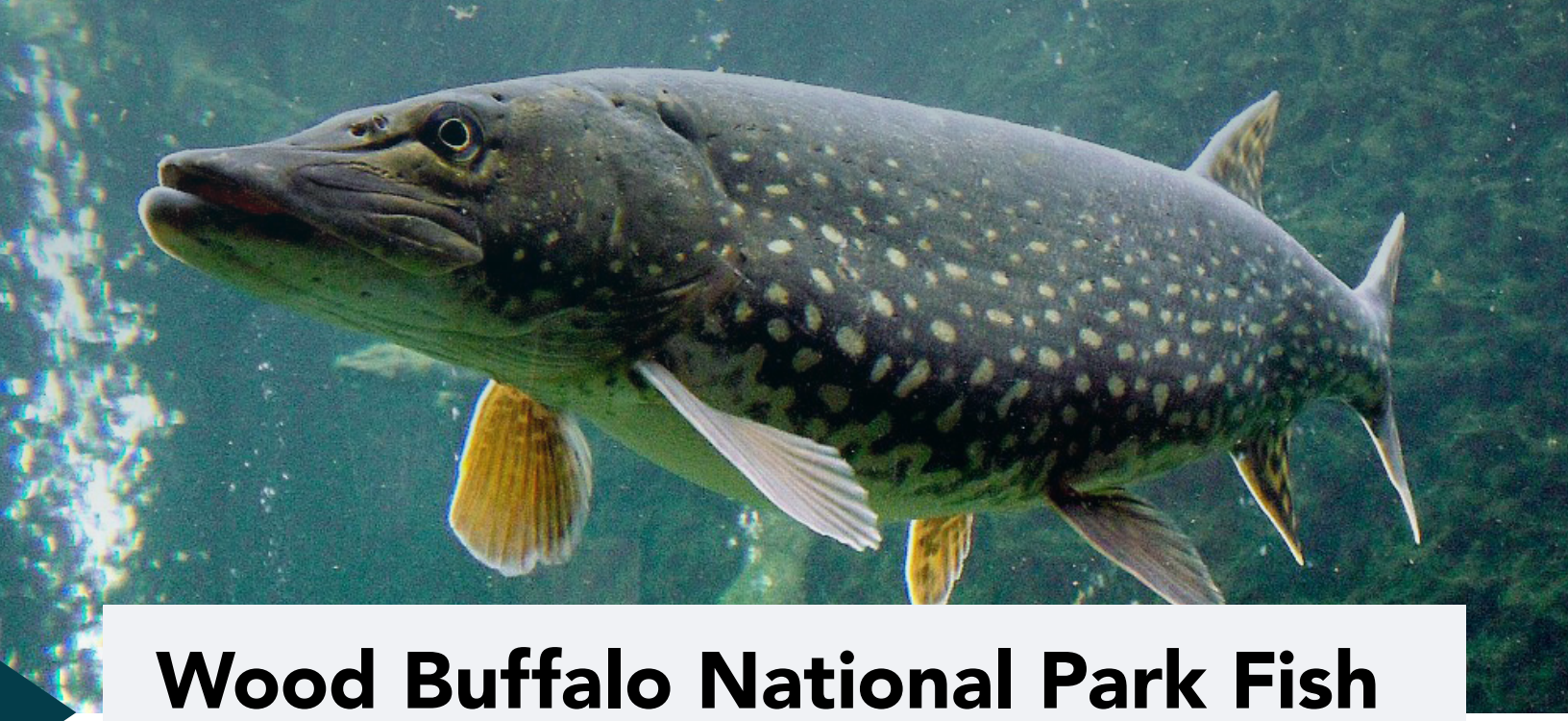

Wood Buffalo National Park Fish Movement Study

Parks Canada is developing a strategy to protect and manage the ecological health of Wood Buffalo National Park in Alberta, the second largest national park in the world. In 2020 Innovasea was hired to design a comprehensive, multi-year study of the seasonal movement and behavior of multiple fish species in the Peace-Athabasca Delta (PAD) region of the park, including Walleye, Northern Pike and Lake Whitefish.

Challenge

Significant knowledge gaps remain in scientific research about fish behavior in the Peace-Athabasca Delta, including movement rates, timing, environmental conditions, migration routes, life stage specific movement behaviors and habitats utilized for fish species. Plus the sheer size of the area in which these species live and travel makes it difficult for to conduct meaningful research on such a massive scale.

Solution

Innovasea performed a feasibility assessment and developed a comprehensive blueprint on how researchers can use acoustic telemetry technology to evaluate basic life history behaviors and examine how oil sands mining, climate change, water flow variations and other potential factors may be impacting the movement and distribution of resident and migratory fish populations.

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CASE STUDY

Result

The study design demonstrated that acoustic telemetry is the ideal technology for conducting long-term fish movement studies over a vast geographic area because it's:

- **Versatile** – Researchers can monitor tagged fish over several years in all depths and in various bodies of water.
- **Low maintenance** – Each monitoring station can run for a year on a single battery.
- **Durable and secure** – Receivers are secured to strong underwater moorings to withstand harsh conditions and eliminate vandalism and theft.
- **Cost effective** – It allows for the use of a large number of receivers to collect data over a broader geographic region for multiple study years.

Learn more at **www.innovasea.com**.

About Innovasea

Innovasea designs the world's most technologically advanced aquatic solutions for fish tracking and fish farming – and builds them to withstand the toughest conditions. We partner with customers to fully understand their needs and solve their most pressing challenges. It's all driven by a commitment to make our ocean and freshwater ecosystems sustainable for future generations.

Today. Tomorrow. For life.