

Minutes:

NATIONAL SEA RUN SALMON COMMITTEE Ninth Meeting, 3rd September 2019

North Canterbury Fish & Game Office, 595 Johns Road

Committee members Present: Roy Knight (NZF&G Council) , Rick Boyd (Otago F&GC) , Alan Brooks (South Canterbury Salmon Anglers Association), Matthew Hall (Central South Island F&GC), Larry Burks/ Paul Hodgson(New Zealand Salmon Anglers Association). Rob Roney (West Coast F&GC)

Others present: Dr Craig Stevens (NIWA); Jayde Couper (Central South Island F&G) , Steve Terry (North Canterbury F&G), Mark Webb (Central South Island F&G) and Emily Arthur – Moore (support).

1. Apologies

Ian Hadland, Vaughan Lynn, Dean Kelly, Ben Sowry, Phillip Musson

2. Health & Safety

Nothing to report

3. Conflicts of Interest

None to report

4. Biosecurity and salmon hatcheries

A discussion was had about the feedback from Fisheries NZ/ MPI regarding biosecurity and salmon hatcheries, specifically the permitting of the release of salmon into the wild. This had stemmed from concerns that releases of surplus stock could affect the genetics of wild populations and their ability to survive challenging environmental conditions.

The response from MPI was that no permits, other than those issued to North Canterbury Fish & Game, had been issued to release salmon into waterbodies; therefore if any hatcheries had been releasing surplus stock it was without authorisation.

The group discussed asking NZ Council to approach MPI/ Fisheries NZ and ask them to inform the hatcheries that releasing surplus salmon was not permitted without authorisation.

Rick Boyd said there could be a misunderstanding amongst the commercial hatcheries wherein they thought it would be beneficial to anglers to release the salmon.

Mathew Hall and Rob Rooney felt that some releases of commercial salmon did add value to the fishery in certain circumstances. Rob Roney wanted it made clear that this should only apply to non Fish & Game sanctioned releases.

It was agreed that a letter should be drafted to NZ Council stating what policy we would like implemented around the bulk release of insurance (surplus) salmon from commercial hatcheries.

It was felt that prior to a letter going out to the hatcheries that staff would visit the hatcheries and explain why we were concerned with such releases.

5. Key concerns/ ideas that came out of the 2018 Salmon Symposium in Ashburton that may have not yet been considered by the Committee.

It was agreed that Mark Webb would go through all the papers from the symposium and put them in categories to be discussed at the next meeting.

6. A discussion around the direction of the New Zealand Sea Run Salmon Committee/ priorities to focus on for the rest of the year.

Each person present told the group what they thought the priorities should be. These were:

- Fish Screen policy and progressing improvement in screens (co-ordinated campaign/ development of a strategy on how to proceed).
- Getting ready for future regulations changes (e.g. adaptive management and tools e.g. season bag limit).
- Identifying research needs
- Communicating with those outside Fish & Game
- Relationships within Fish & Game
- Salmon making it to sea (e.g. screens, rearing habitat and abstraction)
- Angler involvement (specifically in data gathering)
- Development of a Put and Take Fishery - strategy/ implementation
- Angler harvest up river of the gorges.
- Protection/ restoration of habitat in the high country

Dr Craig Stevens from NIWA gave a presentation on ocean temperatures off the South Island and their potential effect on salmon.

Key points:

- 93% of the energy captured from the sun is stored in the earth's oceans. Oceans are climate.
- Climate trends need to be taken over 30 – 40 year timespan – we did not get good data on ocean temperatures globally until the first satellites were sent into orbit in 1980.
- The ocean off NZ is warming at 0.4 degrees Celsius per decade (global average is 0.1)
- In 2017/18 summer there was a marine heat wave. The ocean was 4 degrees Celsius warmer than normal. This is a massive change in ocean temperatures. This last summer was not as hot. This heat wave effects how the upper part of the ocean mixes – effects light and growth of organisms.
- The 2017/18 summer marine heatwave did not penetrate deep down into the ocean but had a big effect on life in that zone.

- Terrestrial animals in general will be more vulnerable to a warming planet but there are more refugia on land.
- Ocean animals will find it hard to find refugia (places to hide from the heat) as it is harder to hide in the ocean.
- How salmon will react is complicated because of their lifecycle. In British Columbia the effect of warmer climate on river temperatures had a bigger effect on salmon than warmer ocean temperatures.
- NZ is a maritime climate and it is more driven by sea temperatures than North America.
- In a broad sense, a warmer ocean is not likely to lead to a big change in the ecosystem – phytoplankton not likely to change dramatically in the next 100 years. Not looking therefore at a dramatic change in the food chain at sea. Coastally this may be a different story.
- NZ salmon potentially more affected by the changing climate's effect on river temperatures. There will be significant differences in the snowpack and that will affect rivers.

7. Discussion on the administration and enforcement of a potential season bag limit for salmon

The draft paper prepared by Jack Kos of the NZ F&G Council was discussed. It was well received and there were some items for feedback. This paper is also currently being peer reviewed by John Hayes of the Cawthron Institute.

Larry Burke raised issues regarding catch and release and it was felt that how this would be handled under the policy should be included in the document.

There was a suggestion that the salmon card could potentially go on the back of the licence and that when you buy your licence you state whether you will be fishing for salmon and if you are the card you receive would have this provision. Matthew Hall said this would need to be big enough for years where the bag limit was as high as 10 salmon.

There was discussion on the way the non full season licences would cater for this. It was generally agreed that for a family licence each family member would need their own licence so that they would have room to record salmon. Rob Roney said this would be good for children as they would enjoy having their own licence and it would set up good habits for the future.

There will be instances when people change their mind and this will cause more administration time and expense.

It was agreed that Steve Terry would take these and other editorial changes he noted back to Jack Kos.

8. Presentation from Mark Webb on the ongoing development of the Salmon Management Strategy for Setting Regulation Change

Mark Webb gave an update on the strategy. This strategy involves a proposal to manage salmon harvest through identification of wild salmon spawning targets and setting of harvest rates associated with the population bands between those targets.

This draft strategy has been provided to local and overseas fisheries experts for comment. The first step in this management regime is to develop a spawning and run size model starting from 1994 that produces estimates of annual run size that approximate the actual runs experienced. We need this model so we can then see what change to run size results from implementing different harvest rates depending on the size of the spawning population. If we are able to set targets for the size of the spawning population then we know for any given run size what level of harvest is needed to achieve the spawning target and we can set the appropriate harvest regulations.

So far comments back from advisors have been very positive and a number of additional considerations in the model are being investigated. These include application of a density dependent relationship where freshwater productivity is limited by for example, the number of fry hatched or the number of smolts going to sea, and no matter how many more fish spawn their survival is limited to what the habitat can sustain.

Conversely when spawning numbers are low, survival can be high and may still achieve the capacity of the habitat.

We are also looking at the impact of sea surface temperatures on salmon survival through the Interdecadal Pacific Oscillation (IPO). This is a record of sea temperatures that shows long-term, 20 to 30 year positive and negative phases that influence the El Nino and La Nina weather patterns. If the IPO is linked to the productivity of our salmon then in its negative phase we will need to manage for long periods of low productivity, we will need to work harder to protect the resilience of the wild stocks and improve freshwater habitat, and we may need to lower our expectations for the fishery.

Jayde Couper also described some research he has been doing on the effect of season bag limit on salmon returns for the various individual rivers. It showed that there would be quite a lot of variation in the effect it would have on returns depending on the river.

9. Discussion on how to progress with the National Hatchery Best Practice Guidelines.

Roy Knight told the Committee that there was no funding from NZ Council available for the development of these guidelines.

10. Confirm Minutes of previous meeting.

Rick Boyd moved to approve the minutes. Seconded by Roy Knight. Carried.

11. Date and topics for next Committee Meeting

Date: 21st November 2019

Topics suggested were:

- The review of issues raised at the salmon symposium.
- How to progress the Hatchery Best Practise Guidelines
- Research needs – what are the priorities.

- Put and Take Fishery – how to proceed
- Fish Screens – next steps
- Go over priorities identified in the last meeting to set future action required

Action List:

- Letter to be drafted to NZ F&G Council re the release of surplus salmon stock from hatcheries.
- Staff to visit commercial hatcheries and explain concerns (Steve Terry/ Mark Webb)
- Mark Webb go through all the papers from the symposium and put them in categories to be discussed at the next meeting
- Emily Arthur – Moore to write a newsletter to go out to anglers.
- Steve Terry to take feedback on the draft paper on a potential season bag limit back to Jack Kos.