



Council

CNL(20)39

***Annual Progress Report
on Actions Taken Under the Implementation Plan for the Calendar Year 2019***

Norway

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The Annual Progress Reports allow NASCO to evaluate progress on actions taken by Parties / jurisdictions to implement its internationally agreed Resolutions, Agreements and Guidelines and consequently the achievement of their objectives and actions taken in accordance with the Convention. The following information should be provided through the Annual Progress Reports:

- any changes to the management regime for salmon and consequent changes to the Implementation Plan;
- actions that have been taken under the Implementation Plan in the previous year;
- significant changes to the status of stocks, and a report on catches; and
- actions taken in accordance with the provisions of the Convention.

*In completing this Annual Progress Report please refer to the **Guidelines for the Preparation and Evaluation of NASCO Implementation Plans and for Reporting on Progress, CNL(18)49.***

These reports will be reviewed by the Council. Please complete this form and return it to the Secretariat **no later than 1 April 2020.**

Party:	Norway
Jurisdiction / Region:	

1: Changes to the Implementation Plan
1.1 Describe any proposed revisions to the Implementation Plan (<i>Where changes are proposed, the revised Implementation Plans should be submitted to the Secretariat by 1 November.</i>)
1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.

2: Stock status and catches.
2.1 Provide a description of any new factors that may significantly affect the abundance of salmon stocks and, if there has been any significant change in stock status since the development of the Implementation Plan, provide a brief (200 words max) summary of these changes.

The number of salmon returning from the ocean to Norway each year is less than half of the level in the 1980s, and has been relatively stable since the late 1990s. There are, however, significant regional differences in the development of the salmon stocks over the last 30 years. Despite the decline in the amounts of returning salmon, the number of salmon spawning in the rivers has increased. The increased number of spawners despite reduced numbers returning from the ocean is due to reduced fisheries in the sea and rivers. Reduced exploitation has more than compensated for the decline. Escaped farmed salmon, salmon lice and infections related to salmon farming are the greatest anthropogenic threats to Norwegian wild salmon. The present level of mitigation measures is too low to stabilize and reduce these threats. Hydropower production, other habitat alterations and introduced pink salmon are also considered major threats to wild salmon. Hydropower production and other habitat alterations significantly reduce salmon populations, and there is large potential for further mitigation measures. Pink salmon is a new threat, and there is need for national and international measures to reduce the risk of negative impacts on native salmonids, including Atlantic salmon. The management targets for the period 2015-2018 were attained, or likely attained, for 93% of the populations. This is the best results regarding attainment of the management targets since the first evaluation was done in 2009

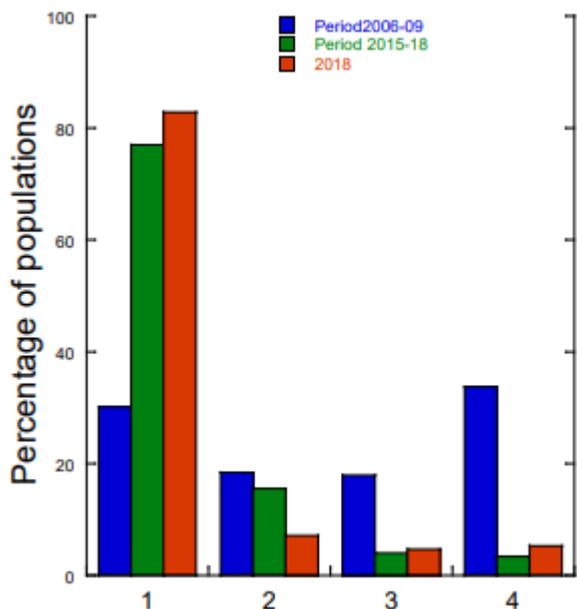


Fig 1. Proportion (%) of the evaluated salmon rivers in category 1: the management target is attained, category 2: there is a risk that the management target is not attained, category 3: the management target is likely not attained, and category 4: the management target is far from being attained. Data are given for the periods 2006-2009 and 2015- 2018, as well as for 2018 only (SACAS)

2.2 Provide the following information on catches: (nominal catch equals reported quantity of salmon caught and retained in tonnes ‘round fresh weight’ (i.e. weight of whole, ungutted, unfrozen fish) or ‘round fresh weight equivalent’).

	In-river	Estuarine	Coastal	Total
(a) provisional nominal catch (which may be subject to revision) for 2019 (tonnes)	291		219	510
(b) confirmed nominal catch of salmon for 2018 (tonnes)	271		323	594
(c) estimated unreported catch for 2019 (tonnes)	55		164	219

(d) number and percentage of salmon caught and released in recreational fisheries in 2019	20 675, 20 percent (or = 91 tonnes, 24%)
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3: Implementation Plan Actions.

3.1 Provide an update on progress on actions relating to the Management of Salmon Fisheries (section 2.9 of the Implementation Plan). *Note: the reports under ‘Progress on action to date’ should provide a brief overview of each action. For all actions, provide clear and concise quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.*

Action F1:	Description of action (as submitted in the IP):	Expanding the sea survival surveillance program.
	Expected outcome (as submitted in the IP):	Improved knowledge about salmon recruitment, growth and sea survival at a national and regional scale.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	In 2019 sea survival surveillance was conducted in five rivers along the Norwegian coast.
	Current status of action:	Ongoing
	If ‘Completed’, has the action achieved its objective?	
Action F2:	Description of action (as submitted in the IP):	(a) Increased effort to reveal and sanction illegal fisheries. (b) Revision of salmon and inland fisheries act to introduce stricter reactions to violation of legislation.
	Expected outcome (as submitted in the IP):	Reduction in illegal fisheries
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	a) In 2020 The Norwegian Nature Inspectorate has got an expanded budget to increase their efforts to reveal and sanction illegal salmon fisheries. b) A revised act proposal has been on a national hearing. Received notations have been summarized. The suggested revision is to be sent to the parliament for consideration and decision
	Current status of action:	Ongoing

	If 'Completed', has the action achieved its objective?	
Action F3:	Description of action (as submitted in the IP):	Major revision of regulatory measures in rivers and in mixed-stock fisheries in the sea for the period 2021-2026.
	Expected outcome (as submitted in the IP):	-Adjusted fisheries regulations -Reduced overexploitation due to updated regulatory measures
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	The process with major revision of regulatory measures for the salmon fisheries for the period 2021-2020 was started in 2020. The process has followed the milestones as set in the IP.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F4:	Description of action (as submitted in the IP):	Development of an electronic system to make reporting of catches in the sea by recreational anglers possible.
	Expected outcome (as submitted in the IP):	Reduction in unreported catches.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	In June 2019 The Norwegian environment agency launched the webpage www.stangfiskesjo.miljodirektoratet.no . This is a way for recreational anglers to report all catches of anadromous fish in the sea. In 2019 the site has not been very well known and we consider it a trial year. Users have given important input on how to improve the system
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

3.2 Provide an update on progress on actions relating to Habitat Protection and Restoration (section 3.5 of the Implementation Plan). *Note: the reports under 'Progress on action to date' should provide a brief overview of each action. For all actions, provide clear and concise quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.*

Action H1:	Description of action (as submitted in the IP):	Long-term liming of 24 acidified salmon rivers.
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	Expected outcome (as submitted in the IP):	Restored salmon stocks and fishing possibilities.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	At present, 24 Norwegian salmon rivers are included in the national program for river liming. In 10 rivers where stocks were lost due to acid rain, stocks are re-established. Salmon catches in limed rivers have increased from about 10 tons in the 1980s to 40 - 60 tons today, and at present this makes up for 10-14 % of total salmon catches in Norwegian rivers. The funding is provided by the Norwegian Government. In 2019, the cost was about 50 mill NOK (\approx 4.6 mill GBP).
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H2:	Description of action (as submitted in the IP):	Mitigation measures for improved salmon habitat in regulated rivers.
	Expected outcome (as submitted in the IP):	Restored fish habitat and increased salmon production in regulated rivers.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	To follow up on obligations set in hydropower licences, habitat restoring activities are carried out in about 50 rivers with stocks of Salmon and sea trout. The activities are aimed at different stages in the regulated rivers. This ranges from programs intended to identify bottlenecks limiting salmon production, to monitoring programs which grant opportunity to evaluate the effects of restored fish habitat. Our priorities are given to the biggest and most important salmon rivers which are impacted by regulation.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H2 – 2:	Description of action (as submitted in the IP):	Revision of terms for hydropower production licenses and address of rules of operation, in several rivers.
	Expected outcome (as submitted in the IP):	The result of the process will vary among rivers. The salmon habitat is one of several factors that will be evaluated. Main mitigating measures include environmental flow.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	This process is time consuming. Based on experience with finished cases in recent years, the revision process leading to new terms is estimated to take several years. In 2019 the authorities received 3 new requests for revision of terms in salmon rivers. In 2019 official revision processes started in 5 anadromous watercourses. In 21 more watercourses the revision process is ongoing. No final decisions were made for salmon rivers in 2019.
	Current status of action:	Ongoing

	If 'Completed', has the action achieved its objective?	
Action H3:	Description of action (as submitted in the IP):	Improving salmon habitat in rivers altered to improve security during flood.
	Expected outcome (as submitted in the IP):	Improved rearing conditions when closed rivers sections are opened and influenced by regular changes in the hydrological regime.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	River Bognelva in northern Norway has been revitalized after considerable flooding and safety constructions. One of the old river beds has been opened.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

3 Provide an update on progress on actions relating to Aquaculture, Introductions and Transfers and Transgenics (section 4.11 of the Implementation Plan). Note: the reports under 'Progress on action to date' should provide a brief overview of each action. For all actions, provide clear and concise quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.

Action A1 – 1:	Description of action (as submitted in the IP):	In 2013, the Norwegian Government decided to establish a live Gene Bank for the Hardangerfjord area. This decision was mainly based on the impacts of genetical introgression from escaped farmed salmon on wild populations of salmon, and the impacts from sea lice on salmonid stocks. Approximately 20 stocks in this region will be conserved in the gene bank. Simultaneously, a supplementation of the samples from the current stock in the cryogenetic genbank will be completed.
	Expected outcome (as submitted in the IP):	Reduced hybridisation between wild and farmed fish, with a qualitative improvement in genetic integrity at population level.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g.	The collection of fish for the live gene bank is on schedule. In these five years, i.e. half of the project period, about half of the necessary fish are collected. The building of a new live genbank for these stocks is completed this year.

	<i>website links) will not be evaluated):</i>	
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A1 – 2:	Description of action (as submitted in the IP):	Further improvement of precautionary measures e.g.: <ul style="list-style-type: none"> - Site based technical certificate for every fish farm in the sea. - Implementing a new technical standard NS9416 for land-based aquaculture facilities. - Continuously high focus on effective control regimes
	Expected outcome (as submitted in the IP):	Reduced hybridisation between wild and farmed fish, with a qualitative improvement in genetic integrity at population level.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	<ul style="list-style-type: none"> - A technical site-certificate is required for all sea-based aquaculture installations, through regulations based in the Aquaculture act. - For landbased aquaculture new regulations came to effect in 2018 for new installations. For existing installations, a certificate must be issued before january of 2021. Also, all new components in exisitng installations must be be certified before use. <p>NS9416 was issued in 2013, and changes to adjust for landbased aquaculture installations are in process.</p>
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	Regulations are continuously revised and adjusted as new technical solutions are developed, and environmental challenges are identified.
Action A1 – 3:	Description of action (as submitted in the IP):	Establish more experience with farming sterile fish in commercial fish farms and research into the production of sterile farmed salmon.
	Expected outcome (as submitted in the IP):	Reduced hybridisation between wild and farmed fish, with a qualitative improvement in genetic integrity at population level.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	There is still ongoing researchto evaluate animal welfare considerations as well as performance in relation to various environmental factors. Consequently, research licences are currently using triploid fish. Several commercial salmon-farmers have been delayed in using triploid fish in “green” salmon farm licenses due to welfare considerations. However, in march 2020, several producers of juvenile salmon and full commercial production of salmon for consumption were given liseneces.
	Current status of action:	Ongoing
		There is ongoing work on both research and commercial level.

	If 'Completed', has the action achieved its objective?	
Action A1 – 4:	Description of action (as submitted in the IP):	Further developing and improving the National monitoring program of escaped salmon in the rivers. This means: <ul style="list-style-type: none"> - including relevant rivers when data quality is sufficient, - testing and evaluating relevant field methods for monitoring escaped salmon - further standardising methods for analysing data from monitoring activities.
	Expected outcome (as submitted in the IP):	Reduced hybridisation between wild and farmed fish, with a qualitative improvement in genetic integrity at population level.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	<p>The national program for monitoring escaped salmon has been running since 2014. This will be continued on a yearly basis, with addition of new river-systems as high quality assessments are available. For 2018, 206 rivers were monitored. The report from 2019 will be ready during the summer of 2020.</p> <p>As a part of standardizing methods, several field experiments have been conducted in order to compare different methods, thus aiming to optimize the choice of method(s) in the individual river systems. The Field "Hand-book" will be updated continuously when new knowledge is available.</p> <p>The Directorate of Fisheries has implemented a practice where salmon farmers have been given an extended responsibility concerning monitoring and recapture in salt- and freshwater after escape incidents. This includes both funding and organizing activities. The practice is based on a «polluter pays» principle.</p>
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A1 – 5:	Description of action (as submitted in the IP):	Continue the efforts of removal of escaped fish in rivers before spawning season through OURO.
	Expected outcome (as submitted in the IP):	Reduced hybridisation between wild and farmed fish, with a qualitative improvement in genetic integrity at population level.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	OURO is continuing removal of fish from rives identified through the National Monitoring program. In 2019 OURO removed escaped farmed fish in 51 rivers, and the programme has reduced the number of rivers with high proportion of escaped farmed fish in the rivers significantly.
	Current status of action:	Ongoing

	If 'Completed', has the action achieved its objective?									
Action A1 – 6:	Description of action (as submitted in the IP):	The Norwegian Environment Agency funds a monitoring project on genetical integrity in wild Atlantic Salmon populations.								
	Expected outcome (as submitted in the IP):	Reduced hybridisation between wild and farmed fish, with a qualitative improvement in genetic integrity at population level.								
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	<p>A quality norm sanctioned by the Nature Diversity Act was adopted by the Norwegian government in 2013. For a population to attain a good enough standard according to the quality norm, the population must not be genetically impacted by escaped farmed salmon or other anthropogenic activities, it must have a large enough spawning population to reach the spawning target (i.e., the population must be conserved) and it must provide a normal harvestable surplus (given the current ocean survival conditions).</p> <p>In total, the genetic quality in 225 populations have been evaluated according to the norm.</p> <table border="1"> <tr> <td>Green (very good/good status)</td> <td>75 stocks</td> </tr> <tr> <td>Yellow (moderate status)</td> <td>67 stocks</td> </tr> <tr> <td>Orange (poor status)</td> <td>16 stocks</td> </tr> <tr> <td>Red (very poor status)</td> <td>67 stocks</td> </tr> </table> <p>The results are partly being used when OURO prioritize rivers in which extra effort is done to remove escaped farmed salmon from the spawning population, see A1-5.</p>	Green (very good/good status)	75 stocks	Yellow (moderate status)	67 stocks	Orange (poor status)	16 stocks	Red (very poor status)	67 stocks
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Current status of action:	Ongoing									
If 'Completed', has the action achieved its objective?										
Action A2:	Description of action (as submitted in the IP):	Continuous implementation of the Traffic Light System and the regulations related to production areas, and sea lice monitoring and control in fish farms.								
	Expected outcome (as submitted in the IP):	Avoid unacceptable sea lice induced mortality on wild Atlantic salmon. Unacceptable level is defined as the level where sea lice-induced mortality on wild salmon (<i>Salmo salar</i>) is more than 30 %, see 4.1 b.								
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	In accordance with the Traffic Light System, the production areas (PO's) are classified yearly by an expert group. They base their reports on all available knowledge concerning sea lice, including large scale monitoring and models. The Government decides biannually in which PO the total production capacity can grow, should freeze or be reduced based on the expert reports and other relevant information.								

		<p>The table below sums the status report of sea lice induced mortality for migrating postsmolt in each PO from 2016-2019, made by the expert group.</p> <table border="1"> <thead> <tr> <th></th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr><td>PO-1</td><td>Low</td><td>Low</td><td>Low</td><td>Low</td></tr> <tr><td>PO-2</td><td>Mod</td><td>Low</td><td>Mod</td><td>Low</td></tr> <tr><td>PO-3</td><td>High</td><td>High</td><td>High</td><td>Mod</td></tr> <tr><td>PO-4</td><td>Mod</td><td>High</td><td>Mod</td><td>High</td></tr> <tr><td>PO-5</td><td>Mod</td><td>Mod</td><td>Mod</td><td>High</td></tr> <tr><td>PO-6</td><td>Mod</td><td>Low</td><td>Low</td><td>Low</td></tr> <tr><td>PO-7</td><td>Mod</td><td>Low</td><td>Mod</td><td>Low</td></tr> <tr><td>PO-8</td><td>Low</td><td>Low</td><td>Low</td><td>Low</td></tr> <tr><td>PO-9</td><td>Low</td><td>Low</td><td>Low</td><td>Low</td></tr> <tr><td>PO-10</td><td>Low</td><td>Low</td><td>Low</td><td>Mod</td></tr> <tr><td>PO-11</td><td>Low</td><td>Low</td><td>Low</td><td>Low</td></tr> <tr><td>PO-12</td><td>Low</td><td>Low</td><td>Low</td><td>Low</td></tr> <tr><td>PO-13</td><td>Low</td><td>Low</td><td>Low</td><td>Low</td></tr> </tbody> </table> <p>The Ministry of Trade, Industry and Fisheries concluded in february 2020 that PO-4 and PO-5 were defined as red areas. In these PO's the aquaculture companies will get their production capacity reduced with 6 %. This is the first time that the classification by the Traffic Light System leads to reduction of the production capacity. PO-3 and PO-10 were defined as yellow areas. In these areas, it is estimated that 10-30% of migrating salmon smolts may die due to infection with salmon lice. and companies in these areas are not allowed to increase their production capacity. In PO-1, PO-6, PO-7, PO-8, PO-9, PO-11, PO-12 and PO-13, the production capacity can increase by a total of 6 % in each PO.</p> <p>The expert group states that the knowledge about sea lice infections in wild salmon smolt has increased a lot during the last years with better surveillance and methods that also includes the possibility to determine which watercourse the smolt originates from. This, in combination with physical surveillance, further makes it possible to determine the lice impact on individual rivers. The infection pressure of sea lice originating from aquaculture is measured more detailed and accurately.</p> <p>For instance, the the Institute of Marine Research has estimated the infestation level of salmon lice from aquaculture based on a model for Atlantic salmon migration during post-smolt stage, and used this as foundation for reports for 2018 and 2019. The migration model is connected with the modelled lice concentration to predict lice infestation. The model is run for all rivers with more than 10 kg spawning biomass, and estimates the lice infestations as well as the following mortality.</p>		2016	2017	2018	2019	PO-1	Low	Low	Low	Low	PO-2	Mod	Low	Mod	Low	PO-3	High	High	High	Mod	PO-4	Mod	High	Mod	High	PO-5	Mod	Mod	Mod	High	PO-6	Mod	Low	Low	Low	PO-7	Mod	Low	Mod	Low	PO-8	Low	Low	Low	Low	PO-9	Low	Low	Low	Low	PO-10	Low	Low	Low	Mod	PO-11	Low	Low	Low	Low	PO-12	Low	Low	Low	Low	PO-13	Low	Low	Low	Low
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	If 'Completed', has the action achieved its objective?	
Action A3 – 1:	Description of action (as submitted in the IP):	Eradicate <i>Gyrodactylus salaris</i> in the Driva (4 rivers) and Drammen (3 river) region. In the first region a fishing barrier has recently been made. In both regions fish are collected into the gene bank, ready for restocking after treatment period. The treatment with rotenone, acid aluminium and/or chlorine will start after some years of preparation and planning.
	Expected outcome (as submitted in the IP):	An optimistic prognosis is that the eradication of <i>G. salaris</i> in Norway is finalized in 2025, and that there will be no rivers left with this parasite after that. If everything goes according to the plan, the Driva region can be declared free of <i>G. salaris</i> in 2029 and the Drammen region a couple of years later.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	<p>The implementation plan continues as described.</p> <p>The Drammen region: This region is in the Oslofjord, where 11 rivers are included in the surveillance programme for <i>Gyrodactylus salaris</i> (G.s.). The programme maps G.s. in Atlantic salmon and rainbow trout, providing a good overview on where the parasite does not occur, and if it occurs – reveals this as soon as possible in order to implement preventive measurements. The Norwegian Food Safety Authority (NFSA) funds this programme, the Norwegian Veterinary Institute (NVI) implements it. In December of 2019 we got a realistic confirmation of the effectiveness of this programme: It revealed an occurrence of G.s. for the first time in the river Selvikelva south in the Drammen Region. Migration of parasites through brackish water is the main reason for further spreading of G.s. from a primary infestation, and therefore it was expected that this river could be the next one in the Drammen region. The NVI detected G.s. in 24 of 33 tested salmon juvenils. The percentage of infested salmons, and the number of G.s. individs were lower than one should expect in a river with long lasting G.s. infestation. The genetic type detected is the same as in the three other rivers infestated in the Drammen region.</p> <p>The NFSA took initiative to use both our contingency plan and the action plan, requiring meetings with the Norwegian Environment Agency, the County governor and the Norwegian Veterinary Institute (NVI). The NFSA has made a draft to update the zone regulation for the Drammen region. The draft is sent on hearing to different parties. The NVI did some research looking into the danger of spread by G.s. from the river Selvikelva to other nearby rivers. So far we have concluded not to treat the river, but rather to wait until the whole region can be treated. We have informed all relevant parties and the public about the situation in meetings and through the local newspaper.</p> <p>The Driva Region:</p>

		<p>The earliest start of treatment in the four rivers infested in this region can be 2022.</p> <p>Meanwhile, the surveillance programme is ongoing in 15 other rivers in the county Møre & Romsdal that contains the Driva region. As in earlier years, there were no detections of <i>G.s.</i> in the samplings from 2019.</p>
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A3 – 2:	Description of action (as submitted in the IP):	<p>The surveillance programme: Includes an epidemiological surveillance to find out more about how the river could have been infected, and what to do with the situation. It also includes a post treatment program that monitors the rivers for about 5 years before they can be declared free from <i>G. salaris</i>.</p> <p>Regarding monitoring, a method using e-DNA has been developed that can be more effective when screening a watercourse than traditional sampling and morphological methods. The NVI has used this method for some years and they are gaining experience.</p>
	Expected outcome (as submitted in the IP):	Early detection of possible infection.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	<p>The surveillance programme revealed an infestation in the watercourse Selvikvassdraget, see A3-2.</p> <p>The method e-DNA can supplement screening of watercourses. The Norwegian Veterinary Institute has used e-DNA when researching <i>G. salaris</i> in Russia. It has also been tested in Sweden. The method will be included in the OIE-manual as the first test before using diagnostic methods.</p>
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A3 – 3:	Description of action (as submitted in the IP):	<p>The NFSA has made a contingency plan intended for its regional and central levels which states who will do what, when and how in case of detection of <i>G. salaris</i>. There is also an action plan that contains measures and collaboration between different institutions and government levels involved (the NFSA, the Norwegian Environmental Agency, the county governors, and the Norwegian Veterinary Institute (NVI)).</p>
	Expected outcome (as submitted in the IP):	Enables quick action if the parasite is detected.
	Progress on action to date	In the incident with Selvikelva, described in Action A3-2, the NFSA started using their own contingency plan at an early stage. That included using their contingency tool MatCIM.

	<i>(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):</i>	<p>The NFSA also took the initiative to use the action plan for the collaboration between them, the Norwegian Environment Agency, the County Governor for Viken and the Norwegian Veterinary Institute.</p> <p>Both plans contributed to choose the right measures in a prioritized and rational order, and to ensure nothing was forgotten. It also revealed some needs for improvements which will be worked further on.</p>
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A3 – 4:	Description of action (as submitted in the IP):	Posters, brochures and internet pages in different languages have been developed to inform the public about the risk of introducing <i>G. salaris</i> and how to avoid this. . We collaborate with all our neighbouring countries to avoid the parasite being spread from these countries.
	Expected outcome (as submitted in the IP):	Information that will help prevent further spread of the parasite.
	Progress on action to date <i>(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):</i>	The NFSA, along with the NVI, has started the work to update the website and the templates for both posters and brochures. As soon as the work is completed the new material will be published and distributed. The change this time is that the 6 watercourses in the region Rauma have been declared free from <i>G.s.</i> , but also the detection of <i>G.s</i> in the river Selvikelva.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A4 – 1:	Description of action (as submitted in the IP):	<p>The Norwegian Environment Agency and the Norwegian Food Safety Authority requests the Norwegian Scientific Committee for Food and Environment to:</p> <ol style="list-style-type: none"> 1. Identify potential hazards associated with increasing amounts of pink salmon in Norwegian waters. 2. Identify areas and habitats that are best suited for, and thus most vulnerable to, spread and establishment of pink salmon. 3. Assess the consequences of spread, and potentially establishment, of pink salmon in Norwegian rivers. 4. Assess various mitigation measures to prevent spread and establishment of pink salmon in Norway, including the risk of negative impacts on native species associated with these measures. <p>Monitoring and mitigation measures will be prioritized by a large increase in Pink salmon.</p>

	<p>Expected outcome (as submitted in the IP):</p>	<p>More knowledge about the impact of pink salmon on Atlantic salmon and biodiversity, as well as effective measures to reduce the impact.</p>
	<p>Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):</p>	<p>The Norwegian Environment Agency and the Norwegian Food Safety Authority commissioned a risk assessment on pink salmon from the Norwegian Scientific Committee for Food and Environment. Their report was presented to the two commissioners in a seminar on January 15, 2020. Pink salmon is a salmonid that naturally belongs in the Pacific ocean, but after introduction of the species in the north of Russia it has made its way to Norwegian waterways to spawn. In recent years, pink salmon has been observed in Norwegian salmon rivers.</p> <p>The large numbers of pink salmon in western Finnmark and Troms in 2019 may indicate an expansion of the area in Norway with abundant odd-year pink salmon returns. In some small rivers in eastern Finnmark, between 1000 and 1500 pink salmon were fished out by local people in 2019, demonstrating the magnitude of the potential impact in terms of numbers of pink salmon.</p> <p>The dynamics and environmental impact of introduced pink salmon in Norwegian rivers, coastal waters, and the ocean, depend on their abundance. In all habitats and for all life stages, high abundance may have serious repercussions.</p> <p>An increasing abundance of reproducing pink salmon will likely present hazards to biodiversity and river ecosystems. The probability for negative impact from pink salmon on Norwegian wild salmonids is moderate (not unlikely) for</p> <ul style="list-style-type: none"> • parasites still not present in Norway • the bacterium <i>Renibacterium salmoninarum</i> • viruses causing the diseases Infectious Salmon Anaemia and Viral Hemorrhagic Septicemia <p>The probability of negative impact from pink salmon on Norwegian aquaculture is moderate (not unlikely) for</p> <ul style="list-style-type: none"> • parasites still not present in Norway • the bacterium <i>Piscirickettsia salmonis</i> • virus causing Infectious Salmon Anaemia <p>Unfortunately, there are great knowledge gaps about transmission of diseases from pink salmon.</p>
	<p>Current status of action:</p>	<p>Ongoing</p>
	<p>If 'Completed', has the action achieved its objective?</p>	
<p>Action A4 – 2:</p>	<p>Description of action (as submitted in the IP):</p>	<p>All catches of pink salmon in both sea and rivers will be reported in a catch register. The results of mitigation measures will also be reported in priority areas, it is</p>

		appropriate to monitor the spawning success of pink salmon to see if measures have the desired effect.
	Expected outcome (as submitted in the IP):	Knowledge of occurrence of pink salmon and effective mitigation measures.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	Based on the report from the Norwegian Scientific Committee for Food and Environment, and the results of the monitoring and measures to remove pink salmon in 2019, an action plan will be drawn up in 2020.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

4: Additional information required under the Convention	
4.1	Details of any laws, regulations and programmes that have been adopted or repealed since the last notification.
4.2	Details of any new commitments concerning the adoption or maintenance in force for specified periods of time of conservation, restoration and other management measures.
4.3	Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles.
4.4	Details of any new actions to invite the attention of States not party to the Convention to matters relating to the activities of its vessels which could adversely affect salmon stocks subject to the Convention.
4.5	Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.
North American Commission Members only:	
4.6	Details of any new measures to minimise by-catches of salmon originating in the rivers of the other member.
4.7	Details of any alteration to fishing patterns that result in the initiation of fishing or increase in catches of salmon originating in the rivers of another Party except with the consent of the latter.