

Fisheries Management Scotland Predation Committee Minutes



18 December 2019

In attendance:

Roger Knight (River Spey) (Chair)
Alan Wells (Fisheries Management Scotland)
Lorraine Hawkins (River Dee)
James Hunt (River Tweed)
Marcus Walters (River Deveron)
Bob Laughton (Findhorn, Nairn and Lossie)
John Armstrong (Marine Scotland Science)
Antje Branding (Marine Scotland)
David Carrs (Centre for Ecology and Hydrology)
Steve Campbell (SASA)
Colin Bull (Atlantic Salmon Trust)
Mark Bilsby (Atlantic Salmon Trust)
Louise Chavarie (Atlantic Salmon Trust)
Stuart Middlemass (Marine Scotland)
Emily McLean (Marine Scotland)
Jared Wilson (Marine Scotland)
David Morris (Marine Scotland)

Apologies:

SNH Licensing (Graeme Taylor)

1. Welcome and Introductions

RK welcomed everyone to the meeting and noted the apologies. An agenda was circulated in advance of the meeting.

2. Terms of Reference and Minutes of Meetings

A draft terms of reference was circulated at the meeting, which was largely based on those for other Fisheries Management Scotland Committees. The Terms of Reference was agreed.

It was agreed that a note of the main discussion points would be published on the Fisheries Management Scotland website.

3. Options for the Licensing Process – An Update from SNH Licensing

SNH were unable to attend the meeting. It was agreed that a meeting would be convened with SNH to discuss the current/ future licensing process. An approach would also be made through the SNH sponsor division of Scottish Government.

SASA noted some recent changes to the guidance for undertaking bird counts and clarifying the information required to support the application. Still waters and rivers guidance have now been merged.

ACTION: SC to circulate updated guidance

ACTION: ALL to look at the guidance and suggest any modifications

ACTION: AW, RK, JA/AB to arrange a meeting with SNH in the second half of February.

4. Piscivorous Birds: The Scottish Government's Perspective – Update

Key points of discussion were as follows:

- The Programme for Government commitment to produce a wild salmon strategy reflects the recognition within Government of the urgency to take action across the range of pressures wild salmon face;
- Wider policy drivers include the Scottish Government emphasis on the climate emergency. It was highlighted that COP26 will take place in Glasgow. Climate impacts are important for salmon with regard to adapting to climate change and the arising impacts;
- The next annual NASCO meeting will take place in Edinburgh in June. This will be an opportunity to showcase the action that Scotland is taking to protect and improve salmon populations;
- Brexit remains an important factor, and “no deal” remains a possibility. However, the need to design new land management support approaches once Scotland no longer is part of the CAP system presents an opportunity to design something that is tailored towards Scotland's needs.
- Predation is one of a number of pressures on salmon. It is important to mitigate these pressures, but there is also a need to have suitable evidence for this. On that basis it was noted that the inclusive nature of this group is very helpful.

5. Research Actions

A number of updates were provided on current actions

- **Tweed:** There was a discussion about the plans to track goosanders on a pilot basis. This would allow a greater understanding of the general ecology of these birds, their in-river movements and the effect of scaring. This project has been greatly delayed due to extensive discussion over the most suitable way of attaching tags to the birds. The Home Office appeared to have devolved licensing to the BTO and JW agreed to act as a link to the BTO to help with this process. In-river survival of smolts has also been investigated – the intention is to use 150 tags in 2020. A trial of non-lethal scaring techniques using lasers to scare cormorants from roosts has had mixed success. Initially this action successfully decreased roost size, but there are signs that the birds are becoming habituated to this, either not moving or moving upstream to a different roost.
- **Dee:** A smolt tracking and bird exclusion study was undertaken in the spring. The data is still being analysed and will be reported in January 2020, but the study has raised questions about the feasibility of excluding birds through scaring. There was also discussion about the logistics of designing an experiment to answer these questions.
- **Deveron:** Have now completed four years of tracking using acoustic and radio tags and various scaring approaches have been used alongside this. Losses of smolts have been fairly consistent between years and acoustic tags recovered from the river had clearly been digested.
- **Atlantic Salmon Trust:** A summary of the Moray firth project was provided. Work in 2019 suggests that a high proportion of tagged smolts were not recorded as leaving the study rivers – focussed projects in 2020 and 2021 will aim to understand this further, and attempt to determine whether predators are responsible and if so, which ones. A range of techniques were discussed, including use of drones and thermal cameras, scat analysis with associated molecular techniques to identify predators and internal radio tags.

- **Scottish Government:** A diet study has been funded and will relate back to similar data collected in the late 1990's. A further priority is to fully understand the effect of tags when looking at losses. This will focus on tagging pre-smolts, using the smallest tags that can be sourced, coupled with aquarium studies to examine tag ejection. SG are keen to support the Tweed study to figure out where the birds are going and understand the response to scaring.
- **Discussion:** It was noted that a different approach might be required. It was noted that populations of goosanders have been fairly steady over the last 20 years. There was discussion about the possibility of aggregating bird count data collected by DSFBs to better understand national trends in numbers. It might be possible for SASA to take this forward on 5 rivers with over 20 years of data, with additional (planned) capacity in the new year. This could be supported by the provision of additional information held by fishery managers. It was noted that a similar approach was adopted to model bird collisions with offshore windfarms. If you can define the population, it would be possible to develop an understanding of how many birds can be lost without affecting the population. The urgency of this work was emphasised. It was noted that BTO have supplied a report to SNH and it would be useful for the committee to see this.

ACTION: JA to circulate a link to the report.

6. Delivering Management Outcomes

- **Sawbill Bird Dietary Analysis:** The idea of this study is to get at least 12 birds per river per season (Nith, Tweed, Dee and Spey). Previous work showed quite clearly that 12 birds with food in their stomachs is the minimum required. None of the rivers managed a full sample of cormorants – availability of birds is an issue during the study period. Stomach analysis involves looking for bones and identifying species from key bones. Measuring bones gives an accurate length estimate of the fish and allows an estimate of biomass in diet. The final report is due to be delivered for consideration by the end of April.

ACTION: DC to circulate a PDF of the 1998 paper on Fish Eating Birds and Salmonids in Scotland.

- **Seal Management - Development of Effective Acoustic Deterrent Devices:** It was noted that seals entering rivers (and sometimes moving many miles upstream) was a concern, noting that local perception was that large haul-outs at the mouth of rivers were also of concern. Given the obvious sensitivities around removal of seals and the declines in the common seal population, it is clear that the way ahead must be the development of effective non-lethal deterrents.

SMRU have been developing different types of devices which may be more effective in dissuading seals from entering rivers. Such devices need to be triggered, which raises the possibility of associating them with acoustic fish counters. It was agreed that this should be a priority for SMRU. It was further agreed that a coordinated approach to seal predation was required; the Committee should identify the key priorities and then negotiate with SMRU to deliver these.

ACTION: AW to draft a recommendation of the group to SMRU with regard to the use of technology to deter seals from entering rivers and associate these with fish counter technology.

7. Any other business

There was a discussion about the use of developing population models in relation to different management scenarios, as was the case for geese. It was agreed that SNH should be asked to go through a similar process for sawbill ducks, in the light of the conservation status of salmon. A further, more focussed look at this issue with key individuals around the table was suggested to

take this forward, to understand what sorts of data would be required.

It was agreed that an additional meeting to discuss the development of such models would be a good starting point, with an initial focus on understanding what sorts of data are required to take this forward.

It was agreed that the group should maintain an overview of all other predators, including fish and otters.

8. Summary and Next steps

A meeting with SNH would be arranged in second half of February

It was agreed that the group would meet at least every 6 months. In the meantime, all members were asked to provide updates on a regular basis by correspondence. AW agreed to prompt updates from members.