ARCTIC CHARR IS AN IMPORTANT FOOD RESOURCE AT RISK

SCIENCE BRIEF



RECOMMENDATIONS

- The sustainability of the Arctic charr harvest must continue to be assessed.
- Habitat enhancement and restocking for Arctic charr should be considered.
- Community-based monitoring of Arctic charr populations should be implemented.

Arctic charr are considered vulnerable to the predicted impacts of climate change because of their preference for cold-water conditions. In a warming environment, lacustrine Arctic charr are the most likely to be impacted by predicted summer temperature increases, with effects being most acute at the southern edge of the distribution range where the warming will be greatest and competition from other salmonid fish species better able to cope with warmer temperatures will be most intense.

Arctic charr (migrating charr) may reduce their period of sea-residency as temperatures increase. Such changes will have profound impacts on Inuit who rely on Arctic charr as a significant source of healthy dietary protein and fatty-acids. To some extent, such impacts may be mitigated by pro-active environmental management as Inuit-led stream enhancement and population introductions have shown.

Key knowledge gaps concerning biology and population dynamics inhibit our abilities to accurately predict climate change impacts on Arctic charr and suggest there is considerable value in collecting long-term data sets specific to the species (e.g., through community based monitoring programs).

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