of *G. salaris* on fishing equipment, boats, etc. by use of approved disinfection methods.

Please provide information on your Party's / jurisdiction's progress on this:

Section 3.5 to 3.7, inclusive, of the supporting report details relevant action taken here under national and regional initiatives. This includes information on government and third-party websites as well as the practical actions taken by wild fishery stakeholders.

1. b)	All movements of live fish should be recorded so that movements can be traced in the event of an outbreak of *G. salaris.*

Please provide information on your Party's / jurisdiction's progress on this:

All movements of live fish from Aquaculture Production Businesses (APBs) are required to be maintained by law as detailed within the authorisation conditions in accordance with the Aquatic Animal Health (Scotland) Regulations 2009. APBs include all fish farm sites as well as wild fish hatcheries moving stocks between catchments.

1. c)	Where possible, routine breaks in production and disinfection on rainbow trout and salmon freshwater aquaculture sites should be implemented as part of a control programme in infected areas.

Please provide information on your Party's / jurisdiction's progress on this:

N/A – No infected areas within Scotland. In the case of infection then areas subject to movement restriction will have statutory controls which can regulate restocking and require cleaning and disinfection activities.

1. d)	Permission to stock fish into infected river catchments should be based on an assessment of the increased risk of transmission of the parasite to non-infected rivers (e.g. through migration and other routes).

Please provide information on your Party's / jurisdiction's progress on this:

N/A – No infected areas within Scotland.

1. e)	North-East Atlantic Commission (NEAC) Parties and their relevant jurisdictions should have contingency plans in place for treatment, containment or eradication. These plans should be developed in consultation with stakeholders. A legal base for the use of rotenone or other treatments, containment and eradication measures should be put in place. Contingency plans should be tested periodically and updated as required.

Please provide information on your Party's / jurisdiction's progress on this:

Contingency Plans specific to Gs have been in existence since 2006. Scottish Government recognises that the current plan is out of date (last revised in 2011) and this has been flagged as a risk. Whilst some progress has been made to update plans, resource constraints have been a barrier to completing that work. The review of the plan has recently recommenced.

1. f)	NEAC Parties and their relevant jurisdictions should endeavour to ensure that adequate resources are available for the implementation of measures to contain and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

Marine Scotland has an established Fish Health Inspectorate and diagnostic capacity which together forms the National Disease Control Centre (NDCC). Scottish Government policy colleagues provide the function of the Disease Strategy Group (DSG). Together the NDCC and the DSG provide the operational and strategic response to any outbreak or detection of Gs. Contingency procedures identify potential assistance from stakeholders particularly in terms of sampling and eradication.

2. Cooperation on management
Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.

Please provide a copy of and /or link to your Party's / jurisdiction's Contingency Plan, if available

https://webarchive.nrscotland.gov.uk/3000/https://www.gov.scot/Topics/marine/Fish-Shellfish/18364/18610/previous/gswg/Gryrocontingency

3.	**Monitoring methods for use in watercourses, lakes and in aquaculture**
3.	The Working Group should review new developments with regard to monitoring for, and detection of, *G. salaris*, and develop recommendations for their inclusion in international guidelines.

Please provide information on your Party's / jurisdiction's progress on this:

No action on this in relation new developments for monitoring or detection within the time period of this update. Procedures adopted in Scotland reflect the current standards as detailed through WOAH.

4.	**Distribution of *G. salaris* in the NEAC area and adjacent areas**
4. a)	Existing monitoring programmes on salmonids in the wild and in aquaculture environments undertaken by NEAC Parties and their relevant jurisdictions should be retained and expanded as necessary. If requested, information from monitoring should be made available to the Working Group at their next meeting.

Please provide any relevant information from your Party / jurisdiction in relation to this:

Active and passive surveillance programmes remain in place to support Scotland's disease-free status with respect to Gs. No targeted screening or sampling for Gs is undertaken and sampling is only conducted where diagnostic samples are collected or in response to issues / suspicions raised, either within farmed or wild fish populations. Details on the sampling undertaken, in relation to the time period for reporting, is provided through Annex 1 of the supporting document.

5.	**Research to inform the effective management of *G. salaris***
5. a)	The NEAC Parties and their relevant jurisdictions should conduct research to inform the effective management of *G. salaris*, particularly the following: - the distribution and genetics of *G. salaris*; - the effects of salmon genetics on susceptibility to *G. salaris*; - the effect of environmental factors on pathogenicity; - to clarify the classification of *G. salaris* and *G. thymalli* and then develop a reliable method to distinguish between pathogenic and non-pathogenic strains; - general biology and mechanisms of spread of the parasite; - effect of environmental parameters and ecology on the distribution of *G. salaris*; - detection and diagnostic methods for *G. salaris;* - new environmental friendly treatment methods in rivers and lakes, e.g. acid aluminum and chloride.

Please provide information on your Party's / jurisdiction's progress on this:

No research is being undertaken by the Marine Directorate on these areas at present.

7.	**Publicity, education, and awareness**
7. a) & b)	NEAC Parties and their relevant jurisdictions should develop publicity material on the threat of the parasite to wild Atlantic salmon and specify measures to prevent its spread; strategies for the effective dissemination of this material should be developed particularly with regard to targeting high risk groups. Existing material should be reviewed and updated as appropriate in the light of current knowledge. This material should be made available on the web sites and promoted on the social media platforms of the Competent Authorities and NASCO with a view to highlighting the serious risks posed by the spread of the parasite.

Please provide information on your Party's / jurisdiction's progress on this and links to any appropriate material for publication on the NASCO website / social media channels:

Section 3.5 to 3.7, inclusive, of the supporting report details relevant action taken here under national and regional initiatives. This includes information on government and third-party websites as well as the practical actions taken by wild fishery stakeholders.

8.	**Continuity of current measures in the EU Animal Health Law**
8.	Relevant NEAC Parties and their relevant jurisdictions should seek to ensure continuity in the provisions related to *G. salaris* in current EU animal health legislation (Regulation 2016/429) which should be retained, in particular with regard to additional guarantees.

Please provide information on your Party's / jurisdiction's progress on this:

Trade restrictions to facilitate the prevention and introduction of Gs remain in place.

Scotland (as part of the GB health zone), has recognised disease freedom with respect to Gs. Following EU exit, trade restrictions were maintained via Regulation 1251/2008 which was retained and amended accordingly. The restrictions in place assist in preventing the import of Gs through commercial activity involving the trade in live aquatic animals. With respect to Gs, imports are permitted only where they are accompanied by a health certificate confirming that the animals, either originate from an area free from Gs, or they have been held immediately prior to dispatch into saltwater for a designated period, or in the case of eggs they have been disinfected prior to dispatch.

These measures assist in protecting Scotland from the introduction of the parasite through commercial activity associated with live aquatic animal trade.

9.	**Criteria for diagnosis and establishing *G. salaris* free zones**
9.	NEAC Parties and their relevant jurisdictions should implement the diagnostic standards in the WOAH Manual of Diagnostic Tests for Aquatic Animals.

Please provide information on your Party's / jurisdiction's progress on this:

WOAH standards are embedded within MS diagnostic process.

With regards to the detection of Gs, the diagnostic methods employed by the Marine Directorate satisfies the recommended methodology detailed within the WOAH Manual of Diagnostic Tests for Aquatic Animals (2025).

Scotland also supports the United Kingdom as a member of WOAH, by providing comments on the Aquatic Code and Aquatic Manual. These documents cover international recommended standards and practices with respect to specific pathogens, including Gs. Areas covered include:

- trade in and movements of aquatic animals and aquatic animal products
- health status including disease freedom
- biological and aetiological characteristics of pathogens
- surveillance, sampling and diagnostic techniques and procedures

10.	**Trade in live susceptible fish species**
10. a)	Trade in disinfected eggs is preferable to trade in live susceptible fish species. However, where movements of live susceptible fish species are approved, NEAC Parties and their relevant jurisdictions should ensure that trade in live susceptible fish species only takes place between areas of equal *G. salaris* status or from a higher to lower status area

Please provide information on your Party's / jurisdiction's progress on this:

10. b)	NEAC Parties and their relevant jurisdictions should ensure the health status of the traded live susceptible fish species and/or their eggs, and the competence of the certifying Authority.

Please provide information on your Party's / jurisdiction's progress on this:

With respect to part 10(a) and 10(b) procedures are established and implemented as part of Scotland's trade control measures. Some additional details are provided through section 8 above.

11.	**Shared catchments**
11.	NEAC Parties and their relevant jurisdictions with shared catchments or having catchments in close proximity should implement appropriate mechanisms for cooperation, including the establishment and strengthening of inter-country working groups and the development of common contingency plans to control and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

Cross border issues are identified and established within the Gs Contingency Plan. Agreements are in place with Defra and Cefas concerning operations and disease control measures with respect to the rivers Tweed and the Boarder Esk.

Working Group on *Gyrodactylus salaris* in the North-East Atlantic Commission Area

NASCO Headquarters, Rutland Square, Edinburgh, Scotland

10-12 March 2026

Gyrodactylus salaris update paper – contribution from the Scottish Government Marine Directorate

Neil Purvis – neil.purvis@gov.scot

Update for 2022 to 2025

1. Monitoring and distribution of gyrodactylids

1.1 Annex 1 provides sampling data for the years 2022 to 2025 (to 31 December) concerning the activity undertaken in Scotland by the Competent Authority[1] in relation to sampling and sample analysis to determine the presence or absence of gyrodactylid species. The structure of this data set reflects historical reports and previous contributions made from Scotland.

1.2 The surveillance undertaken continues to support Scotland's disease-free status with respect to *Gyrodactylus salaris* (Gs), as part of the GB health zone[2]. No evidence of the parasite has been detected over the sampling period from 01 January 2022 to 31 December 2025.

Surveillance

1.3 Since previous reporting in 2022, there have been no significant changes associated with the surveillance methodologies employed. A risk-based surveillance programme across the aquaculture sites within Scotland is undertaken which reflects the requirements of retained EU legislation – Decision 2008/896 which provides guidelines on risk-based surveillance.

1.4 Passive surveillance and intelligence led initiatives are additional components of Scotland's aquatic animal health surveillance activity.

[1] Marine Directorate performs the role of Competent Authority for Scotland on behalf of the Scottish Ministers

[2] The 'GB heath zone' comprises the territory of Great Britain which includes the countries of England, Wales and Scotland

1.5 There is no targeted surveillance (the screening of healthy fish populations) for Gs but analysis of samples is undertaken through diagnostic investigations conducted either as a result of risk-based surveillance in the case of farmed fish, or through intelligence initiatives, as an output from passive surveillance, in the case of farmed fish and fisheries[3].

1.6 Further description and details of the surveillance being employed has been provided previously e.g. through GSWG(17) Annex 7.

Population surveys

1.7 Surveys of juvenile populations have been undertaken previously, as part of an on-going programme as reported within GSWG(17) Annex 7. Whilst this activity is not actively searching for the presence of Gs, it can give an assessment, to an extent, of the ecological health of wild salmonid populations in any given area. Where repeated and structured surveys are undertaken this can provide a reliable indicator of a problem, e.g. a lack of juvenile salmon populations in an area where they were previously plentiful.

1.8 Scotland's Wild Salmon Strategy committed to maintain a regular sampling of juvenile salmon through the National Electrofishing Programme for Scotland (NEPS). The last survey was undertaken in 2023 and reported in 2025. Officials are currently exploring options to deliver future juvenile monitoring and assessment needs. This will be undertaken in partnership with our external stakeholders and delivery partners as the financial and resource implications need to be considered to ensure value for money for the taxpayer, balanced with the benefits of a full national programme across the various public and private sector organisations.

Diagnostic capability and activity

1.9 The Scottish National Reference Laboratory for fish, mollusc and crustacean diseases is based within the Marine Directorate.

1.10 The primary diagnostic methods employed in relation to Gs detection and confirmation, rely solely upon molecular techniques and include a real-time PCR multiplex assay, followed by DNA sequencing. This represents the standard diagnostic practice in relation to the diagnosis of gyrodactylids by the Marine Directorate.

1.11 Morphological capabilities have been maintained and could be reintroduced in the future if required.

[3] 'Fisheries' in this context refers to both wild fish populations and put-and-take / sport fisheries and these are differentiated where required throughout the report

1.12 With regards to the detection of Gs, the diagnostic methods employed by the Marine Directorate satisfies the recommended methodology detailed within the WOAH Manual of Diagnostic Tests for Aquatic Animals (2025).

2. On-going and planned research concerning *G. salaris*

2.1 At present the Marine Directorate is not actively involved in any scientific research work concerning Gs. Despite this, the organisation maintains knowledge of developments in this area through national and international discussions and contact with other research parties through attendance at conferences and meetings involving the scientific community and national reference laboratories.

3. Measures taken to prevent spread and to eradicate

International initiatives

Trade restrictions

3.1 Trade restrictions, as detailed within GSWG(17) Annex 7, remain in place. These are detailed below in paragraph 3.2.

3.2 Scotland (as part of the GB health zone), has recognised disease freedom with respect to Gs. Following EU exit, trade restrictions were maintained via Regulation 1251/2008 which was retained and amended accordingly. The restrictions in place assist in preventing the import of Gs through commercial activity involving the trade in live aquatic animals. With respect to Gs, imports are permitted only where they are accompanied by a health certificate confirming that the animals:

a) originate from an area free from Gs, or

b) they have been held immediately prior to dispatch in saltwater for a designated period[4], or

c) in the case eggs they have been disinfected prior to dispatch

3.3 These measures assist in protecting Scotland from the introduction of the parasite through commercial activity associated with live aquatic animal trade.

3.4 Scotland also supports the United Kingdom as a member of WOAH, by providing comments on the Aquatic Code and Aquatic Manual. These documents cover international recommended standards and practices with respect to specific pathogens, including Gs. Areas covered include:

[4] The certificate requires a minimum of 25ppt saltwater for at least 14 days

- trade in and movements of aquatic animals and aquatic animal products
- health status including disease freedom
- biological and aetiological characteristics of pathogens
- surveillance, sampling and diagnostic techniques and procedures

National and regional initiatives

‘Home & Dry’ campaign

3.5 The Scottish Government’s historical ‘Home & Dry’ campaign involved the dissemination of leaflets, information and advice. The principles of this are detailed on the Scottish Government website Gyrodactylus Salaris - Diseases of wild and farmed Finfish - gov.scot. The GB Non-native Species Secretariat (NNSS) website recognises Gs as a species of concern Information Portal » NNSS. The campaign to prevent the introduction and spread of non-native species (Check, Clean and Dry) employs some principles which are effective against Gs - Check Clean Dry » NNSS.

Actions taken by wild fishery stakeholders

3.6 Wild fishery stakeholders continue to undertake measures aimed at preventing the introduction of Gs into Scotland. Measures taken include:

• ensuring disinfection of fishing equipment by action or certificate prior to use

• providing equipment to visiting anglers, to avoid potentially infected equipment being used

• educating anglers in best practice in relation to the risks of aquatic animal disease

• developing catchment and river contingency plans in the event of an outbreak of Gs

• mapping and surveying of catchments to facilitate eradication if required

3.7 During 2024 – 2025, the Marine Scotland Fund granted financial provision to Fisheries Management Scotland (FMS) in relation to improved biosecurity measures for wild Atlantic salmon. Resources were used to implement signage and improve sanitation / disinfection facilities to help protect wild salmon from invasive species. Although the driver for the initiative, and the measures introduced, are not specific to Gs, the actions taken supplement an overall preventative strategy for multiple disease agents, parasites and non-native species - Biosecurity Awareness | Fisheries Management Scotland.

3.8 In November 2024, a fish health workshop arranged by FMS in partnership with the Fish Veterinary Society, was held for the fisheries management sector. The event was supported and attended by various stakeholders including representatives

from Scottish Government. The workshop supported knowledge exchange and promoted diagnostic sample training, with the aim of facilitating wider understanding and sampling of wild salmonids where appropriate, to gather more data to help inform us about wild salmonids in Scotland.

3.9 FMS reporting apps can be found at Make a Report | Fisheries Management Scotland, and facilitate with the reporting of issues, including those relating to the suspicion of disease within river systems.

Contingency Planning

3.10 Scottish Government has developed and maintains generic contingency plans to deal with outbreaks of listed disease in accordance with Council Directive 2006/88/EC. In the event of an outbreak, operational and strategic responses will be undertaken by Marine Directorate with a view to containing and eradicating disease where possible.

3.11 In recognition of the additional challenges posed by Gs, in terms of the potential impacts on wild fish, discrete contingency plans have been developed to deal with an outbreak of the parasite in Scotland. Part of the contingency procedure recognises the extensive expertise and experiences within Norway in terms of containing and eradicating Gs. Agreements have been established to utilise this expertise should the need arise.

3.12 Scottish contingency plans for Gs are currently in their 4th edition and were last revised in March 2011. A review of the Gs plan did commence in September 2022, but due to resource constraints that process has been delayed. The review has recently recommenced and aims to update the plan in relation to structural and organisational changes, legislation, scientific and diagnostic updates, stakeholder involvement and agreements and MoUs in place.

Scotland's Wild salmon strategy

3.13 The Scottish Wild Salmon Strategy and accompanying Implementation Plan, which launched 2023 and covers a five year period until 2028, outlines over 60 actions for collective action across government, business and charitable sectors to ensure the protection and recovery of wild Atlantic salmon populations in Scotland. Within the implementation plan there are five specific actions in relation to controlling or responding to threats from invasive non-native species (INNS) and disease on wild Atlantic salmon populations. This includes a commitment to update the *Gyrodactylus salaris* Contingency Plan to ensure Scotland is prepared in the event of an outbreak. The Scottish Government has produced Annual Progress Reports for each year of the implementation plan to date with the next iteration expected to be published in the summer of 2026.

Annex 1 - Gyrodactylid sampling in Scotland 2022 and 2025 (to 31 December) conducted by MD

Overview

No *G. salaris* were identified.

Total No. of cases: 17
No. of farm cases: 13
No. of wild cases: 4
Total No. of fisheries[5] sampled: 0

Total No. of fish examined: 58
Total No. of farmed fish examined: 49
Total No. of wild fish examined: 9
Total No. of fishery fish examined: 0

No. of +ve farm cases: 1
No. of +ve wild cases: 1
No. of +ve fisheries cases: 0

Breakdown of sampling for gyrodactylids

Farmed fish sampling

Year	Fish species	Cases	No. sampled per case	Region	Result	Parasite species
2023	Atlantic salmon	1	2		-ve	
	Rainbow trout	3	5		-ve	
			3		-ve	
			5		+ve	*G.d*
2024	Atlantic Salmon	3	5		-ve	
			5		-ve	
			5		-ve	
	Rainbow trout	1	1		-ve	
2025	Atlantic salmon	5	5		-ve	
			5		-ve	
			2		-ve	

[5] Fishery / fisheries within this section refers to put-and-take / sport fisheries and excludes wild fisheries

			1		-ve	
			5		-ve	

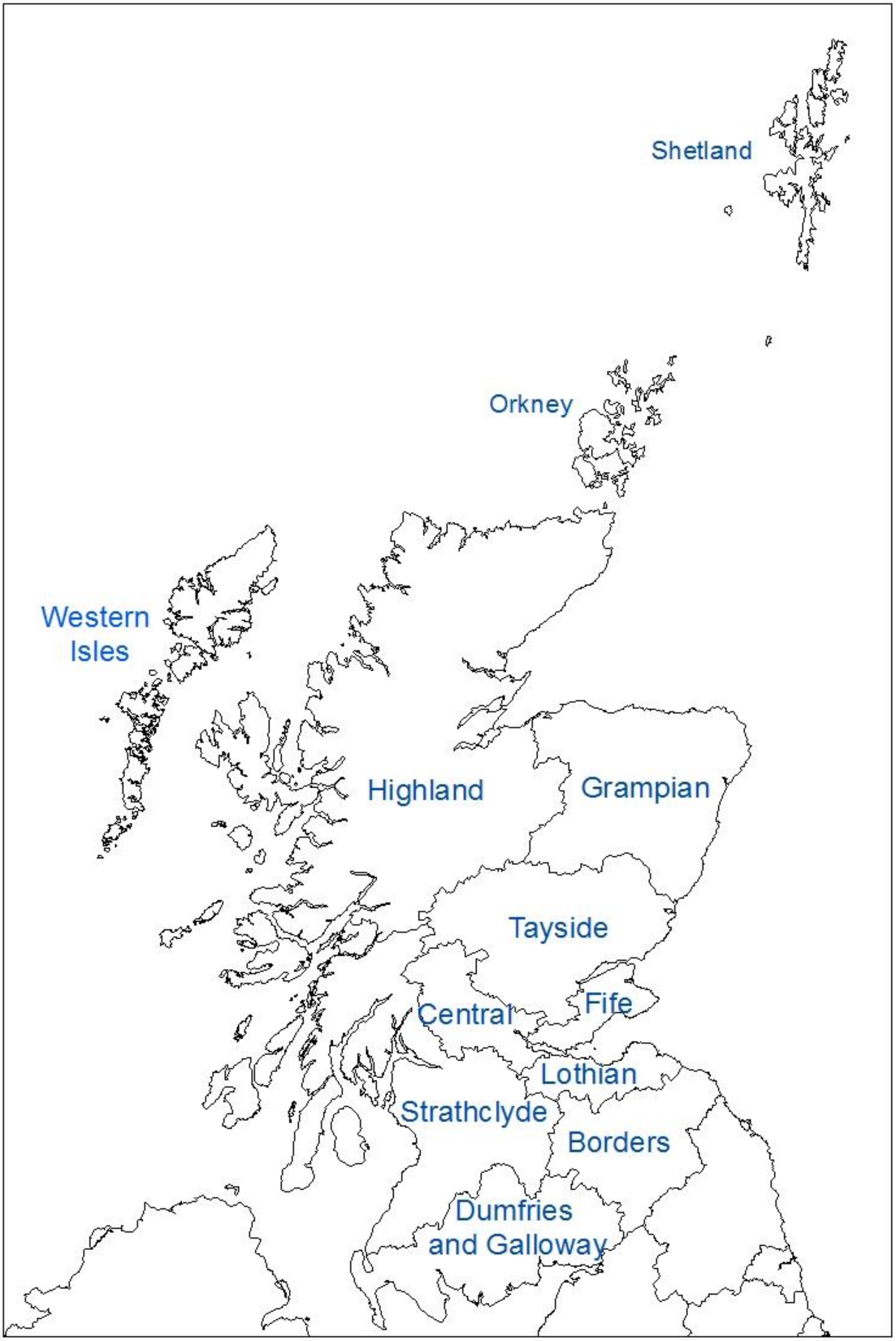
Wild fish sampling

Year	Fish species	Cases	No. sampled per case	Region	Result	Parasite species
2022	Atlantic salmon	2	1	Grampian	-ve	
			5	Highland	-ve	
2025	Brown trout	1	2	Highland	-ve	
	Stickleback	1	1	Lothian	+ve	*Gyro*

G.d = Gyrodactylus derjavinoides

Gyro – Gyrodactylus species confirmed not Gs and not salmonid

Annex 2 - Map identifying the regions of Scotland


Shetland
Orkney
Western Isles
Highland
Grampian
Tayside
Fife
Central
Lothian
Strathclyde
Borders
Dumfries and Galloway

GSWG(26)08

Progress in Relation to the Measures Contained in the Road Map:

Norway

The Terms of Reference (ToRs) for the 2026 Meeting of the Working Group on *G. salaris* task the Group with the following:

- *reviewing progress in relation to the measures contained in the revised Road Map, NEA(23)14;*
- *reviewing and updating the Commission's revised Road Map to ensure action-oriented content such that it better reflects the seriousness of infection by the parasite;*
- *reviewing the Contingency Plans presented at its meeting and offering guidance on best practice for these Plans to Commission members where relevant; and*
- *developing recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced.*

This template allows Parties / jurisdictions to provide information in response to the first of these ToRs. Only those recommendations that relate to Parties / jurisdictions are included.

The information provided will be annexed to the Report of the Meeting, which will be posted on the NASCO website.

Completing this template is optional but would provide a standardised method for reporting on progress which may enhance the efficiency of the Groups' work. Please provide any completed templates to the Secretariat **by your close of business on 27 February 2026**.

1.	**Preventive measures and contingency planning**
1. a)	Appropriate steps should be taken to prevent the spread of *G. salaris* on fishing equipment, boats, etc. by use of approved disinfection methods.

Please provide information on your Party's / jurisdiction's progress on this:

It is forbidden to move fishing equipment, kayaks and any other equipment between or within water systems, without first drying or disinfecting it. This regulation is implemented in Norwegian legislation and regulatory guidance is published on the Norwegian Food Safety Authority websites in both Norwegian and English.

Help us keep our fish healthy from gyro | The Norwegian Food Safety Authority

1. b)	All movements of live fish should be recorded so that movements can be traced in the event of an outbreak of *G. salaris.*

Please provide information on your Party's / jurisdiction's progress on this:

Norway has fully implemented mandatory systems for recording and tracing all movements of live fish. Under dyrehelseforskriften § 16, operators must document every movement of aquatic animals, including origin, destination, species, quantity, and date, and make these records available to the competent authority.

In addition, the Akvakulturdriftsforskriften § 10 requires comprehensive record-keeping of all operational activities, including stocking, harvesting, mortality, and any movement of fish into or out of the facility. These records ensure full traceability and support rapid response in the event of a *G. salaris* outbreak.

1. c)	Where possible, routine breaks in production and disinfection on rainbow trout and salmon freshwater aquaculture sites should be implemented as part of a control programme in infected areas.

Please provide information on your Party's / jurisdiction's progress on this:

Akvabiosikkerhetsforskriften (EU) 2020/691 establishes explicit requirements for physical separation of operational units, biosecurity barriers, disinfection stations, visitor-control procedures, and systematic cleaning and disinfection of equipment. Akvakulturdriftsforskriften § 11 further mandates that operators prevent the introduction, development, and spread of infectious agents, and that necessary fallowing and thorough sanitation are carried out.

Forskrift om desinfeksjon av inntaksvann til og avløpsvann fra akvakulturrelatert virksomhet requires that hatcheries and facilities producing salmonids and other freshwater fish must not normally use seawater or freshwater from sources with upstream migration of anadromous fish. If such water is used, it must be disinfected to reduce the risk of introducing pathogens into the facility, using approved methods and equipment and in accordance with both the regulation and the facility's operational plan.

Dyrehelseforskriften, chapter III. supplementary national provisions – measures for category E diseases and nationally listed diseases in aquatic animals sets out specific obligations for establishments where a nationally listed disease such as *G. salaris* is suspected or confirmed, including official restrictions, enhanced biosecurity measures, and requirements for cleaning, disinfection, and fallowing as part of disease control.

1. d)	Permission to stock fish into infected river catchments should be based on an assessment of the increased risk of transmission of the parasite to non-infected rivers (e.g. through migration and other routes).

Please provide information on your Party's / jurisdiction's progress on this:

Fish are released into infected river systems only after completed treatment against *Gyrodactylus salaris*. This is important to rebuild the population of native fish. Otherwise, the river will largely be re-established by fish from other rivers and farmed fish. This also helps ensure that any remaining infection is detected more quickly.

1. e)	North-East Atlantic Commission (NEAC) Parties and their relevant jurisdictions should have contingency plans in place for treatment, containment or eradication. These plans should be developed in consultation with stakeholders. A legal base for the use of rotenone or other treatments, containment and eradication measures should be put in place. Contingency plans should be tested periodically and updated as required.

Please provide information on your Party's / jurisdiction's progress on this:

Work is underway to update the national contingency plan from 2021, and the revised version is scheduled to be finalised and published later this year

1. f)	NEAC Parties and their relevant jurisdictions should endeavour to ensure that adequate resources are available for the implementation of measures to contain and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

2.	**Cooperation on management**
Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.	

Please provide a copy of and /or link to your Party's / jurisdiction's Contingency Plan, if available

We have prepared a draft of our updated contingency plan, which has been shared with the NEAC Parties. The final version will be made available later this year.

3.	**Monitoring methods for use in watercourses, lakes and in aquaculture**
3.	The Working Group should review new developments with regard to monitoring for, and detection of, *G. salaris*, and develop recommendations for their inclusion in international guidelines.

Please provide information on your Party's / jurisdiction's progress on this:

The collection of water samples and analysis of environmental DNA are being used to an increasing extent, and the potential of this approach must be further developed. At present, it is mainly used as a supplementary measure to determine infection status in and around river systems where measures to eradicate *Gyrodactylus salaris* are ongoing. So far, the method is not used in the official monitoring programmes for *Gyrodactylus salaris*.

4.	**Distribution of *G. salaris* in the NEAC area and adjacent areas**
4. a)	Existing monitoring programmes on salmonids in the wild and in aquaculture environments undertaken by NEAC Parties and their relevant jurisdictions should be retained and expanded as necessary. If requested, information from monitoring should be made available to the Working Group at their next meeting.

Please provide any relevant information from your Party / jurisdiction in relation to this:

The surveillance programme for *G. salaris* in Atlantic salmon and rainbow trout in Norway aims to document freedom of *G. salaris* in Norwegian farms and rivers, and to detect and trace

any spread of the parasite to new river systems or fish farms. The National Food Safety Authority is responsible for fish farm sampling, while the Norwegian Veterinary Institute is responsible for river sampling, examination of fish samples and the subsequent species identification if *G. salaris* is detected.

Each farm (commercial farms and hatcheries for restocking watercourses) is sampled every second year. In 2025 a total of 71 sites were examined. All the samples were negative.

About 70 rivers are included in the sampling programme. The selection is risk-based, considering factors such as previous infection status, river size, risk of inter-river transmission, external infection pressure and geographical representation.

The post treatment surveillance programme for *G. salaris* in Norway aims to document the absence of the parasite in previously infested water courses after the implementation of eradication measures. The post-treatment programme runs for a minimum of 5 years after treatment, to ascertain freedom from infection with *G. salaris*. This time frame is based on a smolt age of four years, adding a one-year safety margin. In watercourses with a higher smolt age, the time to ascertain freedom from infection is increased proportionally.

In 2024, the final treatment against *G.salaris* was carried out in the Driva region and the post treatment surveillance programme started the following year. In total, 498 salmon were examined in 2025, and no *G. salaris* were found on any of these fish. Nor was any DNA from *G. salaris* detected in the environmental DNA samples that were collected. The programme is expected to continue for six years, running until 2030.

The annual reports for the surveillance programmes are published during the first half of each year and are available on both the Norwegian Veterinary Institute's website and the Norwegian Food Safety Authority's website:

Våre overvåkingsprogrammer - Veterinærinstituttet)

Overvåking og kartlegging Gyrodactylus | Mattilsynet

5.	**Research to inform the effective management of *G. salaris***
5. a)	The NEAC Parties and their relevant jurisdictions should conduct research to inform the effective management of *G. salaris*, particularly the following: - the distribution and genetics of *G. salaris*; - the effects of salmon genetics on susceptibility to *G. salaris*; - the effect of environmental factors on pathogenicity; - to clarify the classification of *G. salaris* and *G. thymalli* and then develop a reliable method to distinguish between pathogenic and non-pathogenic strains; - general biology and mechanisms of spread of the parasite; - effect of environmental parameters and ecology on the distribution of *G. salaris*; - detection and diagnostic methods for *G. salaris;* - new environmental friendly treatment methods in rivers and lakes, e.g. acid aluminum and chloride.

Please provide information on your Party's / jurisdiction's progress on this:

Methodology for the detection of *Gyrodactylus salaris* using environmental DNA is under continuous development and is becoming an increasingly useful tool for detecting *Gyrodactylus salaris* (see section 3). Chlorine has been used as a treatment method in the River Driva, where the treatment has now been completed. Chlorine will also be used in the treatment of the River Drammen.

Chlorine treatment provides the same advantages as acid aluminum, while being a more robust and simpler method. Acid aluminum is therefore considered a less relevant method for the future.

For further information, reference is made to the Norwegian Veterinary Institute's website.

7.	**Publicity, education, and awareness**
7. a) & b)	NEAC Parties and their relevant jurisdictions should develop publicity material on the threat of the parasite to wild Atlantic salmon and specify measures to prevent its spread; strategies for the effective dissemination of this material should be developed particularly with regard to targeting high risk groups. Existing material should be reviewed and updated as appropriate in the light of current knowledge. This material should be made available on the web sites and promoted on the social media platforms of the Competent Authorities and NASCO with a view to highlighting the serious risks posed by the spread of the parasite.

Please provide information on your Party's / jurisdiction's progress on this and links to any appropriate material for publication on the NASCO website / social media channels:

The information to prevent the spread og G. salaris is in a continuous process and it will be distributed to anglers, local representatives of watercourses and to the public in general throughout the whole country through NFSAs website.

8.	**Continuity of current measures in the EU Animal Health Law**
8.	Relevant NEAC Parties and their relevant jurisdictions should seek to ensure continuity in the provisions related to *G. salaris* in current EU animal health legislation (Regulation 2016/429) which should be retained, in particular with regard to additional guarantees.

Please provide information on your Party's / jurisdiction's progress on this:

Gyrodactylus salaris is listed as a notifiable disease in Norway. The legislation is preventing the transfer of live fish capable of carrying the parasite to or within Norwegian areas. Norway has approved national measures in respect of *G. salaris* in order to prevent the introduction and control the spread of *G. salaris*. These national measures to protect the health status in Norway have been recognised in accordance with Article 226(3) of Regulation (EU) 2016/429. The

approval of national measures, Commission Decision No 203/21/COL (updated by 019/25/COL), has been adopted by EFTA Surveillance Authority, 16 July 2021. The Decision recognises certain areas of Norway free from infection *with G. salaris*. The Decision further approves Norway's eradication programme for those areas of Norway which remain infected with *G. salaris*.

9.	**Criteria for diagnosis and establishing *G. salaris* free zones**
9.	NEAC Parties and their relevant jurisdictions should implement the diagnostic standards in the WOAH Manual of Diagnostic Tests for Aquatic Animals.

Please provide information on your Party's / jurisdiction's progress on this:

Diagnosis of *G. salaris* is restricted to the Norwegian Veterinary Institute, designated as the National Reference Laboratory (NRL). Diagnostic procedures follow the criteria set out in the World Organisation for Animal Health's diagnostic manual.

10.	**Trade in live susceptible fish species**
10. a)	Trade in disinfected eggs is preferable to trade in live susceptible fish species. However, where movements of live susceptible fish species are approved, NEAC Parties and their relevant jurisdictions should ensure that trade in live susceptible fish species only takes place between areas of equal *G. salaris* status or from a higher to lower status area

Please provide information on your Party's / jurisdiction's progress on this:

Fish susceptible to *G. salaris* may only be imported into Norway if they originate from a country or area that holds approved freedom status for the parasite. See Article 3 of ESA Decision 203/21/COL for the provisions related to the health certificate.

10. b)	NEAC Parties and their relevant jurisdictions should ensure the health status of the traded live susceptible fish species and/or their eggs, and the competence of the certifying Authority.

Please provide information on your Party's / jurisdiction's progress on this:

Norway ensures the health status of traded live susceptible fish species and their eggs through strict regulatory requirements. For exports of live fish and gametes to countries outside the EU/EEA, exporters must comply with the animal-health conditions established by the importing country, and certification is issued only when these conditions are met.

If a facility has a suspicion or confirmed detection of *G. salaris*, it is placed under official restrictions in accordance with national legislation on listed diseases (see Dyrehelseforskriften §11). Facilities under such restrictions are not permitted to move aquatic animals, and health certificates are not issued for sites subject to disease-related movement limitations.

11.	**Shared catchments**
11.	NEAC Parties and their relevant jurisdictions with shared catchments or having catchments in close proximity should implement appropriate mechanisms for cooperation, including the

	establishment and strengthening of inter-country working groups and the development of common contingency plans to control and eradicate *G. salaris*.

Please provide information on your Party's / jurisdiction's progress on this:

Our Precious Waters - Finnish-Norwegian water catchment management to conserve joint waters and biodiversity. This project aims to address specific issues related to water and environmental management in Finnish-Norwegian cross-border watersheds. These issues have been raised as concerns by people in the northern municipalities of Finland and Norway. Due to the complexity of these topics, they require more attention and cross-border cooperation than is possible within the normal everyday work of the authorities and research organizations of either state. The project focuses on three transboundary river systems in northern Finland and Norway: the rivers Pasvik, Neiden, and Tana.

More information about the project can be found here: OUR PRECIOUS TRANSBOUNDARY WATERS - Interreg Aurora

Update from the Secretariat on the Implementation of the Road Map

Background

The Working Group on *G. salaris* has been asked to review progress in relation to the measures contained in the Commission's 'Revised Road Map to Enhance Information Exchange and Co-operation on Monitoring, Research and Measures to Prevent the Spread of *G. salaris* and Eradicate it if Introduced', NEA(23)14.

Many of the recommendations in the Road Map relate specifically to the members of the North-East Atlantic Commission, who have been asked to report on those recommendations separately. However, several of the recommendations are directed towards the Commission itself or the Secretariat. This paper provides an update on those.

Update

Recommendation 2a: The NEAC should retain an item on *G. salaris* on the agendas for its annual meetings. This would facilitate reports by its Parties and their relevant jurisdictions and by the Working Group on measures to prevent the further spread of the parasite and to eradicate it in areas where it has been introduced and on other aspects of this 'Road Map'.
An item on *G. salaris* has been retained on the Agenda for the NEAC Annual Meeting each year since the adoption of the Road Map in 2018. The Commission has received updates from its members on activities in relation to the parasite, and from the Working Group, under this Agenda item.
Recommendation 2b: The Working Group on G. *salaris* in the NEAC Area should meet again in 2018 and then every 3 years thereafter, or more frequently if circumstances require, to provide a forum for more detailed information exchange and review of progress in implementing this 'Road Map'.
The Working Group on *G. salaris* met in 2018, 2021 and 2022. Due to the availability of the Working Group Chair in the latter half of 2025, the NEAC agreed that the next meeting of the Working Group would be held in 2026.
Recommendation 2c: Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.
The NEAC agreed in 2023 that Contingency Plans should be presented at the next meeting of the Working Group. The Terms of Reference for this meeting, NEA(25)14, include 'reviewing the Contingency Plans presented at its meeting and offering guidance on best practice for these Plans to Commission members where relevant. The Secretariat is aware that several Contingency Plans, in draft format, will be presented for discussion at the 2026 Working Group meeting. A previous version of the Norwegian Contingency Plan (in Norwegian) had been sent to NASCO and linked to from the NASCO website. However, we understand this Plan is currently being reviewed and an updated version will be sent when finalised.

Recommendation 4b: Information should be requested from all NEAC Parties and their relevant jurisdictions which have wild Atlantic salmon but which have not participated in the Working Group to date.

Following its re-accession to the NASCO Convention in 2024, Iceland will participate in the Working Group in 2026 for the first time since 2006.

Representatives of each of the other NEAC Parties will attend the 2026 Working Group Meeting, with the exception of Denmark (in respect of the Faroe Islands and Greenland) which does not have any wild Atlantic salmon rivers in the North-East Atlantic Commission area.

The Secretariat has contacted the Head of the EU delegation to ask whether any jurisdictions which have not recently been involved in the Group's work would like to attend the meeting or provide an update to the Group. No further information has been provided to-date.

Recommendation 4c: NEAC Parties and their relevant jurisdictions should identify *G. salaris* as an impact factor in the NASCO river database for those rivers infected by the parasite.

The NASCO Rivers Database was replaced by the 'Wild Atlantic Salmon Atlas', which was launched in 2025. *G. salaris* has been identified as an impact factor in the Atlas by EU-Sweden, Norway and the Russian Federation.

In addition, in 2025 each of NASCO's Parties with wild Atlantic salmon rivers conducted an analysis of the key threats and pressures to wild Atlantic salmon under their jurisdiction. *G. salaris* was identified in these assessments, which are available on the NASCO website and through the Atlas, by EU-Finland, EU-Sweden, Norway, the Russian Federation, UK-England and UK-Wales.

Recommendation 4d: The NASCO Secretariat should make a request to the World Organisation for Animal Health (WOAH) reference laboratory for G. salaris seeking information on the distribution of G. salaris in countries that have wild and/or farmed susceptible species, but which do not have wild Atlantic salmon.

Haakon Hansen is the World Organisation for Animal Health Reference Expert for *G.salaris* and the WOAH Reference Laboratory for *G. salaris* is the Norwegian Veterinary Institute.

Haakon has advised that this paper contains the distribution in all countries:

- Paladini, G., Shinn, A.P., Taylor, N.G.H. et al. Geographical distribution of Gyrodactylus salaris Malmberg, 1957 (Monogenea, Gyrodactylidae). Parasites Vectors 14, 34 (2021). https://doi.org/10.1186/s13071-020-04504-5

He has also provided this paper:

- Hansen H, Ieshko E, Rusch JC, Samokhvalov I, Melnik V, Mugue N, Sokolov S, Parshukov A (2022) Gyrodactylus salaris Malmberg, 1957 (Monogenea, Gyrodactylidae) spreads further – a consequence of rainbow trout farming in Northern Russia. Aquatic Invasions Volume 17, issue 2: 224–237, http://dx.doi.org/10.3391/ai.2022.17.2.06'

Haakon has highlighted that there have been no studies in rainbow trout farms in continental Europe in recent years.

Recommendation 5b: The Working Group should keep research requirements and monitoring needs under review and report regularly to the NEAC.
The Terms of Reference for the 2026 Meeting of the Working Group, NEA(25)14, note that the Group's role is to provide 'a forum for exchange of information among the Parties / jurisdictions on research on, and monitoring, control and eradication programmes for, the parasite' and task it with developing developing 'recommendations for enhanced measures to prevent the further spread of the parasite and for its eradication in areas where it has been introduced'.
Recommendation 6: NEAC Parties and their relevant jurisdictions should only support any future proposal to synonomise *G. salaris* and *G. thymalli* if, in parallel, WOAH standards and national legislation recognize the different pathogenicity and host predilection of these two species.
In 2020 the North-East Atlantic Commission considered a paper from the Chair of the Working Group, NEA(20)06, which concluded that what was formerly *G. thymalli* (parasites from grayling) would not be diagnosed as *G. salaris* by WOAH (formerly OIE), and that the synonymisation will, therefore, have no practical consequences for NASCO Parties / jurisdictions.
Recommendation 7b: This material *{publicity material developed by NEAC Parties}* should be made available on the web sites and promoted on the social media platforms of the Competent Authorities and NASCO with a view to highlighting the serious risks posed by the spread of the parasite.
Material has been provided by EU-Ireland and Norway and is available on the NASCO website. The Secretariat will shortly undertake an update of the *G. salaris* information on the website and will share any further material received on its social media feeds (X and LinkedIn)

Secretariat
Edinburgh
5 March 2026

Gyrodactylus salaris monitoring in Sweden 2025

Hampus Hällbom, veterinarian at the Swedish Veterinary Agency.

Gyrodactylus salaris in sweden

- Notifiable, no eradication programme
- Endemic in east coast rivers (Baltic sea)
- Not allowed to transfer salmonid fish to Gs free rivers on the west coast
- Monitoring on the west coast
  - 7 rivers
  - Electro fishing for parr, euthanization, preserve fish in 70% EtOH
  - Each fish investigated under 40x magnification
    - No of *Gyrodactylus* counted
- If found in new location:
  - Samples for species determination sent to NVI
    - Morphology, PCR, sequencing

Who does what?

- The Swedish Board of Agriculture – regulates farmed fish, imports etc
- The Swedish Agency for Marine and Water management – regulates wild fish/waters
- The county boards – give permits for farms
- The Swedish Veterinary Agency – reference laboratory, counseling, disease control programs
- Swedish Environmental Protection Agency

Jordbruks verket

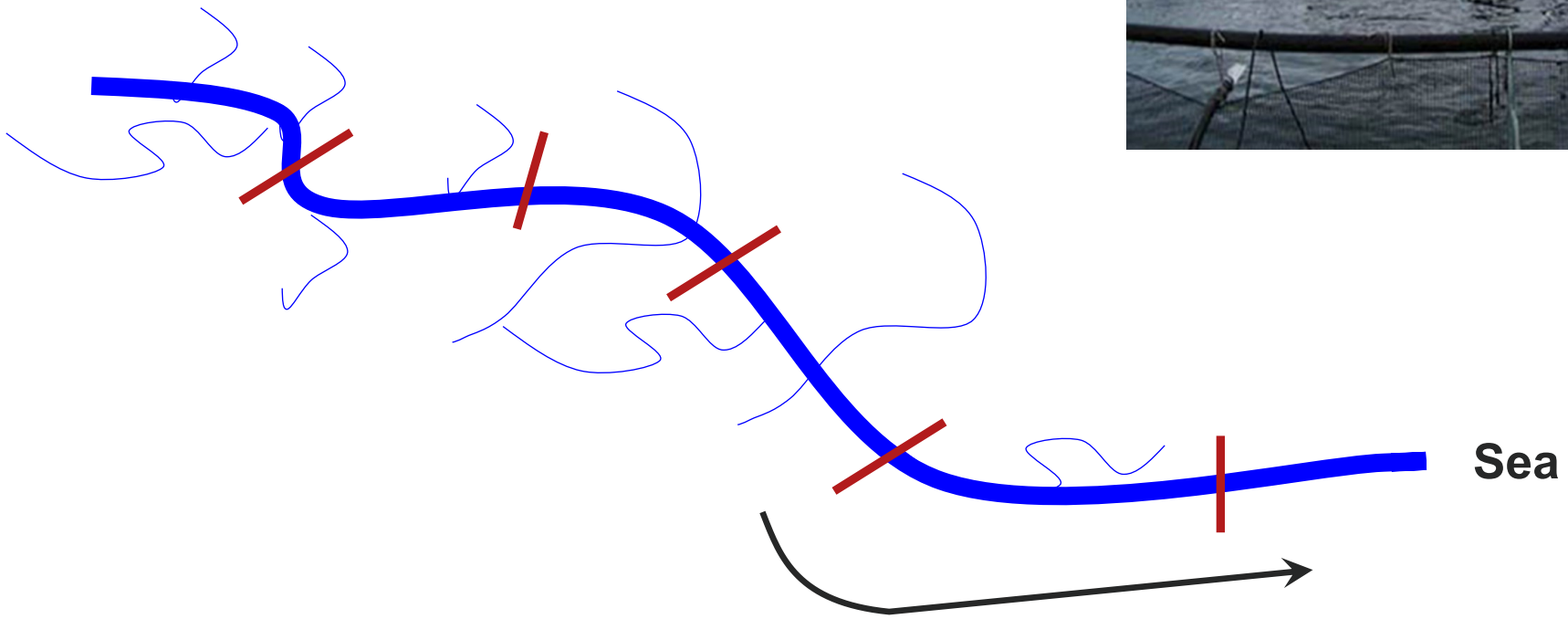
Havs och Vatten myndigheten

Länsstyrelserna

NATUR VÅRDS VERKET

SVA

Transfer of fish from coastal zone to inland zone forbidden



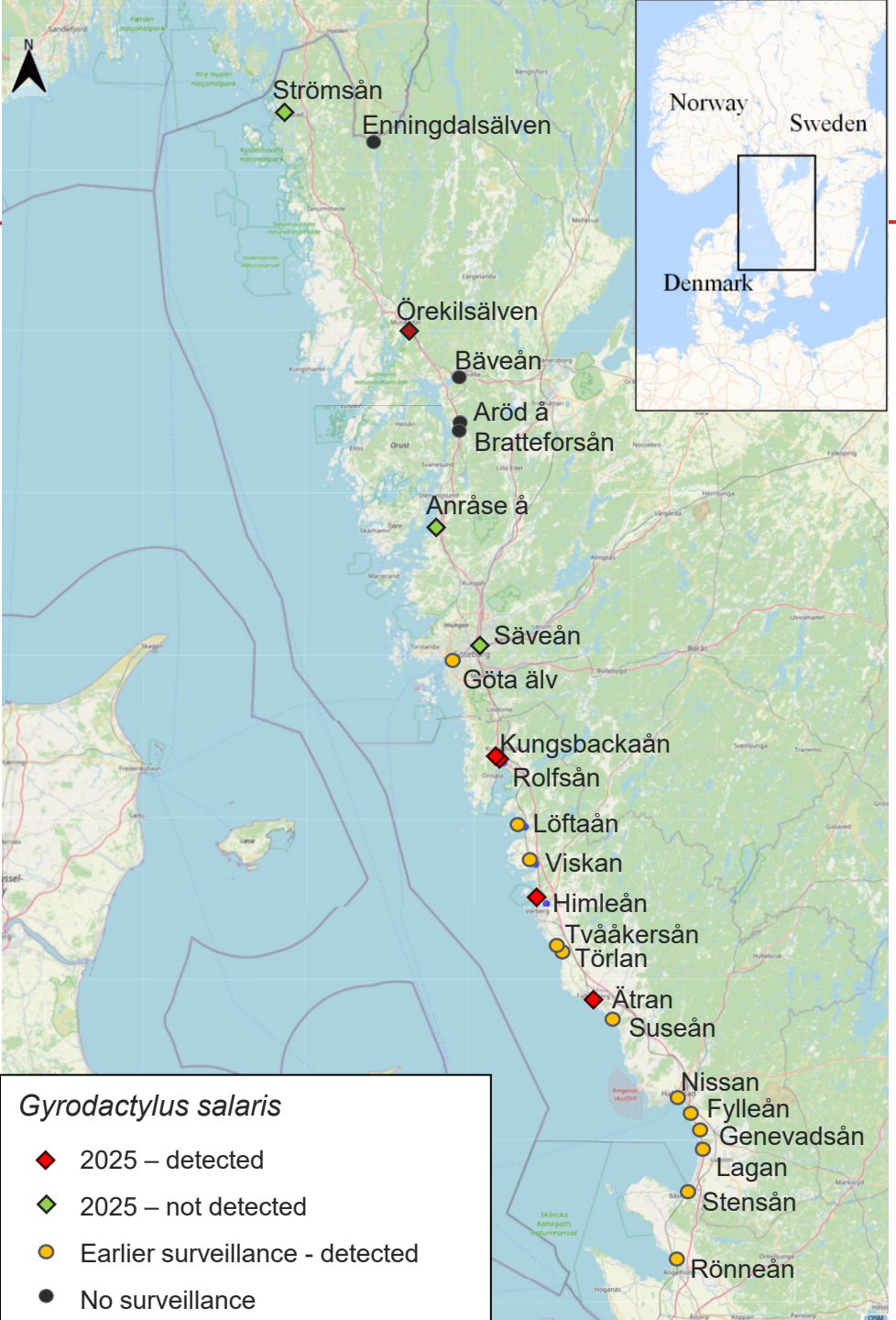
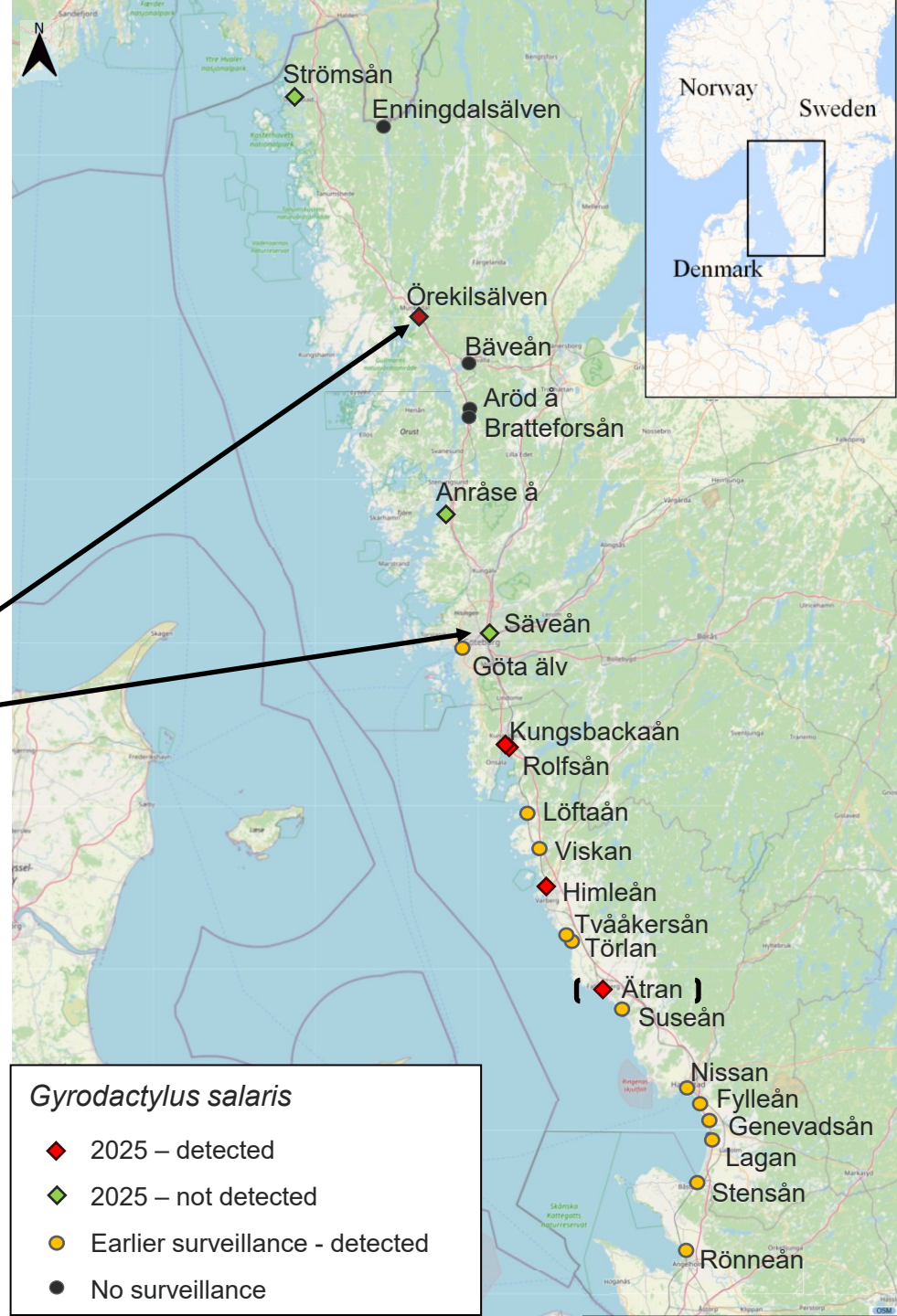


Table 1. Results from electro fishing of salmon parr for the presence of *Gyrodactylus* sp. in seven Swedish west coastal rivers 2025.

River / Sampling point	Date	No of parr	*Gyrodactylus* sp.	
			Infected parr No (%)	No of parasites, median on infected individuals (min, max)
Anråsån	**2/4**	**19**	**0**	**-**
Kvarndalen		**19**	**0**	-
Örekilsälven		**25**	**1 (4)**	**8 (8, 8)**
Munkedalsälven	23/4	3	1(33)	8 (8, 8)
Skäret	24/4	10	0	-
Stenshöljan	24/4	12	0	-
Säveån	**8/4**	**26**	**0**	**-**
Jonsereds fabriker		18	0	-
Nedströms Kåhögsbron		8	0	-
Kungsbackaån	**3/4**	**32**	**29 (91)**	**58 (1, 448)**
Alafors		10	9 (90)	79 (2, 273)
Hovgården		9	9 (100)	90 (1, 448)
Lillån		13	11 (85)	53 (1, 231)
Rolfsån		**40**	**13 (33)**	**98 (2, 504)**
Bosgården	14/4	2	1 (50)	18 (18, 18)
Fälån	4/4	7	3 (43)	15 (2, 107)
Island pool	14/4	17	9 (53)	125 (38, 504)
Sundtorpsåsen	14/4	14	0	-
Himleån	**9/4**	**21**	**21 (100)**	**60 (2, 855)**
Göingegården norrfåran		10	10 (100)	247 (2, 638)
Ställverket		11	11 (100)	60 (6, 855)
Strömsån	**23/4**	**16**	**0**	**-**
Kanotklubben		8	0	-
Ödegården		8	0	-
Total		**179**	**64 (36)**	**(1, 855)**

Säveån 1989 – haplotype E
Southern rivers – haplotyp A

Örekilsälven 2025 – haplotype A



Information from the Swedish Agency for Marine and Water Management

Detection in Munkedalsälven
An **infected salmon juvenile** was detected in **Munkedalsälven**, a tributary of the **Örekilsälven**.
The **introduction pathway is unknown**, but **human-mediated spread is considered likely**.
Follow-up monitoring (expanded sampling, eDNA analysis, and electrofishing) in both rivers **found no additional detections**.
Further monitoring surveys are planned for spring.

Measures implemented
Fishing ban in Munkedalsälven.
Mandatory disinfection of fishing equipment in Örekilsälven.
Amendments introduced to freshwater fishing regulations by the **Swedish Agency for Marine and Water Management** (**FIFS 2004:37**).
Information distributed to **fishing rights holders and the public**, in cooperation with the **National Veterinary Institute (Sweden)** and the **Norwegian Veterinary Institute**.

Planned regulatory changes
Proposal for a **general requirement to disinfect fishing equipment before fishing in salmon rivers**.
Part of the **ongoing review of salmon fishing regulations in the Baltic Sea**.
Sweden already has **strict rules prohibiting the movement and stocking of salmonids in west coast salmon rivers**.

CONCLUSIONS

- *Gyrodactylus salaris* peresent in Örekilsälven for the first time
- Haplotype A
- No findings of Gyrodactylus in Säveån
- Continued and intensified monitoring
- Gyrodactylus road map in progress
- No plans for an eradication program as of now

hampus.hallbom@sva.se

England and Wales NASCO Gs Update

10-12th March 2026

Chiara Bosco

Centre for Environment Fisheries & Aquaculture Science

Cefas

Fish Health Inspectorate – who we are?

The Fish Health Inspectorate is the Competent Authority for Aquatic Animal Health for England and Wales.

The FHI has a legal duty to deliver the remit under the **Aquatic Animal Health (England and Wales) Regulation 2009**. We achieve this through:

Investigation and control of outbreaks of listed and emerging disease of aquatic animals, both on suspicion and on confirmation.

Investigation of unexplained or increased mortality in aquatic animals, both in aquaculture and in the wild.

On site monitoring of aquatic animal health through inspection of aquaculture farms and purification establishments, importers and dealers.

Controlling and monitoring imports and exports of live aquatic animals.

Centre for Environment Fisheries & Aquaculture Science

Cefas

Gs Contingency Planning

- Contingency plan for Exotic Notifiable and Emerging Diseases of Aquatic Animals in England and Wales – Link
- Gs Control Strategy – in Draft
- Simulation Exercises
  - Exercise Alpheus (2015) – Wild fish sampling strategy
  - Operation Russian Doll (2021) – Field and lab capacity and turnaround time

Gs Surveillance in England and Wales

FHI has a rolling programme sampling 10 (of 82) catchments a year to demonstrate freedom from Gs.

Every year we test wild juvenile population of primarily salmon (parr).

Sampling undertaken with:

Environment Agency

Cyfoeth Naturiol Cymru
Natural Resources Wales

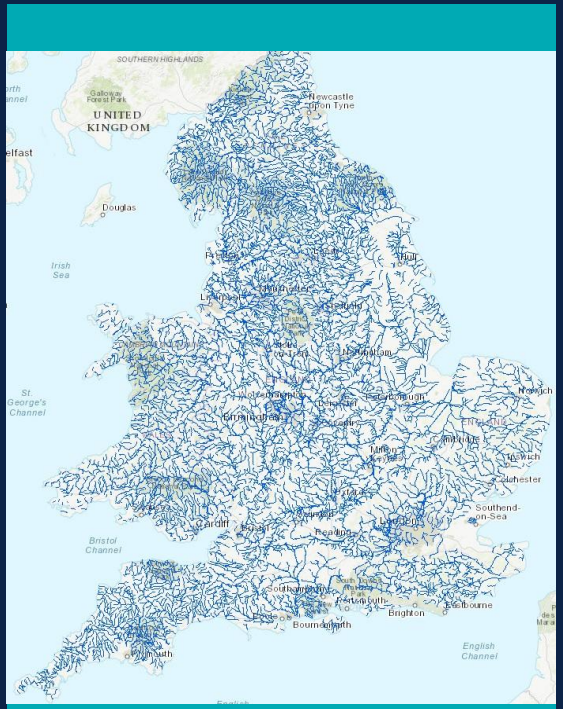
Received: 26 February 2019 | Revised: 17 May 2019 | Accepted: 23 May 2019
DOI: 10.1111/tbed.13263

ORIGINAL ARTICLE

Transboundary and Emerging Diseases WILEY

Development of a non-lethal hydrogen peroxide treatment for surveillance of *Gyrodactylus salaris* on trout farms and its application to testing wild salmon populations

Mark A. Thrush | Tom Hill | Nick G. H. Taylor



"Almost 1500 discrete river systems, comprising over 200,000 km of watercourses may be identified across the UK" (source NRFA).

Non-Lethal Sampling Process

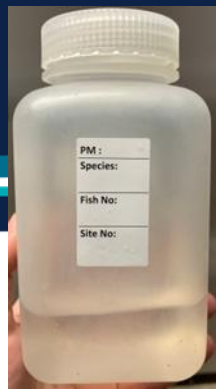
Parasite recovery apparatus (conical tank on stand with and filter assembly and drain tap)

EA collect 30 wild salmon. If salmon are not presents, then brown trout for the purpose of the sampling.

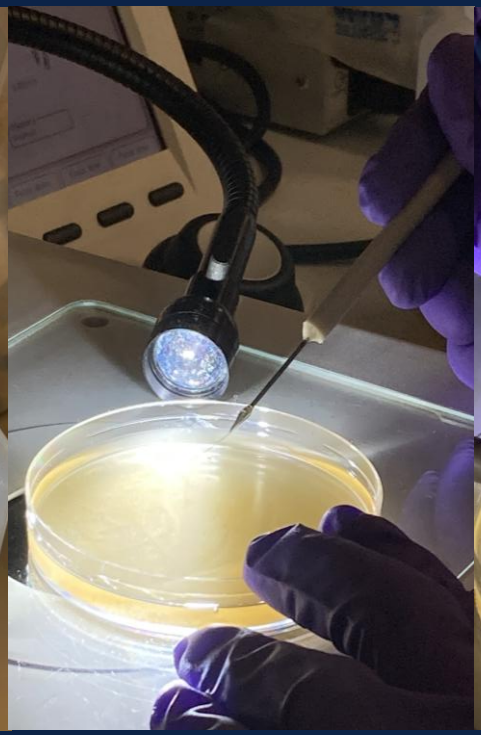
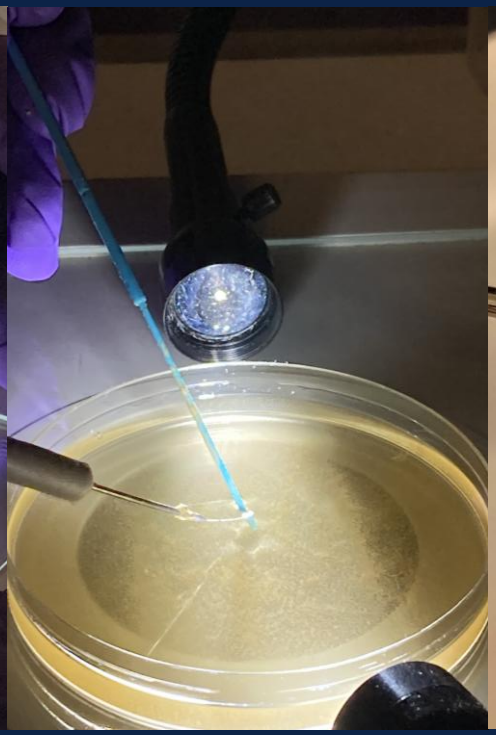
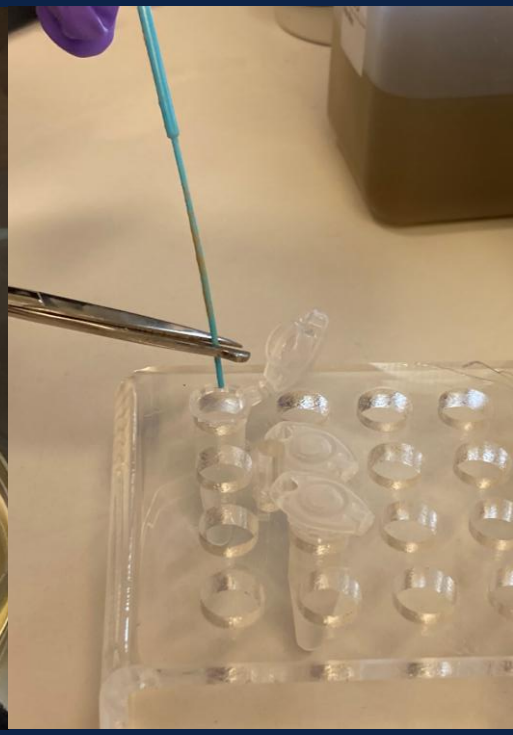
Gs Surveillance in England and Wales

Field activities

Average field time: 2 hours and 26 minutes



Laboratory activities

Average lab time: 15 hours

Field activities

Chemical method

Set up treatment apparatus (30 min)

Prepare treatment solution (2 min)

EA electrofishing salmon parr (~1 hour)

Treat fish (3 min)

Return fish to river catchment (1 min)

Drain and filter treatment solution (10 min)

Fix filters and detached parasites in ethanol (5 min)

Disinfect and dismantle system (30 min)

Total average field time: 2 hours and 26 minutes

Whole-body examination

Set up sampling equipment (30 min)

Net, euthanise and fix fish in ethanol (1 hour)

Disinfect and pack away equipment (20 min)

Total field time: 2 hours

Laboratory activities

Isolate parasites from filters and ethanol (15 hours)

Dispose of waste (5 min)

Total lab time: 15 hours

Total time: 17/18 hours

Perform whole body examination, isolate parasites from fish and ethanol (41 hours)

Dispose of waste (40 min)

Total lab time: 42 hours

Total time: 44 hours

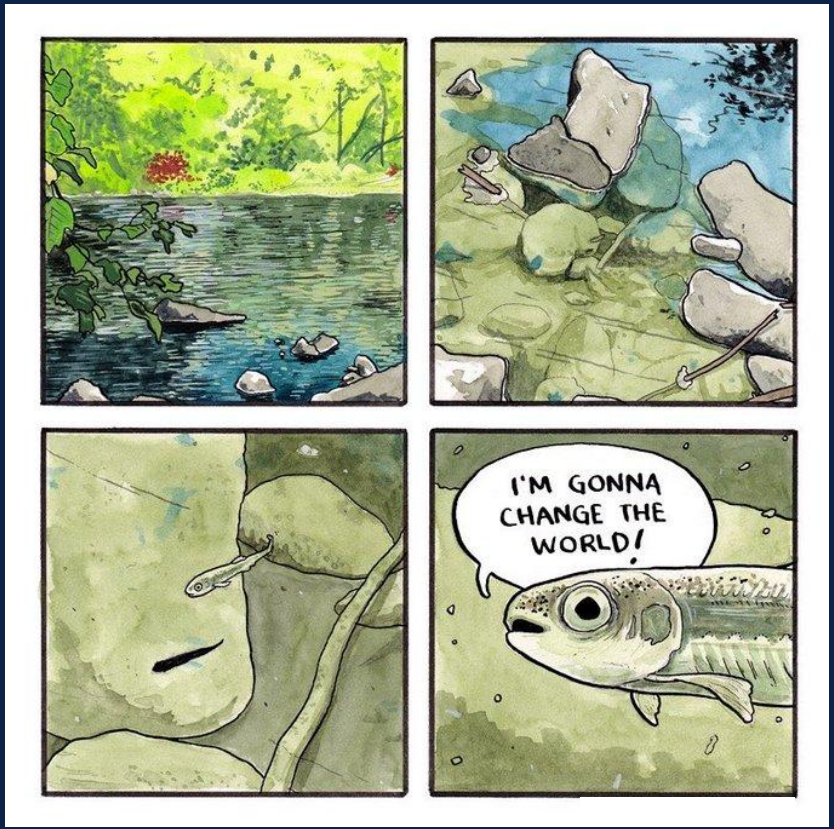
Conclusion

Non-lethal hydrogen peroxide treatment for surveillance of GS

- No fish are killed or harmed in the undertaking of this survey
- Conservation of salmon is maintained.
- Fewer objections from riparian owner.
- Quicker, more accurate and sensitive.
- Higher parasite recover rate (84.6% compared to 51.9% with all body examination)
- Want to validate the kit with real Gs parasite

And....

Thank you for listening



GSWG(26)18

Proposed Amendments to the 'Revised Road Map to Enhance Information Exchange and Co-operation on Monitoring, Research and Measures to Prevent the Spread of G. Salaris *and Eradicate it if Introduced', NEA(23)14*

This document shows the amendments proposed by the Working Group on *Gyrodactylus salaris* to the 'Revised Road Map to Enhance Information Exchange and Co-operation on Monitoring, Research and Measures to Prevent the Spread of *G. Salaris* and Eradicate it if Introduced', NEA(23)14. Part A of the document shows the proposed changes in tracked changes. For ease of reference, Part B shows a 'clean' version of the document with the proposed changes accepted.

Part A – Proposed Changes

~~*Revised Road Map to Enhance Information Exchange and Co-operation On Monitoring, Research and Measures to Prevent the Spread of* G. Salaris *and Eradicate it if Introduced*~~ Gyrodactylus Salaris *Action Plan*

Not all of the sections of this Action Plan apply in areas where the parasite is endemic. In areas where the infection status of the parasite is not known, NASCO's Precautionary Approach should be applied.

Recommendation Area	~~Proposed~~ Action
1. Preventive measures and contingency planning	a) ~~Appropriate s~~Steps should be taken to prevent the spread of *G. salaris* on fishing equipment, boats, etc. by use of approved disinfection methods. b) All movements of live fish, both domestic and international, should be recorded so that movements can be traced in the event of an outbreak of *G. salaris*. c) ~~r~~Routine fallowing and disinfection on rainbow trout and salmon freshwater aquaculture sites should be implemented as part of a control programme in infected areas.~~Where possible, routine breaks in production and disinfection on rainbow trout and salmon freshwater aquaculture sites should be implemented as part of a control programme in infected areas.~~

	d) Permission to stock fish into infected river catchments should be based on an assessment of the increased risk of transmission of the parasite to non-infected rivers (e.g. through migration and other routes). e) North-East Atlantic Commission (NEAC) Parties and their relevant jurisdictions should have contingency plans in place for treatment, containment or eradication. These plans should be developed in consultation with stakeholders. A legal base for the use of rotenone or other treatments, containment and eradication measures should be put in place. ~~-~~Contingency plans should be tested periodically and updated as required. f) NEAC Parties and their relevant jurisdictions should endeavour to ensure that adequate resources are available for the implementation of measures to contain and eradicate *G. salaris*. g) NASCO's Best Practice Guidance for the development of *Gyrodactylus salaris* Contingency Plans should be taken into account in developing Contingency Plans.
2. Co-operation on management	a) The NEAC should retain an item on *G. salaris* on the agendas for its annual meetings. This would facilitate reports by its Parties and their relevant jurisdictions and by the Working Group on measures to prevent the further spread of the parasite and to eradicate it in areas where it has been introduced and on other aspects of this '~~Road Map~~Action Plan'. b) The Working Group on *G. salaris* in the NEAC Area should meet ~~again in 2018 and then~~ every 3 years ~~thereafter~~, or more frequently if circumstances require, to provide a forum for more detailed information exchange and review of progress in implementing this '~~Road Map~~Action Plan'. c) Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.
3. Monitoring methods for use in watercourses, lakes and in aquaculture	The Working Group should review new developments with regard to monitoring for, and detection of, *G. salaris*, and develop recommendations for their inclusion in international guidelines.
4. Distribution of *G. salaris* in the NEAC area and adjacent areas	a) Existing monitoring programmes on salmonids in the wild and in aquaculture environments undertaken by NEAC Parties and their relevant jurisdictions should be retained and expanded as necessary.~~. If requested, information from monitoring should be made available to the Working Group for consideration at its next meeting.~~ New information from monitoring, including new detections of, or changes in the distribution of, the parasite should be reported to NASCO; either through the Working Group or, in years between Working Group meetings, through the annual reports to the NEAC. Where possible,

	information on the probable cause of any new detection and the impact on any wild salmon stocks should also be provided. Note: This does not replace any reporting requirements to the World Organisation for Animal Health (WOAH). b) Information should be requested from all NEAC Parties and their relevant jurisdictions which have wild Atlantic salmon but which have not participated in the Working Group to date. c) NEAC Parties and their relevant jurisdictions should identify *G. salaris* as an impact factor in the ~~NASCO river database~~Wild Atlantic Salmon Atlas for those rivers infected by the parasite. d) The NASCO Secretariat should make a request to the ~~World Organisation for Animal Health (~~WOAH~~)~~ reference laboratory for *G. salaris* seeking information on the global ~~the~~ distribution of *G. salaris*.
5. Research to inform the effective management of *G. salaris*	a) The NEAC Parties and their relevant jurisdictions should conduct or collaborate in research to inform the effective management of *G. salaris*, particularly the following: - the distribution and genetics of *G. salaris*; - the effects of salmon genetics on susceptibility to *G. salaris*; - the effect of environmental factors on pathogenicity; - to clarify the classification of *G. salaris* and *G. thymalli* and then develop a reliable method to distinguish between pathogenic and non-pathogenic strains; - general biology and mechanisms of spread of the parasite; - effect of environmental parameters and ecology on the distribution of *G. salaris*; - detection and diagnostic methods for *G. salaris;* - new ~~environmental friendly~~ treatment and control methods in rivers and lakes~~, e.g. acid aluminum and chloride~~. b) The Working Group should keep research requirements and monitoring needs under review and report regularly to the NEAC.
6. Classification of *Gyrodactylus* species	NEAC Parties and their relevant jurisdictions should only support any future proposal to synonomise *G. salaris* and *G. thymalli* if, in parallel, WOAH standards and national legislation recognize the different pathogenicity and host predilection of these two species.

7. Publicity, education and awareness	a) NEAC Parties and their relevant jurisdictions should develop publicity material on the threat of the parasite to wild Atlantic salmon and specify measures to prevent its spread; strategies for the effective dissemination of this material should be developed particularly with regard to targeting high risk groups. Existing material should be reviewed and updated as appropriate in the light of current knowledge. b) This material should be made available on the web sites and promoted on the social media platforms of the Competent Authorities and NASCO with a view to highlighting the serious risks posed by the spread of the parasite.
8. Continuity of current measures in the EU animal health legislation~~Animal Health Law~~	Relevant NEAC Parties and their relevant jurisdictions should seek to ensure continuity in the provisions related to *G. salaris* in current EU animal health legislation, ~~(Regulation 2016/429)~~ which should be retained, in particular with regard to additional guarantees.
9. Criteria for diagnosis and establishing *G. salaris*-free zones	NEAC Parties and their relevant jurisdictions should implement the diagnostic standards in the WOAH Manual of Diagnostic Tests for Aquatic Animals.
10. Movement of~~Trade in~~ live susceptible fish species	a) Movement of~~Trade in~~ disinfected eggs is preferable to ~~trade in~~ movement of live susceptible fish species. However, where movements of live susceptible fish species are approved, NEAC Parties and their relevant jurisdictions should ensure that any such movement~~trade in live susceptible fish species~~ only takes place between areas of equal *G. salaris* status or from a higher to lower status area (e.g. from a disease-free area to an infected area). b) NEAC Parties and their relevant jurisdictions should ensure they are satisfied with the health status and certification process of the moved~~traded~~ live susceptible fish species and / or their eggs before any movement takes place~~, and the competence of the certifying Authority~~.
11. Shared catchments	NEAC Parties and ~~their~~ all relevant jurisdictions and actors (including non-NASCO Parties) with shared catchments, or having catchments in close proximity, should implement appropriate mechanisms for co-operation, including the establishment and strengthening of inter-country working groups and the development of common ~~contingency plans~~measures to prevent, control and eradicate *G. salaris*.

Part B – 'Clean Version' with the Changes Accepted

Gyrodactylus Salaris *Action Plan*

Not all of the sections of this Action Plan apply in areas where the parasite is endemic. In areas where the infection status of the parasite is not known, NASCO's Precautionary Approach should be applied.

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	b) The Working Group on *G. salaris* in the NEAC Area should meet every 3 years , or more frequently if circumstances require, to provide a forum for more detailed information exchange and review of progress in implementing this 'Action Plan'. c) Contingency plans developed by NEAC Parties and their relevant jurisdictions should be made available to the Working Group at its next meeting with the view to sharing information on approaches and challenges. The plans should be made available on the websites of the Competent Authorities with links to them from the NASCO website.
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	- to clarify the classification of *G. salaris* and *G. thymalli* and then develop a reliable method to distinguish between pathogenic and non-pathogenic strains; - general biology and mechanisms of spread of the parasite; - effect of environmental parameters and ecology on the distribution of *G. salaris*; - detection and diagnostic methods for *G. salaris;* - new treatment and control methods in rivers and lakes. b) The Working Group should keep research requirements and monitoring needs under review and report regularly to the NEAC.
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8. Continuity of current measures in the EU animal health legislation	Relevant NEAC Parties and their relevant jurisdictions should seek to ensure continuity in the provisions related to *G. salaris* in current EU animal health legislation, which should be retained, in particular with regard to additional guarantees.
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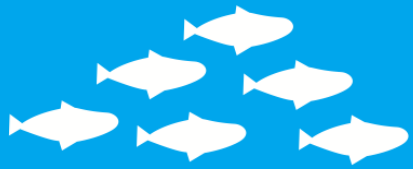
	movement only takes place between areas of equal *G. salaris* status or from a higher to lower status area (e.g. from a disease-free area to an infected area). b) NEAC Parties and their relevant jurisdictions should ensure they are satisfied with the health status and certification process of the moved live susceptible fish species and / or their eggs before any movement takes place.
11. Shared catchments	NEAC Parties and all relevant jurisdictions and actors (including non-NASCO Parties) with shared catchments, or having catchments in close proximity, should implement appropriate mechanisms for co-operation, including the establishment and strengthening of inter-country working groups and the development of common measures to prevent, control and eradicate *G. salaris*.

Veterinærinstituttet
Norwegian Veterinary Institute

GSWG(26)19

Latest treatments against *Gyrodactylus salaris* in Norway

Asle Moen
conservation measures*
Norwegian Veterinary Institute

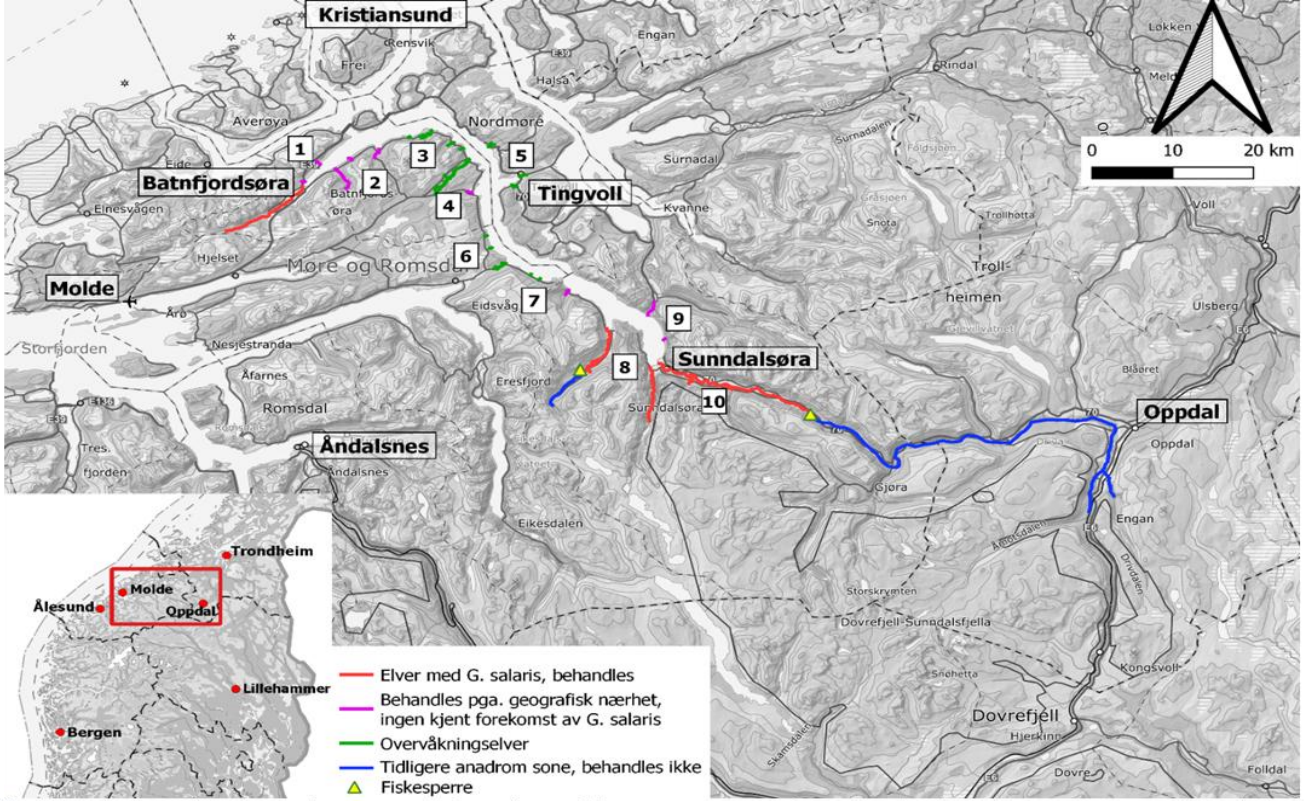


Who are we

- Norwegian Veterinary Institute
- National Competence Centre for the Control of *Gyrodactylus salaris*

Region Driva

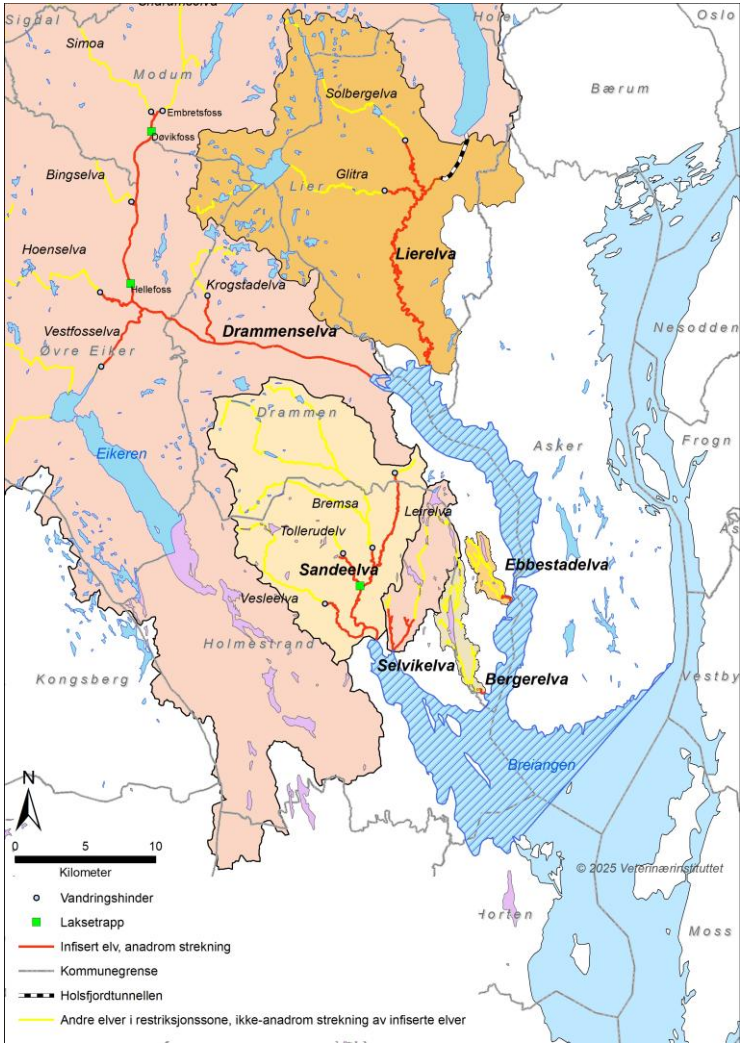
- Large treatments from 2021 – 2024
- Using Chlorine, rotenone and barriers
- Facing several challenges



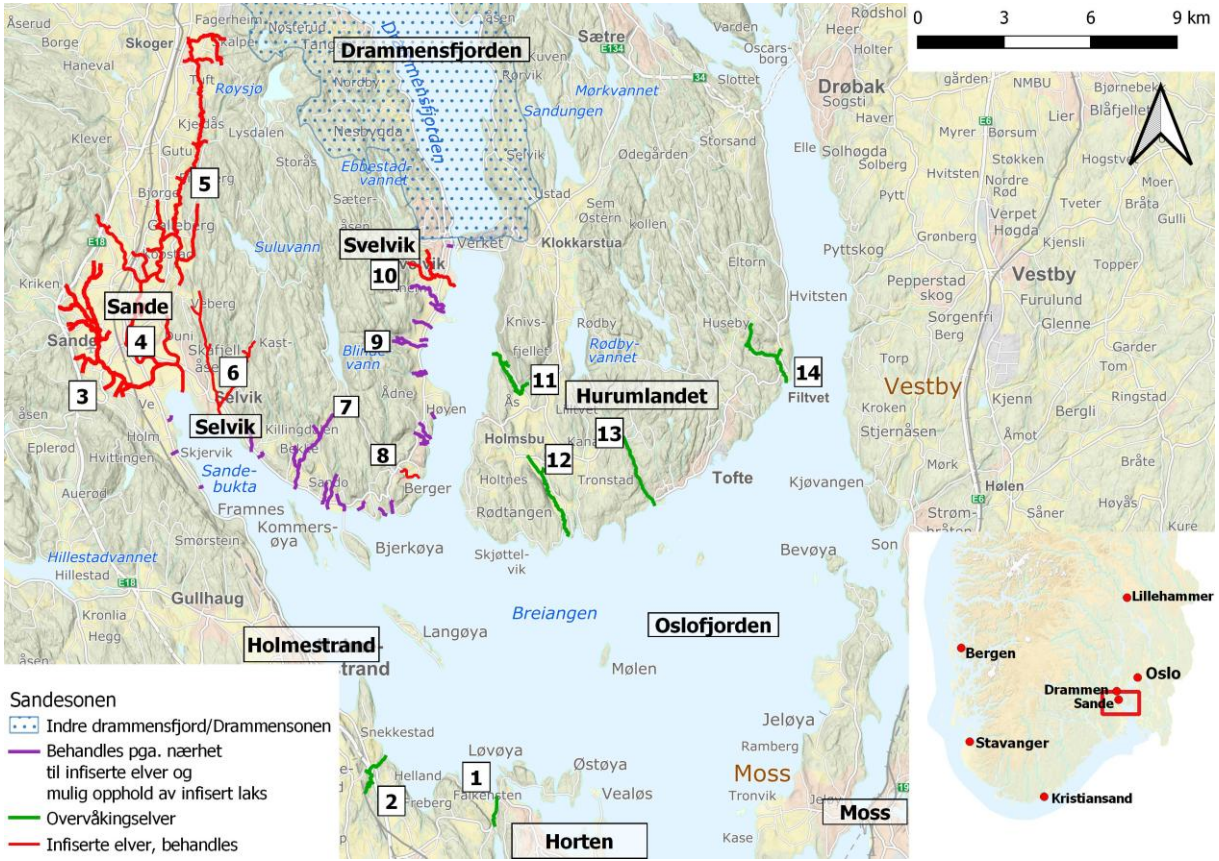
The Driva region, where treated rivers are indicated in red (known occurrence of G. salaris) and purple (no detection of G. salaris, but of strategic and/or geographical relevance), while rivers and river sections that were placed under monitoring are indicated in green (surveyed/electrofished) and blue (electrofished and analyzed using environmental DNA. Rivers previously accessible to salmon but now physically blocked by a barrier are indicated with a triangle on the map). From northwest to southeast; [1] Blakkstadelva, Astadelva, Batnfjordselva; [2] Skeisdalselva, Dønnemelva, Torvikelva; [3] Ranemelva, Kvalvågelva, Hoemselva; [4] Varvikelva, Flemelva, Angvikelva; [5] Gylselva, Koksvikelva, Rimstadelva; [6] Rausandelva, Bersåselva, Øraelva; [7] Meisalelva, Fressvikelva, Jordalselva; [8] Usma, Litjdalselva; [9] Oppdølselva, Sandvikelva; [10] Driva.

Region Drammen

- First small treatments in 2024
- Rotenone treatment in Sande and Chlorine test in Drammen in 2025
- Continues in 2026
- Main treatments in Drammen and Lier in 2027 and 2028


Simoa
Modum
Embretsfoss
Øvikfoss
Bingselva
Hoensela
Hellefoss
Vestfosselva
Øvre Eiker
Krogstadelva
Drammenselva
Sølbergelva
Glitra
Lier
Lierelva
Bærum
Oslo
Nesodden
Asker
Frogn
Drammen
Eikeren
Bremsa
Tollerudelv
Sandeelva
Vesleelva
Lierelva
Ebbestadelva
Holmestrand
Kongsberg
Selvikelva
Bergerelva
Vestby
Breiangen
Horten
Moss
N
0
5
10
Kilometer
© 2025 Vannforskningsinstituttet
Vandringshinder
Laksetrapp
Infisert elv, anadrom strekning
Kommunegrense
Holsfjordtunnellen
Andre elver i restriksjonssone, ikke-anadrom strekning av infiserte elver

Sande - Overview




NORGES


Statsforvalteren

Thank you!

Veterinærinstituttet

Norwegian Veterinary Institute

Miljø-
direktoratet

GSWG(26)20

How has Norway worked to eradicate *Gyrodactylus salaris?*

Outline of my presentation

- International obligations
- National goals
- Biological consequences of *G. salaris* in Norway
- Socioeconomic consequences in Norway
- Risk of spread - nationally – internationally
- Implemented measures - status
- Have we succeeded in our measures?
- Biocidal Products Regulation (EU) - Rotenone

The Convention on Biological Diversity

Article 8. In-situ Conservation

(h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species

The Kunming-Montreal Global Biodiversity Framework (COP 15)

2030 Action targets

Target 6. Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites.

Convention on Biological Diversity

2020 UN BIODIVERSITY CONFERENCE
COP 15 - CP/MOP10-NP/MOP4
Ecological Civilization-Building a Shared Future for All Life on Earth
KUNMING · CHINA

NASCO

NASCO's goal is to prevent the further spread of this parasite and to eradicate it from infected areas, working with stakeholders, where appropriate.

The Williamsburg Resolution

Article 9 Mitigation and Corrective Measures

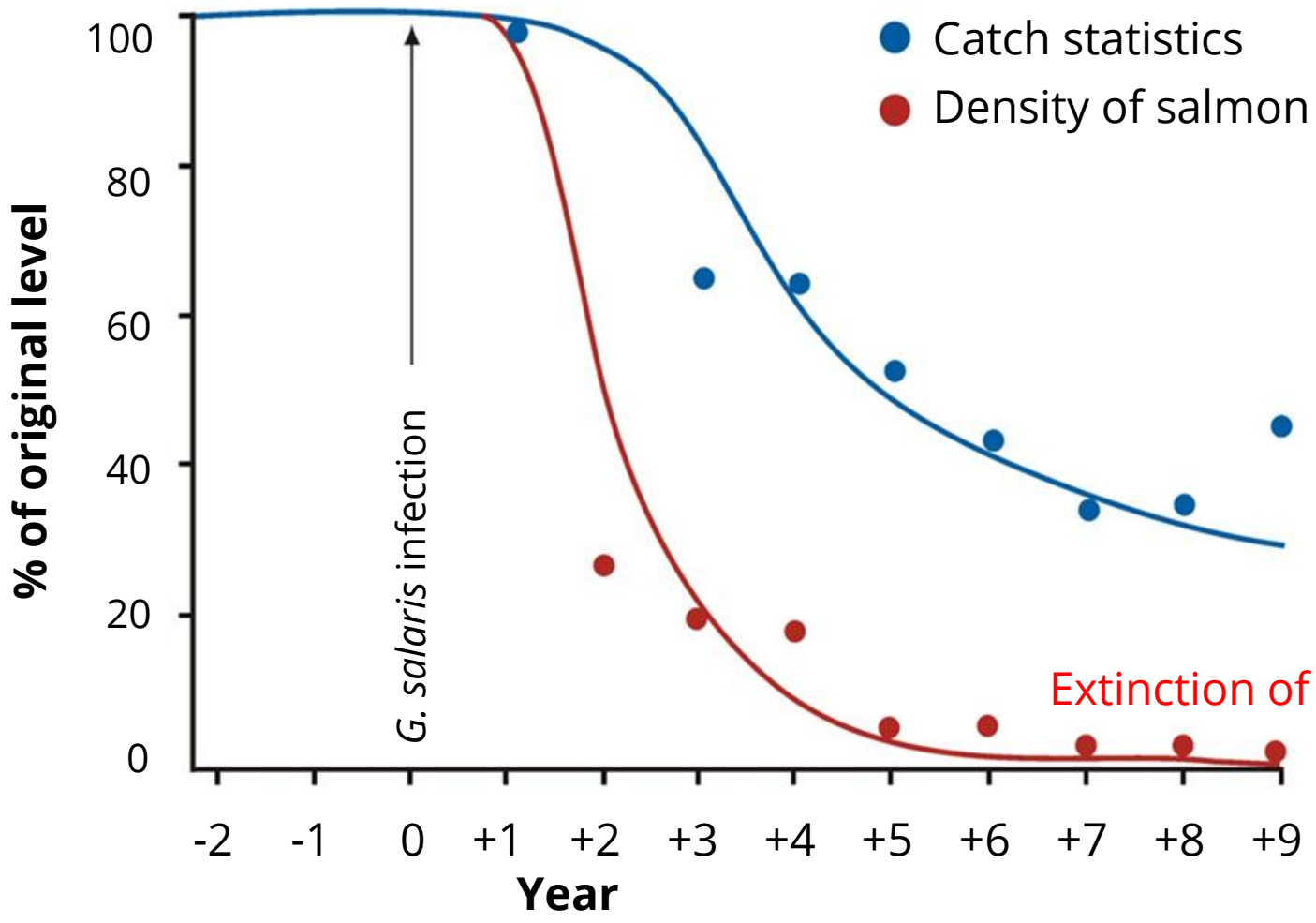
Where significant adverse impacts on wild salmon stocks are identified, the Parties should initiate corrective measures without delay and these should be designed to achieve their purpose promptly.

National targets – *G. salaris*

The overall national goal is to eradicate *G. salaris* from Norwegian rivers. This goal has been established by the Parliament and Government and forms the basis for all management and action planning.

The goal is to preserve genetically unique salmon populations and ensure ecological and economic sustainability for rivers and local communities.

Biological consequences in Norway



Extinction of the locally adapted salmon strain

Socioeconomic consequences in Norway

Theme	Consequence
Government costs	Eradication Research Monitoring Conservation in gene banks Re-establishment of local stocks
Local business	Decline/loss in fishing tourism, travel and local business
Society	Loss of cultural heritage, recreational opportunities and local identity

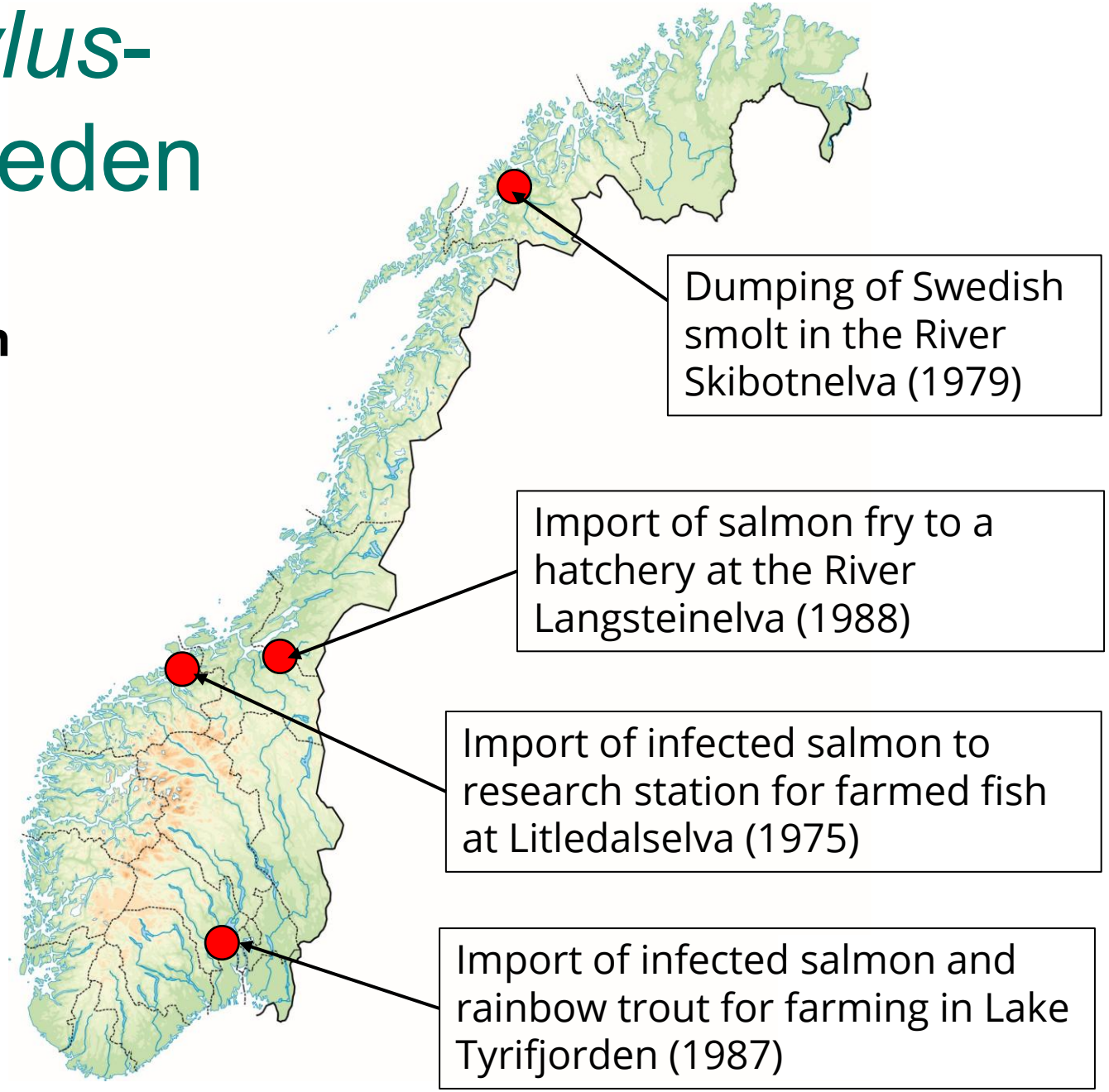
Even with the high costs, eradication is a very profitable measure.

Risk of spread - nationally – internationally

We have control over the spread of *G. salaris* nationally. No detections in new regions since 1996.

Import of *Gyrodactylus*-infected fish from Sweden

4 known introductions from Sweden



Risk of spread - nationally – internationally

- We have control over the spread of G. salaris nationally. No detections in new regions since 1996.
- *Gyrodactylus* on the Swedish west coast

1

16 *Gyrodactylus*-infected rivers between Gothenburg og Helsingborg

2

Lake Bullaren

↓

River Enningdalselva

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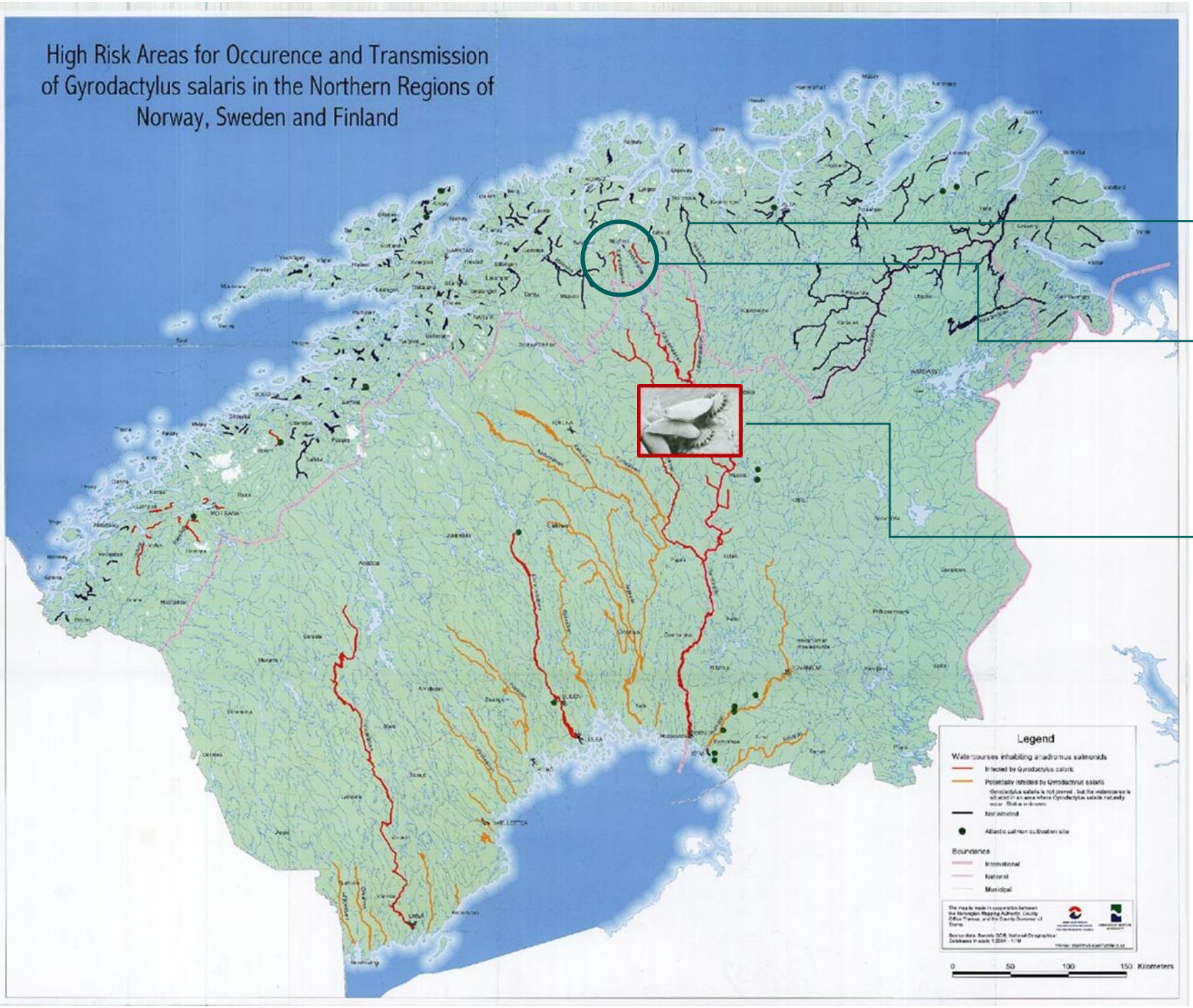
Risk of spread - nationally – internationally

- We have control over the spread of G. salaris nationally. No detections in new regions since 1996.
- *Gyrodactylus* on the Swedish west coast
- *Gyrodactylus* in the Torne River watershed. The border area between Norway, Sweden and Finland



River Reisaelva

The Skibotn region

Torne River watershed

MILJØ-DIREKTORATET

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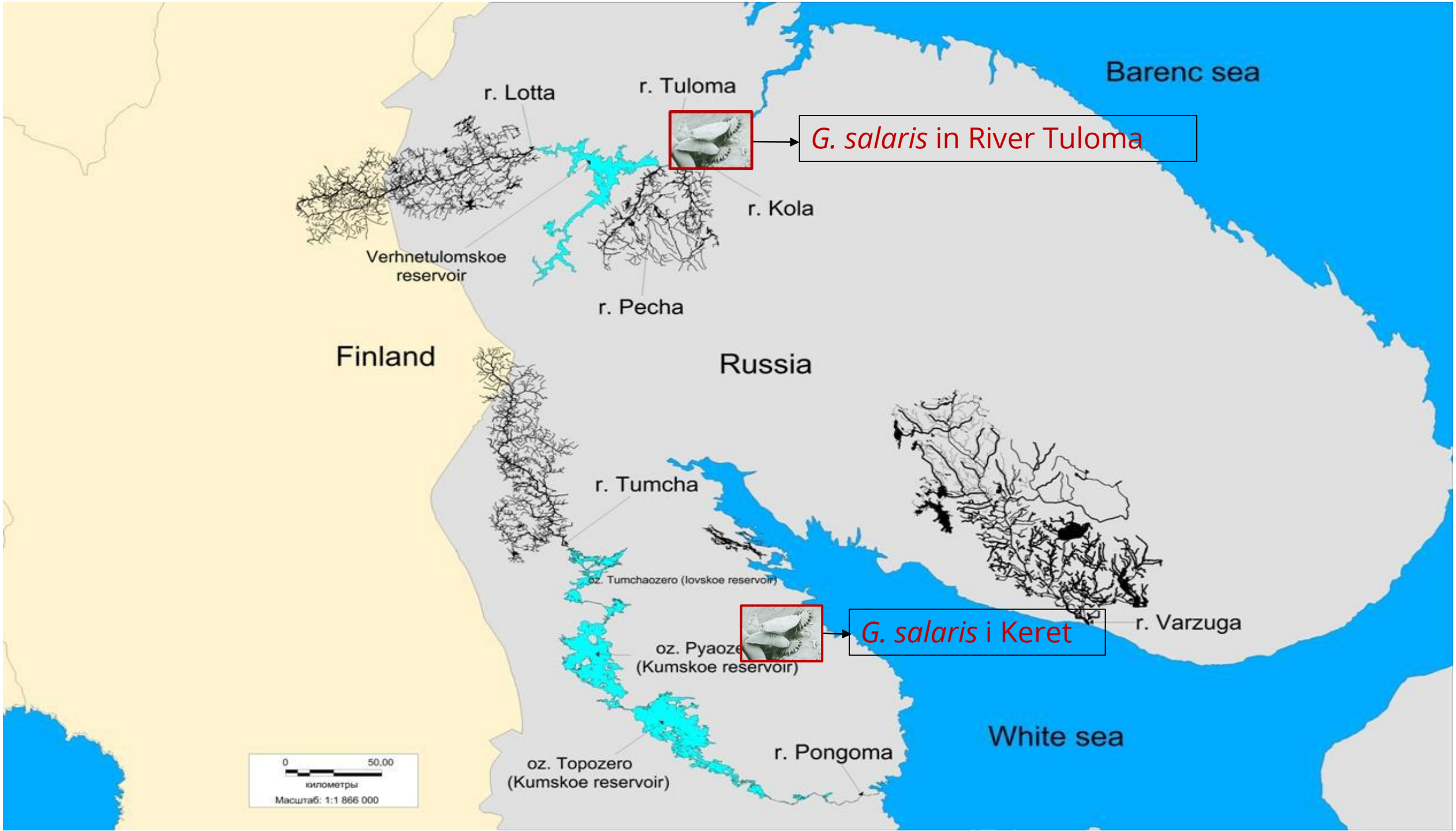
- The spread of Gyrodactylus on the Kola Peninsula (Russia)


Barenc sea
r. Lotta
r. Tuloma
G. salaris in River Tuloma
r. Kola
Verhnetulomskoe reservoir
r. Pecha
Finland
Russia
r. Tumcha
oz. Tumchaozero (Iovskoe reservoir)
r. Varzuga
G. salaris i Keret
oz. Pyaoze
(Kumskoe reservoir)
White sea
r. Pongoma
oz. Topozero
(Kumskoe reservoir)
0
50,00
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Risk of spread - nationally – internationally

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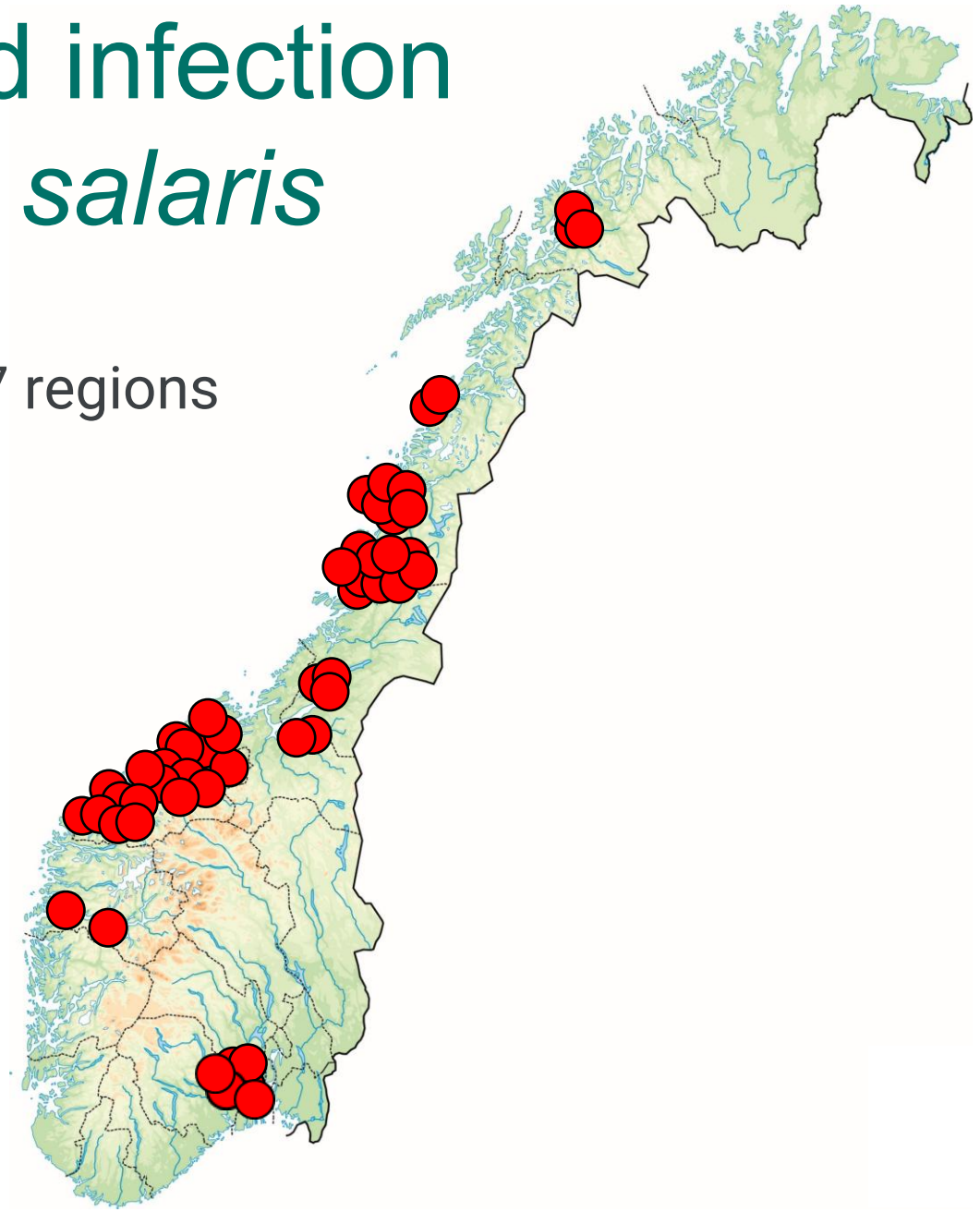
- The spread of Gyrodactylus on the Kola Peninsula (Russia)
- Gyrodactylus on rainbow trout in Sweden, Finland and Russia is considered one of the biggest threats to the spread of the parasite

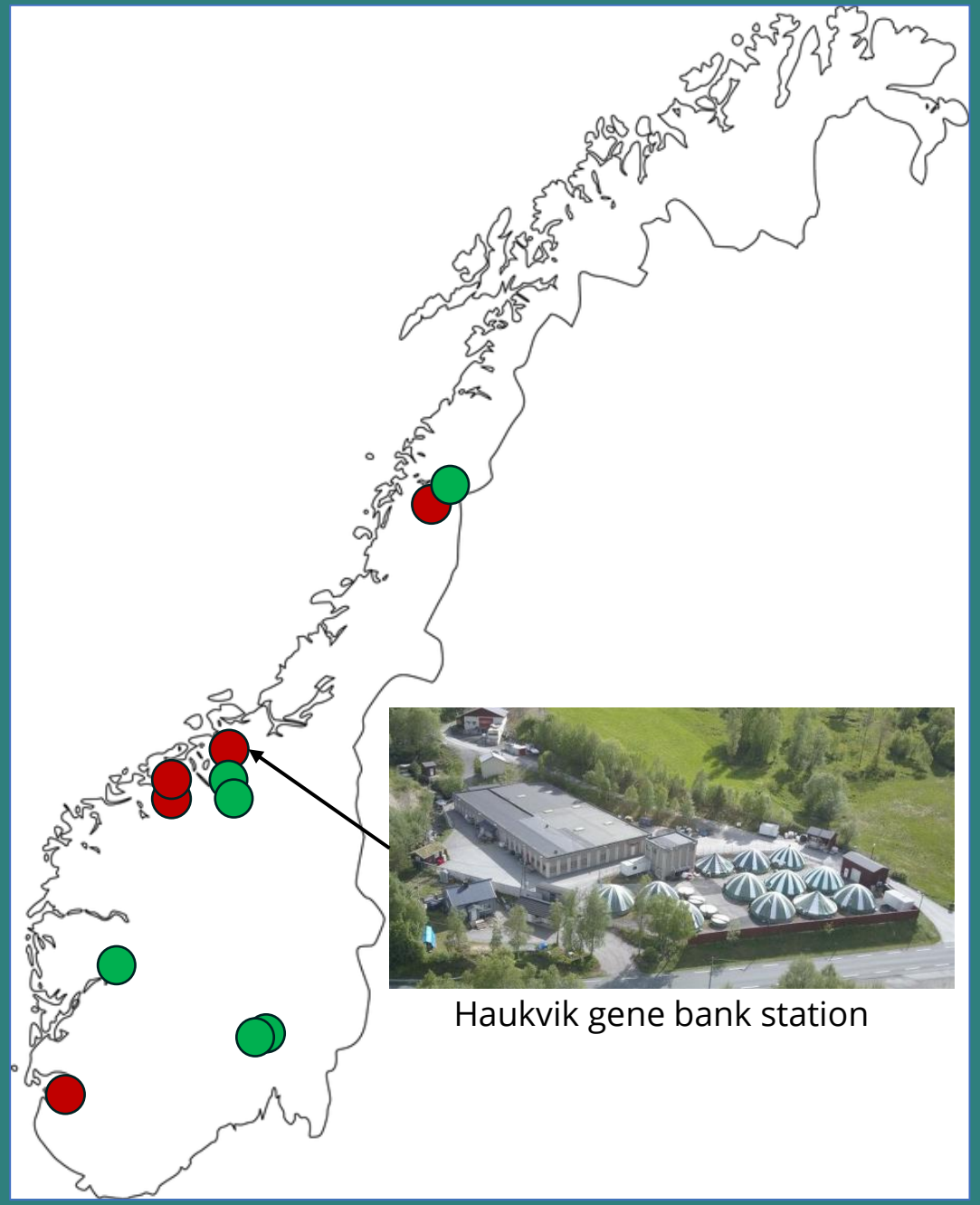
Rivers with confirmed infection with *Gyrodactylus salaris*

A total of 54 rivers spread across 17 regions



Gene banks and hatcheries today

- Cryopreservation
  - 221 salmon strains are preserved in frozen sperm bank
- 5 gene bank stations
- 6 hatcheries
- Species in gene bank
  - Atlantic salmon
  - Sea trout
  - Sea char

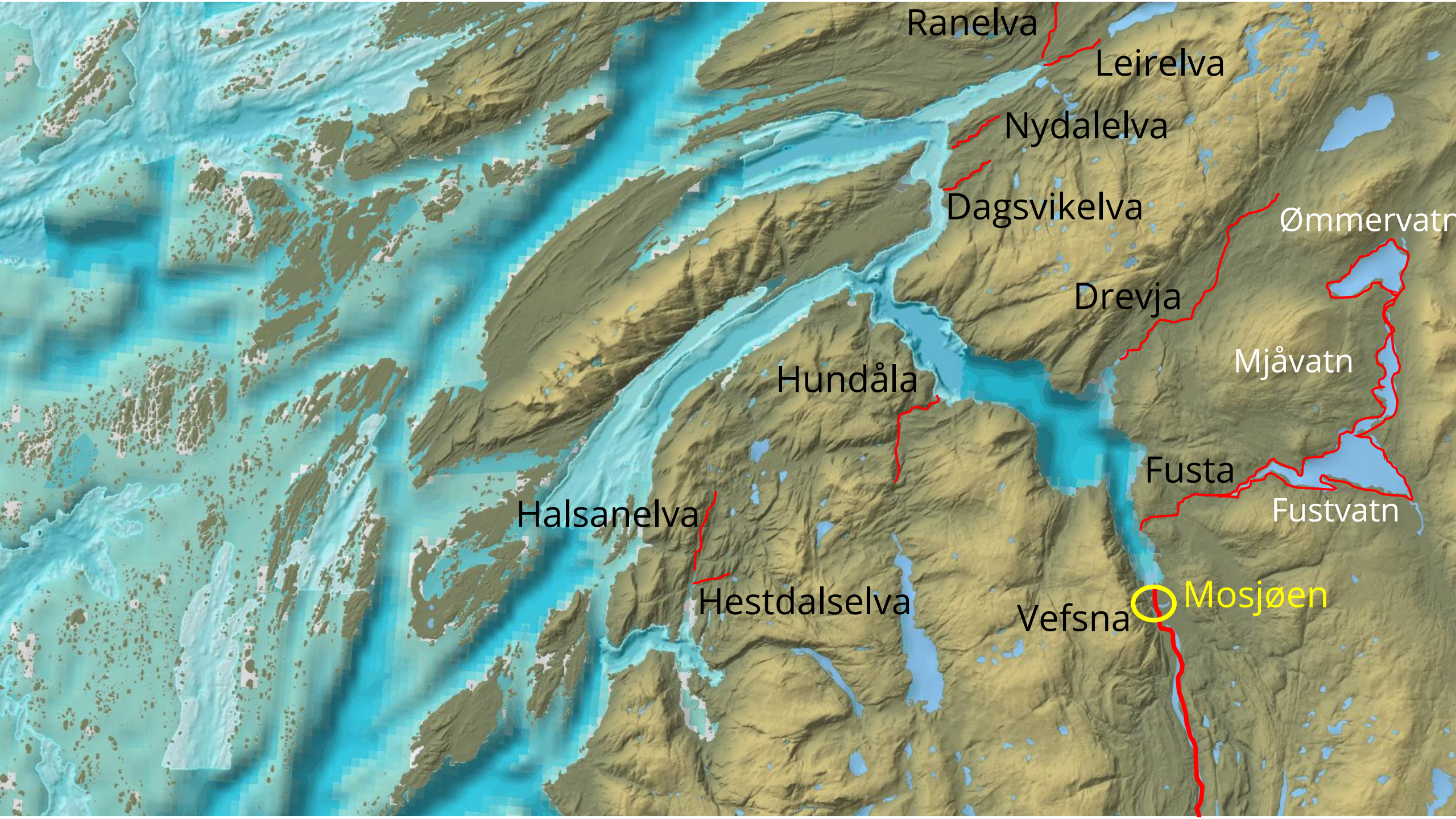


Haukvik gene bank station

Methods for eradication

Rotenone treatment

- Very effective method
- Long experience
- Kills all the fish
- Requires significant fish conservation
- Controversial method


Ranelva
Leirelva
Nydalelva
Dagsvikelva
Ømmervatn
Drevja
Mjåvatn
Hundåla
Fusta
Fustvatn
Halsanelva
Hestdalselva
Vefsna
Mosjøen

Methods for eradication

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Acidic aluminium

- The method used in one river (2011-2012)
- Very demanding methodology
- The fish survives

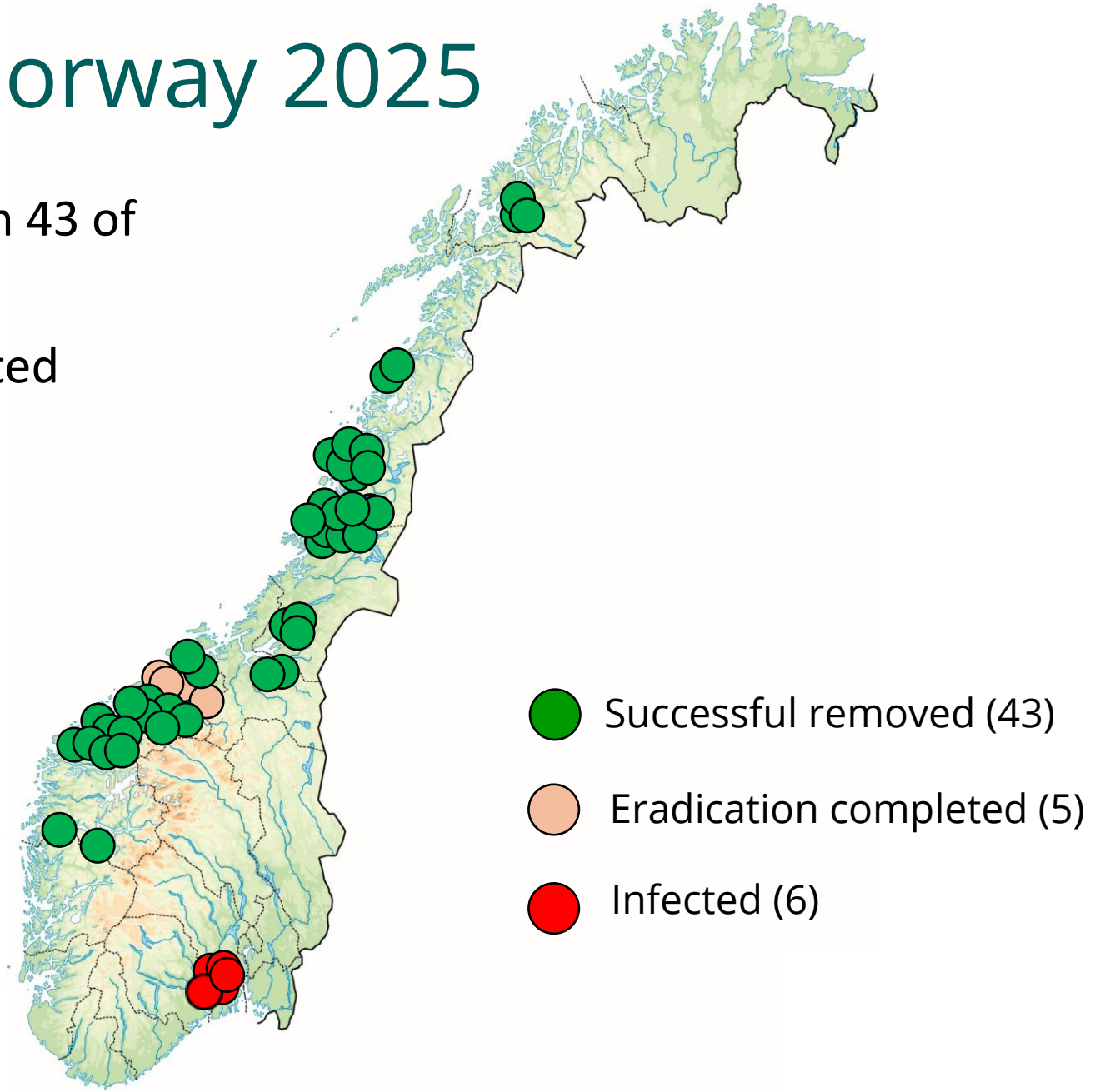
Methods for eradication

- Rotenone treatment
  - Very effective method
  - Long experience
  - Kills all the fish
  - Requires significant fish conservation
  - Controversial method
- Acidic aluminium
  - The method used in one river (2011-2012)
  - Very demanding methodology
  - The fish survives
- Monochloramine
  - First time used in the River Driva (2022-2024)
  - High expectations for the method
  - Planned to be used in the River Drammenselva
  - The fish survives

Use of fish barriers

Status of *G. salaris* in Norway 2025

- The parasite has been eradicated from 43 of 54 infected rivers
- In 5 rivers the eradication are completed (in a 5 years monitoring period)
- Only one infected region with 6 rivers remains.
- The goal is eradication in the period 2025-2028.
- A 40-year battle against *G. salaris* may hopefully soon be over.



Drammen-regionen

Last region with infected rivers (to be processed during the period 2025-2028)

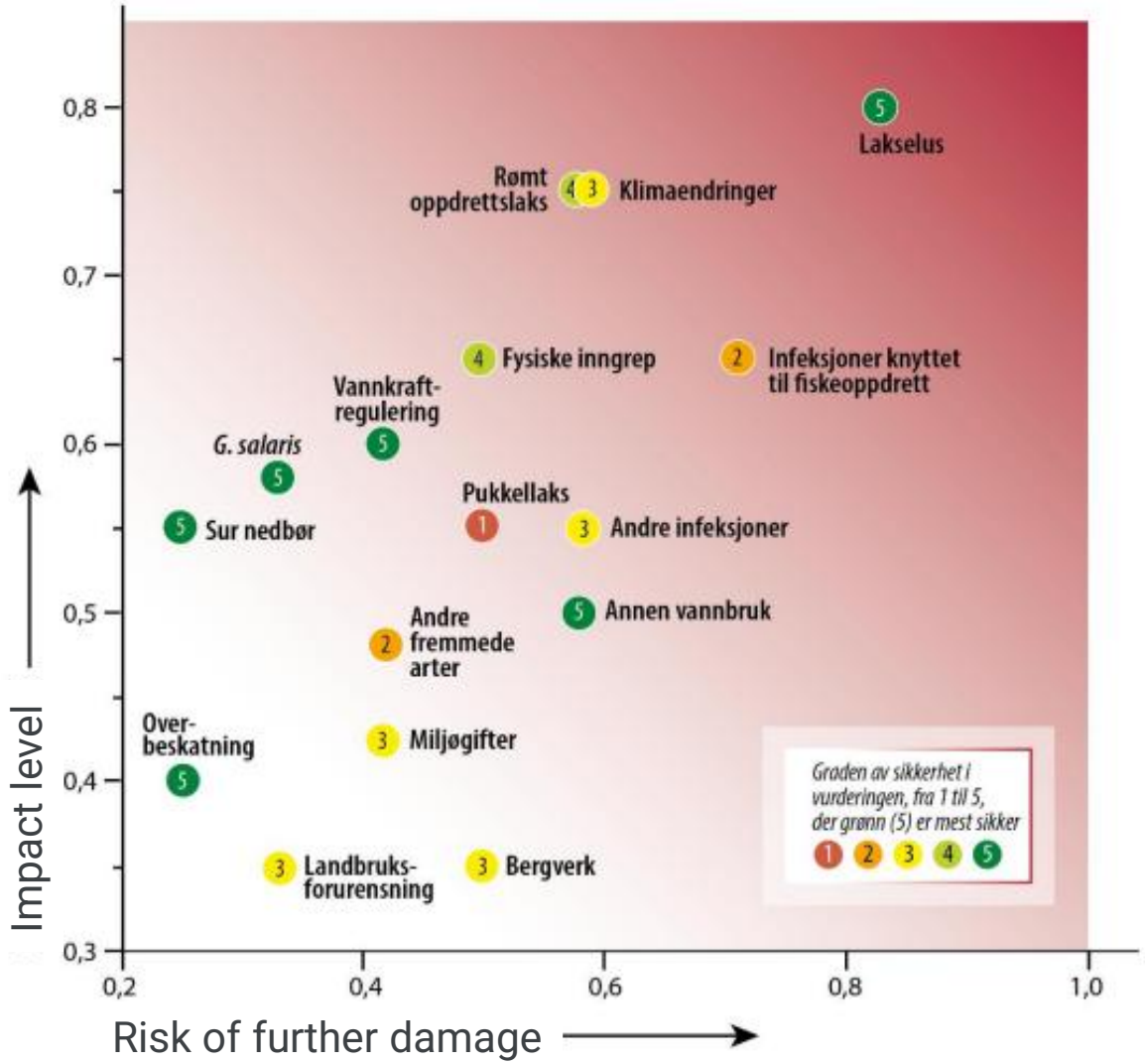
MILJØ-DIREKTORATET

Have we succeeded in the fight against *G. salaris*?

Synthesis report from Norwegian Institute for Nature Research (2022):

«The Norwegian authorities' long-term work to stop the spread of G. salaris and eradicate it in infected rivers is thus a major and unique success, both nationally and internationally.»

The threat factors for Atlantic salmon



Report from The Norwegian Scientific Advisory Committee for Atlantic Salmon: *Status of Norwegian salmon stocks in 2025*

Biocidal Products Regulation (EU)

To be placed on the market, a biocidal product must be shown to be safe for human health, animal health and the environment. With this aim in Europe, biocides are regulated by the Biocidal Products Regulation.

Biocide is defined in Article 2(1)(a) as "active substances and preparations containing one or more active substances, put up in the form in which they are supplied to the user, intended to destroy, deter, render harmless, prevent the action of, or otherwise exert a controlling effect on any harmful organism by chemical or biological means.“

Rotenone is a biocide product.

History and status

- Application deadline March 2006.
- The Norwegian company VESO submitted the application.
- England was to prepare the application for the EU Commission.
- After Brexit, the application was transferred to Poland.
- New requirements, Endocrine Disruption investigations.
- These requirements cannot be met by VESO or the Norwegian authorities.
- “Essential use” of rotenone.

www.miljodirektoratet.no