

**Alberta Conservation Association
2018/19 Project Summary Report**

Project Name: Wapiti River Angler Survey

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Partnerships

Alberta Environment and Parks

Government of Canada: Service Canada, Canada Summer Jobs

Key Findings

- Between June 1 and September 30, 2018, we conducted 19 aerial surveys and interviewed 80 anglers on the Wapiti.
- We estimated that anglers made 3,000 trips, fished for 4,085 hours, and caught 2,730 fish total.
- The majority (88%) of boats observed during instantaneous counts were not fishing.

Introduction

The Wapiti River flows east from the BC boarder passing just south of the city of Grande Prairie, Alberta and confluences with the Smoky River. Numerous access points and proximity to a large population centre allow many user groups access to the river for recreational activities, including jet boating, canoeing/kayaking, swimming, and fishing. However, local fisheries biologists lack an understanding of fishing pressure on the Wapiti River. To provide current information, we

performed an angler survey on the river to generate data on angler metrics including effort, trip length, and catch.

Methods

The Wapiti River survey area stretched for 159 km from the mouth of the Narraway River to the confluence with the Smokey River. From June 1 to September 30, 2018, we conducted aerial count surveys in conjunction with angler interviews at access points (Jones and Pollock 2012, Pollock et al. 1994). Access points were selected based on local area knowledge of popular boat launch and shore fishing locations. During angler interviews, technicians collected angler-specific data including trip length, fish catch, and residence. Angler effort was estimated using aerial count data. We used bootstrap techniques to estimate angler hours, number of angler trips, and angler catch. We calculated catch rates as total ratio estimators following Jones and Pollock (2012).

Results

We interviewed 80 anglers at access sites. The majority of the 80 anglers interviewed were residence of Grande Prairie (66%) and 20% from other communities in the surrounding area. Interviewed anglers reported catching 79 walleye, nine bull trout, seven northern pike, and one goldeye. No anglers reported catching Arctic grayling or mountain whitefish. Anglers reported harvesting ten walleye. We conducted 19 aerial counts during which we counted 45 anglers. During aerial counts, 88% of boat traffic ($n = 126$) was not fishing. During aerial surveys, boat (53%) and shore (47%) anglers ($n = 45$) were near equal.

Between June 1 and September 30, 2018, we estimate anglers made 3,000 trips (95% CI = 1,678 – 4,560) and fished for 4,085 hours (95% CI = 2,309 – 6,082). Catch rates were 0.54 walleye/h, 0.07 northern pike/h, 0.06 bull trout/h, and 0.003 goldeye/h. During the survey period, anglers caught 2,195 walleye (95% CI = 926 – 3,997), 271 northern pike (95% CI = 30 – 662), 251 bull trout (95% CI = 40 – 571), and 13 goldeye (95% CI = 1 – 46). We estimate anglers harvested a total of 207 walleye (95% CI = 74 - 399).

Conclusion

Our angler survey demonstrates that while the Wapiti River experiences high recreational use, fishing effort is low on the river relative to other waterbodies in the province.

Communications

- ACA data report: Wapiti River sport fishery angler survey. April 2019.

Literature Cited

Jones, C.M., and Pollock, K.H. 2012. Recreational Angler Survey Methods. Pages 883 – 916. *In:* A.V. Zale, D.L. Parrish, and T.M. Sutton (editors). Fisheries techniques. 3rd Edition. American Fisheries Society, Bethesda, Maryland, USA.

Pollock, K.H., C.M. Jones, and T.L. Brown. 1994. Angler survey methods and their applications in fisheries management. American Fisheries Society, Bethesda, Maryland, USA. 371 pp.

Photos



Aerial view of Magoo's Landing boat launch on the Wapiti River, Alberta. Photo: Nikita Lebedynski



Pipestone Creek Campground angler access site on the Wapiti River, Alberta. Photo: Nikita Lebedynski



Jet boat traveling upstream on the Wapiti River, Alberta during an aerial count survey. Photo: Nikita Lebedynski