

# The Predation of Atlantic Salmon: Suggestions for Future Management

7<sup>th</sup> January 2020



## Introduction

- The Atlantic salmon is in crisis, the causes for which are multi-factorial.
- Predation is one of those causes – by sawbill ducks such as Goosanders and Mergansers, by Cormorants and by Seals (Grey and Common).
- On some Scottish rivers, the Atlantic salmon is a protected species. So too are these predators! This can present a dilemma.
- Despite this, there are things we can do to actively reduce predation of our iconic salmon and protect our fish.
- There has to be a balance between the conservation needs of our iconic Atlantic salmon - a species in crisis - and biodiversity.

## Predation by Pisciverous Birds

- Pisciverous birds include Goosanders, Mergansers and Cormorants.
- These birds are protected and can inflict significant losses on salmon, particularly during the smolt migration in April/May.
- They can be moved off rivers to protect fish by “Shooting to Scare”, which is undertaken under licence from Scottish Natural Heritage (SNH).
- The licensing system is under review. SNH has indicated it is unduly onerous for fishery managers.
- The Scottish Government can assist: urging the completion of the licensing review would be helpful.



## Piscivorous Bird Licence Applications

- To better understand the impacts of fish-eating birds and to support applications, the Spey Board and others undertake extensive bird counts throughout the year.
- 120Km of the mainstem River Spey is surveyed from canoes or counted by walking and driving. Hope to expand this to tributaries as well.
- These surveys require significant resource and investment. Many District Salmon Fishery Boards (DSFBs) simply do not have the resources to undertake such work.
- The Scottish Government can help here too. Licences with nominal quotas for DSFBs who lack the resources to undertake counts, perhaps using count data from adjacent rivers, would help.



## Seal Predation

- Like fish-eating birds, Grey Seals and Common/Harbour Seals are protected species.
- Scotland-wide, the number of Common Seals is declining, whilst the number of Grey Seals is increasing.
- Moray Firth Seal Management Plan was developed in 2005, in partnership with the Sea Mammal Research Unit.
- Research showed that some seals develop specialist behaviour, breaking away from the main colonies and penetrating well into rivers to predate on salmon and sea trout.
- Only a small proportion of seals – but a disproportionate and significant impact on migrating and spawning fish.



# Management of Seal Predation

- We need effective means to reduce predation of our iconic salmon by seals.
- Preventing or discouraging seals from entering rivers is our preferred option – but Acoustic Deterrent Devices (ADDs) have so far never been completely effective.
- Some work is underway to incorporate new, effective ADDs within acoustic fish counters.
- This needs to be promoted and accelerated – and the Scottish Government can support this.



## FMS: A Proactive Approach

- Fisheries Management Scotland has formed a Predation Committee:
  - Marine Scotland (Policy)
  - Marine Scotland Science
  - SNH Licensing
  - Centre for Ecology & Hydrology
  - District Salmon Fishery Boards
  - and Science & Advice for Scottish Agriculture.
- These organisations are working together to better understand the impact of avian and seal predation and to develop effective management outcomes.
- An effective marriage of the Public and Private Sectors. More needs to be done, though.



## Conclusion

- The Atlantic salmon is in crisis, the causes for which are multi-factorial and predation is one of those causes.
- Some predators are protected. Despite this, there are things we can do to actively reduce predation of salmon and protect our iconic fish.
- There has to be a balance between the conservation needs of our iconic Atlantic salmon - a species in crisis - and biodiversity.
- The Scottish Government can assist further:
  - Urge the completion of the revision of the piscivorous bird licensing process;
  - Nominal quotas and licences for piscivorous bird control by DSFBs;
  - and development of effective Acoustic Deterrent Devices for seals.
- There has never before been a more pressing need to protect the Atlantic salmon – and predation control is one thing we can actually do something about!



**Thank You for Your Attention**