





IBoF Atlantic Salmon Forum & Workshop
Introduction to ASF's Recovery Strategy
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Workshop Overview and Objectives

Introduce elements of ASF's Freshwater Recovery Strategy

- Morning Freshwater Decision Matrix and Case Studies
- Afternoon Guiding Principles and Case Studies

Stimulate reflection, thought and discussion

• Worksheets / information sharing

Provide practical take-aways

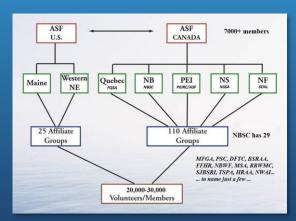
- Understand approach to identifying limiting factors / root cause issues
- Understand common components of effective restoration programs
- ASF solicit input/feedback -> to improve our strategy and tools



Who is ASF?

We are an international non-profit organization dedicated to the conservation, protection and restoration of wild Atlantic salmon and the ecosystems on which their well being and survival depends.









Threats weighing on Wild Atlantic Salmon

Predators Dams/Culverts Habitat Loss Acidification Harvest

Invasive Species Deforestation Siltation Climate Change

Limited Resources Aquaculture Marine Mortality

Public Interest Political Will





ASF's Approach to Addressing Threats

Research - Seek to address marine survival issues

Advocate for strong regulations and policies

Support local freshwater restoration programs

Educate anglers, guides, youth - best practices

Engage people to support and participate in the above



Importance of Freshwater Restoration

France Salmon Summit - NASCO Report 2012

- Continue investigating marine mortality
- Protect genetic diversity
- Act on a watershed scale to address root causes
- Maximize number of healthy wild salmon in freshwater

But... "What Works?"



We found out - ASF Workshop Sept.2013

Convened experts, scientists and stakeholders

- 102 participants from 5 countries
- 28 oral presentations, 7 posters

Topics included

- Habitat recovery initiatives
- Dams and Fish passage
- Water quality initiatives
- Supportive rearing / stocking strategies







Outcomes - Freshwater Strategy

Freshwater Analysis & Decision Matrix

To assist with identifying root cause issues limiting production

Supportive Rearing/Stocking Guidance

- Considerations on when and if address root cause issues first
- Consult with experts on feasibility and risks
- Maximize wild exposure (e.g. captive rearing of wild smolts)

Guiding Principles

Common across effective restoration programs

Detailed Proceedings & Presentations @ ASF Website

http://www.asf.ca/2013recoveryworkshop.html



Freshwater Decision Matrix

Stagespecific indices of abundance

- •Is your salmon population healthy? Are there transition problems between life stages? Are they within natural variation?
- •Is there excessive direct/indirect harvest, low juvenile survival, high smolt/postsmolt mortality, poor overall marine survival etc.?
- •If yes, further investigate to determine limiting factors (i.e. habitat related factors)*.

Water Quantity

- •Features important for salmon, are they present?
- ·Are hydrologic patterns natural?
- ·If not why? Address issue if possible.

Water Quality

- •Features important for salmon, are they present?
- Are temperature, dissolved oxygen, productivity, toxins, turbidity etc. within salmon tolerance levels?
- If not why? Address issue if possible.

Habitat Quality

- ·Is the habitat diverse and of suitable quality?
- •Is there enough riffle, run and pool habitat?
- ·If not why? Address issue if possible.

Connectivity

- •Do you have enough diverse and suitable habitat accessible to support a robust population that can withstand natural variation in survival?
- What is the amount and distribution of accessible habitat?
- If not why? Address issue if possible.

Biological Community

- •Is the biological community suitable to support a robust salmon population?
- Predator-prey balance, healthy and balanced co-evolved diadromous complex etc.
- ·If not why? Address issue if possible.



Guiding Principles

- > Think holistically
- Build a stong team
- Commit long-term
- > Monitor & Evaluate
- > Communicate & Engage



From this...

Predators Dams/Culverts Habitat Loss Acidification Harvest

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... To this



Freshwater Decision Matrix **Stocking Guidance**

Build Team Think Holistically

Commit Long-term

Monitor & Evaluate

Communications & Outreach



Questions / Discussion









IBoF Salmon - Endangered Species



Precipitous declines early 1990's

- 40,000 adults to < 200
- Recovery Team formed

Listed under SARA 2003

- DFO Recovery Strategy (2010)
- DFO Action Plan (2016)

Other populations face potential listing

- Outer Bay of Fundy (NB)
- Southern Uplands (NS)
- Eastern Cape Breton (NS)



What Next?

Engage and Share

- information, experiences

Solicit Input and Feedback

- help us build a better toolset

Improve

Rinse & Repeat...

