

Appendix III: List of potential fisheries research needs specific to Rainy Lake or Rainy River, Ontario.

- Effects of tournament displacement and fall movements of walleye or smallmouth bass
- Age and growth analysis of large, trophy fish
- Genetics and stock discreteness
- Identification and characterization of critical habitats (wintering areas, nesting areas, home ranges) through radio-telemetry
- Fish community interactions (bass, walleye, crappie, etc)
- Foraging dynamics and diet of bass (smelt, crayfish, etc)
- Effects of “fizzing” and barotraumas during tournaments
- Introductions of exotic species, and potential impacts to bass and walleye
- Delayed mortality (hooking injury, diseases) following tournaments
- Development of fishing quality indicators
- Socio-economic impacts of competitive bass fishing events
- Population size and sustainable harvest levels for bass and crappie
- Cormorant predation on juvenile fish, foraging dynamics or disease
- Status of introduced muskellunge populations
- Year-class variability in northern range of bass (climate effects, GDD)
- Physiological stresses during live release tournaments
- Effectiveness of bass fishing regulations (size limits, catch limits and seasons) in NW Ontario.
- Climate change impacts on fisheries resources.
- Effects of water level regulation on aquatic systems
- Rule curve impacts on the aquatic ecosystem (changes to water levels and flows)

