	<p>Council</p> <p><i>Summary of Annual Progress Reports under the 2019 – 2024 Implementation Plans</i></p>	<p>CNL(23)23</p> <p>Agenda items: 7c)(i) and 7f)</p>
--	---	--

Summary of Annual Progress Reports under the 2019 – 2024 Implementation Plans

The Annual Progress Reports (APRs) summarised here are the fourth APRs to be submitted under the 2019 – 2024 Implementation Plans (IPs). The following information is requested:

- 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;
- any significant changes to the status of stocks, and a report on catches; and
- any actions taken in accordance with the provisions of the Convention.

The APRs submitted in 2023 have been reviewed by the IP / APR Review Group and its report will be made available on the [NASCO website](#). In this paper, the Secretariat has presented the information provided in section 1 (changes to Implementation Plans and new initiatives / achievements relating to salmon conservation and management), section 2 (stock status and catches) and section 4 (additional information required under the Convention) of those APRs received. Section 3 of the APRs covers the progress made over the last year on each of the actions detailed in the IPs and this has been evaluated in the Review Group's report. At the time of writing this report, no APR has been received from Denmark (in respect of the Faroe Islands and Greenland) – Faroe Islands.

1. Changes to the Implementation Plans

1.1 Describe any proposed revisions to the Implementation Plan

Canada

Canada did not submit a revised Implementation Plan in November 2022. Canada does not anticipate undertaking further revisions in autumn 2023, unless significant changes to policies and / or programs are made in 2023.

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: no changes were made to the Implementation Plan in 2022.

European Union

France: the Plan was submitted in November 2020. No revisions have therefore been made since.

Spain (Asturias): in the Implementation Plan that is reviewed, aspects are specified. The protocol to avoid *Gyrodactylus* in fish farms is explained, although there is no record of its presence.

Spain (Galicia): NGEU funds will imply a great investment in salmon rivers up to 2024, with restoration of habitat measures (eradication of invasive alien species -6 rivers- and permeabilisation of barriers -14 in 6 rivers- including demolition, new fish ladders or improvement of defective ladders), and monitoring facilities (fish counters). A new IP has been submitted including these facts, plus other some corrections, trying to meet requirements from the Secretariat.

Spain (Navarra): in February 2022 the Review Group considered that EU – Spain (Navarra)’s revised Implementation Plan is fully satisfactory across all sections / areas of the Plan. Therefore, no more changes are foreseen.

Sweden: no changes have been submitted as of 1st November 2022. Changes are being planned for reporting by 1st November 2023.

Norway

Section 3.3 Action A4-1 to A4-3 is revised. Revised IP sent to the Secretariat 1 November 2022.

United Kingdom

Scotland: no further changes are proposed at this time.

1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight

Canada

Following the conclusion of the first-ever Wild Atlantic Salmon Conservation Implementation Plan (2019 – 2021), Canada conducted a thorough review of its actions and published a Status Report in 2022. The findings of the 2022 Status Report highlighted several successes and challenges, and demonstrated the need for a more comprehensive, strategic approach to Atlantic salmon conservation across its Canadian range. With that in mind, the Minister of Fisheries, Oceans and the Canadian Coast Guard was mandated to: ‘Work in close collaboration with provincial and territorial authorities, Indigenous partners, fishing and stewardship organizations and implicated communities to make new investments and develop a conservation strategy to restore and rebuild wild Atlantic salmon populations and their habitats’. This commitment represents a significant new initiative that will shape the next decade - and beyond - of Atlantic salmon conservation in Canada. In support of the new mandate commitment, Canada conducted extensive consultative activities in 2022, including more than 60 meetings with Indigenous peoples, Indigenous organizations, partners, and stakeholders representing approximately 80 organizations. Canada also invited feedback on draft elements of the conservation strategy through an online engagement platform. All feedback will be used to further develop and refine the conservation strategy, which we anticipate will be published in late 2023.

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: the new regulatory measure stipulates a new management initiative where Greenland agrees to close the fishery at West Greenland, when the registered catch has reached no more than 49 % of the overall TAC.

European Union

Finland: because of poor stock status of Atlantic salmon populations in the River Teno system, all salmon fishing was closed in 2022 both in the river and in nearby coastal areas in Norway, similarly as in 2021.

France:

1. as mentioned in the previous APR, the new PLAGEPOMI were adopted at the end of 2021-beginning of 2022. Here is the table with all the PLAGEPOMI in progress. Only the PLAGEPOMI of the Breton rivers will have to be updated in 2023.

PLAGEPOMI is one of the watershed reference document, on the basis of which all water and biodiversity stakeholders can target their interventions in favour of migratory

fish within the framework of WFD, local environmental contracts (river, lagoon, bay...) as well as within the framework of calls for projects proposed by various funders.

Watershed	date of prefectural decree	Internet link to Plagepomi
Cours d'eau bretons	2018-08-14	https://www.bretagne.developpement-durable.gouv.fr/IMG/pdf/plagepomi_2018.pdf
Loire, Sèvre niortaise et côtiers vendéens	2021-12-21	https://www.pays-de-la-loire.developpement-durable.gouv.fr/IMG/pdf/20211221_plagepomi_2022-2027_arrete.pdf
Adour	2021-12-28	https://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/plagepomi_adour_2022-2027.pdf
Garonne-Dordogne-Charente-Seudre-Leyre	2021-12-28	https://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/plagepomi_gdcs1_2022-2027.pdf
Artois-Picardie	2021-12-29	https://www.hauts-de-france.developpement-durable.gouv.fr/IMG/pdf/plagepomi_artois_picardie_2022_2027bd.pdf
Seine-Normandie	2021-12-20	https://www.driat.ile-de-france.developpement-durable.gouv.fr/IMG/pdf/220203_plagepomi_approuve_2022-27_vdef.pdf
Rhin-Meuse	2022-05-16	https://www.grand-est.developpement-durable.gouv.fr/IMG/pdf/v5_projet-plagepomi_fev2022_vfinale_pgarde3_comprese.pdf

2. the migratory associations of each river basin work for a good knowledge and a better management for the migratory fishes and thus for the salmon (which is not present on the Rhone-Mediterranean watershed!). Each one has a dashboard for the monitoring of its watershed. Here are the key elements of 2022 for each of them.

Watershed	assessment of associations' work in 2022
Cours d'eau bretons	Bretagne Grands Migrateurs (BGM) : https://www.observatoire-poissons-migrateurs-bretagne.fr/etudes-et-suivis-sur-les-poissons-migrateurs-en-bretagne?filter_17[]=2&cc=
Loire, Sèvre niortaise et côtiers vendéens	Loire Grands Migrateurs (LOGRAMI) en 2022 (cf. p. 4 et 5) : https://www.logrami.fr/telechargement/nos-publications/actions-phares/ActionsPhares2022.pdf
Adour	MIGRADOUR (focus sur le gave de Pau) : https://www.youtube.com/watch?v=wHI5a46-zS0
Garonne-Dordogne-Charente-Seudre-Leyre	MIGADO : http://www.migado.fr/rapport-dactivite-2021-de-lassociation-migado/ (p. 4 à 11)

Seine-Normandie	SEINORMIGR : https://www.seinormigr.fr/fr/tableau-bord-sat-0996
Rhin-Meuse	Saumon-Rhin : https://www.saumon-rhin.com/synthese-des-comptages/

3. publication of a report on 2018 – 2021 assessment of the regulation on recreational salmon fishing implementation in the of Mont Saint-Michel Bay, with the particular aim of combating poaching in the Bay.
4. the Sélune program continues (INRAE): telemetric monitoring of salmon runs following the removal of the two hydroelectric dams of Vezins in 2020 and La Roche-qui-Boit in 2022 (<http://programme-selune.com/fr/>)
5. OFB and INRAE were present at the International Year of the Salmon Wrap-Up Symposium, October 4 to 6 2022, Vancouver, Canada. A poster on NAP was presented.

Germany: several water-engineering measures were finalised in the Rhine tributaries in 2022 and further projects are either in the planning or implementation stage.

In October 2022, the construction works for the fish pass at the dam in Rhinau (France) have started. Rhinau is one of three dams in the southern Upper Rhine that still must be equipped with fish passes, so that the ascending salmon can reach the Basel area and the southern Black Forest tributaries.

The Netherlands continue to work on optimising the operation of the locks on the Haringvliet dam. A no-fishing zone has been established on the Haringvliet. The construction works for the fish migration river in the Afsluitdijk are going according to plan.

The construction work to restore ecological continuity at the weir in Kostheim on the river Main, an important tributary of the Rhine, is nearing completion. Accompanying monitoring is planned.

The aims of these measures are to improve habitat quality and migration and to ensure sufficient drainage. These measures might significantly improve migration to known spawning areas, spawning activity, juvenile salmon abundance and the resulting long-term migration of juvenile salmon.

Due to the increasing development of high-quality habitats for salmon in the middle reaches of resettlement waters, as well as descent aids and protection facilities at hydropower plants, stock improvement measures can be relocated to such favourable sections upstream.

In 2022, the states in the Rhine catchment started work on commissioning a study to monitor the success of the reintroduction programme. The study is expected to provide insights into the causes of the low numbers as well as proposals for countermeasures.

Portugal: development of the SALMONLINK (<https://www.salmonlink.uevora.pt>) project: The main objective of the project – ‘SALMONLINK - Contribution of scientists and fishermen to the conservation and participatory management of Atlantic salmon populations in Portugal (MAR-01.03. 02-FEAMP-0048)’ is the establishment of a network of contacts and partnerships, at national level, between scientists and commercial and recreational fishermen in areas where Atlantic salmon occurs, that allow to increase the knowledge of these populations and, at the same time, in a context of knowledge transfer between the parties, adapt the current fishing legislation to the conservation and management needs of this endangered species.

The SALMONLINK project comprises four complementary actions that aim to:

- create a network that includes scientists, administration entities that manage these resources, and commercial and recreational fishermen who develop their activity in coastal, transitional and freshwater areas where salmon occurs;
- complement the information on salmon catches provided by commercial and recreational fishermen with a set of technical and scientific pilot studies to increase knowledge on the state of salmon populations in Portugal, aspects of their biology and ecology, and the main threats to which they are subjected;
- adapt the current fishing legislation and promote alternative activities in order to make the sustainable use of this resource compatible with its protection and conservation needs, benefiting from the partnership network previously established, combined with a socio-economic and cultural study in the areas of intervention of the operation;
- disseminate the main results of the project and transfer knowledge.

The SALMONLINK project is coordinated by the University of Évora, with the technical-scientific and logistical support of MARE - Centre for Marine and Environmental Sciences. The partners of the project are VIANAPESCA, OP – Cooperativa de Produtores de Peixe de Viana do Castelo, Associação de Profissionais de Pesca do Rio Minho e do Mar (APPRMM) and Associação Desportiva e Cultural dos Jovens de Longos Vales (ADCJLV). It is funded by European Funds (EMFF - European Maritime and Fisheries Fund), more specifically by the Operational Program MAR2020.

Besides the SALMONLINK project, Portugal (MARE-UÉvora) is, since 2020, also involved in the SMOLTRACK (<https://www.smoltrack.eu/>) project partnership, promoted by NASCO and involving a set of European partners, focused on the study of salmon smolt migrations.

Spain (Asturias): there is a program to donate alive and reserve large salmon in the fishing season (RSM) to allocate them to spawning and repopulation of juveniles. Some wild specimens in the fishing season have been donated by fishermen for artificial spawning.

This measure will continue to be promoted. In the Narcea river, 10 % of the salmon caught for spawning have been donated.

Salmon are also being recovered after artificial spawning, for subsequent spawning.

Spain (Navarra):

1. in the 2021 LIFE call for proposals, the Government of Navarra (through its public company GAN-NIK) submitted a project proposal named LIFE-KANTAUERIBAI, which has been selected for funding by the LIFE committee. The project will be implemented during the period 2022 – 2027 by a consortium of 13 partners from Spain and France to work on the improvement of the conservation status of species and habitats included in 5 river basins: Urumea, Oria, Bidasoa, La Nive and La Nivelles. One of the main targeted species is Atlantic salmon, for which the following activities will be carried out during the period 2022 – 2027 in the Navarra (Bidasoa basin): removal of 10 obsolete dams, construction of 4 fish passes, installation of an automatic migratory fish monitoring station, analysis of fish mortality in three hydro power plants and implementation of solutions, and setting up of an International Working Group for the coordination and management of migratory fish species between the 3 regions (2 countries) through which the Bidasoa basin flows. The project has just started to walk.
2. the salmon radiotracking scheme that started in 2018 is still ongoing. In 2022, 17 adult salmon have been tagged in the lower parts of the Bidasoa river basin when they entered

from the sea and were tracked during the upstream migration and return to the sea of the surviving kelts. The analysis of the data gathered in 2022 is still ongoing (there are still a couple of salmon alive in the river). All the information gathered through these monitoring schemes will be used by the Government of Navarra in the management of the species with the objective of improving its population size and conservation status.

3. besides, in 2019 a new programme of voluntary donations was implemented with anglers, and during this year the programme continued. Under this programme, on a voluntary basis anglers can donate each captured alive salmon to the Department of Environment to be tagged with a transmitter and released for its monitoring in the river or to be brought to the fish farm of the Government, to be used as breeder in the species' repopulation scheme carried out by the Government of Navarra. Three 2SW females out of the 23 salmon caught in the 2022 angling season (13 %) were donated and anglers in all cases decided to bring them to the fish farm. The three of them survived until the spawning season, and produced around 25,000 eggs. At the moment, the new born fries are growing in the fish farm and will be released in the river in spring under the restocking scheme that the Government of Navarra carries out in Bidasoa River yearly since the 90's. The main objective of this programme is to change the anglers' way of thinking towards a more sustainable angling practice that should lead in the future to the normalization of the 'catch and release' angling (not practiced by anglers in the Bidasoa River at the moment), while anglers are involved in the conservation tasks of the species that the Regional Government carries out in the Bidasoa River. This results are considered as an important success as the media impact has been quite significant and the general public acceptance is also big, which would certainly encourage more anglers to join the initiative in the coming seasons. Since the project was implemented four years ago, a total of 115,000 eggs have been 'saved'.

Sweden: due to a new legislation requiring modern environmental conditions for hydropower plants a national plan was decided on for the revision of hydropower plant licenses in environmental courts. The national plan includes revision of 2,100 hydropower plant licenses and revisions will be performed during the period 2022 – 2042. Planning and preparing have taken place during 2019 – 2021 and the process in the environmental courts started in 2022 including eight Atlantic salmon rivers. This process can provide improved environmental goals for each catchment area. The plan for improved environmental conditions for hydropower will be a significant boost in restoration of river habitats. The plan was however paused in late 2022 by the Government for the next year to evaluate the coming year's energy supplies due to the situation in Sweden and Europe.

United Kingdom

England and Wales: in 2022, in light of the ongoing rapid decline in salmon (and some sea trout) stocks in Wales, Natural Resources Wales (NRW) commissioned an evidence report (No. 674) on [the identification and characterisation of small salmon populations to support their conservation and management](#). This was initiated after a workshop hosted by NRW in 2017 and has been completed. The report focuses on whether and how small and critically small populations can be identified and the degree to which demographic or genetic parameters can be used to establish 'red flags' as triggers for increased actions. The report makes nine conclusions/recommendations, which are being reviewed / prioritised for implementation.

In 2022, an England *Chalk Stream Restoration Implementation Plan* was published, which encompasses six principal salmon rivers: Piddle, Frome, Stour, Hampshire Avon, Test and Itchen. This sits under England's *Chalk Stream Restoration Strategy, 2021*.

In January 2023, the Angling Trust launched a [Salmon Charter A Manifesto for Salmon Angling in England & Wales](#). In February 2023, the Institute of Fisheries Management published a [Position Statement on Atlantic Salmon Conservation and Protection](#).

In 2022, the International Union for the Conservation of Nature (IUCN) progressed its UK and global assessment of the state of Atlantic salmon populations.

Scotland: The Scottish Wild Salmon Strategy Implementation Plan was developed during 2022 ([Wild salmon strategy: implementation plan 2023 to 2028 - gov.scot \(www.gov.scot\)](#)). A companion piece to the high-level strategy published in early 2022, the Plan sets out a suite of actions and initiatives that will be the focus of collective efforts across a range of government and non-government stakeholders over the period 2028.

Work under the Scottish Wild Salmon Strategy will also contribute to the Scottish Biodiversity Strategy. A draft strategy published in December 2022 [Biodiversity strategy to 2045: tackling the nature emergency - gov.scot \(www.gov.scot\)](#) sets out our clear ambition for Scotland to be Nature Positive by 2030, and to have restored and regenerated biodiversity across the country by 2045, and identifies the recovery of salmon populations among a suite of priority actions.

United States of America

Restoration: in 2022, the U.S. invested approximately 6.1 million dollars in support of connectivity projects that benefit Atlantic salmon and their ecosystems. Another 80,000 dollars was awarded for in-stream habitat restoration projects.

Outreach: in 2022, an outreach campaign was carried out to increase public awareness and protection of endangered sea-run Atlantic salmon. Educational brochures and tackle box stickers were produced and distributed to recreational fishermen by Marine Patrol Officers and other law enforcement agencies in the state with the goal of reducing the accidental harvest of federally protected Atlantic salmon (See Action F2 of [CNL\(23\)29](#)).

2. Changes in Stock Status and Catch Statistics

The catch statistics and information on unreported catches and on catch and release are presented in Annex 1 using the information provided in the APRs and, in the case of Denmark (in respect of the Faroe Islands and Greenland) – the figures reported to ICES have been used. The provisional catch for 2022 (651.2 t) is higher than the catch in 2021 (573.3 t). Incomplete information is available on the extent of catch and release fishing and unreported catches.

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

The following information was provided:

Canada

No new factors affecting salmon abundance have been identified. Status of Atlantic salmon in eastern Canada is described in the Implementation Plan; stocks from the northern regions (Gulf, Quebec, Newfoundland, Labrador) are faring better than stocks in the Maritimes Region.

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: no new factors that may affect the abundance of salmon stocks significantly has been observed.

European Union

Denmark: some concerns have been raised regarding beavers, in particular beaver dams, in Storå; smolt-production is reduced due to lack of access to spawning areas for adults. The municipalities have the possibility to regulate the dams, if necessary.

Finland: despite the reduced exploitation rates in the River Teno fishery since 2017, salmon stocks showed even worse status in 2019 – 2020. Likely explanations for this development include increased natural mortality factors in different life stages of salmon. As a response to this poor development, no salmon fishing was allowed in 2021 and 2022 in the Teno river and in nearby coastal areas in Norway. Fishing ban led to significant increase in spawning stocks in different salmon populations. The 2022 salmon catch consists of catches from the River Näätämöjoki only.

France: there have been a significant amount of droughts throughout the year 2022, with a variety of negative impacts on fish stocks and water levels.

Those droughts have led the government to limit activities as fishing in rivers (mainly around July and August). The restriction of fisheries may have resulted in a significant decrease in reported salmon catches (in rivers).

A reduction in fishing pressure on sea lamprey and allis shad was finally adopted by decrees on 18 January 2022 in the Adour, Dordogne and Garonne. The consequences on salmon are not quantifiable even if one can hypothetically imagine a reduction in the bycatches of salmon, given that the fishing effort with nets for lampreys and shad has been reduced.

Germany: in 2022, that was characterised by very low water and discharge levels in the Rhine and very dry conditions in the catchment area, less than 200 adult salmon along with little natural spawning activities were registered in the Rhine catchment. Thus, the numbers remained at a low level.

The stocking measures in suitable tributaries in the whole catchment area were continued. In 2022, approximately 2 million young salmon were released.

Four pink salmon were detected in the Rhine-Meuse Delta in the Netherlands.

Similar to the Rhine, in the Weser and Elbe river basins, impairments of salmon reintroduction projects were reported due to summer drought and low water discharge. The number of observed salmon returns is also stagnating at a low level in this river basins.

Neither farmed salmon nor pink salmon were reported in the lower reaches of the Elbe River and other northern German rivers in 2022.

Some successful and planned spawning habitat restorations were reported in tributaries in the middle reaches of the Elbe River.

In the upper reaches of the Elbe River in Saxony, there is evidence of natural reproduction of salmon in rivers where salmon have not previously been released. It seems that Salmon naturally expand their range in this region.

Ireland: the catch advice for the 2022 fishery was that 48 rivers had an advised harvestable surplus as they were exceeding their conservation limits (CL). A further 16 rivers were advised for opening for catch and release-only (C&R-only) fishing based on exceeding a minimum fry threshold (≥ 17 salmon fry/5 minute electro-fishing average) in catchment-

wide electrofishing surveys or that they met 65% or over of their CL but did not exceed their CL. 80 river systems were advised to be closed for fishing as they did not exceed 65 % of CL, the minimum fry threshold or there was insufficient information for full stock assessment.

A separate assessment was made for 16 rivers with significant multi-sea-winter (MSW) salmon stocks based on the same criteria above. Of these, 13 had an advised harvestable surplus as they were exceeding their CL, two were advised to open for C&R-only fishing and one was advised for closure.

The catch advice for the 2023 fishery which is based on stock status in the preceding five-year period including 2022 is that 48 rivers have a harvestable surplus, 21 rivers are advised as C&R-only fisheries and 75 rivers should be closed to fishing based on the same criteria outlined above.

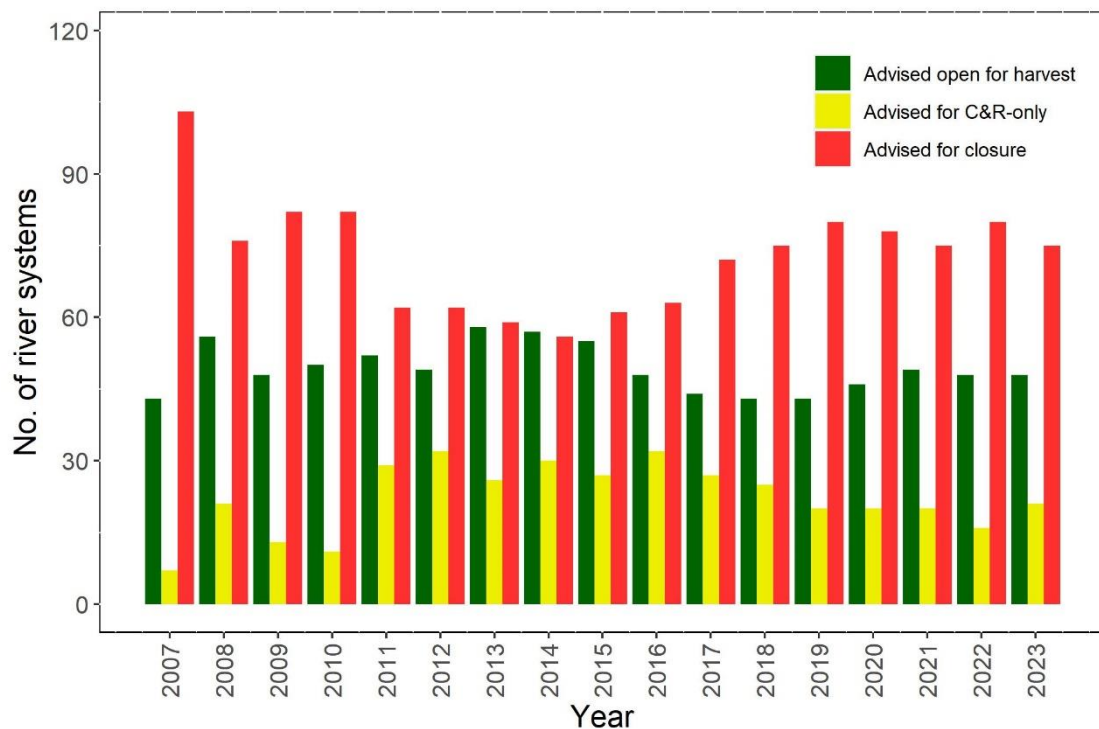


Figure. Scientific stock assessments for catch advice in Irish salmon fisheries (2007 to 2023)

There has been no significant changes in stock status since the development of the Implementation Plan.

Spain (Asturias): it has been regulated with regulations that imply reducing the fishing effort: new ‘fishing Cotos’ have been created, in Narcea and Nalón river, which implies a regulation of maximum daily catches.

Experimentally, for the first time, a maximum annual catch quota for fishing has been introduced in the Nalón-Narcea river.

Year	2017	2018	2019	2020	2021	2022
Catch number	498	601	834	858	526	414

Spain (Cantabria): in 2022, Cantabria suffered a severe drought, with low levels in its rivers, which reduced the upstream migration of salmon in all Cantabrian rivers.

Spain (Galicia): the first half of 2022 was extremely dry in Galicia, affecting timing of salmon runs and catches. Fortunately, rain came generously in the latter half, providing access to spawning grounds, that were in good condition at the time of spawning. However, summer habitat for parr had to be considerably reduced and some tributaries dried up completely. The effects of this drought must be evaluated.

Spain (Navarra): although no new factors that may affect the abundance of salmon stocks have been detected since last year, the stock decline that has been observed yearly since 2018 has led the species to a very worrying situation for its conservation in the basin.

Since the development of the Implementation Plan, several barriers have been removed and as a result, we observed an improvement on the colonisation rate of the basin by the migrating spawners, as they seem to reach further and faster to the upper areas of the Bidasoa River basin, where they were seldom seen in the past.

However, although the size of the stock varies among years, since 2018 we have observed a worrying continuous decline from 458 adult salmon entering the Bidasoa River in 2018, to 431 in 2019, 336 in 2020, 210 in 2021 and only 90 in 2022.

We are currently trying to clarify the reasons for this decline but, since the fluvial habitat conditions are the best for decades, the only answer that seems to explain this situation could be related to climate change. We have observed a decrease in the rainfall and an increase in water temperatures (especially during the summer) that could be hindering the survival of the species in the Bidasoa basin, although we certainly do not know if there could be other causes, such as an increase in natural mortality in the marine phase (if changes have occurred due to climate change that could explain this decrease), etc.

It must be taken into account that the populations located in the Southernmost distribution area of the species, as is the case of Bidasoa, will be the first to suffer the consequences of climate change and we could already be suffering them right now. We expect that international organisations, as NASCO, could shed some light on this situation by coordinating the results that are being obtained in other territories and proposing solutions that could be implemented.

Sweden: stock status reduced compared to 2019 (3 out of 23 stocks assessed in 2021 was in good productive capacity and 4 out of 22 stocks assessed in 2022 was in good productive capacity). No catch was recorded from commercial fishing on the coast in 2022 (8th year in a row), i.e. mixed-stock fishing on the coast has ceased.

Catch and release of wild salmon in rivers has increased from 9 % in 2011 to 37 % in 2021 and 2022. Out of 24 rivers with salmon 7 rivers reported no harvest of salmon in 2021 and 10 rivers reported no harvest of salmon in 2022.

Norway

In 2021, the pre-fishery abundance was estimated at about 403 000 wild salmon, lower 2021 than ever recorded before (time series starting in 1980). Efforts to map sea survival are increasing by the establishment of new monitoring rivers, and so far, results show that sea survival vary significantly among rivers and years. The management targets for the period 2018 – 2021 were attained, or likely attained, for 93 % of the populations. This is among the best results regarding attainment of the management targets since the first evaluation was done in 2009.

In two thirds (150) of the 239 screened rivers, there were indications of genetic introgression from escaped farmed salmon in the wild population, of which 68 populations were severely impacted.

The number of salmon returning to the rivers each year is reduced due to mortality caused by salmon lice. This reduction threatens salmon populations in the most impacted areas, and has significantly reduced the harvestable surplus.

Invasive 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 occurrence of invasive pink salmon in Norwegian rivers increased significantly in 2017, 2019 and 2021 compared to earlier years. See section 3.3, Action A4 of [CNL\(23\)45](#).

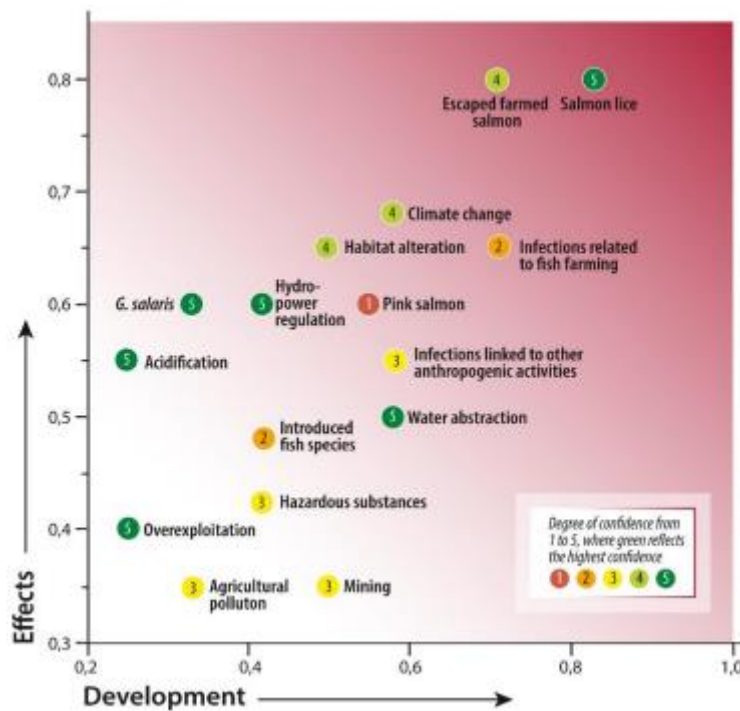


Figure. Ranking of 16 impact factors considered in 2021, according to their effects on wild Atlantic salmon populations and the likelihood of a further negative development. Confidence for the assessment of effect by each threat is indicated by the color of the markers, where green indicates the highest confidence level and red the lowest. (SACAS 2022)

United Kingdom

England and Wales: in 2022, the provisional salmon rod catch in England and Wales (E&W) of 6,303 was the second lowest on record (2021 was the lowest – 5,814). Salmon stocks are in an increasingly critical state when assessed against Conservation Limits (CLs) (see Action F1 of [CNL\(23\)42](#)) with 90 % of principal salmon rivers in E&W projected to be assessed as At Risk or Probably At Risk in 2027 if recent trends continue. The state of E&W salmon populations reflects the increasingly stressful environmental conditions in fresh, transitional and marine waters impacting on salmon most notably from climate change, diffuse and point-source pollution, habitat quality and barriers to migration. Prolonged periods of low river flows and warm water temperatures, which were most pronounced in South Wales and Southwest England, resulted in designated ‘drought’ conditions and were likely to have caused delayed upstream migration of salmon and, in extreme cases, were associated with increased mortality of adult fish on some rivers, notably on the River Wye. Reports of fungal (*Saprolegnia*) infections due to environmental stress, mainly in the spring, caused mortalities of fish most notably in some Northwest rivers. As expected, no pink salmon were reported in 2022.

Northern Ireland: 2022 saw low returns of 1SW fish to Northern Irish rivers. It is worth highlighting that the return of adults to the river Bush (N. Ireland long term monitoring/index catchment) totalled 525 fish, which represents the lowest return in the 50 year Bush time-series.

Scotland: there were no COVID-19 measures affecting fisheries in 2022, therefore while effort data are not yet available it is likely to be higher than in 2020 and 2021 when COVID-19 measures were in place and provisional total catch numbers (including those released) are higher than in 2021. 2022 was also a dry year and may have effected rod catches compared to pre COVID-19 levels, especially on east coast rivers. Catch and release rate has again increased slightly from a combination of mandatory and voluntary measures and is higher than it was pre COVID-19.

3. Implementation Plan Actions

Details of progress against the actions included in individual Implementation Plans is reported in the Annual Progress Reports for each jurisdiction and has been evaluated and summarised by the Review Group in its report (CNL(23)22) which will be made available on the [NASCO website](#).

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

Canada

In New Brunswick, a new Aquaculture Act and supporting regulations were enacted on July 1, 2022, enabling the province to continue its regulatory authority over the practice of aquaculture.

In 2022, the Province of Newfoundland and Labrador updated the Code of Containment for the Culture of Salmonids in Newfoundland and Labrador to delineate the provincial and federal regulator's role as it pertains to reporting, fish containment and recapture. The new updates also included: requirement for company annual escape prevention training; expanded cage and mooring installation requirements to make them more robust and site specific under the approval of manufacturers guidelines and a third party engineer. Specifically, the 2022 Code emphasises the 2021 requirements for salmonid net pen operations to have marine site cage system components and installations that meet ISO or certified third-party engineering standards.

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: a new executive order on fishery for salmon was adopted in 2022. Minor changes were made and mostly in relation to the Kapisillit River. Changes and additions to the executive order in relation to the Kapisillit River are explained in section 3.2 of [CNL\(23\)46](#) and include the following:

- changes in the definition of the habitat of the Kapisillit River.
- restriction on the use of tools related to fishing close to the estuary of the Kapisillit River.
- other additions and changes to the executive order:
 - the prohibition of gillnets no closer than 500 meters from the estuary of any river. In the previous Executive Order, this was not specified.

- license holders need to monitor their nets daily (if weather permits). In the previous executive order the requirement was "regularly". License holders also need to take up their tools before the fishery closes in their area. This was not specified in the previous executive order.

All other restrictions remain.

A new regulatory measure was agreed upon for the 2022 season. It stipulated that Greenland agrees to close the fishery when the quota uptake has reached no more than 49 % of the overall TAC. It was especially used in the IDEF management area for professional fishermen, where the fishery was closed when the quota uptake had reached 40 %. This resulted in a quota uptake of less than 5 % overfishing. It should be noted that the 49 % closure mechanism is only one of many factors influencing the decision of when to close the fishery.

European Union

Finland: Law that bans all salmon fishing in River Teno-Anarjohka border area and tributaries of River Teno has been published. This law was valid for year 2022. Similar law has been adopted for year 2023 as well.

Spain (Asturias): the annual regulation for salmon fishing includes a prohibition in certain periods of some fishing gear to reduce extraction.

Spain (Navarra): annually, a regional regulation (Orden Foral de Vedas) regulates salmon fishing: defines the Authorized Total Catch (TAC) in the season, the closing date (if the TAC has not been reached before), MSW protection measures, fishing calendar, minimum size, baits, hooks, etc. In 2022 the regional law was OF 40E/2022.

As explained before, the radiotracking monitoring programme started in 2018 and the voluntary donations programme in 2019. Both continued in 2022 and it is expected they will also continue at least during 2023.

The Government of Navarra, together with other partners, submitted a new LIFE project proposal (LIFE KANTAUERIBAI) targeting the improvement of Atlantic Salmon (among other species) in the river catchments of the project area (Gipuzkoa, Navarre and Aquitaine), that has been funded by the Commission. Foreseen actions related to salmon improvement include removal of obstacles, establishment of automatic monitoring stations, quantification of fish mortality by hydropower plants, solutions to avoid fish entering the canals of the hydropower plants, evaluation of the permeability of obstacles, radiotracking and establishment of an international Bidasoa Salmon Working Group, to share salmon related information with our Gipuzkoan and French colleagues.

United Kingdom

Scotland: the Conservation of Salmon (Scotland) Amendment Regulations 2022 establishes the areas of inland waters where there is a prohibition on the retention of any salmon caught.

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

Canada

In its 2021 APR, Canada had indicated that DFO had requested advice (anticipated in 2022) through the Canadian Science Advisory Secretariat for the development of a risk assessment framework to inform decisions on stocking of wild Atlantic salmon. This

process did not happen as planned in 2022 and is not currently on CSAS's schedule for now. However, the process should occur in 2023 or 2024 if no other priority emerges.

Canada has no update on the planned implementation in 2022 of the Province of New Brunswick's Finfish Aquaculture Growth Strategy.

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: no new commitments concerning the adoption or maintenance in force for specified periods of time of conservation, restoration, and other management measures to report.

European Union

Spain (Asturias): new 'fishing Cotos' have been created in Nalón and Narcea rivers, which implies a regulation of maximum daily catches.

Spain (Navarra): the Salmon Working Group in Spain, re-established in 2019, is expected to enable the exchange of information between all competent authorities and the establishment of synergies that may lead to further improvements in species management in the country. A meeting was held in Santander (Cantabria) in spring 2022 and we plan to meet again in spring 2023.

4.3 Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: no new actions to prohibit fishing for salmon beyond 12 nautical miles to report.

European Union

Spain (Asturias): salmon fishing is prohibited beyond 12 nautical miles. Also in estuaries and coasts. It is only allowed in rivers with a rod.

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

Canada

Canada continued to engage with France about the status of their plans to limit the total catch per recreational license in Saint Pierre and Miquelon (SPM), and encouraged France to accede to the NASCO Convention. This was done as part of the annual meeting of the North American Commission, as well as in separate bilateral discussions in spring 2022.

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: no 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 to report.

European Union

Spain (Asturias): it would be important to monitor issues of marketing of salmon caught in the sea.

4.5 Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations

Denmark (in respect of the Faroe Islands and Greenland)

Greenland: GFLK has, like all other years, maintained strict surveillance on the catch and sale of salmon within the season period.

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.

Canada

During the 2022 Nunatukuvut Food, Social, and Ceremonial fishery, it was recommended that harvesters move gillnets for the community freezer program from the head lands of coastal waters into the bays to prevent incidental catches of U.S.-origin salmon.

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.

No details reported.

Secretariat
Edinburgh
4 April 2023

Table 1. Official Catch Statistics¹

	Provisional 2022 catch				Confirmed 2021 catch			
	In-River	Estuarine	Coastal	Total	In-River	Estuarine	Coastal	Total
Canada	50.8	42.2	6.9	99.9	50.1	40.4	7.4	97.9
Denmark (in respect of Faroe Islands and Greenland)								
Faroe Islands ¹	-	0	0	0	0	0	0	0
Greenland	-	-	28.9	28.9	-	-	40	40
European Union	53.7	15.3	0.1	69.1	62.6	20.1	0.1	82.8
Norway	256	-	134	390	197	-	98	295
Russian Federation	36.2	0	19.1	55.4	31.6	0	17.3	48.8
UK	6	1.9	0	7.9	6.7	2.1	0	8.8
USA	0	0	0	0	0	0	0	0
TOTAL	402.8	59.4	189	651.2	348	62.6	162.7	573.3

¹ Where no return to NASCO has been then made ICES data have been used

Table 2. Catches of Atlantic Salmon by the Parties to the NASCO Convention¹

	Canada	Denmark (Faroe Islands and Greenland)²	European Union³⁴	Finland	Norway	Russian Federation	Sweden	UK⁴	USA
1960	1636	60	2641		1576	1100	40	-	1
1961	1583	127	2276		1456	790	27	-	1
1962	1719	244	3894		1838	710	45	-	1
1963	1861	466	3842		1697	480	23	-	1
1964	2069	1539	4242		2040	590	36	-	1
1965	2116	861	3693		1900	590	40	-	1
1966	2369	1338	3549		1823	570	36	-	1
1967	2863	1600	4492		2058	883	25	-	1
1968	2111	1167	3623		1752	827	150	-	1
1969	2202	2350	4407		2083	360	76	-	1
1970	2323	2354	4069		1861	448	52	-	1
1971	1992	2511	3745		1847	417	35	-	1
1972	1759	2146	4261	32	1986	462	38	-	1
1973	2434	2402	4604	50	2126	772	73	-	3
1974	2539	1945	4432	76	1973	709	57	-	1
1975	2485	2086	4500	76	1754	811	56	-	2
1976	2506	1479	2931	66	1530	542	45	-	1
1977	2545	1652	3025	59	1488	497	10	-	2
1978	1545	1159	3102	37	1050	476	10	-	4
1979	1287	1694	2572	26	1831	455	12	-	3
1980	2680	2052	2640	34	1830	664	17	-	6
1981	2437	2602	2557	44	1656	463	26	-	6
1982	1798	2350	2533	83	1348	364	25	-	6
1983	1424	1433	3532	79	1550	507	28	-	1
1984	1112	997	2308	75	1623	593	40	-	2
1985	1133	1430	3002	49	1561	659	45	-	2
1986 ³	1559	1490	3524	38	1597	608	53	-	2
1987	1784	1539	2593	49	1385	559	47	-	1
1988	1311	1136	2833	34	1076	419	40	-	1
1989	1139	701	2450	52	905	359	29	-	2
1990	912	542	1645	59	930	316	33	-	2
1991	711	533	1139	69	877	215	38	-	1
1992	520	260	1506	77	867	166	49	-	1
1993	373	35	1483	70	923	140	56	-	1
1994	355	18	1919	48	996	141	44	-	0

	Canada	Denmark (Faroe Islands and Greenland)²	European Union³⁴	Finland	Norway	Russian Federation	Sweden	UK⁴	USA
1995	259	86	1852	-	839	130	-	-	0
1996	290	92	1474	-	787	131	-	-	0
1997	229	59	1179	-	630	111	-	-	0
1998	157	17	1183	-	740	130	-	-	0
1999	152	19	1016	-	811	102	-	-	0
2000	153	29	1336	-	1176	124	-	-	0
2001	148	42	1407	-	1267	114	-	-	0
2002	148	9	1245	-	1019	118	-	-	0
2003	141	9	1012	-	1071	107	-	-	0
2004	161	15	978	-	784	82	-	-	0
2005	139	14	884	-	888	82	-	-	0
2006	132	23	703	-	931	91	-	-	0
2007	112	25	453	-	767	63	-	-	0
2008	158	26	444	-	807	73	-	-	0
2009	126	26	327	-	595	71	-	-	0
2010	146	38	496	-	642	88	-	-	0
2011	179	28	510	-	696	89	-	-	0
2012	126	33	403	-	695	82	-	-	0
2013	137	47	382	-	476	78	-	-	0
2014	118	58	313	-	490	81	-	-	0
2015	140	58	289	-	585	80	-	-	0
2016	135	27	257	-	612	56	-	-	0
2017	110	28	223	-	667	47	-	-	0
2018	79	40	178	-	594	80	-	-	0
2019	100	29	116	-	513	57	-	20	0
2020	103	31	100	-	527	49	-	18	0
2021	98	40	83	-	295	49	-	9	0
2022	100	29	69	-	390	55	-	8	0

¹Figures since 1986 are the official catch returns to NASCO. Where no return to NASCO has been then made ICES data have been used. ²The catch for Denmark (in respect of the Faroe Islands and Greenland) includes the catch for Greenland when it was a member of the European Union and the catches up to 1983 by Denmark. ³The European Union catch from 1995 includes the catches by Finland and Sweden. ⁴The European Union catch includes UK catch until 2018. From 2019 the UK catch is shown separately.

Table 3. Catch and release^{1,2}

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Canada	49,279	42,820	58,000	47,892	58,300	77,641	50,811	59,207	39,534	64,159	69,950	49,513	50,184	60,636	59,627	67,056	53,002
Denmark (Faroe Islands and Greenland)	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0 ²	-
European Union ³	62,812	82,977	81,301	71,133	115,065	99,086	97,499	74,445	53,985	68,986	74,504	73,155	61,648	69,409	18,483	15,183	18,595
Norway	0	0	5,512	6,696	15,041	14,303	18,611	15,912	20,229	25,433	25,206	25,876	22,024	20,675	28,753	21,356	27,198
Russian Federation ⁴	33,380	44,341	41,881	-	14,585	-	4,743	3,732	8,479	7,028	10,793	10,110	10,799	12,762	9,508	10,727	10,324
United Kingdom ⁵	-	-	-	-	-	-	-	-	-	-	-	-	-	54,061	59,736	43,352	50,345
United States ⁶	424	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes. ¹For catch and release figures for the years 2000 – 2005, please see Table 3 in document [CNL\(19\)13](#). Where no return to NASCO has been then made ICES data have been used. ²Not all EU Member States provide complete information on catch and release. ³Since 2009, there has been no obligation to report fish caught and released in the Russian Federation. ⁴The European Union catch includes the UK figures until 2018. From 2019 the UK figure is shown separately; however, the figure is incomplete for 2021 as one region did not report. ⁵In the U.S., no sea-run Atlantic salmon are subject to recreational fishing but small fisheries occur on domestic broodstock in the Naugatuck and Shetucket Rivers in Southern New England (and on the Merrimack until the close of the 2018 season); these rivers are outside the geographic range of endangered Atlantic salmon.

Table 4. Unreported catches

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Canada	56	-	21	-	18	29	31	24	21	25	27	27	24	12	13	20	18
Denmark (Faroe Islands and Greenland)	11	12	10	5	12.3	10	10	10	10	10	10	-	-	6	6	6	6
European Union	95	72	54	47	70	71	59	57	38	41	22	23	17	16	10	5	5
Norway	299- 499	247- 411	260- 432	166- 338	206- 344	298	298	204	210	250	262	285	263	219	225	126	167
Russian Federation	70-103	25-77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UK	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	1
USA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes. For unreported catch figures for the years 2000 – 2005, please see Table 4 in document [CNL\(21\)18](#). The information for Canada for some years is incomplete as not all administrative regions have provided estimates in all years. Further details can be found in the Annual Progress Reports themselves. Not all EU Member States provide an estimate of unreported catch. The UK estimate is included in the EU estimate until 2018. From 2019 the UK estimate is shown separately. No estimate has been provided by the Russian Federation since 2008. Information for Denmark (in respect of the Faroe Islands and Greenland) is incomplete for some years as Faroe Islands has not provided an estimate in all years.