

# **Pacific Pink Salmon: Advice note - August 2017**



## **Background**

In July, Fisheries Management Scotland issued an [advice note](#) to alert District Salmon Fishery Boards (DSFBs), Fishery Trusts, anglers and others on what to do if they encounter pink salmon (*Oncorhynchus gorbuscha*) in Scottish waters. These fish are also referred to as 'humpback' salmon. Fisheries Management Scotland is taking the lead, in close collaboration with Marine Scotland, on coordinating the collection of information on captures and sightings in Scotland.

The purpose of this advice note is to provide an update on the current situation and the work that Fisheries Management Scotland is involved in to inform possible management responses and research needs.

## **The current situation**

It is important to emphasise that small numbers of pink salmon have turned up in UK rivers for several decades and therefore this is not a unique phenomenon. However, 2017 has seen unprecedented numbers of fish captured across the UK and also in Norway and Finland. Captures have also been reported in Iceland, Denmark and Germany.

To date, over 60 fish, captured in at least 17 Scottish rivers, have been reported to Fisheries Management Scotland by DSFBs and Fisheries Trusts. However, in the last week we have also had reports of spawning activity and redds being cut on at least two rivers in Scotland.

## **What is the risk?**

The simple answer is that we do not know. We know that populations of pink salmon have established in Finland and Norway, and that very high numbers have been observed in northern Scandinavia this year. The reasons behind the unusually large numbers in 2017 remain unclear. We know that the population from the Kola Peninsula tends to be stronger and more numerous in odd years (like this year) rather than even years. It would appear that these salmon originate from a particularly strong year class with good marine survival and this may explain the unusually high numbers across several countries in 2017.

Previous advice has suggested that the environmental conditions in Scotland are not favourable for colonisation. Pink salmon generally spawn in August and September, and are thought to require lower temperatures (5.6 to 14.6°C) for successful reproduction than would normally occur in Scottish rivers at that time. However, given the reports of spawning activity and red cutting, we need to take seriously the possibility that a viable population could become established if spawning is successful.

## **What are Fisheries Management Scotland doing?**

- Following this year's first reports of Pink salmon in Scotland, Fisheries Management Scotland issued an [advice note](#) and began collating information on catches reported by our members, and through social media. Fisheries Management Scotland have taken the lead on this, in close discussion with Marine Scotland.
- Fisheries Management Scotland have been liaising for several weeks with colleagues across the North Atlantic (including Marine Scotland, SNH, Environment Agency, CEFAS, Inland Fisheries Ireland, Norwegian Institute for Nature Research, and a number of Universities) to keep abreast of developments and discuss possible management responses and research needs.
- Fisheries Management Scotland convened a conference call with Marine Scotland (Policy and Science) and SNH last week to discuss the situation. Marine Scotland have contacted the GB non-native species

secretariat to establish a formal, peer reviewed, risk assessment for the UK. In parallel, Marine Scotland Science are seeking genetic material from potential source populations in Russia, Finland and Norway to conduct genetic research in order to identify the origin of fish captured in Scotland.

- SNH will convene a meeting, with attendees from across the UK, Norway and Denmark, to discuss the issue, share experience and identify the next steps for management and research. Research priorities, particularly in relation to samples collected during 2017, and the possibility of successful reproduction, will also be discussed.
- Given the reports of spawning activity highlighted above, we are exploring options with Marine Scotland for removal of adult pink salmon from spawning grounds and potentially removal of deposited eggs from redds.

## **What should you do if you 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. All fish should be passed to the relevant personnel at the DSFB or trust who will arrange for further inspection and analysis.

Scale samples 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. It would be very helpful if the following information could be recorded:

- date of capture,
- grid reference and details of the site,
- method of capture,
- details of any samples taken (scales, tissue samples etc.).

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.

### **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.



### 'Fresh run' pink salmon

Note shape of tail, spots on tail and dark mouth. *Images courtesy of Peter Quail, Helmsdale DSFB*



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*