

Papineau Lake Telemetry Project

Title: Towards sustainable recreational fisheries on Papineau Lake

University / Organization: Carleton University, University of Waterloo, University of Vermont, University of Illinois and the Fisheries Conservation Foundation (FCF)

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Description: The goal of this project is to understand the spatial ecology, population dynamics and fishery for lake trout, rainbow trout and black bass in Papineau Lake. This project will provide the data and tools to identify sustainable conservation strategies that will help ensure high quality fishing on Papineau Lake while protecting its natural assets for future generations. Five specific objectives will contribute to this goal. 1) Identify the life history characteristics for lake trout specific to different sub-populations and/or ecotypes. 2) Characterize how adult lake trout and bass use different habitats (ex. depth and thermal habitat) on a seasonal basis (ex. spawning and overwintering locations). 3) Identify the level of reproductive success for lake trout and bass. 4) Determine why most lake trout in Papineau Lake fail to attain body mass greater than ~2kg. 5) Document the level of angler effort/harvest and their preferences and opinions for different management strategies.

Results Summary:

- Tags have been implanted in 66 lake trout and 56 bass.
- 4 spawning sites have been identified in the lake.
- Small and large lake trout have been identified. Large lake trout seem to be solely cannibalistic while smaller lake trout feed on zooplankton and aquatic insects.
- Results will be shared with community members to promote sustainable recreational fisheries management.

Status: Data collection will continue through 2020.



Figure 1. Diagram of acoustic telemetry.

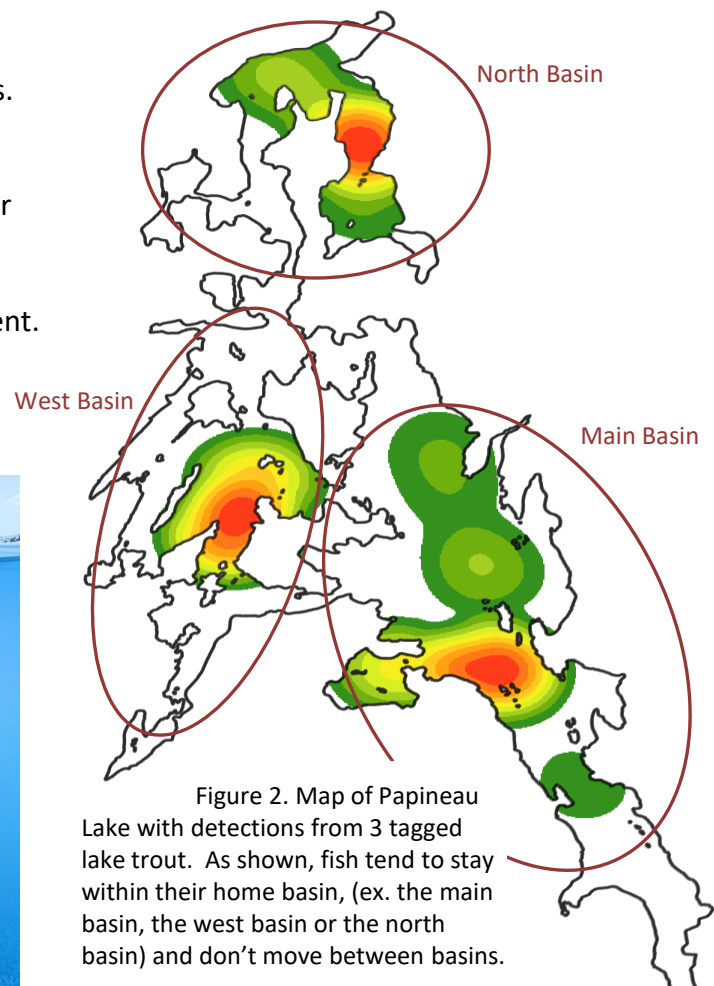
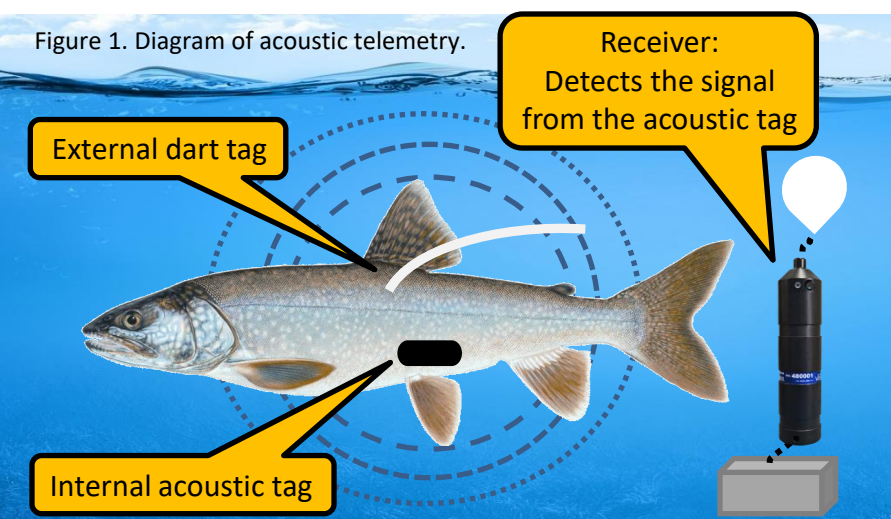


Figure 2. Map of Papineau Lake with detections from 3 tagged lake trout. As shown, fish tend to stay within their home basin, (ex. the main basin, the west basin or the north basin) and don't move between basins.