

## Beaver-Salmonid Working Group

# BSWG

**12<sup>th</sup> Meeting**  
**Wednesday December 18th 2013**  
**Rowan room, SNH Battleby,**

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**BSWG Members Present:** Roger Wheeler (RW)  
John Armstrong (JA)  
Alan Wells (AW)  
Sean Dugan (SD)  
Andrew Taylor (AT)  
Andrew Kitchener (AK)  
Martin Gaywood (MG)  
Paul Kemp (PK) (By Teleconference)  
Colin Bean (CB)

**Guest Attendees:**  
Ron MacDonald (RM)  
Naeem Bhatti (NB)

Apologies: Andrew Wallace, Scot Mathieson, Danielle Casey

➤ Denotes action points

- 1. Minutes from meeting 11**, were agreed as accurate and approved
- 2. Matters arising and action points**

➤ **AP – SD to contact TDSFB about their electrofishing monitoring programme to ensure monitoring location co-ordination in relation to beavers. SD to check what baseline data exists in Tayside.**

- David Bale has expressed the possibility of support from The TBSG on beaver-salmonid research.

➤ **AP – MG to liaise with DB regarding current work on-going.**

**3. SD presented a brief 3 Month update**  
**Field work and results complete for Lunan Burn study**

Overall 13 days of time spent to date on fieldwork and write-up. SD thanked MSS for their major contribution in staff time and infrastructure. Further details of results can be seen in agenda item 4 below and will be published in due course.

**Time spent at recent workshops and meetings**

SD reported successful July and October BSWG workshops and field visits, TBSG meetings, a CNPA workshop and a NSRF meeting. The July workshop 'took stock' of where the debate currently lies in Scotland, resulting in a proceedings document being circulated in the public domain to the wider fisheries sector. The October field visit and meeting focused on the themes of practical management and research. Management activities should only be undertaken where necessary and in collaboration with landowners, SNH and fisheries interests.

Rachel Malison presented her recent PhD thesis on beaver salmonid interactions in Alaska. Rachel called for a 'systems scale' approach to beaver-salmonid research. Her findings indicate beaver populations can suppress coho salmon production significantly at a catchment scale. Rachel is to be formally thanked and congratulated on her research by The BSWG.

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At the October workshop, the group agreed that a major research scoping exercise is required as discussed further below.

## **Research into beaver-salmonid management**

SD reported on major beaver management activities undertaken in the Miramichi catchment. Further research is required.

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## **Other work priorities include literature reading and research scoping**

CB expressed support from the group for Rachel Malison's research project while warning of the resource implications of fieldwork in Norway. SD stated that Rachel/Duncan are in principle open to collaborating on field work in Tayside.

RW concluded by expressing the need for collaboration between the Rachel Malison project and The Paul Kemp PhD. Links with TBSG and David Summers will also be important to this process.

## **4. Research**

### **University of Southampton PhD**

PK provided an update on Southampton PhD. As actioned at a previous BSWG meeting PK explored opportunities for funding a PhD, and despite a large number of disappointing responses to requests for support has managed to obtain sufficient funding to enable the PhD to go ahead (funders: University of Southampton - £30K; SNH - £20K; Game and Wildlife Conservation Trust - £8K; and Salmon and Trout Association - £4K). The Advert is out and receiving applications with the proposed start date of April 1st. A supervisory team (Paul Kemp, David Sear, Gerald Muller, Martin Gaywood, and Colin Bean) and links in the USA are in place. Still seeking field-work funding. MG and AK called for collaboration between this PhD, Rachel Malison's project, MSS work, TBSG and TDSFB.

RM enquired about deliverables relating to management. PK outlined how Southampton PhD work is based on the ethos of conducting fundamental research to provide information that is of value to management challenges, and is of direct value to managers and policy makers. JA stressed the need for an initial research scoping exercise, then to base research on these requirements. JA questioned the broad nature of the PhD and indicated that it would be helpful to have more detail in respect of this proposal. PK explained that a research project with well-defined methodologies and clear deliverables as required by an end-user constituted a research contract which could be costed appropriately if required. A PhD requires that the supervisory team and successfully recruited student, as well as the funders, must be part of the process of developing the detailed research questions, hypotheses, and methodologies, and that it is not appropriate to define these at this stage and then expect the PhD student to act as a technician to merely provide results for interested non-funding parties. PK outlined that for the purposes of the PhD his first responsibilities are to the funders, the supervisory team, and the PhD student. JA appreciated the clarification and hoped that some clear "goal posts" would be defined within the project proposal.

- **AP – The group agreed that a BSWG report output should be a research strategy containing deliverables related to practical management.**
- **AP – JA to convene a research scoping strategy meeting in March.**
- **AP – RW asked JA to continue with the relevant persons to examine research priorities.**
- **AP – BSWG to foster collaboration between all beaver-salmonid research efforts.**

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## **MSS/BSWG Beaver-trout project**

SD presented the successful BSWG/MSS trout tagging project with results. Overall, 27/100 fish were recaptured and there was evidence that some displaced trout could move upstream past a beaver dam. The data are preliminary in that sample size and hence power to detect an effect of dams were low. However, useful novel data were obtained on the effect of trout length on propensity to home and trout growth in the beaver pond.

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## **MSS Beaver-salmonid habitat overlap mapping**

JA updated on MSS/SNH habitat overlap mapping work as being all-but complete. Buffers were reduced to 50m and lochs excluded from analysis. MG also added that river gradients were included in the initial SNH map. Conclusions are simple: High % overlap will likely exist between beaver and salmon in Scottish catchments. The group commended this work and look forward to the final draft being circulated.

## **Publication Summary**

SD presented a brief summary of some of the key research papers published to date as summarised in the (Kemp et al 2010) commissioned review.

JA led a discussion on the on-going research scoping exercise which will form part of the BSWG report. The group commended the draft while suggesting collaboration with the research interests of others such as SEPA. Members stressed time and resource implications as limiting factors. RM and CB suggested using demonstration sites in Tayside in relation to beaver-salmonid management and achieving buy-in from stakeholders. SD warned that beavers and their damming activities must be left alone by humans for the coming years in Tayside if we are to make an attempt to research and understand potential impacts or benefits.

## **5. Management**

### **SNH Beaver Management Review**

MG updated on the SNH beaver management review due to begin in mid-2014. Work is on-going in England and therefore SNH will collaborate with these efforts. Sally Blyth has been in contact with SD and will require assistance on the salmonid options recommended by the BSWG.

### **Beaver-salmonid Management Flow Diagram**

SD presented the first draft BSWG management flow diagram. This stimulated much discussion and valuable feedback from the group. Key points for SD to incorporate into a 2<sup>nd</sup> draft were: 1. Licensing and natal lodges, 2. Spring salmon imperatives, 3. Notching/dam removal advice appended in an annex, 4. Legal aspects relating to landowners and DSFB duties to ensure free passage of salmon.

SD suggested a minimal intervention approach in order to focus efforts on mitigating only dams where there may be realised impacts. This will likely reduce resource, time, bureaucracy and human emotion involved. This approach will also present the opportunity to study events unfolding in Scotland. However in the longer term with capacity beaver populations intervention management may routinely be required. AK summarised the distinction between informed and uninformed management as captured in the on-going monitoring aspect of the flow diagram.

### **Management Chapter**

The group agreed that an output of our management chapter should include the likely resource implications. CB called for a 'worked example' of beaver-salmonid management in a Scottish catchment supported by case studies from The Miramichi and other rivers. NB asked the group to identify WHO is responsible for beaver salmonid management? MG Added that all on-going monitoring should be recorded in a central location.

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- **AP – SD to contact Scot Mathieson Re SEPA’s role in management.**
- **AP – SD to circulate version 2 to the group for comment.**

## **6. Report Structure and Jan-September work plan**

The group made several suggestions for amendments to the report structure. It was agreed that the literature review would be a succinct summary drawing on work already carried out in previous reviews. SD’s workplan was reviewed with caution advised relating to SD’s workload. The importance of assessing and highlighting the potential economic impact of management was emphasised. All present agreed to help wherever they can towards writing the report. CB suggested captive writing sessions for specific chapters. RW indicated that there was a need for a single author of the report but with input and editing contributed by members of BSWG and where appropriate external expertise. This was agreed.

## **7. AOB Recommendations**

RW encouraged the group to consider the recommendations that must be made in our report ranging from not recommending beavers to unmanaged release. The group will form its decision at the March meeting. All decisions and statements should be backed up by the balance of evidence. Members were asked to consider the following possible positions the group may take at the March meeting:

1. No beavers in Scotland.
2. No Beavers without further trials.
3. No further releases allowing existing populations to expand naturally with management.
4. Further releases in existing areas to provide genetic boost.
5. Extended release in appropriate areas across Scotland with management.
6. Extended release unmanaged.

RW encouraged the input of further options where necessary and specifically regarding beaver-salmonid management. MG noted that SNH will be providing an assessment of a number of scenarios in its ‘Synthesis Report’ to the Minister, including the pros/cons associated with each, but it has been asked not to recommend any specific option. SNH will therefore take the same line with the BSWG reporting.

## **Rachel Malison thank you**

SD enquired as to thanking Rachel Malison for her considerable contribution. The group advised a formal thank you from the BSWG and continued liaison with her in relation to her Norwegian research.

## **8. Next meeting: March 2014**

### **Table of Outstanding Action Points**

<b>Action Point</b>	<b>Details</b>	<b>Lead</b>	<b>Status</b>
AP1/8	JA to circulate his report on areas of overlap week beginning 26 August. Work is ongoing to finalise the maps; JA to circulate the report with whatever version of the maps is available at the time of circulation.	John	ONGOING
AP2/8	DC to add JA’s report to future agenda items.	Danielle	ONGOING

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AP3/8	SD to ensure fisheries interest groups receive the workshop proceedings.	Sean	DISCHARGED
AP4/8	JA to visit the Lunan Burn beaver dams.	John	DISCHARGED
AP5/8	SD and JA to contact and liaise with David Summers (TDSFB) on a project proposal, outlining the resources required for the electrofishing and monitoring project on the Lunan Burn. Approval of the proposal to be sought from AWa and MG.	Sean / John	DISCHARGED
AP6/8	SD and AT to discuss and produce a project proposal for the Tweed Catchment Economic Study.	Sean / Andrew T	DISCHARGED
AP7/8	AWe/AWa, depending on the project proposal and resource requirement, to speak to Nick Yonge of the Tweed Foundation about taking on responsibility for this study.	Andrew Wells / Andrew Wallace	ONGOING
AP8/8	AWa to apprise PK about the discussions on the projects and the way forward.	Andrew Wallace	DISCHARGED
AP9/8	SD to produce a paper summarising the projects he will be taking forward – Tayside Study and Tweed Economic Study.	Sean	DISCHARGED
AP10/8	SD to contact Rachel Malison and discuss her input to the next meeting. Her attendance will either be by video link or in person, depending on funds available and justification for international travel.	Sean	DISCHARGED
AP11/8	SD to speak to MG about surplus funds required for the next meeting. Current budget stands at ~£800.	Sean	DISCHARGED
AP12/8	SD to continue to make contact with European experts on management issues.	Sean	DISCHARGED
AP13/8	SD to contact Goran Hartman (Swedish University of Agricultural Sciences) to discuss the latter's beaver dam/fish interactions project and the feasibility of translocating fish downstream of dams.	Sean	DISCHARGED
<b>Action Points from 18 December 2013</b>			
AP1/12	SD to contact TDSFB about their electrofishing monitoring programme to ensure monitoring location co-ordination in relation to beavers. SD to check what baseline data exists in Tayside.	Sean	David Bale has expressed the possibility of support from The TBSG on beaver-salmonid research
AP2/12	MG to liaise with DB regarding current work on-going	Martin	
AP3/12	The group agreed that a BSWG report output should be a research strategy	All / report author	

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	containing deliverables related to practical management.		
AP4/12	JA to convene a research scoping strategy meeting in March	John	
AP5/12	JA to continue with the relevant persons to examine research priorities	John	
AP6/12	BSWG to foster collaboration between all beaver-salmonid research efforts	All as appropriate	
AP7/12	SD to contact Scot Mathieson Re SEPA's role in management	Sean	
AP8/12	SD to circulate version 2 of the management flow diagram to the group for comment	Sean	