

# ***Pacific Pink Salmon:*** **Advice note – May 2019**



## **Introduction**

The purpose of this advice note is to ensure:

- That all stakeholders, including fishery managers and anglers, are alert to the possibility of the return of Pink salmon in Scottish waters during 2019
- to clarify the legal situation regarding capture and retention of these fish in Scotland
- to ensure anglers, fishery managers and others know what to do should pink salmon be observed or captured in Scotland

## **Background**

In 2017, unprecedented numbers of Pink salmon were captured across the UK. Captures were also reported in Norway, Finland, Iceland, Denmark and Germany. Pink salmon (*Oncorhynchus gorbuscha*) are not native to Scotland and are likely to have 'strayed' from some of the rivers in northern Norway or Russia. These fish were originally introduced to some Russian rivers in the 1960s, have slowly spread westwards and have now colonised some northern Norwegian rivers. These fish spawn at a different time from Atlantic salmon, have a two-year lifecycle and generally spawn in summer (and often in main river channels in the lower reaches of rivers, and sometimes in upstream tributaries).

Due to their two-year lifecycle, juvenile fish will be derived from distinct 'odd' or 'even' years, with the Russian/Norwegian fish being odd-year stocks. It is therefore possible that they will occur again in Scottish rivers in 2019. The reasons behind the unusually large numbers in 2017 remain unclear. We know that the population from the Russian Kola Peninsula tends to be stronger and more numerous in odd years rather than even years. It would appear that the 2017 salmon originated from a particularly strong year class with good marine survival and this may explain the unusually high numbers across several countries in 2017.

## **Information gleaned from the 2017 event**

Previous advice had suggested that the environmental conditions in Scotland are not favourable for colonisation. During 2017, important information was gathered about the interactions of these fish in Scottish rivers. Pink salmon were observed creating redds and spawning, and the opportunity was taken to closely monitor the activities of these fish and consider what management action might be effective to reduce potential impacts on native fish. Egg experiments concluded that the eggs removed from redd sites and observed under laboratory conditions were viable – these eggs hatched into alevins. As such, we need to remain alert to the possibility that a viable population could become established if conditions are suitable.

## **The 2019 situation**

Fisheries Management Scotland, Scottish Government, Scottish Natural Heritage (SNH) and the Scottish Environment Protection Agency (SEPA) are co-ordinating a number of actions and sharing advice to ensure that any recurrence of Pink salmon in Scotland can be managed appropriately. This will include ongoing advice to stakeholders, publicity/awareness raising and liaison with UK and international fishery managers to exchange information on any new situation. For 2019, there have been no recorded incidences of Pink salmon in the UK, however these fish did not previously begin to appear in catches until June/July in the UK.

## The law

Under the Wildlife and Countryside Act 1981, Pink salmon of the species *Oncorhynchus gorbuscha* are an invasive non-native species. The 1981 Act makes it an offence to fish for and retain Pink salmon (i.e. have one in your possession or under your control). However, if a pink salmon is caught accidentally whilst fishing for other species, although it is technically an offence, a defence of due diligence may be established if it can be shown that best practice was followed. Please see our advice below as to what should be done if a Pink salmon is captured.

Scottish Government and agencies are investigating how the current legislation might be improved to ensure that there is a more specific approach to managing Pink salmon in Scotland. Options may include changes to ensure fisheries enforcement can be improved and to put in place a more formal framework for reporting captures and monitoring impacts of this species on native populations of fish. There is also the option of issuing licences to district salmon fishery board and/or fisheries trusts, which could allow legal, managed and targeted effort to capture these fish. We will provide further advice on this shortly.

## Advice for anglers & other stakeholders - what should you do if you see or capture a Pacific salmon?

As illustrated in our previous [advice note](#), Pacific pink salmon are usually clearly identifiable from their Atlantic salmon counterparts – particularly when mature and in spawning condition – see Annex 1. All captures should be reported to the relevant [district salmon fishery board](#) and [fishery trust](#) and this information will be collated by Fisheries Management Scotland and Marine Scotland Science and shared with all relevant Agencies.

If you are confident that you have captured a Pacific pink salmon the fish should be humanely despatched and retained. If you have killed and retained a pink salmon, please immediately contact the relevant district salmon fishery board, who will arrange for further inspection and analysis, if necessary. It would be very helpful if the following information could be recorded:

- date of capture or sighting,
- location of capture (12 figure grid reference if possible) and details of the site,
- method of capture,
- sex of fish.

Please be vigilant for any early or unusual spawning activity – particularly during August and September, when any pink salmon present are likely to be active in spawning areas – shallow, gravelly glides and runs. Any suspected activity should be reported as above.

## Advice for DSFBs and Trusts

Scale samples from fish captured should be taken and, where it is possible to do so, such fish should be frozen and stored whole as soon as possible after capture. This advice also relates to dead fish found in Scottish rivers.

If you are unable to retain whole specimens, it would be useful as an alternative to ensure that scales and fin clips (adipose or a clip from any other fins) are collected, as well as a sample of dorsal muscle tissue (at least 2cm x 2cm). A note of fork length measurement and weight of fish would also be worth recording.

Kept together in a small freezer bag with a note of capture date and location, sex and method of capture, these can be stored in a standard domestic freezer before collection. If possible, please ensure that at least three fish from each river or stream catchment are collected where these are available.

**For further information please contact:**

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## Annex 1: Identification of Pink Salmon

Pacific pink salmon, when fresh from the sea, are steel blue to blue-green on their backs, silver on the flanks and white on their bellies. There are large black spots on the backs, upper flanks, adipose fins and tail – some of the spots on the tail can be as large as the fish's eyes. They are very uniform in size, reaching only 40 to 60cms in length. It is possible that at first sight, a fresh pink salmon may be confused with a small Atlantic salmon.



**Pink salmon**

**Note shape of tail, spots on tail and dark mouth.** *Images courtesy of Helmsdale DSFB & River Dee Trust*



Breeding males are immediately identifiable because of their humps and they will almost certainly be running milt at this time of year. Their black tongues and heavily spotted tails are also very obvious. Females will show heavily spotted tails and be pinkish-brown on the flanks.



**Male Pink salmon in breeding colouration – note the shape of body and heavily spotted tail** *Image courtesy of Nigel Fell*