# Council

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Agenda item:



## Pink Salmon Update 2023 – United Kingdom

#### Pink salmon in England and Wales

Occasional reports of captures of Pacific pink salmon (Oncorhynchus gorbuscha) in England and Wales have been made historically extending back to the 1960s. Most recent reports of pink salmon have been of occasional, isolated specimens which have occurred in odd years (e.g. 2007, 2009 and 2015) consistent with the fish originating from established populations of pink salmon in northern parts of the Russian Federation and northern Norway. Pink salmon have a strict twoyear life-cycle with distinct populations breeding in even and odd years. It is principally only odd year populations that have become established in these areas.

In 2017, there were widespread reports of pink salmon captures across North Atlantic countries (ICES, 2018). Relatively large numbers of pink salmon (around 200) were taken in the English north-east coast fishery and there were also reports of fish being captured in a number of river catchments across England. In 2019, far fewer pink salmon captures were reported in England and Wales, with three captured in the north-east coastal sea trout net fishery and one at the Chester Weir fish trap on the River Dee in Wales. No reported captures of pink salmon were made in 2020. The closure of the North East coastal drift net salmon fishery in 2019 has almost certainly resulted in a reduced number of pink salmon being recorded in England.

In 2021, there were 26 reported captures of pink salmon in England but none in Wales. All pink salmon were captured in North East England in 2021 with the exception of one recorded at Gunnislake fish trap on the River Tamar. This fish represented the most southerly capture for England and Wales since 2007 when a single male specimen was recorded by a recreational angler from the tidal reaches of the River Camel located in the far South West of England.

In terms of fishery management response, the Environment Agency (EA) in England and Natural Resources Wales (NRW) have sought to obtain reports of pink salmon from fishery managers, netsmen, recreational anglers and members of the public. This has been achieved through the development of pink salmon guidance and advisory notes that have been communicated and shared widely. These have been updated every two years when new evidence or information has become available. The updated 2021 pink salmon guidance note for England for can be found by following this link:-

## Anglers urged to be vigilant for invasive pink salmon - GOV.UK (www.gov.uk)

Pink salmon advisory and guidance notes are also hosted on key recreational angling Non-Governmental Organisation (NGO) websites such as that for the Angling Trust. This has undoubtedly helped to promote awareness of the possible presence of pink salmon and the need to report pink salmon when encountered. See link below:-

### Call for anglers to be vigilant to help protect the Atlantic salmon - Angling Trust

A key concern is that invasive pink salmon may carry diseases or novel parasites that threaten the health and wellbeing of our native Atlantic salmon. A key management objective for the EA and NRW has been to obtain pink salmon carcases in order to be able to conduct laboratory investigations to determine if the species is carrying any novel pathogens or parasites that may be of risk to native wild Atlantic salmon. To date, the investigations on sampled pink salmon have not revealed the presence of any pathogens or parasites of concern.

Owing to the relatively small numbers and limited geographic distribution of pink salmon reports in England and Wales since 2017, the approach of the Environment Agency and Natural

Resources Wales will be to continue to monitor the situation and maximise awareness amongst all fishery stakeholders in order to encourage reports in order to map the occurrence and abundance of the species. The Environment Agency and Natural Resources Wales continue to work closely with other UK salmon management jurisdictions to support and co-ordinate efforts to investigate and manage the risks posed by this species.

#### Pink Salmon in Scotland

The Scottish Government works with Fisheries Management Scotland (FMS), NatureScot and the Scottish Environment Protection Agency (SEPA) to co-ordinate monitoring, advice and actions to ensure that any recurrence of pink salmon (*Oncorhynchus gorbuscha*) in Scotland can be identified, reported and managed appropriately.

Following the unprecedented increase in pink salmon sightings in 2017 there have been concentrated efforts to classify the impact on local Atlantic salmon populations in Scotland. This is described in a article published in the Journal of Fish Biology (The Scottish invasion of pink salmon in 2017 - Armstrong - 2018 - Journal of Fish Biology - Wiley Online Library). A report of the work undertaken in 2021 has also been published (211006-Pink-Salmon-Licensed-activity-report.pdf (fms.scot).

Detailed advice on what to do if capture or observe Pink salmon in Scotland has been published (210519-INNS-Statement-Pink-salmon.pdf (fms.scot) and pink+salmon+2021+2.0.pdf (www.gov.scot)).

To aid the range of data collected nationwide, the Scottish Fisheries Co-ordination Centre and Fisheries Management Scotland have developed publicly available online-based survey apps. These surveys can be completed online via desktop or via an App (Pink Salmon in Scotland Fisheries Management Scotland (fms.scot)). An online dashboard provides access to all records submitted since 2017 (see also Table 1 and Figure 1 below). Once collated the information is integrated into the National Biodiversity Network (NBN) Atlas to allow for monitoring of invasive non-native species at a UK scale.

In preparation for the 2023 season, the Scottish partnership group is seeking to undertake a baseline monitoring study. This will utilise eDNA techniques to ascertain the extent of pink salmon incidences beyond those reported through the online reporting tools (described above). Information on the presence of pink salmon gathered in 2023 will help to inform what actions may be appropriate in future years.

In spring 2022, pink salmon smolts were recorded in the Rivers Thurso and Oykel. This is the first observation of *O. gorbuscha* smolts in in the UK and is considered to be the first in Europe outside the Scandinavian and Kola peninsulas. It also provides evidence of successful spawning in 2021 and completion of the freshwater phase of the life cycle, and indicates the possibility for potential establishment of pink salmon population in Great Britain. (Evidence of potential establishment of pink salmon Oncorhynchus gorbuscha in Scotland - Skóra - 2023 - Journal of Fish Biology - Wiley Online Library)

Table 1 - Summary of pink salmon records in Scotland 1960-2022

Time period	Recorded incidences of pink salmon	Distribution (where known)
Pre-1960	0	
1960 – 2016	17	
2017	139	Widespread across the North East of Scotland with the majority reported in Aberdeen, the River Tweed and Inverness areas.
2018	0	
2019	20	Small selection of rivers, highest concentration of records was in the Highlands (River Oykel).
2020	0	
2021	169	Widespread across the North and East of Scotland with the majority reported in Thurso (where a concentrated effort was made to remove pink salmon) and in the River Tweed in South-East Scotland.
2022	2	Alness and Argyll reported seeing signs of pink salmon, although these are unconfirmed yet.

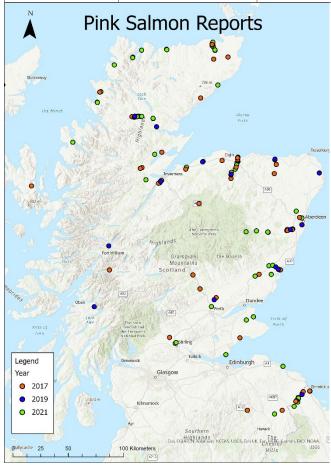


Figure 1 – Map of pink salmon records in 2017, 2019 & 2021