Report of the Meeting of the Working Group on Pink Salmon

Scandic Hotel, Kirkenes, Norway

31 July 2025

1. Opening of the Meeting

1.1 The Chair, Jarle Steinkjer (Norway), opened the meeting and welcomed the members of NASCO's Working Group on Pink Salmon to its second meeting. He thanked everyone especially for their flexibility in regard to the meeting date and those who had been able to travel to Kirkenes.

1.2 The Chair informed the Working Group that he will retire in September and a new Chair would be needed.

1.3 A list of participants is contained in Annex 1.

2. Adoption of the Agenda

2.1 The Working Group adopted its Agenda, PSWG(25)06 (Annex 2).

3. Reflections on Observations from the Field Trips

3.1 The Chair noted that in 2024, at the inaugural meeting of the Working Group, CNL(24)01, held in person in Galway, Ireland, it was proposed to hold in-person meetings every two years with online meetings in between. He added that at the NASCO Annual Meeting in 2024, CNL(24)88rev, Norway then offered to host a meeting of the Working Group in 2025, to enable the members to see the extent of the pink salmon incursions in northern Norway.

3.2 The Chair noted that this meeting was primarily for the Working Group to see a full-scale invasion of pink salmon and the measures being implemented to reduce damage to the natural biodiversity. For the benefit of the online participants who were unable to attend the field trip, he gave a brief summary of the six sites visited over two days, which were:

- Grense Jakobselva, a site on a border river between Norway and Russia with no traps or other measures, in which a lot of pink salmon were observed;
- Karpelva, a site with a fish trap in which a high number of pink salmon had been trapped;
- Neidenelva, a site with a fish trap at the top of a fish ladder, in which a high number of pink salmon had been trapped;
- Tanaelva, the biggest and most important salmon river in Norway, at a site with a fence across the whole of the river's 400 m width combined with two fish traps, in which a high number of salmon had been trapped;
- Vestre Jakobselva, a site with a fish trap using an artificial intelligence (AI) prototype to automatically sort pink salmon from Atlantic salmon; and

- Skallelva, a site with a fish trap using a different AI prototype for sorting pink salmon from Atlantic salmon.

The Chair then invited the members of the Working Group who had visited the sites to share their observations of the pink salmon issue in Norway and the measures being used, with consideration of the issue in their own Party / jurisdiction.

3.3 The Group was informed that the traps being used have developed and improved significantly over the years since 2019 and 2021, based on the experiences of the operators and the programme manager. Group members commented that it was very interesting and informative to meet the people who were working at the traps. The Group was impressed with the high levels of commitment, dedication and enthusiasm being shown by those people, with a wide range of ages, experience and knowledge apparent. Listening to the experiences of the people involved in the traps, and their reports on the scale of the issue and how it was being dealt with was raised by the Group as being a good way of gathering information about the pros and cons of the different approaches used to trap pink salmon and facilitate the passage of native fish species.

3.4 Additional key points that were raised included:

- the innovation being developed and used across the sites to solve practical issues, such as fish transport, is impressive;
- the use of AI is very interesting even as a work in progress, especially in terms of its potential to increase effectiveness of the traps, such as reducing the number of pink salmon passing through gates with Atlantic salmon, and to allow Atlantic salmon to be identified and released from traps without manual handling;
- the range of trap sizes and designs was good to see for consideration in relation to rivers in other Parties / jurisdictions, ranging from large to small and also in association with an existing fish ladder and variable river locations;
- the ability to move traps as needed and minimise the use of permanent structures was raised as an important factor to have seen;
- the procedure to empty the largest trap on the Tanaelva, with a barge, was noted as being particularly effective, taking less time than expected and moving the fish with care for their welfare and without causing them undue stress;
- the trapping process is a good opportunity to collect information on species in the rivers, especially pink salmon, and their movement in relation to factors such as water levels and temperature; and
- the trapping operations are largely community based with involvement from local anglers and commercial fishers to students and Sámi community members, who all play an important role in the success of the trapping programme through their local knowledge of the rivers and their direct experiences of pink salmon there.

3.5 Eirik Frøiland (Norway) raised that, at the time of the Meeting, the numbers of pink salmon being recorded in some rivers in Eastern Finnmark were only 10% of the levels recorded at the same date in 2023. On average, catches in 2025 were almost 50% less than the corresponding period in 2023. Now that the coastal salmon fishery was closed, the number of pink salmon migrating up the rivers may have been expected to increase but results actually show a significant decrease from 2023. Mr Frøiland also noted that Norway had chosen to trust the different stakeholders to run the traps and to prioritise the safety of people first, then native species and then the removal of pink salmon.

3.6 The Group observed that additional actions could be taken to collect information on the species in the traps, including the key suggestions to:

- take the opportunity to collect information on the demography of the pink salmon populations using quick methods;
- integrate technology that can measure fish with the AI being developed to separate pink salmon from Atlantic salmon, to gather information on both species; and
- increase understanding of fish movement going into traps and whether the fish are held back and slowed down, opening them up to a higher risk of predation.

Mr Frøiland noted that some additional information is collected, such as observations of wounds and damage on fish upstream from weirs. He added that initiatives from researchers that saw potential synergies were encouraged, although opportunities may be limited by funding. He informed the Group that data are collected on environmental factors such as water temperatures and discharge, with some data available for download from websites for researchers such as masters' students to use, i.e. for modelling.

3.7 The Group continued discussions on ways to source funding for research, highlighting that there has been very little research associated with the trapping activities despite the importance of pink salmon as a local socio-economic issue, further noting that one way to get projects funded is to gain the interest of politicians and policy makers. Mr Frøiland raised that this is one reason for holding the Norwegian biennial seminar on pink salmon, with the fourth one planned for October 2025 at the Svanhovd Research Conference. He added that a focus of the seminar was on what actions could, or should, be taken. The Group noted that it would be good to have the suggestions of what actions should be taken brought together in a paper, to show the gaps in knowledge and rank them. The Chair raised that the *G. salaris* Working Group had been in a similar position, with a lot of material available for research but a lack of funding. He added that funding was used to manage *G. salaris* rather than to carry out research.

3.9 The collection of samples was discussed by the Group as being one of the biggest costs in research, with consideration needed on which samples to take and how to make them available, such as keeping tissue samples for genetics. Mr Frøiland noted that the traps were not run by state employees but by local associations, which could not be asked to take samples as well as running the traps.

3.10 The Group discussed how pink salmon was used after removal from traps. A large proportion of the pink salmon is used for food, either delivered to fish factories or given to local residents. Some pink salmon is also given to sled dog owners as dog food.

3.11 Overall, the Group reflected that while there had been high numbers of pink salmon in the traps and a marked difference in relative abundance of pink salmon to Atlantic salmon, the general abundance of pink salmon was lower than expected. The Group further discussed that this could be a localised observation, the numbers were not final and were still increasing in some areas, with a lag in numbers possibly due to a delayed spring flood with a longer period of cold water.

3.12 The Group's members were asked to share photos and videos of the sites with the Secretariat for use in its communications and outreach, and to enable a set of images to be compiled of each site (see Annex 3).

4. Exchange of Information Among the Parties / Jurisdictions on the Status of Pink Salmon Across the NASCO Convention area

4.1 The Chair raised that Item 4 on the Agenda is one of the main Terms of Reference for the Working Group, CNL(24)64.

4.2 As background, the Chair reminded the Working Group that the Council agreed to adopt a 'Statement of the Council Regarding Pink Salmon, *Oncorhynchus gorbuscha*, in the NASCO Convention Area', CNL(22)47, which states:

> *'The Council of NASCO urges each Party to take the following actions, consistent with the Williamsburg Resolution:*
>
> - *co-operate to minimise adverse effects of pink salmon on wild Atlantic salmon. Such co-operation could include data sharing and exchange of information on monitoring and surveillance programmes, scientific understanding of impacts and best practice on methods to prevent the spread and establishment of populations of pink salmon without damage to wild Atlantic salmon stocks;*
> - *initiate corrective measures, without delay, when significant adverse effects on wild Atlantic salmon stocks are identified, and that these should be designed to achieve their purpose promptly;*
> - *encourage research and data collection in relation to pink salmon in the Convention area;*
> - *develop and distribute educational materials to increase awareness of the risks that pink salmon pose to wild Atlantic salmon and the need for the measures to control their spread' and*
>
> *The Council of NASCO agrees to establish a Standing NASCO Working Group on the threat of pink salmon…'.*

4.3 The Chair further reminded the Working Group that the main purpose of the Meeting was to visit rivers in Norway to see the abundance of pink salmon present in them and to observe the measures being used to mitigate their high numbers. He advised that members of the Working Group, therefore, had not been asked for papers in advance of the meeting on the status of pink salmon in their Party / jurisdiction. He invited brief verbal updates from all on the status of pink salmon and any work being conducted. He noted that three papers had been submitted in advance of the meeting and thanked those members. These papers are:

- Canada (PSWG(25)05 – Annex 4);
- Russian Federation (PSWG(25)03 – Annex 5); and
- United Kingdom ((PSWG(25)04 – Annex 6).

4.4 A verbal update was given by Jaakko Erkinaro (EU – Finland) on the status of pink salmon in Finland. The numbers of pink salmon observed in 2025 seem to be lower than in 2023; however, the operation for installing the barrier in the Teno / Tana was late because of the cold weather and delayed spring floods. Therefore, a lot of pink salmon were able to move up the river. In addition, pink salmon can move up the river when the fence is opened for Atlantic salmon and altogether there may be approximately 20,000 upstream of the barrier. Regional fishery authority permits have been given to Sámi fishermen to fish for pink salmon and thousands have been caught.

The catch data will be collated and available as soon as possible; however, it will not be published online. The traps in the Teno / Tana river are used to collect information on juveniles. Pink salmon have not been observed in the Baltic area.

4.5 A presentation was given by Michael Millane (EU – Ireland) titled 'EU (Ireland) Briefing for NASCO pink salmon working group', PSWG(25)07 (Annex 7). The presentation gave a general overview of pink salmon occurrence in Ireland, with one reported in 2023 and no pink salmon reported yet for 2025. Recordings peak between late June and July. There has been no evidence of spawning to date. In 2025 a stakeholder awareness campaign was undertaken with large media interest. Current and upcoming work includes eDNA surveillance done by Ireland and eDNA work as part of the EU-funded NASCO PINKTrack and PINKTrack II projects. The PINKTrack project has completed one year evaluating different methods and filters, with surveillance monitoring starting in 2025. PINKTrack II is past the grant evaluation stage and if successful will look at even-year stocks using eDNA.

4.6 A presentation was given by Colin Bean (UK – Scotland) titled 'Pink salmon in the UK - Update', PSWG(25)08 (Annex 8). The presentation gave a general overview of pink salmon occurrence in the four UK jurisdictions. UK – Scotland has had the highest reported numbers with 47 recorded in 2023, seven in 2024 and two in 2025 at the date of this Meeting, mainly on the east coast of the country. Reports are generally from anglers who have caught or seen pink salmon, which suggests there are more significant numbers of those fish present than are reported on the online app. The app, operated by Fisheries Management Scotland, has been used for reporting since 2017. Data from the app has advantages over eDNA by providing more information in relation to the report, such as the location, size, gender and reproductive state of the fish. However eDNA provides the opportunity to survey the presence of pink salmon in rivers that are less heavily fished than those on the east coast, thereby reducing spatial bias in reporting. Information on redds has also been collected through drones, which can access a much larger part of the river. Observations from anglers and researchers have shown that pink salmon can complete their entire life cycle in Scottish river systems. With regard to the UK as a whole, reports have been made from all around the coast, although most have come from rivers which flow into the sea on the east coast. Justifying the case for funding to install traps and barriers in the UK would be very difficult given the small numbers of pink salmon being reported at the present time. However, less is required for eDNA-based surveillance and that has been successfully sourced within Scotland. Results were presented for 31 sites surveyed in 2023 and 12 sites surveyed in 2024 for pink salmon eDNA. All the 2024 eDNA results were negative; however, pink salmon had been recorded in other ways, perhaps showing the limitations of eDNA when there are very small numbers of fish involved and river flows are high. No eDNA-based surveillance has been carried out in England, Wales or Northern Ireland.

4.7 Eirik Frøiland (Norway) commented that there is a lack of basic studies using eDNA and environmental factors such as water flow, water chemistry, sunlight or seasonal variation in the eDNA release from the target organism related to, for instance, spawning and subsequent degradation of carcasses. He informed the Group that in Norway there is an intention to take samples along a gradient downstream and upstream of a particular school of pink salmon, in a river with relatively low numbers (i.e. 50-100 fish), to assess the sensitivity of the eDNA-methods used to monitor pink salmon. He raised that Norway had some eDNA equipment available if others, such as EU – Finland, were sampling in a transboundary area.

4.8 A presentation was given by Eirik Frøiland (Norway) on 'Measures used to counteract invasion of pink salmon: Status by July 28th 2025', PSWG(25)09 (Annex 9). The presentation gave an overview of the goals of Norway's measures, which are to limit the occurrence of pink salmon in each river, achieve an overall decrease in Norway and limit the spread to southern parts of Norway and neighbouring countries. The risk assessment in Norway listed negative potential effects of pink salmon that were related to high numbers, indicating that achieving a low number of pink salmon will reduce the negative effects. Having seen the operation in the Tana river there do not seem to be any limitations related to the size of a river; however, a river with a high gradient may be more difficult to work on. The presentation showed the sites of traps established in 2023, in eastern Finnmark County, and additional sites added in 2025, in western Finnmark County and Troms County. There are more than 100 rivers in which pink salmon is being removed and reported on. The same designs of weir were used in both years, with adjustments in 2025 to optimise their effectiveness. The Tana system in particular is working better, with a hole in the fence and camera added in an area where Atlantic salmon were aggregating and will be monitored to assess whether additional adjustments are needed such as a third cage or tunnel with AI. Three AI systems are being trialled which will be assessed and reported on during the autumn. The overall data on pink salmon observations and catches up to 28 July 2025 were presented; however, it was noted that there had been developments between then and the date of the Meeting, on 31 July. It was noted that the late timing of the spring floods presented challenges, leading to the installation of traps being delayed until after the pink salmon run had started.

4.9 In discussion following the presentation, Mr Frøiland noted that while drones are not used for surveys, consideration would be given to funding survey work with drones if a proposal was received. The sites for traps are selected starting from the east of Norway and implemented until resources run out. The majority of operations are done in association with local organizations. If local resources are not available and a river is considered key, as is the case with the Tana, state resources will be used for a whole operation.

4.10 Steinar Pedersen (IPRI) gave an account of cultural aspects, informing the Group that salmon fishing has been the main basis of Sámi culture in the region both in rivers and in the sea. He added that the Sea Sámi and River Sámi culture is in a grave situation caused by the pink salmon. He raised that when new measures are being planned, the cultural situation and indigenous rights to use the resources in their own area should be considered.

4.11 Mr Frøiland noted that a national competence group for measures against pink salmon was considering advice on how to catch pink salmon that included different net types at sea, based on ongoing research; however, Sámi living in the upper part of the Tana valley, with a strong connection to traditional Sámi river fishing culture have raised concerns that reopening the sea salmon fishery in the Tana fjord would impact them by making it harder to rebuild the native salmon stocks that are in a critical condition.

4.12 An update was given to the Group by Sergey Prusov (Russian Federation) on initial indications of 2025 data compared to 2021 and 2023. While too early to give numbers, the indications are that numbers may be half that of 2023. He noted that the role of the polar branch of VNIRO under the Federal Agency for Fisheries is to assess stock abundance and provide catch advice.

4.13 Øyvind Fjeldseth (NGO) raised concerns that the system in Norway for reporting anadromous fish caught at sea is not very good and not well known, except for users of bag nets. He added that although the numbers caught at sea are probably not very high, better reporting would improve understanding of relative numbers of pink salmon. Eirik Frøiland (Norway) noted that all anglers are required by law to report catches of anadromous fish at sea on a specific website.

4.14 Tim Sheehan (USA) informed the Group that no pink salmon have been recorded to date in the United States. He added that a number of rivers have traps or fishways through which adult fish are monitored and no pink salmon have been detected.

5. Consideration of Topics for the Svanhovd Research Conference to Facilitate Dissemination of Research and Discussion of Knowledge Gaps

5.1 The Chair noted that item 5 relates to another of the main Terms of Reference for the Working Group, CNL(24)64, to '*identify knowledge gaps to understand the potential impacts of pink salmon on wild Atlantic salmon*'.

5.2 He informed the Working Group that a research conference on pink salmon would take place at the Svanhovd Research Station not far from Kirkenes in October 2025, which provided an opportunity to disseminate research and discuss knowledge gaps.

5.3 The Chair raised that members of the Working Group had been encouraged to come up with topics that should be disseminated at this seminar and invited suggestions for topics to include in the programme.

5.4 Eirik Frøiland (Norway) informed the Group that the conference was scheduled for 21 and 22 October, with the current framework including:

- an overview of the status of pink salmon in the Barents Region and Norwegian Sea in 2025;
- updates from Norway, Finland, Iceland, Ireland and the UK;
- perspectives from the North Pacific Ocean;
- health monitoring in pink salmon for parasites and infections;
- measures to control pink salmon in Norway; and
- selective catch of pink salmon at sea.

5.5 A presentation was given by Jaakko Erkinaro (EU – Finland) on 'Pink salmon in transboundary rivers Teno / Tana and Näätämöjoki / Neidenelva in Finland / Norway', PSWG(25)10 (Annex 10), with some examples of topics being covered. He informed the Group that a paper had been published on the sonar methodology being used to estimate species-specific salmonid abundance in a situation where sonar counts include several species in the same size category (pink salmon, 1SW Atlantic salmon and sea trout in the case of the Teno / Tana river), Räty, A. *et al* (2025) Bayesian species recognition and abundance estimation: unravelling the mysteries of salmonid migration in the Teno River. Canadian Journal of Fisheries and Aquatic Sciences, 82, 1-16. A smolt migration telemetry study has been carried out in 2025, for which the results are not yet available. Sampling for eDNA has been conducted over a number of years, in pink salmon years since 2019, to be repeated in 2025, and in the even years of 2022 and 2024. Adding to the eDNA data is a study on migration, growth and feeding of juvenile pink salmon in the Tana river. Juveniles have been sampled in three different locations

using open box traps of one metre by one or two metres with a fine mesh, with numbers as high as 1,000 pink salmon juveniles of approximately 3.5 cm length caught in one trap in less than 24 hours. Preliminary results of stable isotope analysis to indicate feeding in freshwater was presented, with the main finding that a large proportion of juvenile pink salmon had begun feeding. Additional work has been conducted on the ecological effects of pink salmon carcasses in rivers using a known biomass of environmentally placed carcasses and studying a number of ecological and environmental variables. Very preliminary results have shown a big difference e.g. in ammonia, dissolved carbon and algae growth. There may be some indications of increasing numbers of pink salmon returning also in even year numbers, with observations at monitoring sites at the Teno river, and several pink salmon captured in 2024 in a headwater tributary, 250-300 km from the mouth of the river. Also, a report of 30 pink salmon and 108 Atlantic salmon detected in a single snorkelling survey has been received from the Vestre Jakobselva in 2024.

5.6 The Group discussed the slight increase in numbers of pink salmon observed in even years in other areas, in sea and river catches and at monitoring sites, noting that while this showed a need to keep monitoring even-year pink salmon the numbers were a long way from indicating a need to use traps. It was raised that the next EU-funded PINKTrack project co-ordinated by NASCO would be studying even-year populations, and the need to monitor pink salmon in even years had been raised at the pink salmon conference in 2021.

5.7 The Group members discussed potential topics for the October conference on pink salmon, including the key suggestions to have talks or sessions on:

- one or more of the three AI trial areas in parallel with a talk by Jan Davidsen and others;
- using tracking technology to look at areas where traps are present;
- marine interactions;
- differences in water quality, i.e. consideration of sensitive species such as freshwater mussels and water regulations, i.e. for phosphorous;
- how knowledge and understanding has changed, including social science, i.e. how attitudes have changed;
- short speed talks from early-year researchers;
- ‘lessons learned’;
- smolt telemetry and juvenile work; and
- the importance of collecting routine data such as water quality, to inform policy.

5.8 The Group discussed asking attendees a set of questions through Mentimeter or a similar app, with open and multiple-choice questions available to answer over the whole day.

5.9 The importance of the October pink salmon conference to raise awareness of the issue among politicians was discussed by the Group. The Group noted that the capacity of the conference auditorium is 80 people with an additional hybrid element and that it would be important to share the outcomes of the conference widely to increase knowledge of the issue and maintain motivation to manage it. The Group was informed that accommodation at the Svanhovd Research Station is limited to 50 people.

6. Date and Place of the Next Meeting

6.1 The Chair noted that NASCO decided at its 2024 Annual Meeting, CNL(24)88rev, that the default location for inter-sessional in-person meetings is NASCO's Headquarters building in Edinburgh. He proposed that the next meeting of the Pink Salmon Working Group take place in Edinburgh before mid-April in 2026 and invited suggestions for the best timing of the meeting to make it as productive as possible.

6.2 The Group discussed the benefit of having the meeting before or after the WGNAS meeting, which several members of the Group would be attending and that had worked well in 2024. The next WGNAS meeting is scheduled to take place in western Sweden 16-26 March 2026. The Group agreed a provisional date, therefore, for their next meeting to be in western Sweden on 27 and 28 March.

7. Other Business

7.1 The Secretary raised that a new Chair would be needed, following the retirement of the current Chair in September, and that the usual process was for a current Member of the Working Group to be Chair.

7.2 The Chair informed the Group that he was considering which one of his colleagues could take his place on the Working Group and as Chair. The Secretary noted that Norway's significant experience with pink salmon merited the Chair being a representative from Norway.

8. Report of the Meeting

8.1 The Group agreed, given the Meeting duration of just one day, that the Report of the Meeting would, therefore, be agreed by correspondence.

9. Close of the Meeting

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

Annex 1

Working Group on Pink Salmon Meeting – List of Participants

Colin Bean	Nature Scot, Glasgow, UK
Jaakko Erkinaro	Natural Resources Institute Finland (Luke)
Øyvind Fjeldseth (virtual participant)	Norwegian Association of Hunters & Anglers
Eirik Frøiland	Norwegian Environment Agency
Michael Millane	Inland Fisheries Ireland
Steinar Pedersen	The Sámi Parliament in Norway
Sergey Prusov (virtual participant)	Polar Branch of VNIRO («PINRO» named after N.M.Knipovich), Russian Federation
Tim Sheehan (virtual participant)	NOAA Fisheries Service, USA
Jarle Steinkjer (Chair)	Norwegian Environment Agency
Emma Hatfield	Secretary, NASCO
Clare Cavers	Assistant Secretary, NASCO

Annex 2

PSWG(25)06

Meeting of the NASCO Working Group on Pink Salmon

Scandic Hotel, Kirkenes, Norway

31 July 2025

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Reflections on Observations from the Field Trips
4. Exchange of Information Among the Parties / Jurisdictions on the Status of Pink Salmon Across the NASCO Convention area
5. Consideration of Topics for the Svanhovd Research Conference to Facilitate Dissemination of Research and Discussion of Knowledge Gaps
6. Date and Place of the Next Meeting
7. Other Business
8. Report of the Meeting
9. Close of the Meeting

Annex 3

Sites in Norway Visited by the Working Group on Pink Salmon

29 July 2025

Site 1: Grense Jakobselva.

Figure 1. *Pink salmon in the Grense Jakobselva, a border river between Norway and Russia with no traps or other measures. Credit: NASCO Secretariat.*

Site 2: Karpelva, co-ordinated by Sør-Varanger Jeger- og fiskerforening.

Figure 2. *The fence and fish trap at Karpelva in which a high number of pink salmon were trapped. Credit: Colin Bean.*

Site 3: Neidenelva, co-ordinated by Neidenelvens fiskefellesskap.

Figure 3. *A fish ladder at Neidenelva leads up to the fish trap at the top. Credit: NASCO Secretariat.*

Figure 4. *The fish trap at the top of the fish ladder on the Neidenelva, in which a high number of pink salmon had been trapped. Credit: Colin Bean.*

Figure 5. *The fish trap and fish ladder on the Neidenelva. Credit: NASCO Secretariat.*

Site 4: Tanaelva, co-ordinated by the Norwegian Veterinary Institute.

Figure 6. *Ariel view by drone of the fence across the whole of the Tanaelva's 400 m width combined with two fish traps. Credit: Joachim Henriksen.*

Figure 7. *Fish processing area and barge on the Tanaelva. Credit: NASCO Secretariat.*

Figure 8. *Central fish trap on the Tanaelva.. Credit: NASCO Secretariat.*

Figure 9. (a) *Central fish trap on the Tanaelva.. Credit: NASCO Secretariat.* ***(b)*** *Second fish trap on the Tanaelva. Credit: NASCO Secretariat.*

Figure 10. (a), (b) *Fish holding tank on the barge on the Tanaelva, to transport fish from the trap to the processing area. Credit: NASCO Secretariat.*

Figure 11. *Fish processing area on the Tanaelva.. Credit: NASCO Secretariat.*

Site 5: Vestre Jakobselva, co-ordinated by Vestre Jakobselv Jeger- og fiskerforening.

Figure 12. *Floating fence and fish trap on the Vestre Jakobselva, with artificial intelligence prototype to automatically sort pink salmon from Atlantic salmon. Credit: NASCO Secretariat.*

Figure 13. *Fish trap on the Vestre Jakobselva, with artificial intelligence prototype to automatically sort pink salmon from Atlantic salmon. Credit: NASCO Secretariat.*

Figure 14. *Fish transport system to move pink salmon from trap to fish boxes on the Vestre Jakobselva. Credit: NASCO Secretariat.*

Figure 15. *Fish transport system to move pink salmon from trap to fish boxes on the Vestre Jakobselva. Credit: NASCO Secretariat.*

Site 6: Skallelva, co-ordinated by Skallelv fiskeforening.

Figure 16. *Fence and fish trap on the Skallelva with artificial intelligence prototype to automatically sort pink salmon from Atlantic salmon. Credit: Colin Bean.*

Figure 17. *Housing for viewing feed from artificial intelligence prototype on the Skallelva fish trap to automatically sort pink salmon from Atlantic salmon. Credit: NASCO Secretariat.*

Annex 4

PSWG(25)05

Preliminary data on Pink Salmon in eastern Canada in 2025

As of July 28, a single confirmed observation of Pink Salmon has been recorded in eastern Canada for 2025. This fish has been caught during the mouth of July in the province of Quebec near the town of Natashquan (figure 1). This represents the most westward observation of Pink Salmon within the Gulf of St. Lawrence. Given that a large proportion of the Pink Salmon observations in eastern Canada over the past years occurred during the mouths of August, September and October, this report remains preliminary.

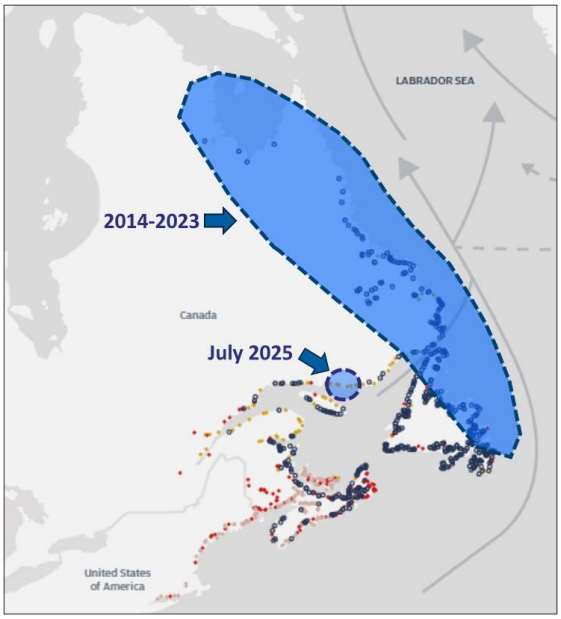

Figure 1: Approximate location of the Pink Salmon observed in eastern Canada since 2014. Small dots represent Atlantic salmon rivers.

Annex 5

PSWG(25)03

Preliminary data on pink salmon catches in the Murmansk region in 2025

Sergey Prusov[1]

In 2025, the official pink salmon fishing season in the Murmansk region will last from June 1 to August 31 (the decision of the Commission for regulation of fishery of anadromous fish in Murmansk region of 24.04.2025). Fishing for anadromous fish in commercial, traditional and recreational fisheries is only allowed in the designated fishing sites. Recreational fishing for pink salmon is also permitted outside of fishing sites in water bodies that are not spawning grounds for Atlantic salmon. The daily catch limit for pink salmon per angler for such areas is 25 kg in freshwater and 50 kg in coastal areas. Fishing for Atlantic salmon and pink salmon is prohibited in the Barents Sea from the Varanger Fjord in the west to Cape Svyatoy Nos in the east. Bag net is the only fishing method allowed for commercial salmon fishing today in the White Sea in the Murmansk region. There are also two commercial counting fences (RUZ) in operation on the Varzuga River and the Kitsa River (the White Sea basin). In 2025, users of fishing sites for commercial fisheries are required to report pink salmon catches every 5 days. As of July 15, the total commercial catch of pink salmon in the Murmansk region amounted to 40 tonnes, of which 10 tonnes were caught in rivers (Fig. 1).

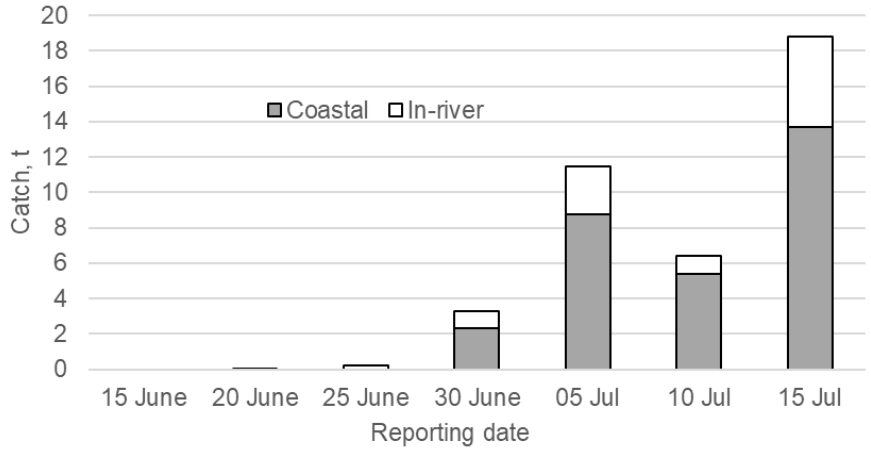

Fig. 1. Pink salmon catches in commercial fisheries in the Murmansk region in June-July 2025.

There is currently no data on recreational catches of pink salmon taken on the fishing sites where anglers should have a ticket and users of fishing sites should report catches. Recreational anglers are not required to report catches of pink salmon outside the fishing sites in waters that are not Atlantic salmon spawning grounds where catching pink salmon does not require a permit.

[1] *Polar branch of VNIRO («PINRO» named after N.M.Knipovich), 6 Academician Knipovitch Street, 183038, Murmansk, Russian Federation*

Annex 6

PSWG(25)04

Pink Salmon Update 2025 – United Kingdom

Overview

Pink salmon records for 2025 are not yet available, but Table 1 below provides a summary of Pink salmon records in Scotland, England, Wales and Northern Ireland up to 2024.

Country	First Record	Pre-2017	2017	2018	2019	2020	2021	2022	2023	2024
Scotland	1960	17	131	0	18	0	171	1	47	7
England	1960	11	8 (~200)	1	(3)	0	15 (14)	1	1 (1)	0
Wales	1980*	1*	0	0	1	0	0	0	0	0
Northern Ireland	2017	0	2	0	1	0	0	0	2	0

Table 1 – Pink salmon records from Scotland, England, Wales and Northern Ireland between 1960 and 2024. (*) denotes Pink salmon capture from the River Wye and allocated to Wales. Figures in parentheses are captures made in coastal waters. Pink salmon were captured in coastal areas of eastern Scotland but numbers are unrecorded.

Pink salmon in Scotland

Activity relating to the monitoring and management of Pink salmon in Scotland continues to be governed by the Scottish Environment Protection Agency (SEPA)-led Pink salmon Task Force (PSTF). The Task Force comprises representation from SEPA, the Marine Directorate of the Scottish Government, NatureScot and Fisheries Management Scotland. Since 2024 The Atlantic Salmon Trust have joined this group. The Pink salmon Task Force co-ordinates monitoring, advice and actions to ensure that any Pink salmon in Scotland can be properly identified and their presence reported.

As reported previously, a key priority for the PSTF has been to ensure that Pink salmon records are properly collected, verified and recorded. This has been achieved within the PSTF through the development of a Topic Sheets (Scottish Government) and Advice Notes (FMS). These materials are updated each year. The Pink salmon App allows anglers to record fish details (length, weight, sex, spawning condition, alive/dead), as well as the date of capture/sighting, location of capture/sighting and method of capture. It also offers the opportunity to upload a photograph of the fish, which can, if provided, be used to verify the record. An online dashboard provides access to all records submitted since 2017 and this information is also uploaded into the National Biodiversity Network (NBN) Atlas to allow for monitoring of invasive non-native species at a UK scale.

Since 2023, the PTSF have also used an eDNA-based monitoring programme to ascertain the extent of pink salmon incidences beyond those reported through the online reporting tools. Funding for this has dictated the number of sample sites which can be visited in each year. Initially (in 2023) two sampling approaches were used. The first of these (Tier 1) included assessment of Pink salmon eDNA presence from 31 sites at two locations: a) 1 km above the Tidal Limit; and b) at a location equivalent to the first 10% of the river length. At Tier 2 sites,

water samples were collected from 16 rivers at locations within the lower, middle and upper catchment. In larger river systems similar samples were collected from large tributaries at their confluence with the main river channel. All samples were collected during August-September and processed by the Marine Directorate of the Scottish Government using a single species qPCR assay for Pink salmon (*sensu* Gargan *et al*. 2021; Fossøy *et al*. 2022).

During 2024 a number of even-year Pink salmon were captured in five river systems in Scotland, and this prompted a smaller scale eDNA-based study which examined the presence of Pink salmon eDNA in ten river systems, including those for which records of Pink salmon had been added to the FMS App. All of these samples, processed by the Marine Directorate were negative. For 2025, limited resources have meant that the number of samples taken this year to ten river systems across the country (expected in to be collected during the first two weeks in August). Up until the date of this report, two Pink salmon have been recorded in Scotland, both of which were captured on the River Tweed

Pink salmon in England

Awareness of the Pink salmon issue and guidance in England is actively promoted by the Environment Agency through the production of a regularly updated Advisory Note. The Advisory Note also provides a link to an extension to the FMS Pink salmon App named Pink Salmon in England.

There is no e-DNA surveillance programme in operation within England. No Pink salmon have been reported in England since 2023.

Pink salmon in Wales

Natural Resources Wales also provide advisory materials in the form of a dedicated Pink salmon webpage. A reporting function is also included within the page, although this is not linked to the FMS Pink salmon App.

In terms of eDNA-based surveillance, nothing is currently in place in Wales. No Pink salmon have been reported in Wales since 2023.

Pink salmon in Northern Ireland

The Department of Agriculture, Environment and Rural Affairs (DAERA) coordinates the provision of advice and guidance within Northern Ireland. As in previous years, DEARA publishes a Notice to Anglers, as well as a Pink salmon Information Sheet which contains a link to the CEDaR Online Recording App and the Invasive Species Northern Ireland website.

There is no formal surveillance programme in place for Pink salmon within Northern Ireland, and no eDNA-based survey is in place.

Next steps

As was reported in 2024, all administrations will continue to monitor Pink salmon and maximise awareness amongst all fishery stakeholders in order to encourage reports to map the occurrence and abundance of this species.

References

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