	<p><b>Council</b></p> <p><i>Summary of Annual Progress Reports under the 2019 – 2024 Implementation Plans</i></p>	<p>CNL(24)19rev<sup>1</sup></p> <p>Agenda items: 7b)(i) and 7d)</p>
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## *Summary of Annual Progress Reports under the 2019 – 2024 Implementation Plans*

The Annual Progress Reports (APRs) summarised here are the fifth 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 2024 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, as written in the APR, 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. APRs have been received from each of NASCO's Parties and reporting jurisdictions, with the exception of Iceland which, having re-acceded to the NASCO Convention in early 2024, is not yet a part of NASCO's reporting cycle structure.

### **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 2023. Canada does not anticipate undertaking further revisions in autumn 2024, unless significant changes to policies and/or programs are made in 2024.

##### **Denmark (in respect of the Faroe Islands and Greenland)**

*Greenland:* no changes were made to the Implementation Plan in 2023.

##### **European Union**

*Denmark:* the plan has not been changed.

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

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

*Spain (Galicia):* Actions F5, H3 and H4, related with projects funded with NextGeneration funds must be corrected to meet actual numbers: 3 counting devices in rivers Landro, Eo and Ulla (F5), eradication of invasive species in 11 rivers (H3) and demolition/permeabilization of 6 barriers in 2 rivers (H4), which also may include another

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<sup>1</sup> Changed 21 August 2024 to reflect minor updates to the catch and release and unreported catch totals.

two barriers not related with these (see 1.2). Corrections will be included in a revised version of IP.

***Spain (Gipuzkoa):*** no changes to the Implementation Plan.

***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.

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

### **Canada**

After having conducted extensive consultative activities in 2022, Canada published in 2023 a What We Heard report that was used to refine Canada's draft Wild Atlantic Salmon Conservation Strategy, which is expected to be finalized in 2024.

### **Denmark (in respect of the Faroe Islands and Greenland)**

***Faroe Islands:*** no major new initiatives or achievements for salmon conservation and management but consistent with the scientific advice no salmon fishery was conducted in the waters around the Faroe Islands in 2024 (see Action F1 of [CNL\(24\)25](#)).

***Greenland:*** reporting percentage amongst license holders is up 14 %-points from 2022 to 2023 with a reporting percentage of 82 %. The number of reports received has also increased by 28 % compared to 2022.

A new initiative for the Kapisillit salmon: The Ministry of Fisheries and Hunting, have in partnership with the Ministry of Agriculture, Self-sufficiency, Energy and Environment, started the application-process for an EU-funded project via Bestlife2030. The project will focus on conservation of the Kapisillit river and surrounding area, and thereby the Kapisillit salmon, through a focus on local involvement and management.

### **European Union**

***Finland:*** because of poor stock status of Atlantic salmon populations in the River Teno system, all salmon fishing was closed in 2023 both in the river and in nearby coastal areas in Norway, similarly as in 2021 and 2022. Statutes implementing the salmon fishing ban for fishing season 2023 included also provisions for pink salmon removal fishing.

### ***France:***

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

From March 2022, several orders handed down by the Bordeaux Administrative Court, ruling on applications for interim relief, suspended the implementation of the PLAGEPOMI for the Garonne watershed and the PLAGEPOMI for the Adour watershed. In 2023, this solution was confirmed by the same court in a ruling on the merits of a case concerning the PLAGEPOMI for the Garonne watershed.

The French Ministry of Ecology has lodged an appeal against this ruling, which is currently being examined.

It is important to note that, as far as salmon are concerned, the aforementioned suspensions and annulments are based solely on a procedural defect: the administrative

court considered that the PLAGEPOMI are among the planning documents covered by 1° of article L. 414-4 of the French Environmental Code when the perimeter they define includes a Natura 2000 site. And that, consequently, the establishment of a PLAGEPOMI is subject to prior assessment of its impact with regard to the conservation objectives of these Natura 2000 sites. This is the case when the PLAGEPOMI is likely to have a significant impact on the species protected by certain NATURA 2000 sites.

Article L. 414-4 of the Environment Code transposes into French law articles 6 § 3 and 6 § 4 of Habitats Directive 92/43/EEC of 21 May 1992. This case law could therefore inspire the national courts of other EU Member States where planning documents provide a framework for the preservation of salmon.

The PLAGEPOMI of the Breton rivers has been updated in 2023 and validated in February 2024. The table below has therefore been updated.

Watershed	date of prefectural decree	Internet link to Plagepomi
Cours d'eau bretons	2024-02-23	<a href="https://www.bretagne.developpement-durable.gouv.fr/IMG/pdf/20240119_plagepomi_2024-2027_vf.pdf">https://www.bretagne.developpement-durable.gouv.fr/IMG/pdf/20240119_plagepomi_2024-2027_vf.pdf</a>
Loire, Sèvre niortaise et côtiers vendéens	2021-12-21	<a href="https://www.pays-de-la-loire.developpement-durable.gouv.fr/IMG/pdf/20211221_plagepomi_2022-2027_arrete.pdf">https://www.pays-de-la-loire.developpement-durable.gouv.fr/IMG/pdf/20211221_plagepomi_2022-2027_arrete.pdf</a>
Adour	2021-12-28	<a href="https://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/plagepomi_adour_2022-2027.pdf">https://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/plagepomi_adour_2022-2027.pdf</a>
Garonne-Dordogne-Charente-Seudre-Leyre	2021-12-28	<a href="https://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/plagepomi_gdcs1_2022-2027.pdf">https://www.nouvelle-aquitaine.developpement-durable.gouv.fr/IMG/pdf/plagepomi_gdcs1_2022-2027.pdf</a>
Artois-Picardie	2021-12-29	<a href="https://www.hauts-de-france.developpement-durable.gouv.fr/IMG/pdf/plagepomi_artois_picardie_2022_2027bd.pdf">https://www.hauts-de-france.developpement-durable.gouv.fr/IMG/pdf/plagepomi_artois_picardie_2022_2027bd.pdf</a>
Seine-Normandie	2021-12-20	<a href="https://www.driat.ile-de-france.developpement-durable.gouv.fr/IMG/pdf/220203_plagepomi_approuve_2022-27_vdef.pdf">https://www.driat.ile-de-france.developpement-durable.gouv.fr/IMG/pdf/220203_plagepomi_approuve_2022-27_vdef.pdf</a>
Rhin-Meuse	2022-05-16	<a href="https://www.grand-est.developpement-durable.gouv.fr/IMG/pdf/v5_projet-plagepomi_fev2022_vfinale_pgarde3_comprese.pdf">https://www.grand-est.developpement-durable.gouv.fr/IMG/pdf/v5_projet-plagepomi_fev2022_vfinale_pgarde3_comprese.pdf</a>

- 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 2023 for each of them.

Watershed	assessment of associations' work in 2023
Cours d'eau bretons	Bretagne Grands Migrateurs (BGM) : <a href="https://www.observatoire-poissons-migrateurs-bretagne.fr/etudes-et-suivis-sur-les-poissons-migrateurs-en-bretagne?filter_17[]=2&amp;cc=">https://www.observatoire-poissons-migrateurs-bretagne.fr/etudes-et-suivis-sur-les-poissons-migrateurs-en-bretagne?filter_17[]=2&amp;cc=</a>

Loire, Sèvre niortaise et côtiers vendéens	Loire Grands Migrateurs (LOGRAMI) (p. 206) : <a href="https://www.logrami.fr/telechargement/nos-publications/rapports/recueil/Rapport-LOGIPOMI-2022_LOGRAMI_VF.pdf">https://www.logrami.fr/telechargement/nos-publications/rapports/recueil/Rapport-LOGIPOMI-2022_LOGRAMI_VF.pdf</a>
Adour	MIGRADO (monitoring population control stations) : <a href="https://www.migradour.com/publications/?tex_activites=suivi-des-populations&amp;tex_especes=saumon-atlantique&amp;view=list">https://www.migradour.com/publications/?tex_activites=suivi-des-populations&amp;tex_especes=saumon-atlantique&amp;view=list</a>
Garonne-Dordogne-Charente-Seudre-Leyre	MIGADO : <a href="http://www.migado.fr/rapport-dactivite-2021-de-lassociation-migado/">http://www.migado.fr/rapport-dactivite-2021-de-lassociation-migado/</a> (p. 12-14) <a href="https://www.migrateurs-charenteseudre.fr/espece/saumon-atlantique/">https://www.migrateurs-charenteseudre.fr/espece/saumon-atlantique/</a>
Seine-Normandie	SEINORMIGR : <a href="https://www.seinormigr.fr/fr/tableau-bord-sat-0996">https://www.seinormigr.fr/fr/tableau-bord-sat-0996</a>
Rhin-Meuse	Saumon-Rhin : <a href="https://www.saumon-rhin.com/synthese-des-comptages/">https://www.saumon-rhin.com/synthese-des-comptages/</a>

### 3 Publication:

- Benchmarking the north atlantic salmon stock assessment: a new life cycle model to evaluate salmon mixed stock status and fisheries management scenarios across the north atlantic basin [Maxime Olmos , Remi Lemaire-Patin , Pierre-yves Hernvann , James Ounsley , Maud Queroue , et al.]

ICES Scientific Reports, 2023, ICES Scientific Reports, 5 (112), 85 p. (10.17895/ices.pub.24752079)

- A multi-population approach supports common patterns in marine growth and maturation decision in Atlantic salmon ( *Salmo salar* L.) from southern Europe [Cécile Tréhin , Etienne Rivot , Valentin Santanbien , Rémi Patin , Stephen Gregory , et al.] Journal of Fish Biology, 2023, pp.1-14. (10.1111/jfb.15567)

- Fisheries-dependent and -Independent data used to model the distribution of diadromous fish at-sea

[Sophie A.M. Elliott , Noémie Deleys , Laurent Beaulaton , Etienne Rivot , Elodie Réveillac , et al.]

Data in Brief, 2023, 48, pp.109107. (10.1016/j.dib.2023.109107)]

- AcousticIA, a deep neural network for multi-species fish detection using multiple models of acoustic cameras [Guglielmo Fernandez Garcia , Thomas Corpetti , Marie Nevoux , Laurent Beaulaton , François Martignac] Aquatic Ecology, 2023, 57 (4), pp.881-893. (10.1007/s10452-023-10004-2)

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. 27 salmon spawners were equipped in 2023 when they returned to the river (<https://programme-selune.com/resultats/des-saumons-equipes-pour-suivre-leurs-deplacements-dans-la-vallee-de-la-selune>).

5 OFB and INRAE were present at the The International Conference on Integrative Salmonid Biology, March 11 to 14 2024, Seattle, Canada. An oral presentation on NAP was presented.

**Germany:** from 10 – 12 May, a salmon conference was held at the Landau campus of the Rhineland-Palatinate Technical University of Kaiserslautern-Landau. Experts from Denmark, Germany, France, Switzerland, Belgium and the Netherlands presented the status of the reintroduction of Atlantic salmon in the Rhine and other German rivers and discussed the prospects and challenges. The event was part of the GeMoLaR project - Genetic

Monitoring for the reintroduction of Atlantic Salmon in the Rhine Basin - a project funded by the German Ministry of Food and Agriculture. The aim of the conference was to promote salmon recovery projects in the Rhine basin and to improve networking between stakeholders. Overall, the conference offered a wide range of information to a broad spectrum of people from science, authorities and practice. The focus was on salmon in the Rhine, but the many references to other topics and to the international level provided a very suitable framework for bundling and supporting efforts to reintroduce salmon in the Rhine.

**Portugal:** during 2023, it was maintained the monitoring of the commercial and recreational fisheries by capture surveys, to collect data about catch and release, as well as the annual meetings with the fisherman, the administration, and the stakeholders. This task is developed in Minho and Lima rivers basins, where the main Portuguese salmon populations occur.

Besides this, it was conducted the monitoring work related with i) sampling campaigns for distribution, abundance and size structure using electrofishing, in Lima and Minho rivers basins; and ii) the salmon smolts migrations, through the monitoring of a Rotary Screw Trap in river Mouro, located in the Minho river basin.

**Spain (Asturias):** It continues to develop 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.

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

**Spain (Galicia):** Two dams in rivers Eo and Masma were removed by Water Agencies, not related with actions cited in previous APRs. Both dams were permeable but had negative effects on timing of runs and increased vulnerability of migrants to fishermen or predators. Two new fish counters will be operating soon in rivers Landro and Eo. We have no news about actions of the Government of Spain, joint with the Government of Portugal, related with the development of an IP for the Miño-Minho river, as cited in the previous APR.

**Spain (Navarra):**

- 1) the LIFE KANTAUERIBAI Project, that started in October 2022 and will run until 2027, aims to improve 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 in the Bidasoa river basin (Navarra): 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 is led by the Government of Navarra (through its public company GAN-NIK) and gathers a consortium of 13 partners from Spain and France. Some of the foreseen actions targeting habitat improvement have already been implemented (see later)
- 2) the salmon radiotracking scheme that started in 2018 is still ongoing. In 2023, 21 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 2023 is still ongoing (there are still some 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) the 2022 salmon migration in the Bidasoa river was the lowest since 1988, as only 90 adults entered the Bidasoa. As a result, the Government of Navarra adopted an unprecedented decision in the history of the region and decided to ban salmon fishing, at least during the 2023 season. This decision is based on the scientific analysis of the historical data of the population dynamics in the basin and the application of the Conservation Limits that the Government of Navarra defined in 2021 to guarantee the conservation of the species. In a meeting held with the fishermen's group, the scientific evidence of the observed population decline was explained and the possibility of population collapse was put on the table. Thus, the risk that the practice of sport fishing could pose for the conservation of salmon in the Bidasoa was explained to the fishermen and, applying the precautionary approach, it was decided to adopt a temporal stop in fishing to allow the recovery of the population.

### **United Kingdom**

**England and Wales:** in the latest species reassessment by the IUCN Red List of Threatened Species, facilitated by WildFish and Natural England, Atlantic salmon have been reclassified from 'Least Concern' to 'Endangered' in Great Britain (as a result of a 30 – 50 % decline in British populations since 2006 and 50 – 80 % projected between 2010 – 2025), and from 'Least Concern' to 'Near Threatened' in terms of global populations as a result of global populations declines of 23 % since 2006.

Following the publication of '*The identification and characterisation of small salmon populations to support their conservation and management*', report in March 2023, Natural Resources Wales (NRW) has sought to raise the profile of salmon stocks and gain support for further stock recovery measures.

- NRW hosted a salmon summit with the Institute of Fisheries Management and Afonydd Cymru at the Welsh Senedd, with the support of the Senedd species champion Huw Irranca-Davies MS.
- The NRW Board considered the state of salmon stocks and made recommendations for a revitalised plan of action, including an endorsement to consider radical landscape scale initiatives. To progress this, NRW are applying the Norwegian pressure matrix model to better prioritise measures at a local, national and international scale.

For England, the Environment Agency has been working with external interests to develop a new salmon and sea trout implementation plan for England that will follow on from the Salmon 5-point Approach developed in November 2015. This builds on the experience gained from the Salmon 5-point Approach and importantly takes account of climate change impacts upon salmon. An important new component of the new approach will be to develop an external governance group with an independent chairperson. We are currently seeking feedback from key stakeholders and NGOs to determine their likely contribution to any future plan reflecting the need to combine efforts through collaborative working.

The EU funded SALmonid MAnagement Round the CHannel (SAMARCH) project involving a range of EU and English partner organisations concluded after 5 years. Whilst mostly focused on sea trout ecology within the transitional and the marine environment, the project has also furthered our knowledge of salmon smolt migration behaviour in two estuaries that has led to revised advice in relation to planning developments. A further key finding has been the potential scale of coastal inshore bycatch arising from the use of fixed inshore nets. This has highlighted the need to further investigate the impact and influence

of inshore coastal nets set to capture sea fish on migratory fish. This is particularly relevant in the context of climate change and reduced river flows that may result in salmon taking longer to enter river catchments and therefore face an increasing risk of being intercepted in fixed gill nets.

In England, we are developing a river temperature monitoring network to better inform environmental and fisheries management. The intention will be to use real-time data to inform the need for management intervention to protect salmon and other migratory fish species. Furthermore, the data collected through the network can also be used to inform research into the impacts of climate change on salmon stocks in England.

**Scotland:** The Scottish Wild Salmon Strategy Implementation Plan was published in February 2023 (<https://www.gov.scot/publications/wild-salmon-strategy-implementation-plan-2023-2028/>). A companion piece to the high-level strategy published in early 2022, the implementation plans 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 5-year period.

### **United States of America**

**Restoration:** the Sandy River watershed is a substantial sub-basin to the Kennebec River watershed that contains a significant amount of high quality salmon habitat. Four mainstem dams in the Kennebec River have blocked access to the Sandy River for more than 150 years. In 2023, NOAA Fisheries completed an Endangered Species Act consultation with the Federal Energy Regulatory Commission (FERC) on the dam owners' proposal to amend the operating licence for these dams. As a result, FERC has proposed significant operational and structural changes at these four dams to dramatically improve conditions for endangered Atlantic salmon and other sea-run fish. Improvements to be made at the projects include the construction of new upstream and downstream fishways that will be operated to achieve survival and passage rates of over 95 %. Additionally, operational modifications at three of these dams also include full night time turbine shutdowns during the 54 day smolt migration window which should significantly reduce entrainment of emigrating smolts.

## **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. The provisional catch for 2023 (581.1 t) is lower than the catch in 2022 (699 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**

The continued low and declining abundance of salmon stocks in Canada, despite significant fishery reductions, strengthens the conclusions that factors acting on survival in the first and second years at sea, at both local and broad ocean scales, are constraining abundance of Atlantic salmon. Declines in smolt production in some Canadian rivers are now being observed and are also contributing to lower adult abundance.

## **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:** as reported last year, concerns have been raised about beaver dams (especially in the river Storå) leading to a reduction in smolt production, because the dams reduce or block access to spawning areas. The municipalities have the possibility to regulate the dams, if necessary.

In addition, predation from cormorants, both during the juvenile (parr) phase and during smolt migration, reduce smolt production and survival. In order to mitigate this, organised cormorant deterring and regulation along most salmon rivers throughout the winter has been continued and upscaled.

**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, 2022 and 2023 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 2023 salmon catch consists of catches from the River Nääämöjoki only.

On the Finnish side of the Teno river, local fishery for pink salmon was allowed in 2023 using drift nets, stationary nets and seine. Fishing was based on special permissions from the regional fishery authority. While approximately 20,000 pink salmon were captured, very low levels of bycatch of Atlantic salmon were reported, some tens of individuals at the maximum.

**France:** in 2023, for freshwater recreative fishermen, there was a 10 % reduction in salmon fishing licenses sold compared to 2022, potentially influencing fishing efforts and subsequent catch numbers. With fewer fishermen interested in purchasing the license, the overall fishing activity decreased.

Focus on the Loire watershed:

- low flows were observed on the Loire in January and February
- the number of salmon observed at Vichy reached an all-time low with only 96 salmon observed.

Focus on Seine-Normandie watershed:

The total allowable catch for spring salmon in the Vire and Touques rivers has been reduced to zero in the decree of 02 February 2024 governing the fishing of migratory fish in the Seine-Normandy basin 2024 – 2025. These are conservation measures requested by the COGEPOMI in view of the unfavourable trend in salmon populations in these rivers in recent years.

## **Germany:**

### *Rhine catchment area*

The trend of fewer detections of salmon returns observed since 2015 continued in 2023 (177 salmon in total), although the numbers were slightly better than in 2021 and 2022 (even significantly better on the River Sieg). However, it is important to know that the monitoring in 2023 was restricted due to technical problems at some monitoring stations



and due to the high discharges in November 2023. The number of detected salmon should not be equated with the actual total number of returnees (which is supposed to be much higher).

In 2023, there was less stocking overall due to technical problems in some breeding facilities. Overall 1.430.144 young salmon have been stocked.

#### *Weser catchment Area*

There were no significant changes in the status of salmon stocks in the Weser catchment. Two pink salmon have been reported for the Weser basin. These are the only two known records of pink salmon for Germany in 2023.

#### *Elbe catchment area*

There have been no significant changes in the status of salmon stocks in the Elbe river and in the respective tributaries. One piece of good news from the Lower Elbe region, however, is the detection of approximately 30 juvenile salmon in a tributary of the Schwinge (a tributary of the tidal Elbe) in 2023, suggesting small-scale natural reproduction in the autumn of 2022, especially as no salmon stocking introduced there. Remarkable news came from the Upper Elbe. Here the salmon migration in the 2023 spawning season was 4 – 6 weeks later than in the last 20 years, despite no changes in stock management.

**Ireland:** the catch advice for the 2023 fishery was that 48 rivers had an advisable harvestable surplus as they were exceeding their conservation limits (CL). A further 20 rivers were advised for opening for catch-and-release-only (C&R-only) fishing based on exceeding a minimum fry threshold ( $\geq 17$  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. 76 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 in 2023 with significant multi-sea-winter (MSW) salmon stocks based on the same criteria above. Of these, 11 had an advised harvestable surplus as they were exceeding their CL, four were advised to open for C&R-only fishing and one was advised for closure.

The catch advice for the 2024 fishery which is based on stock status in the preceding five-year period including 2023 is that 43 rivers have a harvestable surplus, 24 rivers are advised as C&R-only fisheries and 77 rivers should be closed to fishing based on the same criteria outlined above.

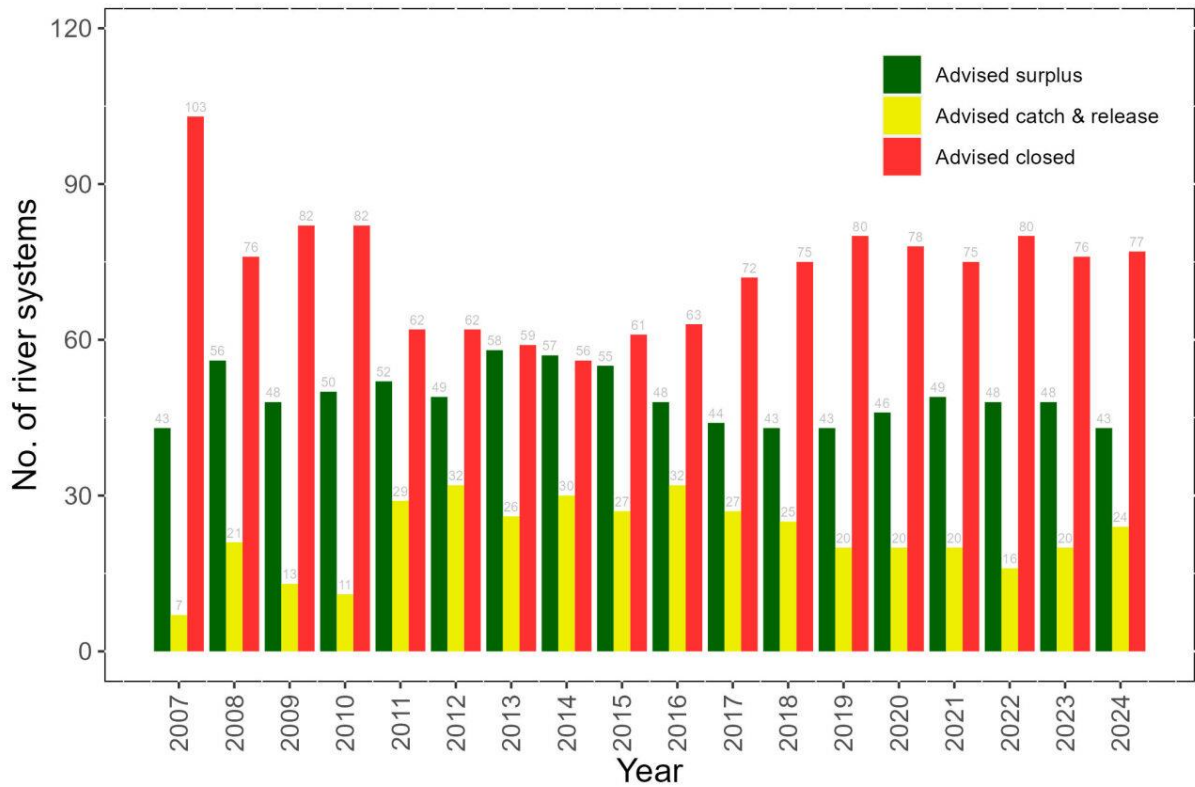


Figure 1. Scientific stock assessments for catch advice in Irish salmon fisheries (2007 to 2024).

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.

In 2023, for the first time, a maximum catch quota has been imposed in each salmon river.

Year	2017	2018	2019	2020	2021	2022	2023
Catch number salmon	498	601	834	858	526	414	377

**Spain (Galicia):** despite good water levels and good fishing conditions, catches were low. At the same time very few adults were caught at fish traps, pointing to the fact that salmon runs were very weak this season.

**Spain (Navarra):** there is worrying continuous decline from 458 adult salmon entering the Bidasoa River in 2018 to only 90 in 2022. Although 2023 seems to show a recovery, with 308 salmon, only 71 of them were females.

Since the development of the Implementation Plan, many 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 basin, where they were seldom seen in the past. Since the fluvial habitat conditions are the best for decades, the only explanation to the decline could be related to climate change. The observed decrease in the rainfall and increase in water temperatures (especially during the

summer) could be hindering the survival of the Bidasoa population, although other causes, such as an increase in natural mortality in the marine phase could also explain it.

Through our radiotracking programme, we have observed a high natural mortality rate of adults during the dry season in the river. 54 % of the tagged adults (n=55) died, although mortality varied greatly depending on the summer conditions, ranging from 100 % of the tagged salmon in 2022 (very hot and dry summer) to 22 % in 2023 (wet and cool summer).

The populations in the Southernmost distribution area, as in the Bidasoa, will be the first to suffer the consequences of climate change and Bidasoa salmon is already showing its effect. 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 local managers could implement.

### ***Sweden:***

**Stock Status:** stocks are considered to have "good reproductive capacity" if the 5 year mean parr abundance and 95 % CI >10 parr / 100 m<sup>2</sup> (Tamario & Degerman 2017). Rivers with a mean parr abundance >10 parr / 100 m<sup>2</sup>, but 95 % CI <10 parr / 100 m<sup>2</sup> are considered as at "risk of reduced reproductive capacity". Rivers with a mean parr abundance and 95 % CI <10 parr / 100 m<sup>2</sup> are considered at "reduced reproductive capacity". From 2019 – 2023, 4 (17 %) out of 24 assessed stocks were found to have good productive capacity, 6 (25 %) had risk of reduced reproductive capacity and 14 (58 %) had reduced reproductive capacity. In previous years, based on a 5-year mean, the number of assessed stocks achieving good reproductive capacity were: 2019; 6 out of 23, 2020; 6 out of 23, 2021; 3 out of 23, and 2022; 4 out of 22.

No catch was recorded from coastal commercial fishing in 2023 (9th year in a row).

### **Norway**

In 2022, the pre-fishery abundance was estimated at about 458 000 wild salmon (time series starting in 1980). Efforts to map sea survival are increasing by the establishment of new monitoring rivers. Results show that sea survival vary significantly among rivers and years. The management targets for the period 2019 – 2022 were attained, or likely attained, for 91 % of the populations. The number and proportion of populations reaching their management targets have increased markedly from 2006 – 2009 to 2019 – 2022. In two thirds (168) of the 250 screened rivers, there were indications of genetic introgression from escaped farmed salmon in the wild population, of which 77 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.

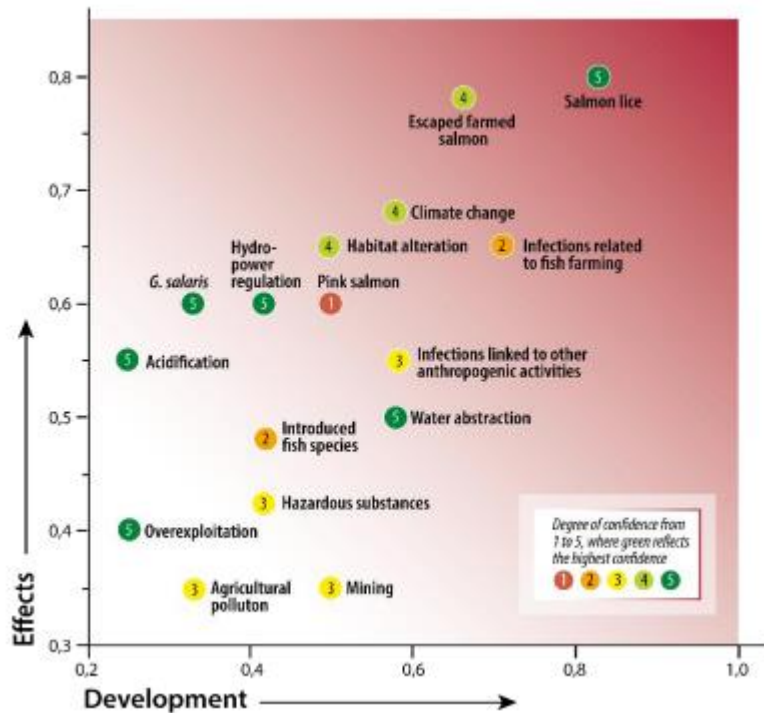


Figure: Ranking of 16 impact factors considered in 2022, according to their effects on wild Atlantic salmon populations, and the likelihood of further negative development. Confidence for the assessment of effect by each threat is indicated by the colour of the markers, where green indicates the highest confidence level and red the lowest (SACAS 2023).

## United Kingdom

**England and Wales:** in 2023, the provisional declared salmon rod catch in England and Wales (E&W) of 4,911 was the lowest on record (2022 final declared rod catch 6,387). Salmon stocks are in an increasingly critical state when assessed against Conservation Limits (CLs) (see Action F1 of [CNL\(24\)26](#)) with 94 % of principal salmon rivers in E&W projected to be assessed as At Risk or Probably At Risk in 2028 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.

**Northern Ireland:** the salmon returns to Northern Ireland in 2023 were amongst the lowest recorded in modern times. The return of 1SW salmon was particularly poor and underpinned the low returns. The marine survival estimate for 1SW salmon on the River Bush stock (2.1%) was the lowest recorded since the time-series began in 1986.

**Scotland:** the start of the 2023 fishing season was characterised by warm temperatures which led the Wild Salmon Strategy Implementation Plan Science Advisory Board to issue guidance on angling in high water temperatures based on the available evidence regarding fish welfare (Breau, 2012; Van Leeuwen *et al*, 2020). The recommendation was to cease angling activities at temperatures above 20°C (68°F), and to take extra care at temperatures between 18°C - 20°C (64°F - 68°F), following best catch and release practice at all times.

## United States of America

In September 2023, routine fish health screening at the Downeast Salmon Federation's Peter Gray Hatchery in East Machias, Maine detected the Infectious Pancreatic Necrosis Virus (IPNV). The virus infected both East Machias and Narraguagus River stocks of Atlantic salmon destined for stock enhancement purposes. The hatchery was holding

approximately 67,000 Narraguagus River origin parr and 98,000 East Machias origin parr accounting for over 95% of the stocks destined for conservation stocking in these watersheds. Given that there is no cure for IPNV and the threat that it poses to wild stocks, Maine Department of Marine Resources (MDMR) required that all fish on the premises be destroyed and the entire hatchery be disinfected.

### **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(24)18, 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 2023, a comprehensive review of Nova Scotia's aquaculture regulations was completed. Nova Scotia is working to implement the recommendations of this review.

The New Brunswick Department of Agriculture Aquaculture and Fisheries launched a Public Aquaculture Registry in the fall of 2023. The Aquaculture Registry shares information with the public on aquaculture authorizations, aquatic animal health and reportable conditions including escape of finfish or failure of containment structures.

The Newfoundland and Labrador Aquaculture Act was assented to on November 16, 2023, but it has not yet been proclaimed. Once it is proclaimed, it will become fully effective and enforceable.

##### **European Union**

**Denmark:** fishing with circle hooks turned out to be less gentle when fishing with worms, so it is again allowed to use J-hooks.

**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 2023. For the first time, the law included also special regulations for targeted pink salmon fishing.

Negotiations with Norway on a new fishing rule, which is better adapted to the present status of salmon stocks for Teno were concluded at the end of the year. The new fishing rule still requires the approval of the Finnish Parliament; the proceedings in Parliament are still ongoing.

##### **France:** National Biodiversity Strategy 2030

Presented on 27 November 2023, the National Biodiversity Strategy 2030 aims to halt and then reverse the collapse of biodiversity. It outlines France's path towards achieving the 2050 vision of the Global Biodiversity Framework adopted at COP15 in Montreal at the end of 2022. It is broken down into 4 areas

- reduce the pressures on biodiversity,
- restoring degraded biodiversity wherever possible,
- mobilise all stakeholders,
- guarantee the means to achieve these ambitions.

The deployment of the SNB implies a measurable impact in the territories. This is made possible in particular by the State's funding of €1 billion.

**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 2023, such regulation banned the salmon fishing (OF 34E/2023).

As explained before, the radiotracking monitoring programme started in 2018 and the voluntary donations programme in 2019. Both continue today, although due to the salmon fishing ban the donation programme was not in operation in 2023.

The Project LIFE KANTAUURIBAI, targeting the improvement of Atlantic Salmon (among other species) in the river catchments of the project area (Gipuzkoa, Navarre and Aquitaine), has been funded by the European Commission. It started in October 2022 and will run until 2027. 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. Some of the habitat improvement actions (removal of 5 obstacles) have already been implemented during 2023 in the Bidasoa river basin.

In December 2023, the Regional Government of Navarra has approved the new Regional Fish Management Law (Ley Foral 21/2023), which aims to guarantee an orderly use of fish resources, adapting to the new scenarios that currently exist, both in relation to the state of aquatic ecosystems and the new social perception of fishing.

### **United Kingdom**

**Scotland:** The Conservation of Salmon (Scotland) Amendment Regulations 2023 establishes the inland waters where the retention of any salmon caught is prohibited.

## **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**

### **Denmark (in respect of the Faroe Islands and Greenland)**

**Greenland:** work on getting funds for conservation of the Kapisillit River has commenced.

### **European Union**

**Denmark:** two rivers (Storå and Ribe Å) has reached a conservation status that led to the stop of stocking. Therefore, there has not been any stocking in those two rivers.

**Spain (Asturias):** a maximum annual fishing quota per river (TAC) has been included (2023)

**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. After the meeting held in Santander (Cantabria) in spring 2022, a new meeting was held in Pamplona in December 2023. More yearly meetings are expected to come.

In the framework of the LIFE KANTAUERIBAI project, it is foreseen to set up 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 first meeting is foreseen for March 2024. The objectives of the Working Group are: 1) facilitate the exchange of information about aspects such as the evolution of populations, fishing exploitation, surveillance of the international section and estuary, etc. in order to 2) allow authorities to coordinate fisheries management measures, 3) develop projects to improve their conservation and research status, 4) unify criteria and 5) promote collaboration between competent entities with the objective to improve the conservation status of the target species.

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

##### **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. (Law 6/2000 of Principado de Asturias).

#### **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**

##### **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.**

No details reported.

#### **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  
10 May 2024

Table 1. Official Catch Statistics

	Provisional 2023 catch				Confirmed 2022 catch			
	In-River	Estuarine	Coastal	Total	In-River	Estuarine	Coastal	Total
Canada	33	47.7	7.3	<b>88</b>	41.4	41.9	6.9	<b>90.2</b>
Denmark (in respect of Faroe Islands and Greenland)								
Faroe Islands	0	0	0	<b>0</b>	0	0	0	<b>0</b>
Greenland	-	-	32.6	<b>32.6</b>	-	-	28.9	<b>28.9</b>
European Union	45.9	14.3	0	<b>60.2</b>	53	15.3	0.1	<b>68.4</b>
Norway	184	-	113	<b>297</b>	257	-	134	<b>391</b>
Russian Federation	35.4	0	16.6	<b>51.9</b>	36.2	0	19.1	<b>55.4</b>
UK	5.2	1.1	0	<b>6.4</b>	6.2	1.9	0	<b>8.1</b>
USA	0	0	0	<b>0</b>	0	0	0	<b>0</b>
<b>TOTAL</b>	303.5	63.2	214.5	<b>581.1</b>	393.9	59	246	<b>699</b>



**Table 2. Catches of Atlantic Salmon by the Parties to the NASCO Convention<sup>1</sup>**

	<b>Canada</b>	<b>Denmark (Faroe Islands and Greenland)<sup>2</sup></b>	<b>European Union<sup>34</sup></b>	<b>Finland</b>	<b>Norway</b>	<b>Russian Federation</b>	<b>Sweden</b>	<b>UK<sup>4</sup></b>	<b>USA</b>
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 <sup>3</sup>	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

	<b>Canada</b>	<b>Denmark (Faroe Islands and Greenland)<sup>2</sup></b>	<b>European Union<sup>34</sup></b>	<b>Finland</b>	<b>Norway</b>	<b>Russian Federation</b>	<b>Sweden</b>	<b>UK<sup>4</sup></b>	<b>USA</b>
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	90.2	29	68	-	391	55	-	8	0
2023	88	33	60	-	297	52	-	6	0

<sup>1</sup>Figures since 1986 are the official catch returns to NASCO. Where no return to NASCO has been then made ICES data have been used. <sup>2</sup>The 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. <sup>3</sup>The European Union catch from 1995 includes the catches by Finland and Sweden. <sup>4</sup>The European Union catch includes UK catch until 2018. From 2019 the UK catch is shown separately.

**Table 3. Catch and release<sup>1,2</sup>**

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
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	52,127	42,595
Denmark (Faroe Islands and Greenland)	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0 <sup>2</sup>	-	-
European Union <sup>3</sup>	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	12,847
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	18,826
Russian Federation <sup>4</sup>	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	10,988
United Kingdom <sup>5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	54,061	59,736	43,352	50,345	38,944
United States <sup>6</sup>	424	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes. <sup>1</sup>For 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 (for some years). <sup>2</sup>Not all EU Member States provide complete information on catch and release. <sup>3</sup>Since 2009, there has been no obligation to report fish caught and released in the Russian Federation. <sup>4</sup>The 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. <sup>5</sup>In 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	2023
Canada	56	-	21	-	18	29	31	24	21	25	27	27	24	12	13	20	18	16
Denmark (Faroe Islands and Greenland)	11	12	10	5	12.3	10	10	10	10	10	10	-	-	6	6	8	6	0
European Union	95	72	54	47	70	71	59	57	38	41	22	23	17	16	10	5	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	127
Russian Federation	70- 103	25-77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UK	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	1	1
USA	0	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.