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Stressor Analysis EU Sweden

Forty-Second Annual Meeting of NASCO

Swedish Agency for Marine and Water Management

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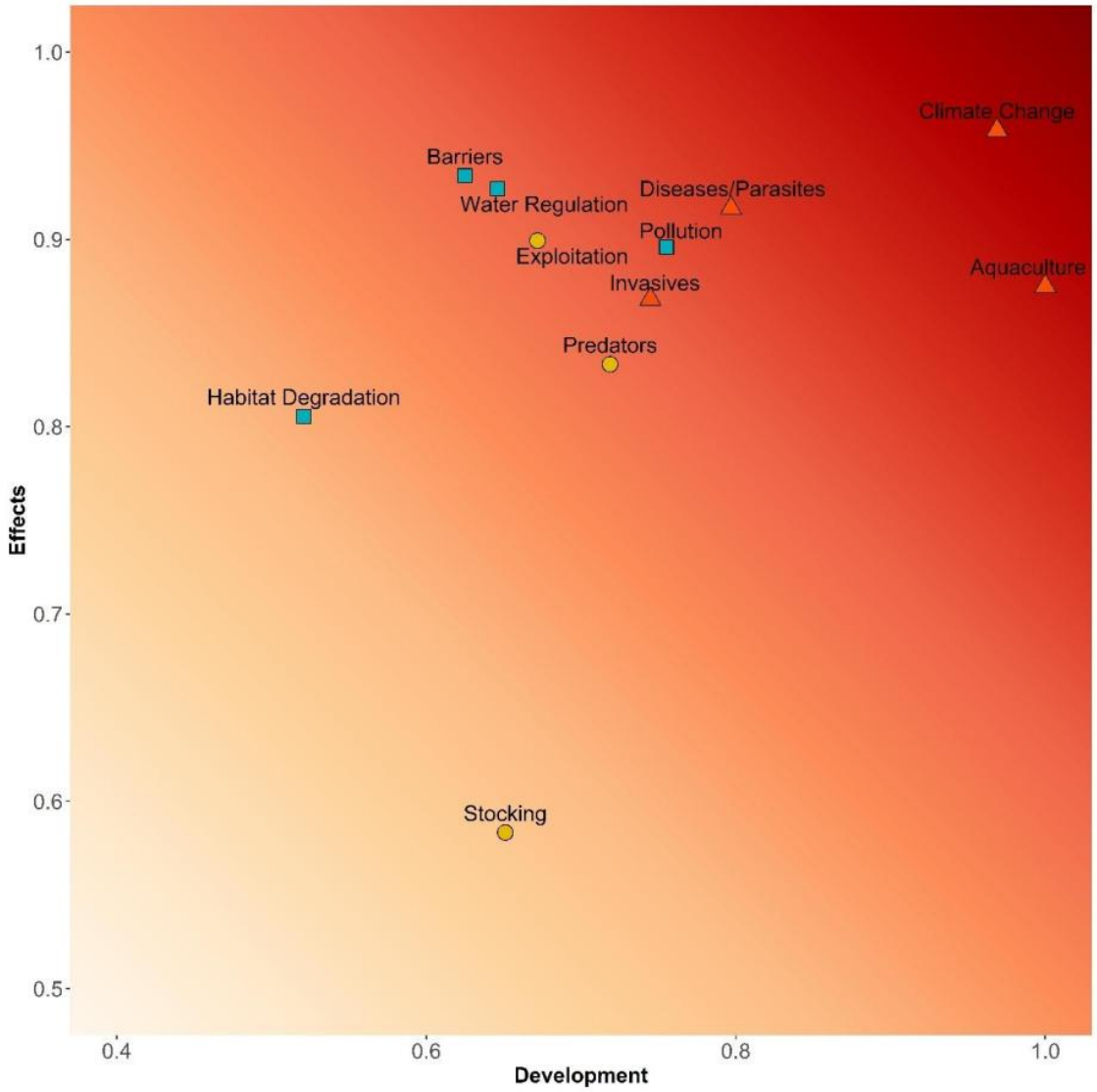
Results EU-Sweden

- Analysis conducted relates to the Atlantic salmon populations from the designated 24 rivers on the Swedish west coast.
- Based on expert knowledge supported by information of individual rivers.

Stressors	Combined scores
Stressor 8 Climate Change	1.93
Stressor 5 Aquaculture	1.88
Stressor 7 Diseases/Parasites	1.71
Stressor 1 Pollution	1.65
Stressor 9 Invasives	1.61
Stressor 3 Water Regulation	1.57
Stressor 4 Exploitation	1.57
Stressor 2 Barriers	1.56
Stressor 11 Predators	1.55
Stressor 6 Habitat Degradation	1.33
Stressor 10 Stocking	1.23



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Top three stressors

1) Climate change

Marine

Likely most impacts to marine survival, although difficult to know.

Freshwater

Increase in water temperature, flooding and draughts.

2) Aquaculture

Observed genetic introgression of escaped farmed salmon from farms outside of the jurisdiction.

Risk of weakening the viability and long-term possibility for wild salmon to adapt to changes.

Potential source for spread of diseases and parasites.

3) Diseases/parasites

In recent years, outbreak of diseases have become more frequent, but vary between rivers and years.

For example, red skin disease. Proliferative kidney disease (PKD) has unknown effects.

Further spread of *Gyrodactylus salaris* to uninfected rivers in the northern half of the Swedish west coast is considered as a threat.

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Take home messages from Sweden

- Results indicate a complex situation where impact from different stressors often interact.
- Lack of knowledge makes it challenging to quantify impact of individual stressors as well as expected effect of individual actions to reduce impact.
- Challenging to address actions to successfully reduce impact from stressors acting on a large scale and/or outside the jurisdiction.
- Expected impact of individual stressors varies between rivers. Successful actions needs a flexible approach, considering the conditions in each specific river.

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