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## **Angler Survey in the Upper Oldman River Watershed, 2018**



**Alberta Conservation  
Association**

## Angler Survey in the Upper Oldman River Watershed, 2018

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## EXECUTIVE SUMMARY

We completed an aerial-access-type angler survey in the Upper Oldman (UOM) River hydrological unit code (HUC) 8 watershed to determine the level of fishing pressure on the sportfish population. The main objective of this angler survey was to provide current information on westslope cutthroat trout (WSCT) and other sportfish populations in the UOM River watershed to aid in the recovery and managing of these important sportfish fisheries.

We estimated fishing effort from aerial angler counts, while fish catch, trip length, and other pertinent demographic information were collected from angler interviews during roving surveys. We used bootstrapping techniques to derive estimates and confidence intervals for angler survey metrics in six stream reaches: i.) UOM River, ii.) Middle Oldman River, ii.) Lower Oldman River, iv.) Livingstone River, v.) Dutch Creek, and vi.) Racehorse Creek.

We completed 88 interview shifts and 25 instantaneous flights in the study area between June 16 and October 31, 2018. We interviewed 958 anglers who reported fishing 2,385.25 hours and we counted 1,052 anglers during flights. The highest number of anglers interviewed, and the highest angler counts during flights was in the Livingstone River, followed respectively by the Middle Oldman River, UOM River, Lower Oldman River, Racehorse Creek, and Dutch Creek. Estimated angling effort for the entire study area (119 river-kilometers study area) was 91,679 (95% CI = 80,506–103,311) angler hours and over half of the total effort was estimated from the Livingstone River at 25,964 (95% CI = 18,793–33,540) hours and the Middle Oldman River at 23,443 (95% CI = 17,663–29,842) hours. Angling effort estimates in the UOM River (17,366 [95% CI = 12,972–22,304] hours), and Lower Oldman River (14,758 [95% CI = 11,301–18,435] hours) totaled just over one-third the overall effort; angling effort in Racehorse and Dutch creeks were minimal compared to the rest of the streams. Estimated angling trip total for the entire study area was 21,651 (95% CI = 17,859–25,462) trips.

Estimated total fish catch over the study period was 91,228 (95% CI = 81,235–101,224) and 88% ( $n = 80,180$ ) of those fish were WSCT. Westslope cutthroat trout was the most common species captured in the study, comprising 93% ( $n = 2,776$ ) of the total 2,980 fish reported caught. Estimated average catch rates for WSCT ranged between 0.78–1.30 fish/hour with the highest rate being in the UOM River; catch rates for all other species were considerably lower (<0.15 fish/hour). The highest estimated WSCT catches occurred in the Livingstone River (20,929 [95% CI = 15,071–27,127]), the UOM River (20,609 [95% CI = 14,708–27,381]), and the Middle Oldman

River (20,419 [95% CI = 15,219–26,161]); the Lower Oldman River, Racehorse Creek, and Dutch Creek WSCT combined catch estimates were less than 20% of the overall estimate.

Data collected from this study have enabled us to estimate the degree of angling pressure in the UOM River watershed. Angling effort and catch estimates can be used to compare data from previous surveys and assist in managing the sportfish population and aid in the recovery of WSCT populations in the UOM River watershed.

**Key words:** Angler survey, angler effort, angler interviews, catch rate, instantaneous angler counts, Upper Oldman River watershed, westslope cutthroat trout.

## **ACKNOWLEDGEMENTS**

We thank Alberta Conservation Association (ACA) staff, Sarah Paterson, Mark Storey, and Jaemie Card who assisted with data collection. Thank you to Dave Hagedorn, Alberta Environment and Parks (AEP) for providing us with camp accommodations at Racehorse Creek Provincial Campground. A special thanks to Curtis Nadon, Phil Hannah, Nadia Bosman, and Andrea Gill, with Mountain View Helicopters for piloting during aerial angler counts. Thanks to Paul Christensen (AEP) for his input into the project.

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## **1.0 INTRODUCTION**

Overharvest and hooking mortality associated with high angling pressure have contributed to the decline of Alberta's westslope cutthroat trout (*Oncorhynchus clarkii lewisi* [WSCT]) populations (Fisheries and Oceans 2014). Since WSCT were federally listed as *Threatened*, province-wide catch and release regulations were implemented to promote species recovery. Angling is still permitted in WSCT critical habitat, but the extent of angling pressure in most streams is undetermined or out dated. The Upper Oldman River (UOM) WSCT population remains the largest intact genetically pure population in Alberta (COSEWIC 2016) and has experienced a steady increase in angling pressure over the last 30 years (Byrne 1992, Byrne 1993, Clements 1989, Spiegel and Hurkett 2005).

Angler surveys are a management tool used to gather information about a fishery from anglers to assess the quality and health of a sportfish population (Pollock et al. 1994). Data collected during angling surveys derive angling effort, trip length, and catch rates to determine the extent of angling pressure on a sportfish fishery. Alberta Conservation Association (ACA) conducted an aerial-access-type angler survey in the UOM River watershed in 2018 to update the level of fishing pressure on the sportfish populations with emphasis on WSCT. Data collected will assist managers to effectively manage the fishery and contribute to species recovery in the watershed. The primary objective of the angler survey is to determine the total angling effort and catch numbers and rates in major sportfishing streams in the UOM River watershed.

## **2.0 STUDY AREA**

Our study occurred in the UOM River hydrological unit code (HUC) 8 watershed located along the eastern slopes of southwestern Alberta, approximately 130 km southwest of Calgary, Alberta (Figure 1).

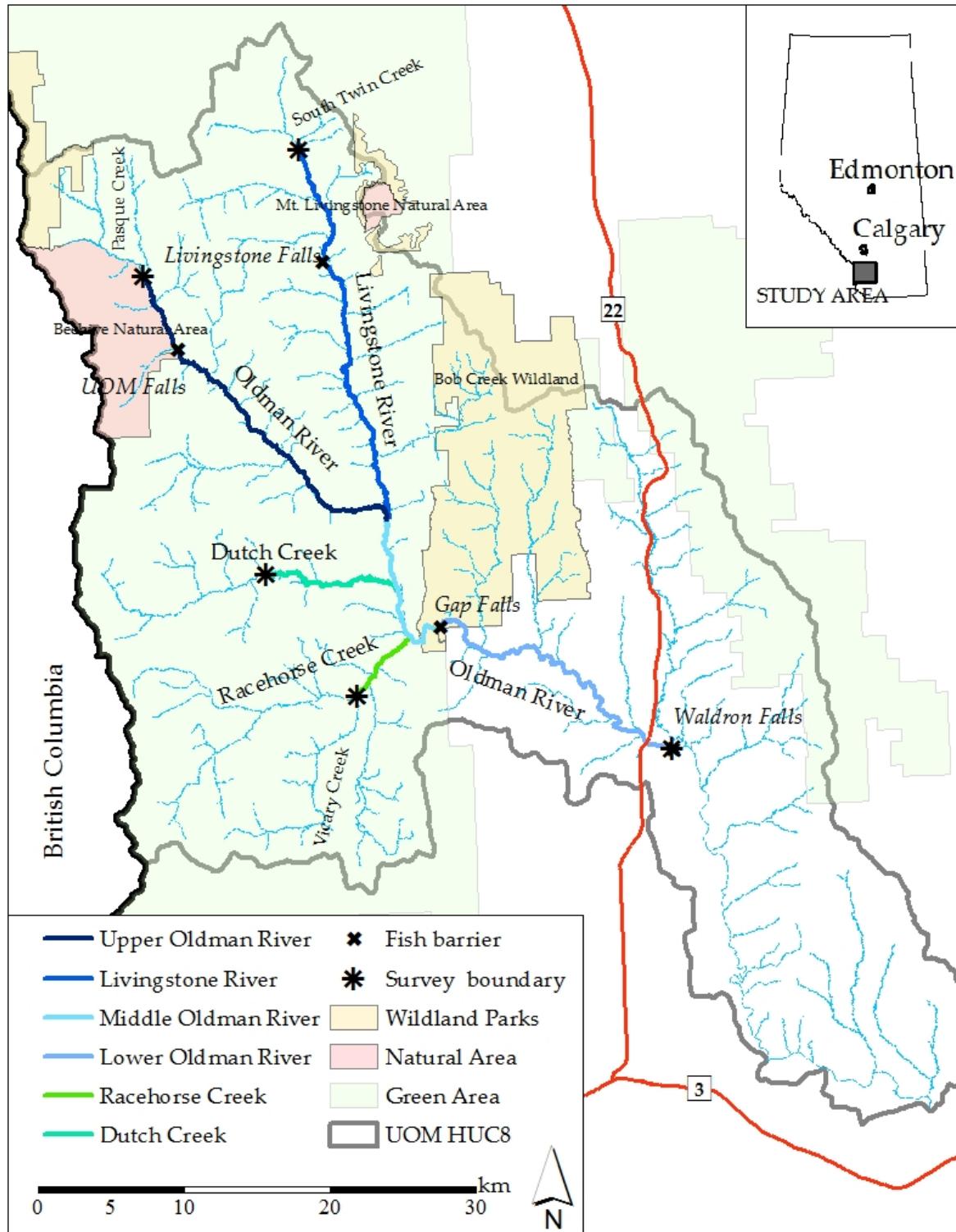


Figure 1. Upper Oldman River watershed angler survey study area, 2018. Inset map shows the location of the study area within the province of Alberta.

Stream reaches surveyed in the UOM River HUC 8 watershed include:

- i. UOM River – upstream from the confluence of the UOM/Livingstone rivers to the confluence of Pasque Creek/UOM River.
- ii. Middle Oldman River – upstream from the Gap Falls to confluence of the UOM/Livingstone rivers.
- iii. Lower Oldman River – upstream from Waldron's Falls to the Gap Falls.
- iv. Livingstone River – upstream from the confluence of the UOM/Livingstone rivers to the confluence of South Twin Creek/Livingstone River.
- v. Racehorse Creek – upstream from the Racehorse Creek/UOM River confluence to the confluence of Racehorse/Vicary creeks.
- vi. Dutch Creek – upstream approximately 14 km from the Dutch Creek/UOM River confluence.

Most of the study area is encompassed in public lands and managed under the Livingstone - Porcupine Public Land Use Zone and also includes the Bob Creek Wildland, Don Getty Wildlands, Livingstone Natural Area, and Beehive Natural Area. The lower reach of the Oldman River, between the Gap Falls and Waldron Falls, primarily flows through privately-owned land. Roads, cut lines, hiking, and off-highway vehicle trails permit easy access to most streams in the Public Land Use Zone. Access to the Lower Oldman River is limited to a few public access points but is mainly restricted by private land.

Sportfish species in the study area include: WSCT, westslope cutthroat x rainbow trout hybrid, rainbow trout (*Oncorhynchus mykiss*), bull trout (*Salvelinus confluentus*), and mountain whitefish (*Prosopium williamsoni*).

## 3.0 MATERIALS AND METHODS

### 3.1 Survey design

Between June 16 and October 31, 2018, we conducted an aerial-access-type angler survey following Pollock et al. (1994) and Jones et al. (2013) in our study area. Angler-specific data, such as angler trip length, fish catch, and angler demographics were collected by fisheries technicians who roved between 129 access points interviewing anglers. This design was chosen

because there are numerous access points to the six stream reaches, each with varying levels of angler use. Allowing technicians to rove between all access points increased the total number of angler interviews obtained over the course of the angler survey. Access sites were identified from ground reconnaissance completed prior to the survey and from local knowledge about site use by anglers. Angling effort was estimated from instantaneous angler counts obtained from aerial overflights of stream reaches and average trip lengths obtained from angler interviews.

### **3.2      Angler interviews**

Our angler survey schedule followed a ten-day-on, four-day-off cycle that included conducting interviews daily. Survey days were randomly assigned a temporal shift of a.m. (0800 - 1500 hours) or p.m. (1500 - 2200 hours) and spatially by one of three stream reach selections: i.) UOM River, ii.) Livingstone River, iii.) Middle Oldman River, Lower Oldman River, Racehorse Creek and Dutch Creek combined (Figure 1). This schedule produced an uneven allocation of survey effort on weekdays ( $n = 48$ ) and weekends ( $n = 40$ ), and the completion of 31 survey shifts on the UOM River, 28 on the Livingstone River, and 29 on the remaining stream reaches (Table 1).

We asked anglers a series of questions including number of hours fished, number of fish caught and by species, fishing gear used, and their permanent residence. Angler interviews consisted of both complete and incomplete trip data.

Table 1. Number of shifts completed during the angler survey in the Upper Oldman River watershed, 2018.

Stream reach	June		July		August		September		October		Total
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
Upper Oldman River	2	1	3	5	9	1	3	1	2	4	31
Livingstone River	4	1	0	5	2	2	5	2	2	5	28
Middle and Lower Oldman rivers; Racehorse and Dutch creeks	2	0	5	2	2	3	2	8	0	5	29

### 3.3 Instantaneous angler counts

Between June 17 and October 31, 2018, we conducted 25 instantaneous angler counts via aerial surveys using a Robinson R44 helicopter (Table 2). Similar to previous angler surveys conducted on the upper Bow River (R.L. & L. Environmental Services 1995) and Highwood and Sheep rivers (Fitsimmons 2018), we selected 25 - 30 angler counts to estimate the mean number of anglers within 95% confidence intervals (CI). Days for aerial surveys were selected at random from all available survey days, with the unequal probability of selecting weekday and weekend/holiday flights adjusted so the final draw had approximately equal numbers of flights on weekdays ( $n = 12$ ) and weekends/holidays ( $n = 13$ ). To select flight times with uniform probability, we followed Pollock et al. (1994) where flight days were divided into time blocks roughly equivalent to the time required to complete a count. Flight times were then selected at random from these time blocks. Start times for surveys were either 0800, 1030 or 1300 hours for a.m. shifts and 1400, 1630 or 1900 hours for p.m. shifts. When weather conditions prevented safe flight (low visibility, high wind, or thunderstorm activity), surveys were rescheduled by randomly selecting a new date from a pool of available dates within 30 days of the cancelled flight date. The distribution of flights over weekdays and weekends/holidays and a.m. and p.m. shifts is shown in Table 2.

Table 2. Number of instantaneous aerial angler surveys completed in the Upper Oldman River watershed, 2018.

June		July		August		September		October		Total
AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	0	5	3	4	2	3	2	3	2	25

Aerial surveys commenced at the upstream boundary of Racehorse Creek (Figure 1) and were completed in either a clockwise direction from Dutch Creek to UOM, Livingstone, Middle and Lower Oldman rivers to Racehorse Creek or a counter-clockwise direction from Racehorse Creek, to the Lower Oldman, Middle Oldman, Livingstone, and UOM rivers to Dutch Creek. Direction was chosen prior to the flight with a coin toss. Angler counts were conducted with two observers on each flight. Both observers were positioned on the left side of the aircraft, with the front observer counting anglers and marking their position on a handheld Garmin GPSmap62s global positioning system (GPS) unit, while the back observer verified angler counts and recorded waypoint names, and angler numbers. Flights were flown at target

airspeeds of 90 – 110 km/h and 150 m above ground level. The aircraft was maneuvered so that the two observers had unobstructed views of the entire river channel. When observers were uncertain about angler counts, or when river features (braids, cliffs, trees etc.) prevented adequate observations of the entire river, the pilot circled the area until observers confirmed angler counts. Angler counts were assisted with the use of image stabilizing binoculars. Using ArcGIS 10.4 © software, stream reaches were divided into 2,000 m sub-reach sections ( $n = 59$ ) for analysis to differentiate the variability of angler counts in each stream reach.

### **3.4 Estimation of angler survey parameters**

We used bootstrapping (50,000 replicates) to derive estimates and associated 95% CI for angler effort, number of angler trips, and total fish catch (Sullivan 2004). Angler catch rates were calculated as total ratio estimators following Jones et al. (2013); using only angler interviews where angling time is greater than 0.5 h (Pollock et al. 1994). Bootstrapped instantaneous angler counts produced a distribution of mean angler counts used as the basis for calculating survey metrics. This was completed independently for each stream reach and by season: spring/summer (June, July, and August) and fall (September and October). Given the unequal probability of count selection between weekday and weekend/holiday day types, we completed separate estimations for each day type and combined them for total estimates. Angler count distributions multiplied by the available angling hours, provided estimates and confidence intervals for angling effort (h). A two-way ANOVA was used to assess differences in angler trip length by stream reach and season. Significant results dictated separate bootstrap estimates of trip length by reach and/or season, whereas non-significant results dictated bootstrapping of the combined trip length dataset. Estimates of angler survey parameters were calculated using the R software package (R Core Team 2017).

## **4.0 RESULTS**

### **4.1 Angler interviews**

We interviewed 958 anglers who reported angling 2,385.25 hours over the 119 river-km study area in the UOM River watershed in 2018 (Table 3). The total number of interviews by stream reach ranged between 8 – 344 and were highest in the Livingstone and UOM rivers. Similarly, total angling hours by stream reach was highest in the Livingstone River, followed respectively in the same descending order as interview totals (Table 3).

The overall average trip length in the study area was 4.15 hours, with the highest average trip length in the Lower Oldman River and the lowest in Racehorse Creek (Table 3). Fly fishing was the most common angling method in the stream reaches followed by spin casting.

Table 3. Summary of angler interviews in the Upper Oldman River watershed, 2018.

Stream reach	Anglers interviewed	Angling hours	Average trip length (h) ( $\pm$ SD)	Fly fishing anglers	Spin casting anglers
Upper Oldman River	298	604.75	$3.99 \pm 2.54$	268	30
Middle Oldman River	199	634.5	$4.46 \pm 2.45$	186	13
Lower Oldman River	93	206.25	$5.45 \pm 4.18$	85	8
Livingstone River	344	884	$4.43 \pm 1.76$	308	36
Dutch Creek	8	20	$3.40 \pm 1.67$	8	0
Racehorse Creek	16	35.75	$3.17 \pm 1.33$	11	5
Average	--	--	$4.15 \pm 0.83$	--	--
Total	958	2,385.25	--	866	92

Anglers reported catching a total of 2,980 fish in the UOM River watershed in 2018 constituting an overall catch rate of 1.25 fish/hour (Table 4). Westslope cutthroat trout was the most common species captured at 93% of the overall catch; the remaining species were captured at much lower rates (Table 4). Almost all anglers were in full compliance of catch and release regulations except for one angler who illegally harvested a WSCT in the UOM River. Except for one boat identified in the Lower Oldman River, all anglers interviewed or counted during aerial flights fished from shore.

Table 4. Number of fish captured by anglers in the Upper Oldman River watershed during the 2018 angler survey.

Stream reach	Westslope cutthroat trout	Westslope cutthroat x rainbow trout hybrid	Rainbow trout	Bull trout	Mountain whitefish
Upper Oldman River	788	6	8	15	2
Middle Oldman River	542	33	27	4	14
Lower Oldman River	701	12	10	12	11
Livingstone River	701	12	10	12	11
Dutch Creek	16	3	0	0	0
Racehorse Creek	28	0	2	0	0
Total	2,776	66	57	43	38

The majority of anglers interviewed were from Canada (93.3%), followed by the United States (6.1%) and a small fraction (0.6%) of anglers were from overseas (i.e. France, China, Germany, and Japan).

Of the Canadian residents interviewed, most anglers were Alberta residents (91.3%), followed by Ontario, Saskatchewan, and British Columbia (Figure 2). The majority of the Alberta anglers interviewed were from Calgary followed by Edmonton and Lethbridge. Local anglers (less than 50 km from the study area) constituted 3% of anglers.

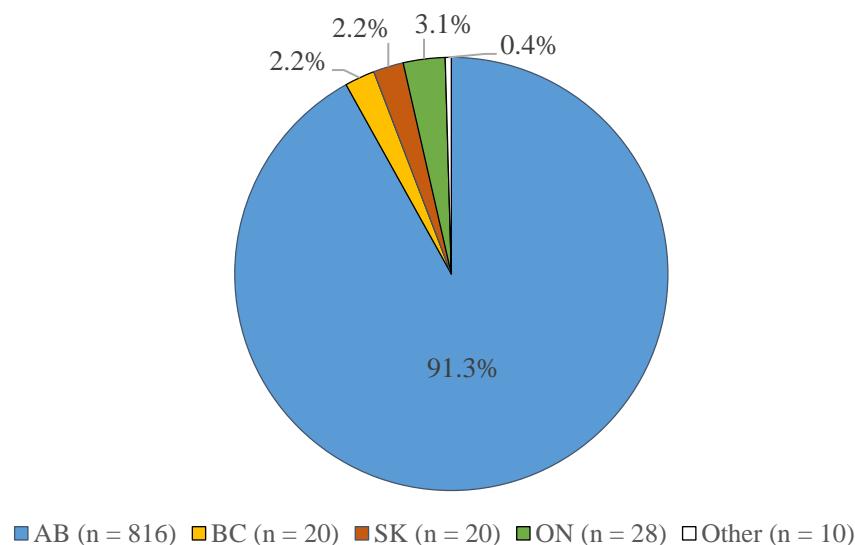


Figure 2. Residence by province of Canadian anglers interviewed in the Upper Oldman River watershed, 2018. (n = 894)

## 4.2 Aerial angler counts

During aerial surveys we counted 1,052 anglers in the UOM River watershed and the majority of them were counted in the summer season (Figure 3). Angler counts were highest in the Livingstone ( $n = 325$ ) and Middle Oldman rivers ( $n = 272$ ), and lowest in Dutch ( $n = 46$ ) and Racehorse ( $n = 44$ ) creeks. Angler counts by stream sub reach ranged between zero in the Livingstone River to 88 in the Middle Oldman River (Figure 4). Angler counts in the Lower Oldman River varied considerably and sub reaches with higher angler counts were areas open to public access. Angler counts were lower in both the upper reaches of the UOM and Livingstone rivers than the lower reaches downstream of the Upper Oldman Falls and Livingstone Falls.

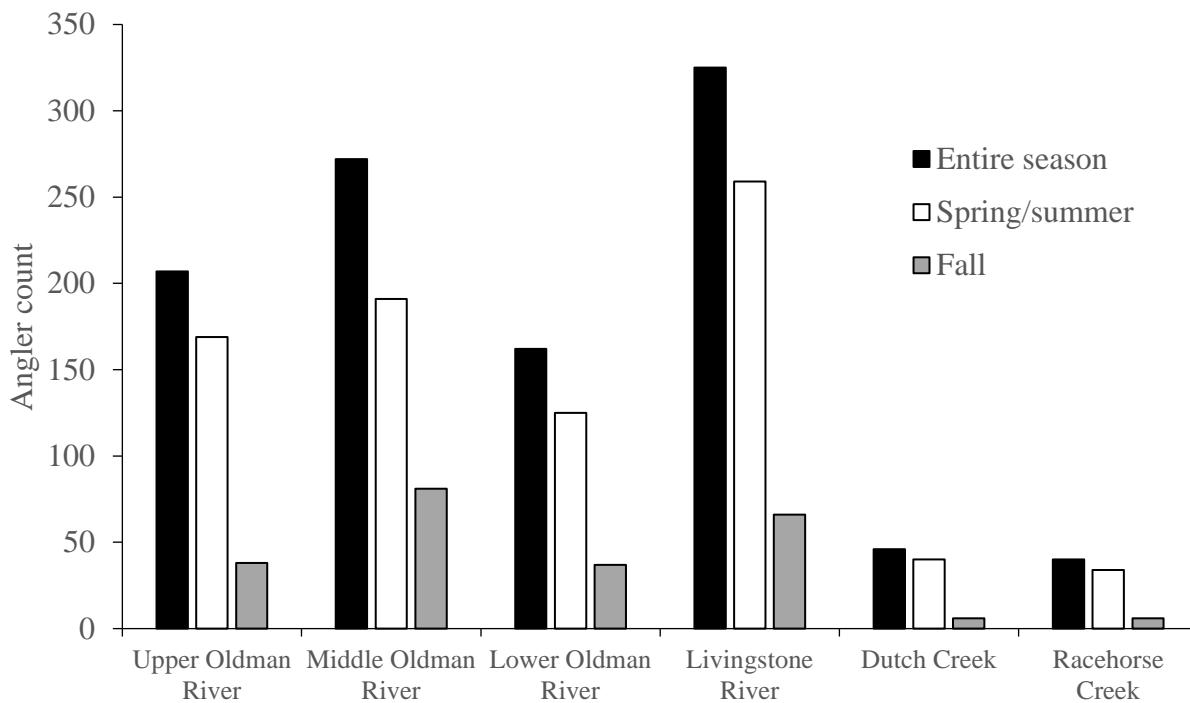


Figure 3. Angler count by stream reach in the Upper Oldman River watershed, 2018.

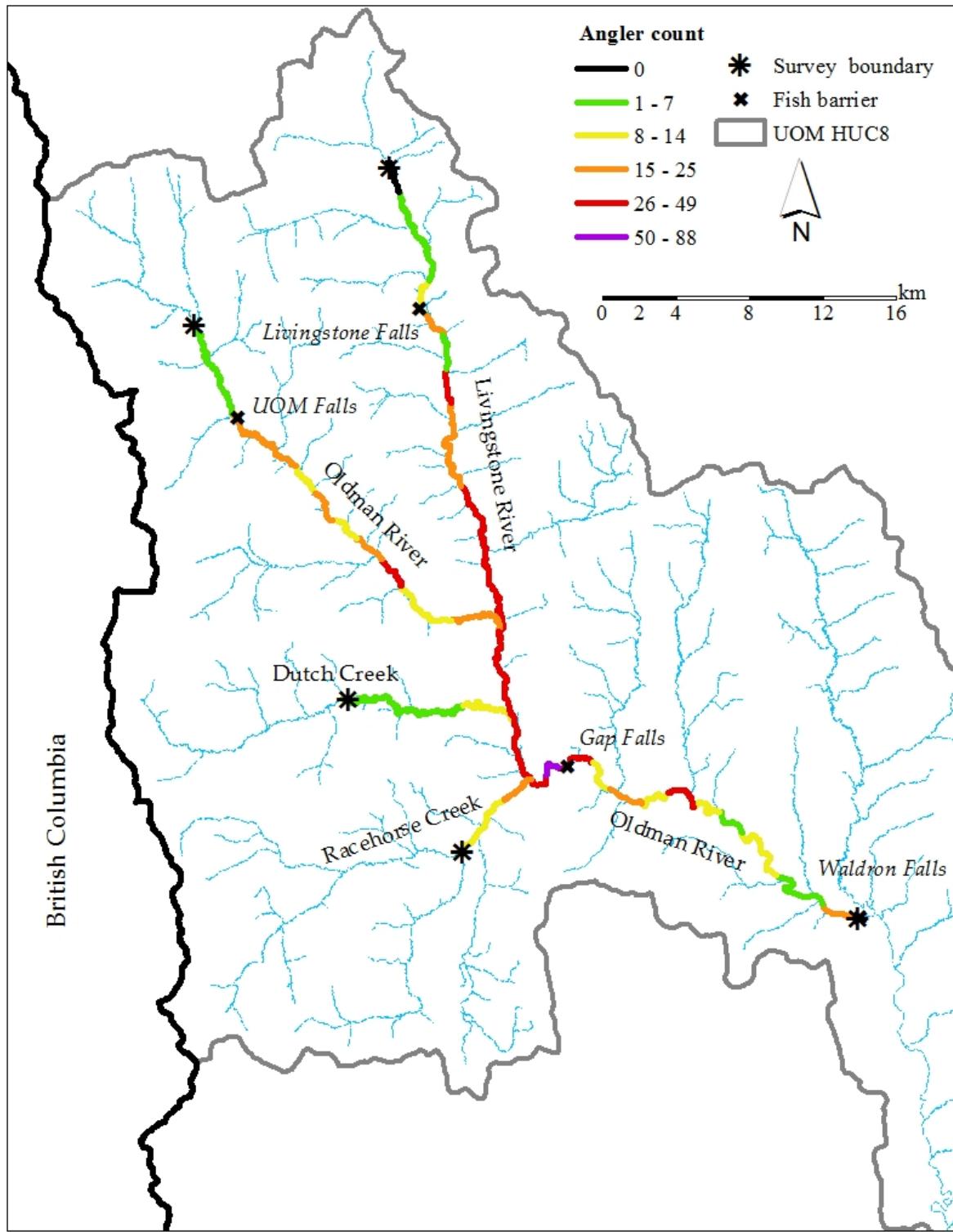


Figure 4. Total angler count by stream sub reach in the Upper Oldman River watershed, 2018.

## 4.2 Angling effort and fish catch estimates

Between June 16 and October 31, 2018, we estimated anglers made 21,452 (95% CI = 17,859–25,462) trips and fished for 91,679 (95% CI = 80,506–103,311) hours in the UOM River watershed (Table 5). Greater than half of the total angling effort was estimated to occur in the Livingstone River and Middle Oldman River. Combined, the UOM and Lower Oldman rivers comprised approximately one-third of the total estimated angling effort, while angling effort on Racehorse and Dutch creeks were minimal in comparison to the other stream reaches. Similar to angler hours, estimates for number of trips were greatest in the Livingstone and Middle Oldman rivers, and lowest in Racehorse and Dutch creeks (Table 5).

Table 5. Estimated angling effort and trips in the Upper Oldman River watershed, 2018. In brackets are 95% CI.

Stream reach	Mean angling effort (hours)	Mean angling trips
Upper Oldman River	17,336 (12,972 - 22,304)	4,405 (3,017 - 6,221)
Middle Oldman River	23,443 (17,663 - 29,842)	5,313 (3,750 - 7,262)
Lower Oldman River	14,758 (11,301 - 18,435)	2,817 (1,775 - 4,460)
Livingstone River	25,964 (18,793 - 33,540)	5,885 (4,188 - 7,759)
Dutch Creek	4,537 (3,318 - 5,774)	1,398 (858 - 2,342)
Racehorse Creek	5,613 (4,108 - 7,239)	1,818 (1,168 - 2,738)

Estimated total catch of all fish species in the UOM River watershed was 91,228 (95% CI = 81,235–101,224) fish and the majority (~88%) of the catch were WSCT (Table 6). Catch rates varied greatly by species and stream reach but overall mean catch rates were highest for WSCT (CPUE = 0.87 fish/hour) than any other species (Table 7); other sportfish species comprised roughly 12% of the overall catch estimate. With a few exceptions, catch rates for WSCT, westslope cutthroat-rainbow trout hybrid, and rainbow trout were highest in spring/summer months while those of mountain whitefish and bull trout were highest in the fall. Westslope cutthroat trout catch estimates were highest and relatively equal in the Livingstone, UOM, and Middle Oldman rivers.

Table 6. Estimated mean number of fish captured in the Upper Oldman River watershed, 2018. In brackets are 95% CI.

Stream reach	Westslope cutthroat trout	Westslope cutthroat x rainbow trout hybrid	Rainbow trout	Bull trout	Mountain whitefish	All species
Upper Oldman River	20,609 (14,708 - 27,381)	141 (94 - 195)	188 (126 - 260)	515 (414 - 629)	309 (225 - 397)	21,556 (15,437 – 28,572)
Middle Oldman River	20,419 (15,219 - 26,161)	1,314 (914 – 1,764)	1,072 (749 – 1,436)	153 (112 - 199)	548 (391 - 724)	23,506 (17,409 – 30,249)
Lower Oldman River	12,443 (9,390 - 15,750)	895 (674 – 1,077)	1,873 (1,463 – 2,283)	932 (658 – 1,233)	1,327 (1,020 – 1,650)	17,470 (13,323 – 21,908)
Livingstone River	20,929 (15,071 - 27,127)	408 (279 - 547)	322 (226 - 424)	344 (250 - 443)	309 (225 - 397)	22,312 (16,065 – 28,924)
Dutch Creek	2,614 (1,793 - 3,482)	490 (336 - 653)	NA	NA	NA	3,104 (2,130 – 4,135)
Racehorse Creek	3,166 (2,319 - 4,046)	NA	116 (70 - 161)	NA	NA	3,281 (2,396 – 4,194)

Table 7. Sportfish catch rates in the Upper Oldman River watershed, 2018.

Species	Season	CPUE (fish/hour)					
		Upper Oldman River	Middle Oldman River	Lower Oldman River	Livingstone River	Dutch Creek	Racehorse Creek
Westslope cutthroat trout	All	1.30	0.85	0.79	0.79	0.80	0.78
	Spring/summer	1.37	0.99	0.83	0.83	0.80	0.44
	Fall	0.66	0.67	0.73	0.73	NA	1.00
Westslope cutthroat x rainbow trout hybrid	All	0.01	0.05	0.01	0.01	0.15	NA
	Spring/summer	0.01	0.08	0.02	0.02	0.15	NA
	Fall	NA	0.01	0.00	0.00	NA	NA
Rainbow trout	All	0.01	0.04	0.01	0.01	NA	0.06
	Spring/summer	0.01	0.07	0.01	0.01	NA	NA
	Fall	NA	0.01	0.01	0.01	NA	0.09
Bull trout	All	0.02	0.01	0.01	0.01	NA	NA
	Spring/summer	0.02	0.01	0.01	0.01	NA	NA
	Fall	0.05	0.00	0.02	0.02	NA	NA
Mountain whitefish	All	<0.01	0.02	0.01	0.01	NA	NA
	Spring/summer	<0.01	0.03	0.01	0.01	NA	NA
	Fall	0.02	0.01	0.02	0.02	NA	NA

## **5.0 SUMMARY**

Our survey provides quantitative estimates of angler effort, trip length, trip numbers, and fish catch rates by anglers on major stream reaches in the UOM River watershed. Our estimates provide the most recent quantitative evidence to reassess angling pressure trends that will aid in management of the sportfish population, as well as assist with recovery strategies for westslope cutthroat trout in the UOM River watershed and other watersheds in Alberta's eastern slopes.

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## 7.0 APPENDICES

Appendix 1. Survey length by stream reach in the Upper Oldman River watershed, 2018.

Stream reach	Survey length (km)
Upper Oldman River	29.7
Middle Oldman River	12.7
Lower Oldman River	24.8
Livingstone River	31.9
Racehorse Creek	6.1
Dutch Creek	13.8
Total	119.1

Appendix 2. Data from the Upper Oldman River collected during the June 16 to October 31, 2018 angler survey.

Species codes: WSCT = westslope cutthroat trout, CRTR = westslope cutthroat x rainbow trout hybrid, RNTR = rainbow trout, BLTR = bull trout, MNWH = mountain whitefish.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
1	2018-06-18	1	0	N	Lethbridge, AB	NA	NA
2	2018-06-18	1	4.5	Y	Calgary, AB	WSCT	1
3	2018-06-18	SAA	NA	NA	NA	WSCT	1
4	2018-06-18	1	4.5	Y	Calgary, AB	BLTR	1
5	2018-06-18	1	0.25	N	Calgary, AB	NA	NA
6	2018-06-18	1	0.25	N	Calgary, AB	NA	NA
7	2018-06-18	1	6	N	Edmonton, AB	WSCT	1
8	2018-06-18	SAA	NA	NA	NA	BLTR	1
9	2018-06-18	1	1	Y	Calgary, AB	NA	NA
10	2018-06-18	1	2	N	Calgary, AB	NA	NA
11	2018-06-18	1	1	N	Calgary, AB	NA	NA
12	2018-06-20	1	2.5	N	Calgary, AB	NA	NA
13	2018-06-20	1	1	N	North Carolina	NA	NA
14	2018-06-20	1	1	N	Blairmore, AB	CRTR	1
15	2018-06-20	1	0.25	N	Lethbridge, AB	NA	NA
16	2018-06-20	1	0.25	N	Lethbridge, AB	NA	NA
17	2018-06-20	1	0.25	N	Blairmore, AB	WSCT	1
18	2018-06-20	1	1	N	Calgary, AB	NA	NA
19	2018-06-20	1	1	N	Calgary, AB	NA	NA
20	2018-06-20	1	4	N	Lethbridge, AB	NA	NA
21	2018-06-23	1	5.5	N	Camrose, AB	BLTR	1
22	2018-06-23	1	5.5	N	Camrose, AB	BLTR	1
23	2018-06-23	1	5.5	N	Camrose, AB	NA	NA
24	2018-06-23	1	0.5	N	Calgary, AB	NA	NA
25	2018-06-23	1	0.5	N	Calgary, AB	NA	NA
26	2018-06-23	1	2	N	Canmore, AB	WSCT	1
27	2018-06-23	1	2	N	Ontario	WSCT	3
28	2018-06-23	SAA	NA	NA	NA	BLTR	1
29	2018-06-23	1	2	N	Ontario	WSCT	1
30	2018-06-23	1	1	N	Calgary, AB	NA	NA
31	2018-06-23	1	0	N	Calgary, AB	NA	NA
32	2018-06-23	1	0.25	N	Germany	NA	NA
33	2018-06-23	1	1	N	Lethbridge, AB	NA	NA
34	2018-07-03	1	7	N	Montreal, QC	WSCT	12
35	2018-07-03	SAA	NA	NA	NA	WSCT	3
36	2018-07-03	1	7	N	Montreal, QC	WSCT	9

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
37	2018-07-03	1	2.5	N	Calgary, AB	WSCT	1
38	2018-07-03	SAA	NA	NA	NA	WSCT	4
39	2018-07-03	1	2.5	N	Calgary, AB	WSCT	4
40	2018-07-03	1	2.5	N	Calgary, AB	WSCT	12
41	2018-07-03	1	0.5	N	Calgary, AB	NA	NA
42	2018-07-03	1	0.5	N	Calgary, AB	NA	NA
43	2018-07-03	1	0.5	N	Calgary, AB	NA	NA
44	2018-07-05	1	1	N	Calgary, AB	NA	NA
45	2018-07-05	1	1	N	Blairmore, AB	NA	NA
46	2018-07-05	1	2	N	Calgary, AB	NA	NA
47	2018-07-05	1	2	N	Calgary, AB	NA	NA
48	2018-07-07	1	0.25	N	Calgary, AB	NA	NA
49	2018-07-07	1	0.25	N	Calgary, AB	NA	NA
50	2018-07-07	1	5	N	Calgary, AB	WSCT	1
51	2018-07-07	1	0	N	Crowsnest Pass, AB	NA	NA
52	2018-07-07	1	4	N	Calgary, AB	WSCT	1
53	2018-07-07	1	6	N	Calgary, AB	WSCT	10
54	2018-07-07	SAA	NA	NA	NA	WSCT	2
55	2018-07-07	1	6	N	Airdrie, AB	WSCT	1
56	2018-07-07	SAA	NA	NA	NA	WSCT	9
57	2018-07-07	1	0.25	N	Calgary, AB	NA	NA
58	2018-07-07	1	2	N	Calgary, AB	WSCT	1
59	2018-07-07	SAA	NA	NA	NA	WSCT	1
60	2018-07-07	1	7	N	Calgary, AB	WSCT	6
61	2018-07-07	SAA	NA	NA	NA	WSCT	2
62	2018-07-07	1	5	N	Calgary, AB	WSCT	1
63	2018-07-07	1	0.5	N	Mountainview, AB	WSCT	1
64	2018-07-07	1	0.5	N	Mountainview, AB	NA	NA
65	2018-07-07	1	0.5	N	Mountainview, AB	NA	NA
66	2018-07-07	1	8	N	Calgary, AB	WSCT	5
67	2018-07-07	1	3	N	Calgary, AB	WSCT	20
68	2018-07-07	1	12	N	Camrose, AB	WSCT	3
69	2018-07-07	SAA	NA	NA	NA	RNTR	4
70	2018-07-07	1	0.25	Y	Calgary, AB	WSCT	3
71	2018-07-19	1	5	N	Pincher Creek, AB	WSCT	8
72	2018-07-19	SAA	NA	NA	NA	WSCT	42
73	2018-07-19	1	4.5	N	Medicine Hat, AB	WSCT	6
74	2018-07-19	SAA	NA	NA	NA	WSCT	1
75	2018-07-19	1	1.5	N	Calgary, AB	NA	NA

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
76	2018-07-19	1	1.5	N	Calgary, AB	NA	NA
77	2018-07-19	1	7	Y	Arkansas	WSCT	4
78	2018-07-19	SAA	NA	NA	NA	BLTR	1
79	2018-07-19	1	7	Y	New York	WSCT	4
80	2018-07-19	SAA	NA	NA	NA	BLTR	3
81	2018-07-19	1	7	Y	New York	WSCT	3
82	2018-07-19	1	0.5	Y	Medicine Hat, AB	WSCT	2
83	2018-07-19	1	0.5	Y	Medicine Hat, AB	WSCT	2
84	2018-07-19	1	0.5	Y	Medicine Hat, AB	NA	NA
85	2018-07-19	1	4	Y	Saskatchewan	WSCT	8
86	2018-07-19	SAA	NA	NA	NA	BLTR	1
87	2018-07-28	1	0	N	Lethbridge, AB	NA	NA
88	2018-07-28	1	0	N	Lethbridge, AB	NA	NA
89	2018-07-28	1	0	N	Calgary, AB	NA	NA
90	2018-07-28	1	0	N	Calgary, AB	NA	NA
91	2018-07-28	1	0	N	High River, AB	WSCT	6
92	2018-07-28	SAA	NA	NA	NA	WSCT	6
93	2018-07-28	1	0.5	N	Calgary, AB	NA	NA
94	2018-07-28	1	1.5	N	Lundbreck, AB	NA	NA
95	2018-07-28	1	1.5	N	Lundbreck, AB	NA	NA
96	2018-07-28	1	1.5	N	Lundbreck, AB	NA	NA
97	2018-07-28	1	0	N	Okotoks, AB	NA	NA
98	2018-07-28	1	3	N	High River, AB	WSCT	1
99	2018-07-28	1	3	N	High River, AB	WSCT	1
100	2018-07-28	1	3	N	High River, AB	WSCT	2
101	2018-07-28	1	3	N	High River, AB	WSCT	1
102	2018-07-28	1	3	N	High River, AB	NA	NA
103	2018-07-28	1	2	N	Medicine Hat, AB	WSCT	4
104	2018-07-28	1	2	N	Medicine Hat, AB	WSCT	10
105	2018-07-28	1	2	N	Medicine Hat, AB	WSCT	10
106	2018-07-28	1	1	N	Calgary, AB	WSCT	9
107	2018-07-28	1	1	N	Calgary, AB	WSCT	1
108	2018-07-28	SAA	NA	NA	NA	WSCT	19
109	2018-07-29	1	0	N	Turner Valley, AB	NA	NA
110	2018-07-29	1	2.5	N	Calgary, AB	WSCT	1
111	2018-07-29	1	2.5	N	Airdrie, AB	WSCT	7
112	2018-07-29	1	2	Y	Calgary, AB	NA	NA
113	2018-07-29	1	2	Y	Calgary, AB	NA	NA

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
114	2018-07-29	1	2	Y	Calgary, AB	NA	NA
115	2018-07-29	1	3	N	Okotoks, AB	NA	NA
116	2018-07-29	1	3	N	Calgary, AB	WSCT	1
117	2018-07-29	1	3	N	Saskatchewan	NA	NA
118	2018-07-29	1	0	N	Calgary, AB	NA	NA
119	2018-07-29	1	0	N	Calgary, AB	NA	NA
120	2018-07-29	1	1	N	Calgary, AB	WSCT	3
121	2018-07-29	1	1	N	Calgary, AB	WSCT	2
122	2018-07-29	1	0.25	N	Nobleford, AB	NA	NA
123	2018-07-29	1	0.25	N	Nobleford, AB	NA	NA
124	2018-07-29	1	0.25	N	Nobleford, AB	NA	NA
125	2018-07-29	1	3	N	Strathmore, AB	WSCT	4
126	2018-07-29	1	3.5	N	Airdrie, AB	WSCT	5
127	2018-07-29	SAA	NA	NA	NA	WSCT	3
128	2018-07-29	1	3.5	N	Airdrie, AB	NA	NA
129	2018-07-30	1	4	N	Edmonton, AB	WSCT	8
130	2018-07-30	SAA	NA	NA	NA	WSCT	7
131	2018-07-30	1	4	N	Edmonton, AB	WSCT	14
132	2018-07-30	1	5	N	Edmonton, AB	WSCT	10
133	2018-07-30	SAA	NA	NA	NA	WSCT	10
134	2018-07-30	1	2	N	Taber, AB	NA	NA
135	2018-07-30	1	2	N	Taber, AB	NA	NA
136	2018-07-30	1	2	N	Taber, AB	NA	NA
137	2018-07-30	1	2	N	Taber, AB	NA	NA
138	2018-07-30	1	2	N	Calgary, AB	WSCT	8
139	2018-07-31	1	0.25	N	Red Deer, AB	WSCT	1
140	2018-07-31	1	0.25	N	Red Deer, AB	NA	NA
141	2018-07-31	1	3.5	N	Calgary, AB	WSCT	3
142	2018-07-31	1	3.5	N	Calgary, AB	WSCT	3
143	2018-07-31	1	5	Y	Calgary, AB	WSCT	5
144	2018-07-31	SAA	NA	NA	NA	WSCT	2
145	2018-07-31	1	5	Y	Calgary, AB	WSCT	4
146	2018-07-31	SAA	NA	NA	NA	WSCT	3
147	2018-07-31	1	1	Y	Medicine Hat, AB	RNTR	1
148	2018-07-31	1	9	Y	Lethbridge, AB	WSCT	60
149	2018-08-02	1	0	N	Saskatchewan	NA	NA
150	2018-08-02	1	0.25	N	Didsbury, AB	NA	NA
151	2018-08-02	1	1	N	Calgary, AB	WSCT	3
152	2018-08-02	1	0.25	N	British Columbia	WSCT	1

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
153	2018-08-02	1	0	N	Hannah, AB	NA	NA
154	2018-08-02	1	0.25	N	Calgary, AB	WSCT	3
155	2018-08-02	1	0.25	N	Calgary, AB	WSCT	4
156	2018-08-02	1	0.25	N	Calgary, AB	WSCT	10
157	2018-08-02	1	0	N	Olds, AB	NA	NA
158	2018-08-02	1	0	N	Olds, AB	NA	NA
159	2018-08-02	1	2	N	Calgary, AB	WSCT	6
160	2018-08-02	1	2	N	Calgary, AB	WSCT	1
161	2018-08-02	SAA	NA	NA	NA	WSCT	6
162	2018-08-02	1	2	N	Calgary, AB	NA	NA
163	2018-08-02	1	3	Y	Drumheller, AB	WSCT	2
164	2018-08-02	1	3	Y	Drumheller, AB	WSCT	5
165	2018-08-02	1	3	Y	Drumheller, AB	NA	NA
166	2018-08-02	1	3	Y	Drumheller, AB	MNWH	1
167	2018-08-02	1	1	N	Longview, AB	WSCT	2
168	2018-08-02	SAA	NA	NA	NA	BLTR	1
169	2018-08-13	1	0	N	Ontario	NA	NA
170	2018-08-13	1	0.25	N	Lethbridge, AB	WSCT	1
171	2018-08-13	1	0.25	N	Lethbridge, AB	NA	NA
172	2018-08-13	1	6	N	Pennsylvania	WSCT	12
173	2018-08-13	1	6	N	Pennsylvania	WSCT	14
174	2018-08-14	1	0.25	N	Rural Alberta	NA	NA
175	2018-08-14	1	0.25	N	Rural Alberta	NA	NA
176	2018-08-14	1	6.5	N	Edmonton, AB	WSCT	12
177	2018-08-14	1	6.5	N	Edmonton, AB	WSCT	12
178	2018-08-14	1	0	N	Alberta	NA	NA
179	2018-08-14	1	0	N	Alberta	NA	NA
180	2018-08-14	1	4	Y	Calgary, AB	WSCT	8
181	2018-08-15	1	3	N	Calgary, AB	WSCT	1
182	2018-08-15	SAA	NA	NA	NA	WSCT	4
183	2018-08-15	1	0	N	Calgary, AB	NA	NA
184	2018-08-15	1	0	N	Calgary, AB	NA	NA
185	2018-08-15	1	0.25	N	Crowsnest Pass, AB	NA	NA
186	2018-08-15	1	0.25	N	Okotoks, AB	NA	NA
187	2018-08-15	1	0	N	Calgary, AB	NA	NA
188	2018-08-15	1	0	N	Calgary, AB	NA	NA
189	2018-08-15	1	2	N	Okotoks, AB	WSCT	10
190	2018-08-15	SAA	NA	NA	NA	WSCT	10
191	2018-08-15	1	0.25	N	Calgary, AB	NA	NA

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
192	2018-08-15	1	0.25	N	Claresholm, AB	NA	NA
193	2018-08-17	1	0	N	Calgary, AB	NA	NA
194	2018-08-17	1	3	N	Calgary, AB	WSCT	7
195	2018-08-17	1	3	N	Calgary, AB	WSCT	3
196	2018-08-17	1	0	N	Edmonton, AB	NA	NA
197	2018-08-17	1	0	N	Millarville, AB	NA	NA
198	2018-08-17	1	2	N	Longview, AB	WSCT	3
199	2018-08-17	1	2	N	Longview, AB	WSCT	2
200	2018-08-17	1	0	N	Edmonton, AB	NA	NA
201	2018-08-17	1	0	N	Medicine Hat, AB	NA	NA
202	2018-08-17	1	2	N	Calgary, AB	WSCT	3
203	2018-08-17	1	2	N	Calgary, AB	WSCT	6
204	2018-08-17	1	1	N	Edmonton, AB	NA	NA
205	2018-08-17	1	1	N	Edmonton, AB	WSCT	1
206	2018-08-17	1	0.5	N	Calgary, AB	WSCT	1
207	2018-08-17	1	0.5	N	British Columbia	NA	NA
208	2018-08-17	1	1	N	Rosemary, AB	NA	NA
209	2018-08-17	1	0.25	N	Rosemary, AB	WSCT	1
210	2018-08-17	SAA	NA	NA	NA	WSCT	1
211	2018-08-17	1	1	N	Rosemary, AB	WSCT	4
212	2018-08-17	1	1	N	Rosemary, AB	WSCT	7
213	2018-08-17	SAA	NA	NA	NA	WSCT	7
214	2018-08-17	1	1	N	Rosemary, AB	WSCT	2
215	2018-08-17	SAA	NA	NA	NA	WSCT	5
216	2018-08-17	1	5	N	Washington	WSCT	4
217	2018-08-17	1	5	N	Washington	WSCT	4
218	2018-08-17	1	5	N	Washington	WSCT	8
219	2018-08-18	1	0.25	N	Calgary, AB	NA	NA
220	2018-08-18	1	0.25	N	Calgary, AB	NA	NA
221	2018-08-18	1	0	N	Calgary, AB	NA	NA
222	2018-08-18	1	0	N	Calgary, AB	NA	NA
223	2018-08-18	1	0.5	N	Didsbury, AB	WSCT	2
224	2018-08-18	1	0.5	N	Didsbury, AB	NA	NA
225	2018-08-18	1	0.5	N	Calgary, AB	WSCT	1
226	2018-08-18	1	0.5	N	Lethbridge, AB	RNTR	2
227	2018-08-18	1	0.5	N	Lethbridge, AB	RNTR	1
228	2018-08-18	1	0.5	N	Lethbridge, AB	NA	NA
229	2018-08-18	1	0.25	N	Lethbridge, AB	NA	NA
230	2018-08-18	1	3	N	Calgary, AB	WSCT	5

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
231	2018-08-18	SAA	NA	NA	NA	WSCT	20
232	2018-08-18	1	3	N	Calgary, AB	WSCT	1
233	2018-08-18	SAA	NA	NA	NA	WSCT	9
234	2018-08-18	1	0.5	N	Taber, AB	NA	NA
235	2018-08-18	1	3	N	Calgary, AB	WSCT	4
236	2018-08-18	SAA	NA	NA	NA	WSCT	1
237	2018-08-18	1	3	N	Fort MacLeod, AB	WSCT	1
238	2018-08-18	1	3	N	Calgary, AB	WSCT	1
239	2018-08-18	1	3	N	Calgary, AB	WSCT	1
240	2018-08-18	1	3	N	Calgary, AB	NA	NA
241	2018-08-18	1	3	N	Calgary, AB	NA	NA
242	2018-08-18	1	3	N	Montana	WSCT	1
243	2018-08-18	1	4	N	Okotoks, AB	WSCT	1
244	2018-08-18	1	4	N	Okotoks, AB	WSCT	1
245	2018-08-18	1	0.25	N	Calgary, AB	WSCT	1
246	2018-08-18	1	0.25	N	Calgary, AB	NA	NA
247	2018-08-18	1	3.5	N	Calgary, AB	WSCT	1
248	2018-08-18	1	3.5	N	Calgary, AB	WSCT	1
249	2018-08-19	1	2	N	Calgary, AB	WSCT	1
250	2018-08-19	1	2	N	Calgary, AB	WSCT	1
251	2018-08-19	1	0	N	California	NA	NA
252	2018-08-19	1	0	N	Hong Kong	NA	NA
253	2018-08-26	1	6	Y	Crowsnest Pass, AB	WSCT	4
254	2018-08-26	SAA	NA	NA	NA	WSCT	2
255	2018-08-26	1	6	Y	Crowsnest Pass, AB	WSCT	1
256	2018-08-26	1	5	N	Ottawa	WSCT	3
257	2018-08-26	1	1	N	Crowsnest Pass, AB	NA	NA
258	2018-08-26	1	1	N	Crowsnest Pass, AB	WSCT	4
259	2018-08-26	1	0.75	N	Crowsnest Pass, AB	WSCT	3
260	2018-08-26	1	7	Y	Edmonton, AB	WSCT	6
261	2018-08-26	SAA	NA	NA	NA	WSCT	1
262	2018-08-26	1	7	Y	Edmonton, AB	WSCT	1
263	2018-08-26	1	7	Y	Edmonton, AB	WSCT	2
264	2018-08-26	1	8	N	Calgary, AB	WSCT	3
265	2018-08-26	1	8	N	Calgary, AB	WSCT	3
266	2018-08-26	1	6	N	Colorado	CRTR	5
267	2018-08-26	1	6	N	Colorado	WSCT	6
268	2018-08-26	1	6	N	Colorado	WSCT	4

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
262	2018-08-26	1	7	Y	Edmonton, AB	WSCT	1
263	2018-08-26	1	7	Y	Edmonton, AB	WSCT	2
264	2018-08-26	1	8	N	Calgary, AB	WSCT	3
265	2018-08-26	1	8	N	Calgary, AB	WSCT	3
266	2018-08-26	1	6	N	Colorado	CRTR	5
267	2018-08-26	1	6	N	Colorado	WSCT	6
268	2018-08-26	1	6	N	Colorado	WSCT	4
269	2018-08-27	1	2.5	N	Ottawa, ON	NA	NA
270	2018-08-27	1	2.5	N	Ottawa, ON	NA	NA
271	2018-08-27	1	2.5	N	Ottawa, ON	NA	NA
272	2018-08-27	1	1.25	N	Colorado	WSCT	1
273	2018-08-27	1	1.5	N	Colorado	WSCT	2
274	2018-08-27	1	1.5	N	Massachusetts	WSCT	2
275	2018-08-27	1	0	N	Ontario	NA	NA
276	2018-08-27	1	1.5	N	Crowsnest Pass, AB	NA	NA
277	2018-08-27	1	1.5	N	Crowsnest Pass, AB	NA	NA
278	2018-08-27	1	1.5	N	Crowsnest Pass, AB	NA	NA
279	2018-08-27	1	1.5	N	Crowsnest Pass, AB	NA	NA
280	2018-08-31	1	0	N	Rural Alberta	NA	NA
281	2018-08-31	1	0	N	Rural Alberta	NA	NA
282	2018-08-31	1	0	N	Calgary, AB	NA	NA
283	2018-08-31	1	0.25	N	Calgary, AB	NA	NA
284	2018-08-31	1	0.25	N	Calgary, AB	NA	NA
285	2018-08-31	1	4	N	Calgary, AB	WSCT	1
286	2018-08-31	1	4	N	Calgary, AB	WSCT	3
287	2018-08-31	SAA	NA	NA	NA	BLTR	1
288	2018-08-31	1	3	N	Colorado	WSCT	8
289	2018-08-31	1	3	N	Colorado	WSCT	5
290	2018-08-31	1	0	N	Calgary, AB	NA	NA
291	2018-09-02	1	0	N	Calgary, AB	NA	NA
292	2018-09-02	1	0	N	Calgary, AB	NA	NA
293	2018-09-02	1	0	N	Calgary, AB	NA	NA
294	2018-09-02	1	1	N	Calgary, AB	WSCT	1
295	2018-09-02	1	1	N	Red Deer, AB	NA	NA
296	2018-09-02	1	1	N	Calgary, AB	NA	NA
297	2018-09-02	1	0.5	N	Sundre, AB	NA	NA
298	2018-09-02	1	0.5	N	Sundre, AB	NA	NA
299	2018-09-02	1	0.5	N	Sundre, AB	NA	NA
300	2018-09-02	1	0.5	N	Sundre, AB	NA	NA

Appendix 2. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
301	2018-09-02	1	1.5	N	Calgary, AB	NA	NA
302	2018-09-02	1	1.5	N	Calgary, AB	NA	NA
303	2018-09-02	1	1.5	N	Calgary, AB	WSCT	1
304	2018-09-02	1	1.5	N	Calgary, AB	NA	NA
305	2018-09-02	1	1.5	N	Calgary, AB	WSCT	2
306	2018-09-02	1	1.5	N	Calgary, AB	NA	NA
307	2018-09-02	1	0.25	N	Calgary, AB	NA	NA
308	2018-09-02	1	1	N	Calgary, AB	NA	NA
309	2018-09-02	1	2.5	N	Calgary, AB	WSCT	1
310	2018-09-02	1	0	N	Calgary, AB	NA	NA
311	2018-09-02	1	2	N	Calgary, AB	WSCT	2
312	2018-09-02	1	2	N	Calgary, AB	WSCT	1
313	2018-09-02	1	0.5	N	Calgary, AB	NA	NA
314	2018-09-11	1	0	N	Calgary, AB	NA	NA
315	2018-09-11	1	0	N	Calgary, AB	NA	NA
316	2018-09-11	1	1	N	Calgary, AB	NA	NA
317	2018-09-11	1	3	N	Lethbridge, AB	NA	NA
318	2018-09-11	1	3	N	Lethbridge, AB	WSCT	3
319	2018-09-11	1	2	N	Edmonton, AB	NA	NA
320	2018-09-11	1	2	N	Edmonton, AB	BLTR	1
321	2018-09-11	1	2	N	Edmonton, AB	WSCT	1
322	2018-09-11	1	0	N	Calgary, AB	NA	NA
323	2018-09-11	1	0	N	Ontario	NA	NA
324	2018-09-16	1	0	N	Calgary, AB	NA	NA
325	2018-09-16	1	0	N	Calgary, AB	NA	NA
326	2018-09-27	1	3.5	N	Calgary, AB	WSCT	2
327	2018-09-27	SAA	NA	NA	NA	MNWH	1
328	2018-09-27	1	3.5	N	Ontario	WSCT	1
329	2018-09-27	1	3	N	Calgary, AB	WSCT	7
330	2018-09-27	1	3	N	Calgary, AB	WSCT	5
331	2018-09-27	SAA	NA	NA	NA	WSCT	1
332	2018-10-06	1	1	N	Calgary, AB	WSCT	2
333	2018-10-06	SAA	NA	NA	NA	BLTR	2
334	2018-10-06	1	1	N	Calgary, AB	WSCT	2
335	2018-10-07	SAA	NA	NA	NA	NA	NA
336	2018-10-09	SAA	NA	NA	NA	NA	NA
337	2018-10-11	SAA	NA	NA	NA	NA	NA
338	2018-10-12	1	3	N	Calgary, AB	WSCT	3
339	2018-10-12	1	4	N	Millarville, AB	WSCT	3

Appendix 3. Data from the Middle Oldman River collected during the June 16 to October 31, 2018 angler survey.

Species codes: WSCT = westslope cutthroat trout, CRTR = westslope cutthroat x rainbow trout hybrid, RNTR = rainbow trout, BLTR = bull trout, MNWH = mountain whitefish.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
1	2018-06-16	1	0.25	N	Lethbridge, AB	NA	NA
2	2018-06-16	1	0.25	N	Lethbridge, AB	NA	NA
3	2018-06-16	1	0.25	N	Claresholm, AB	NA	NA
4	2018-06-16	1	1	N	Calgary, AB	WSCT	1
5	2018-06-16	1	4	Y	Lethbridge, AB	WSCT	1
6	2018-06-16	1	4	Y	Lethbridge, AB	WSCT	2
7	2018-06-16	1	0.75	Y	Calgary, AB	RNTR	1
8	2018-06-16	1	0.75	Y	Saskatchewan	NA	NA
9	2018-06-16	1	2	N	Calgary, AB	NA	NA
10	2018-06-16	1	1	N	Calgary, AB	NA	NA
11	2018-06-16	1	3	N	Calgary, AB	WSCT	15
12	2018-06-16	SAA	NA	NA	NA	CRTR	2
13	2018-06-16	SAA	NA	NA	NA	BLTR	1
14	2018-06-16	1	3	N	Calgary, AB	NA	NA
15	2018-06-16	1	3	N	Calgary, AB	NA	NA
16	2018-06-16	1	0	N	Calgary, AB	NA	NA
17	2018-06-16	1	0	N	Strathmore	NA	NA
18	2018-06-16	1	2	Y	Medicine Hat, AB	WSCT	3
19	2018-06-16	1	2	Y	Medicine Hat, AB	WSCT	1
20	2018-06-16	SAA	NA	NA	NA	CRTR	2
21	2018-06-16	1	3	Y	Medicine Hat, AB	NA	NA
22	2018-06-16	1	3	Y	Medicine Hat, AB	NA	NA
23	2018-06-19	1	0.25	Y	Millet, AB	NA	NA
24	2018-06-19	1	4.5	N	Calgary, AB	WSCT	10
25	2018-06-19	1	4.5	N	Calgary, AB	WSCT	2
26	2018-07-01	1	4	N	Calgary, AB	NA	NA
27	2018-07-01	1	4	N	Calgary, AB	NA	NA
28	2018-07-01	1	1	N	High River, AB	NA	NA
29	2018-07-01	1	4	N	Calgary, AB	WSCT	1
30	2018-07-01	1	4	N	Calgary, AB	RNTR	1
31	2018-07-06	1	2	N	Calgary, AB	CRTR	1

Appendix 3. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
32	2018-07-06	1	2	N	Calgary, AB	CRTR	1
33	2018-07-06	1	5	N	Manitoba	NA	NA
34	2018-07-06	1	5	N	Manitoba	NA	NA
35	2018-07-06	1	5	N	Manitoba	NA	NA
36	2018-07-06	1	4.5	N	Calgary, AB	WSCT	2
37	2018-07-06	1	7	N	Calgary, AB	WSCT	2
38	2018-07-06	SAA	NA	NA	NA	BLTR	1
39	2018-07-06	1	7	N	Chilliwack, BC	NA	NA
40	2018-07-06	1	7	N	Calgary, AB	WSCT	3
41	2018-07-06	1	8	N	Edmonton, AB	WSCT	15
42	2018-07-06	1	8	N	Edmonton, AB	WSCT	15
43	2018-07-06	1	4.5	N	Calgary, AB	WSCT	3
44	2018-07-06	1	4.5	N	Calgary, AB	WSCT	9
45	2018-07-06	SAA	NA	NA	NA	MNWH	1
46	2018-07-08	1	0	N	Calgary, AB	NA	NA
47	2018-07-08	1	0	N	Kelowna, BC	NA	NA
48	2018-07-08	1	0	N	Calgary, AB	NA	NA
49	2018-07-08	1	0	N	Calgary, AB	NA	NA
50	2018-07-08	1	1.5	N	Calgary, AB	WSCT	3
51	2018-07-08	SAA	NA	NA	NA	CRTR	1
52	2018-07-15	1	1.5	N	Golden, BC	WSCT	1
53	2018-07-15	1	0	N	Manitoba	NA	NA
54	2018-07-15	1	0	N	Manitoba	NA	NA
55	2018-07-15	1	0	N	Lethbridge, AB	NA	NA
56	2018-07-15	1	0	N	Lethbridge, AB	NA	NA
57	2018-07-15	1	0	N	Saskatchewan	NA	NA
58	2018-07-15	1	0	N	Coleman, AB	NA	NA
59	2018-07-15	1	0	N	Calgary, AB	NA	NA
60	2018-07-15	1	0	N	Calgary, AB	NA	NA
61	2018-07-15	1	0	N	Calgary, AB	NA	NA
62	2018-07-15	1	0	N	Leduc, AB	NA	NA
63	2018-07-15	1	0	N	Leduc, AB	NA	NA
64	2018-07-15	1	4	N	Calgary, AB	WSCT	1

Appendix 3. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
66	2018-07-15	1	4	N	Calgary, AB	NA	NA
65	2018-07-15	1	4	N	Calgary, AB	NA	NA
67	2018-07-15	1	0	N	Fort MacLeod, AB	NA	NA
68	2018-07-15	1	0	N	Fort MacLeod, AB	NA	NA
69	2018-07-16	1	1.5	N	Massachusetts	WSCT	3
70	2018-07-16	1	1.5	N	Foremost, AB	WSCT	2
71	2018-07-16	1	0	N	Florida	NA	NA
72	2018-07-16	1	5	N	Calgary, AB	WSCT	15
73	2018-07-16	1	5	N	Cardston, AB	WSCT	11
74	2018-07-16	SAA	NA	NA	NA	WSCT	7
75	2018-07-16	SAA	NA	NA	NA	RNTR	4
76	2018-07-16	1	2.5	N	Calgary, AB	WSCT	2
77	2018-07-16	SAA	NA	NA	NA	WSCT	1
78	2018-07-16	1	2.5	N	Calgary, AB	WSCT	5
79	2018-07-16	SAA	NA	NA	NA	RNTR	2
80	2018-07-16	1	3.5	N	Calgary, AB	WSCT	5
81	2018-07-16	1	3.5	N	Calgary, AB	NA	NA
82	2018-07-17	1	0.75	N	California	WSCT	2
83	2018-07-17	SAA	NA	NA	NA	CRTR	1
84	2018-07-17	1	0	N	Calgary, AB	NA	NA
85	2018-07-17	1	0.25	N	Edmonton, AB	NA	NA
86	2018-07-17	1	0.25	N	Edmonton, AB	NA	NA
87	2018-07-17	1	3	N	Calgary, AB	WSCT	4
88	2018-07-17	SAA	NA	NA	NA	RNTR	1
89	2018-07-17	1	0	N	Edmonton, AB	NA	NA
90	2018-07-17	1	3	N	Foremost, AB	WSCT	6
91	2018-07-17	1	4	N	Calgary, AB	WSCT	3
92	2018-07-17	1	4	N	Calgary, AB	WSCT	3
93	2018-07-17	1	4	N	Ontario	WSCT	6
94	2018-07-18	1	4	N	Seattle, WA	WSCT	2
95	2018-07-18	1	4	N	Seattle, WA	WSCT	4
96	2018-07-18	1	4	N	Medicine Hat, AB	WSCT	4
97	2018-07-18	SAA	NA	NA	NA	WSCT	1

Appendix 3. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
98	2018-07-18	1	5	N	Foremost, AB	WSCT	5
99	2018-07-18	SAA	NA	NA	NA	MNWH	1
100	2018-07-18	1	5	N	Foremost, AB	WSCT	8
101	2018-07-18	1	4	Y	Lethbridge, AB	WSCT	1
102	2018-07-18	SAA	NA	NA	NA	WSCT	1
103	2018-08-03	1	1.5	N	Calgary, AB	NA	NA
104	2018-08-03	1	1.5	N	Calgary, AB	WSCT	1
105	2018-08-03	1	0	N	Calgary, AB	NA	NA
106	2018-08-03	1	0	N	Virginia	NA	NA
107	2018-08-03	1	3	N	Japan	NA	NA
108	2018-08-04	1	8	Y	Okotoks, AB	WSCT	1
109	2018-08-04	SAA	NA	NA	NA	CRTR	1
110	2018-08-04	1	8	Y	Edmonton, AB	WSCT	3
111	2018-08-04	SAA	NA	NA	NA	RNTR	1
112	2018-08-04	1	1	N	Crowsnest Pass, AB	NA	NA
113	2018-08-04	1	1	N	Crowsnest Pass, AB	NA	NA
114	2018-08-04	1	1	N	Red Deer, AB	WSCT	2
115	2018-08-04	1	8	N	Edmonton, AB	WSCT	6
116	2018-08-04	SAA	NA	NA	NA	CRTR	3
117	2018-08-16	1	4	Y	Oregon	WSCT	8
118	2018-08-16	SAA	NA	NA	NA	WSCT	3
119	2018-08-16	SAA	NA	NA	NA	RNTR	1
120	2018-08-16	1	0.25	N	Tsuu T'ina, AB	WSCT	1
121	2018-08-16	1	0.25	N	Tsuu T'ina, AB	NA	NA
122	2018-08-16	1	3.5	N	British Columbia	WSCT	1
123	2018-08-16	1	3.5	N	Lethbridge, AB	WSCT	3
124	2018-08-16	1	0.5	N	Okotoks, AB	WSCT	1
125	2018-08-16	1	0.5	N	Okotoks, AB	NA	NA
126	2018-08-16	1	3	N	Calgary, AB	WSCT	2
127	2018-08-16	1	1	N	Sherwood Park, AB	NA	NA
128	2018-08-16	1	1	N	Sherwood Park, AB	RNTR	2
129	2018-08-16	1	3	N	British Columbia	WSCT	5
130	2018-08-16	1	1	N	Calgary, AB	NA	NA

Appendix 3. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
131	2018-08-16	1	4	N	Edmonton, AB	WSCT	6
132	2018-08-16	1	4	N	Edmonton, AB	WSCT	11
133	2018-08-16	SAA	NA	NA	NA	WSCT	1
134	2018-08-16	1	3	N	Okotoks, AB	WSCT	3
135	2018-08-16	1	3	N	Okotoks, AB	NA	NA
136	2018-08-28	1	7	N	Boston, MA	WSCT	6
137	2018-08-28	SAA	NA	NA	NA	WSCT	1
138	2018-08-28	1	7	N	New Jersey	WSCT	10
139	2018-08-28	SAA	NA	NA	NA	CRTR	1
140	2018-08-28	SAA	NA	NA	NA	RNTR	3
141	2018-08-28	1	8	N	Cochrane, AB	WSCT	10
142	2018-08-28	1	7	N	Calgary, AB	WSCT	2
143	2018-08-28	SAA	NA	NA	NA	WSCT	3
144	2018-08-28	SAA	NA	NA	NA	RNTR	1
145	2018-08-28	1	7	N	Calgary, AB	WSCT	8
146	2018-08-28	1	5	N	Crowsnest Pass, AB	WSCT	6
147	2018-08-28	SAA	NA	NA	NA	CRTR	2
148	2018-08-28	1	5	N	San Francisco, CA	WSCT	1
149	2018-08-28	1	4	N	Calgary, AB	WSCT	4
150	2018-08-28	1	4	N	Calgary, AB	WSCT	1
151	2018-08-30	1	5	N	Edmonton, AB	WSCT	18
152	2018-08-30	1	7	N	New Jersey	WSCT	20
153	2018-08-30	SAA	NA	NA	NA	CRTR	10
154	2018-08-30	SAA	NA	NA	NA	MNWH	3
155	2018-08-30	1	7	N	Boston, MA	WSCT	12
156	2018-08-30	SAA	NA	NA	NA	CRTR	6
157	2018-08-30	SAA	NA	NA	NA	BLTR	1
158	2018-08-30	SAA	NA	NA	NA	RNTR	6
159	2018-08-30	SAA	NA	NA	NA	MNWH	6
160	2018-08-30	1	4.5	N	Calgary, AB	WSCT	10
161	2018-08-30	1	1	N	Calgary, AB	WSCT	1
162	2018-08-30	1	2	N	Calgary, AB	NA	NA

Appendix 3. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
163	2018-08-30	1	1	N	Calgary, AB	RNTR	2
164	2018-08-30	SAA	NA	NA	NA	MNWH	1
165	2018-08-30	1	2.5	N	Morinville, AB	WSCT	1
166	2018-08-30	1	2.5	N	Morinville, AB	WSCT	1
167	2018-09-01	1	6	N	Saskatoon, SK	NA	NA
168	2018-09-01	1	6	N	Saskatoon, SK	WSCT	3
169	2018-09-01	1	6	N	Saskatoon, SK	WSCT	5
170	2018-09-01	1	2	N	Calgary, AB	WSCT	5
171	2018-09-01	1	2	N	Calgary, AB	WSCT	1
172	2018-09-01	SAA	NA	NA	NA	CRTR	1
173	2018-09-01	1	2	N	Calgary, AB	NA	NA
174	2018-09-01	1	0.25	N	Nanton, AB	NA	NA
175	2018-09-01	1	5	N	Calgary, AB	WSCT	5
176	2018-09-01	SAA	NA	NA	NA	WSCT	2
177	2018-09-01	1	6	N	Okotoks, AB	RNTR	1
178	2018-09-01	1	6	N	Calgary, AB	WSCT	1
179	2018-09-01	1	1	Y	Calgary, AB	NA	NA
180	2018-09-01	1	1	Y	Calgary, AB	NA	NA
181	2018-09-01	1	5	N	Lethbridge, AB	WSCT	1
182	2018-09-01	1	8	N	Lethbridge, AB	WSCT	9
183	2018-09-01	SAA	NA	NA	NA	WSCT	3
184	2018-09-01	SAA	NA	NA	NA	BLTR	1
185	2018-09-01	1	5	N	Lethbridge, AB	NA	NA
186	2018-09-01	1	5	N	Lethbridge, AB	NA	NA
187	2018-09-01	1	5	N	Calgary, AB	WSCT	1
188	2018-09-01	1	5	N	Calgary, AB	WSCT	2
189	2018-09-01	1	6	N	Stettler, AB	NA	NA
190	2018-09-01	1	6	N	Stettler, AB	WSCT	1
191	2018-09-01	1	6	N	Stettler, AB	NA	NA
192	2018-09-01	1	6	N	Stettler, AB	NA	NA
193	2018-09-01	1	6	N	Stettler, AB	NA	NA
194	2018-09-01	1	10	Y	Calgary, AB	WSCT	2
195	2018-09-01	1	5	Y	Calgary, AB	WSCT	7

Appendix 3. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
196	2018-09-01	1	5	Y	Calgary, AB	WSCT	6
197	2018-09-01	1	5	Y	Calgary, AB	WSCT	1
198	2018-09-03	1	0.5	N	Calgary, AB	WSCT	1
199	2018-09-03	1	1	N	Calgary, AB	WSCT	1
200	2018-09-03	1	1	N	Calgary, AB	NA	NA
201	2018-09-03	1	0.5	N	Calgary, AB	CRTR	1
202	2018-09-03	1	0.5	N	British Columbia	WSCT	1
203	2018-09-03	1	0	N	California	NA	NA
204	2018-09-03	1	0	N	New York	NA	NA
205	2018-09-08	1	0.25	N	Medicine Hat, AB	NA	NA
206	2018-09-12	1	7	Y	Georgia	WSCT	20
207	2018-09-12	1	7	Y	Georgia	WSCT	20
208	2018-09-12	1	6	Y	Calgary, AB	WSCT	15
209	2018-09-15	1	1.5	N	Calgary, AB	NA	NA
210	2018-09-15	1	7.5	N	Calgary, AB	WSCT	5
211	2018-09-15	SAA	NA	NA	NA	WSCT	2
212	2018-09-15	1	4	N	Calgary, AB	WSCT	3
213	2018-09-15	1	5	N	Lethbridge, AB	WSCT	1
214	2018-09-15	1	5	N	British Columbia	NA	NA
215	2018-09-15	1	5	N	Lethbridge, AB	NA	NA
216	2018-09-15	1	9	N	Quebec	WSCT	25
217	2018-09-24	1	6.5	Y	San Diego CA	WSCT	12
218	2018-09-24	SAA	NA	NA	NA	MNWH	2
219	2018-09-24	1	0	N	Calgary, AB	NA	NA
220	2018-09-24	1	5	N	Calgary, AB	WSCT	2
221	2018-09-26	1	6	N	Calgary, AB	NA	NA
222	2018-09-26	1	6	N	Calgary, AB	WSCT	5
223	2018-09-26	SAA	NA	NA	NA	WSCT	1
224	2018-09-26	1	0.5	N	Red Deer, AB	NA	NA
225	2018-09-26	1	0	N	Lethbridge, AB	NA	NA
226	2018-09-26	1	0	N	Lethbridge, AB	NA	NA
227	2018-09-28	1	0	N	Calgary, AB	NA	NA
228	2018-09-28	1	0	N	British Columbia	NA	NA

Appendix 3. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
229	2018-09-28	1	0.5	N	Ontario	NA	NA
230	2018-09-28	1	0.5	N	Calgary, AB	NA	NA
231	2018-09-30	1	4	N	Edmonton, AB	NA	NA
232	2018-09-30	1	4	N	Calgary, AB	NA	NA
233	2018-10-21	1	5	Y	Calgary, AB	WSCT	1
234	2018-10-21	1	5	Y	Calgary, AB	WSCT	2
235	2018-10-21	1	5	Y	Calgary, AB	NA	NA
236	2018-10-21	1	5	Y	Calgary, AB	NA	NA
237	2018-10-23	1	4	N	Calgary, AB	WSCT	2
238	2018-10-23	1	4	N	Calgary, AB	WSCT	1
239	2018-10-23	1	6	Y	Claresholm, AB	WSCT	3
240	2018-10-23	SAA	NA	NA	NA	RNTR	1
241	2018-10-23	1	6	Y	Claresholm, AB	NA	NA

Appendix 4. Data from the Lower Oldman River collected during the June 16 to October 31, 2018 angler survey.

Species codes: WSCT = westslope cutthroat trout, CRTR = westslope cutthroat x rainbow trout hybrid, RNTR = rainbow trout, BLTR = bull trout, MNWH = mountain whitefish.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
1	2018-06-16	1	0.5	N	Cowley, AB	NA	NA
2	2018-07-01	1	0.25	N	Calgary, AB	NA	NA
3	2018-07-01	1	0.25	N	Calgary, AB	NA	NA
4	2018-07-01	1	0.25	N	Calgary, AB	NA	NA
5	2018-07-01	1	0.5	N	Calgary, AB	NA	NA
6	2018-07-01	1	0.5	N	St. Albert, AB	NA	NA
7	2018-07-01	1	0	N	St. Albert, AB	NA	NA
8	2018-07-06	1	0	N	Cranbrook, BC	NA	NA
9	2018-07-06	1	10	Y	Canmore, AB	WSCT	3
10	2018-07-08	1	0	N	Cranbrook, BC	NA	NA
11	2018-07-08	1	0	N	Calgary, AB	NA	NA
12	2018-07-08	1	0	N	Calgary, AB	NA	NA
13	2018-07-08	1	0	N	Calgary, AB	NA	NA
14	2018-07-08	1	0	N	Calgary, AB	NA	NA
15	2018-07-08	1	0	N	Calgary, AB	NA	NA
16	2018-07-08	1	0	N	Lethbridge, AB	NA	NA
17	2018-07-08	1	0	N	Calgary, AB	NA	NA
18	2018-07-08	1	0	N	NA	NA	NA
19	2018-07-08	1	0	N	Edmonton, AB	NA	NA
20	2018-07-15	1	1.5	Y	Banff, AB	WSCT	2
21	2018-07-15	1	1.5	Y	Banff, AB	WSCT	2
22	2018-07-17	1	1	N	Texas	NA	NA
23	2018-07-17	1	1	N	Texas	RNTR	2
24	2018-07-17	1	2.5	Y	Lethbridge, AB	WSCT	1
25	2018-07-17	1	0	N	Red Deer, AB	NA	NA
26	2018-07-18	1	5.5	N	Arkansas	WSCT	1
27	2018-07-18	SAA	NA	NA	NA	BLTR	2
28	2018-07-18	1	5.5	N	New York	WSCT	10
29	2018-07-18	SAA	NA	NA	NA	BLTR	1
30	2018-07-18	1	5.5	N	New York	WSCT	1
31	2018-07-18	SAA	NA	NA	NA	BLTR	3
32	2018-07-18	SAA	NA	NA	NA	MNWH	1

Appendix 4. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
33	2018-07-18	1	0	N	Lethbridge, AB	NA	NA
34	2018-07-18	1	4	N	Edmonton, AB	MNWH	2
35	2018-07-18	SAA	NA	NA	NA	NA	NA
36	2018-07-22	1	0.25	N	Calgary, AB	NA	NA
37	2018-07-22	1	0.25	N	Calgary, AB	CRTR	1
38	2018-07-22	SAA	NA	NA	NA	CRTR	1
39	2018-07-22	1	0.25	N	Calgary, AB	NA	NA
40	2018-07-22	1	0	N	Saskatchewan	NA	NA
41	2018-07-22	1	0.25	N	Edmonton, AB	NA	NA
42	2018-07-22	1	0	N	Pincher Creek, AB	NA	NA
43	2018-08-03	1	2.5	N	Calgary, AB	WSCT	1
44	2018-08-03	1	1	N	Calgary, AB	RNTR	3
45	2018-08-03	1	3	N	Calgary, AB	WSCT	2
46	2018-08-03	SAA	NA	NA	NA	RNTR	4
47	2018-08-03	1	0.25	N	Red Deer, AB	NA	NA
48	2018-08-03	1	0.25	N	Red Deer, AB	NA	NA
49	2018-08-03	1	1	N	Blackfalds, AB	NA	NA
50	2018-08-03	1	1	N	Blackfalds, AB	NA	NA
51	2018-08-03	1	1	N	Blackfalds, AB	NA	NA
52	2018-08-03	1	1	N	Rocky Mtn House, AB	NA	NA
53	2018-08-03	1	3	N	Crowsnest Pass, AB	WSCT	1
54	2018-08-03	1	3	N	Crowsnest Pass, AB	WSCT	3
55	2018-08-03	1	5	N	Lethbridge, AB	WSCT	14
56	2018-08-03	SAA	NA	NA	NA	WSCT	6
57	2018-08-04	1	0	N	Calgary, AB	NA	NA
58	2018-08-04	1	3.5	N	Calgary, AB	WSCT	30
59	2018-08-16	1	0	N	Nevada	NA	NA
60	2018-08-16	1	0	N	California	NA	NA
61	2018-08-16	1	1	N	Hong Kong	NA	NA
62	2018-08-16	1	1	N	California	NA	NA
63	2018-08-16	1	0	N	Idaho	NA	NA
64	2018-08-16	1	0	N	California	NA	NA
65	2018-08-16	1	0	N	Fernie, BC	NA	NA

Appendix 4. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
66	2018-08-16	1	2.5	N	Montana	WSCT	1
67	2018-08-16	SAA	NA	NA	NA	BLTR	2
68	2018-08-16	SAA	NA	NA	NA	MNWH	3
69	2018-08-16	1	2.5	N	California	WSCT	6
70	2018-08-16	SAA	NA	NA	NA	MNWH	2
71	2018-08-28	1	4	N	British Columbia	NA	NA
72	2018-08-28	1	4	N	Lethbridge, AB	NA	NA
73	2018-08-28	1	5	N	Cochrane, AB	WSCT	1
74	2018-08-28	1	5	N	Cochrane, AB	NA	NA
75	2018-09-01	1	10	Y	Calgary, AB	WSCT	16
76	2018-09-01	SAA	NA	NA	NA	WSCT	2
77	2018-09-01	SAA	NA	NA	NA	RNTR	6
78	2018-09-01	SAA	NA	NA	NA	MNWH	3
79	2018-09-01	1	10	Y	Calgary, AB	WSCT	10
80	2018-09-01	SAA	NA	NA	NA	RNTR	4
81	2018-09-01	SAA	NA	NA	NA	MNWH	6
82	2018-09-03	1	0.5	N	Red Deer, AB	CRTR	1
83	2018-09-12	1	5	N	Ontario	WSCT	1
84	2018-09-12	SAA	NA	NA	NA	CRTR	1
85	2018-09-12	SAA	NA	NA	NA	RNTR	1
86	2018-09-12	1	5	N	Ontario	CRTR	1
87	2018-09-12	SAA	NA	NA	NA	RNTR	1
88	2018-09-12	SAA	NA	NA	NA	NA	NA
89	2018-09-12	1	5	N	Ontario	RNTR	1
90	2018-09-12	1	12	Y	Calgary, AB	WSCT	7
91	2018-09-12	SAA	NA	NA	NA	MNWH	2
92	2018-09-12	1	12	Y	Red Deer, AB	WSCT	3
93	2018-09-15	1	6	N	Ontario	WSCT	9
94	2018-09-15	1	6	N	Ontario	WSCT	4
95	2018-09-15	1	6	N	Ontario	WSCT	1
96	2018-09-15	1	3.5	Y	Crowsnest Pass, AB	NA	NA
97	2018-09-15	1	3.5	Y	Crowsnest Pass, AB	WSCT	3
98	2018-09-15	SAA	NA	NA	NA	RNTR	2

Appendix 4. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
99	2018-09-24	1	5	N	Calgary, AB	WSCT	6
100	2018-09-24	SAA	NA	NA	NA	WSCT	1
101	2018-09-24	SAA	NA	NA	NA	CRTR	6
102	2018-09-24	1	5	N	Calgary, AB	WSCT	8
103	2018-09-24	SAA	NA	NA	NA	CRTR	8
104	2018-09-25	1	0	N	BC	NA	NA
105	2018-09-25	1	0	N	BC	NA	NA
106	2018-09-26	1	2	N	Calgary, AB	RNTR	2
107	2018-09-28	1	0	N	Calgary, AB	WSCT	1
108	2018-09-28	1	0	N	Calgary, AB	NA	NA
109	2018-09-28	1	1	N	Washington	NA	NA
110	2018-09-28	1	1	N	Washington	WSCT	2
111	2018-09-30	1	0.75	Y	Calgary, AB	NA	NA
112	2018-09-30	1	0.75	N	Calgary, AB	BLTR	1
113	2018-10-08	1	0	N	Calgary, AB	NA	NA
114	2018-10-08	1	0	N	Calgary, AB	NA	NA
115	2018-10-21	1	0.5	Y	Calgary, AB	RNTR	2
116	2018-10-23	1	5	Y	Longview, AB	NA	NA
117	2018-10-23	1	5	Y	Longview, AB	RNTR	2
118	2018-10-23	1	4	Y	Edmonton, AB	WSCT	1
119	2018-10-23	SAA	NA	NA	NA	RNTR	1

Appendix 5. Data from the Livingstone River collected during the June 16 to October 31, 2018 angler survey.

Species codes: WSCT = westslope cutthroat trout, CRTR = westslope cutthroat x rainbow trout hybrid, RNTR = rainbow trout, BLTR = bull trout, MNWH = mountain whitefish.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
1	2018-06-17	1	5	Y	Calgary, AB	BLTR	1
2	2018-06-17	1	5	Y	Calgary, AB	BLTR	1
3	2018-06-21	1	3	N	Calgary, AB	WSCT	1
4	2018-06-21	SAA	NA	NA	NA	MNWH	2
5	2018-06-21	1	3	N	Calgary, AB	BLTR	1
6	2018-06-21	SAA	NA	NA	NA	MNWH	1
7	2018-06-21	1	2	Y	Banff, AB	WSCT	5
8	2018-06-21	1	0.25	N	Okotoks, AB	WSCT	3
9	2018-06-21	1	3	N	Wisconsin	NA	NA
10	2018-06-21	1	3	N	Calgary, AB	NA	NA
11	2018-06-21	1	0	N	Calgary, AB	NA	NA
12	2018-06-21	1	2	N	Calgary, AB	NA	NA
13	2018-06-21	1	2	N	Calgary, AB	WSCT	3
14	2018-06-21	1	2	N	Calgary, AB	WSCT	2
15	2018-06-21	1	2	N	Calgary, AB	WSCT	2
16	2018-06-22	1	0.25	N	Calgary, AB	NA	NA
17	2018-06-22	1	0.25	N	Calgary, AB	WSCT	1
18	2018-06-22	SAA	NA	NA	NA	WSCT	1
19	2018-06-22	SAA	NA	NA	NA	CRTR	1
20	2018-06-22	1	0.25	N	Calgary, AB	NA	NA
21	2018-06-22	1	0.25	N	Calgary, AB	WSCT	1
22	2018-06-22	1	0.5	N	Banff, AB	NA	NA
23	2018-06-22	1	0.5	N	Banff, AB	WSCT	2
24	2018-06-22	1	0	N	High River, AB	NA	NA
25	2018-06-22	1	2	N	Ottawa, ON	NA	NA
26	2018-06-22	1	1.5	N	Calgary, AB	WSCT	1
27	2018-06-22	SAA	NA	NA	NA	WSCT	1
28	2018-06-22	1	1	N	Brooks, AB	WSCT	2
29	2018-06-22	1	1	N	Brooks, AB	NA	NA
30	2018-06-22	1	4	N	Edmonton, AB	NA	NA
31	2018-06-22	1	0.25	N	Calgary, AB	WSCT	1
32	2018-06-22	1	0.25	N	Calgary, AB	WSCT	1

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
33	2018-06-22	1	1	N	Calgary, AB	NA	NA
34	2018-06-22	1	0.5	N	Sherwood Park, AB	NA	NA
35	2018-06-22	1	0.5	N	Medicine Hat, AB	NA	NA
36	2018-06-22	1	5	N	Taber, AB	CRTR	5
37	2018-06-22	1	5	N	Taber, AB	CRTR	3
38	2018-06-22	SAA	NA	NA	NA	RNTR	2
39	2018-06-24	1	0	N	Calgary, AB	NA	NA
40	2018-06-24	1	0	N	Calgary, AB	NA	NA
41	2018-06-24	1	0	N	Calgary, AB	NA	NA
42	2018-06-24	1	2	N	Edmonton, AB	WSCT	1
43	2018-06-24	1	0.75	N	Calgary, AB	NA	NA
44	2018-06-24	1	0.75	N	Calgary, AB	NA	NA
45	2018-06-24	1	0	N	Calgary, AB	NA	NA
46	2018-06-24	1	0	N	Calgary, AB	NA	NA
47	2018-06-24	1	0.5	N	Calgary, AB	WSCT	1
48	2018-06-24	1	2.5	N	Calgary, AB	WSCT	1
49	2018-06-24	1	2.5	N	Calgary, AB	NA	NA
50	2018-06-24	1	2.5	N	Red Deer, AB	WSCT	1
51	2018-06-24	SAA	NA	NA	NA	MNWH	1
52	2018-06-24	1	0.5	N	Calgary, AB	NA	NA
53	2018-06-24	1	0.5	N	Calgary, AB	BLTR	1
54	2018-06-24	1	0	N	Lethbridge, AB	NA	NA
55	2018-06-24	1	0	N	Calgary, AB	NA	NA
56	2018-06-24	1	1	N	Calgary, AB	WSCT	4
57	2018-06-24	1	2	N	Calgary, AB	WSCT	3
58	2018-06-24	1	3	N	Calgary, AB	WSCT	1
59	2018-06-24	1	3	N	Calgary, AB	NA	NA
60	2018-06-24	1	0.5	N	Calgary, AB	WSCT	2
61	2018-06-24	1	0.5	N	Calgary, AB	NA	NA
62	2018-06-30	1	0	N	Saskatchewan	NA	NA
63	2018-06-30	1	1	N	Edmonton, AB	WSCT	2
64	2018-06-30	1	1	N	Calgary, AB	NA	NA
65	2018-06-30	1	4	N	Calgary, AB	WSCT	6
66	2018-06-30	1	0	N	Red Deer, AB	NA	NA

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
67	2018-06-30	1	0	N	Calgary, AB	NA	NA
68	2018-06-30	1	0	N	Red Deer, AB	NA	NA
69	2018-06-30	1	0	N	Calgary, AB	NA	NA
70	2018-06-30	1	5	Y	Calgary, AB	WSCT	1
71	2018-06-30	SAA	NA	NA	NA	WSCT	1
72	2018-06-30	1	0	N	Edmonton, AB	NA	NA
73	2018-06-30	1	0	N	Edmonton, AB	NA	NA
74	2018-06-30	1	0	N	Edmonton, AB	NA	NA
75	2018-06-30	1	0	N	Edmonton, AB	NA	NA
76	2018-06-30	1	0	N	Edmonton, AB	NA	NA
77	2018-06-30	1	0	N	Saskatchewan	NA	NA
78	2018-06-30	1	0	N	Saskatchewan	NA	NA
79	2018-06-30	1	0	N	Saskatchewan	NA	NA
80	2018-06-30	1	0	N	Calgary, AB	NA	NA
81	2018-06-30	1	0	N	Calgary, AB	NA	NA
82	2018-06-30	1	1	N	Calgary, AB	NA	NA
83	2018-06-30	1	1	N	Brooks, AB	NA	NA
84	2018-06-30	1	4	N	Calgary, AB	WSCT	1
85	2018-06-30	1	4	N	Calgary, AB	NA	NA
86	2018-06-30	1	0	N	High River, AB	NA	NA
87	2018-06-30	1	0	N	High River, AB	NA	NA
88	2018-06-30	1	0.5	N	Calgary, AB	NA	NA
89	2018-06-30	1	0.5	N	Calgary, AB	NA	NA
90	2018-06-30	1	0.25	N	Canmore, AB	NA	NA
91	2018-06-30	1	1	N	Calgary, AB	NA	NA
92	2018-06-30	1	1	N	Calgary, AB	WSCT	2
93	2018-06-30	1	0.25	N	Saskatchewan	NA	NA
94	2018-06-30	1	0.25	N	NA	NA	NA
95	2018-06-30	1	0.25	N	Calgary, AB	NA	NA
96	2018-06-30	1	0.25	N	High River, AB	NA	NA
97	2018-06-30	1	3	Y	Calgary, AB	WSCT	3
98	2018-06-30	1	3	Y	Black Diamond, AB	WSCT	7
99	2018-06-30	1	3	Y	Calgary, AB	NA	NA
100	2018-06-30	1	3	Y	Calgary, AB	WSCT	1

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
101	2018-06-30	1	0.25	N	Okotoks, AB	WSCT	1
102	2018-06-30	1	2	N	Saskatchewan	RNTR	2
103	2018-06-30	1	3	N	Saskatchewan	WSCT	4
104	2018-06-30	1	3	N	Saskatchewan	NA	NA
105	2018-06-30	1	0	N	Calgary, AB	NA	NA
106	2018-06-30	1	5	N	Calgary, AB	WSCT	3
107	2018-06-30	SAA	NA	NA	NA	MNWH	1
108	2018-06-30	1	5	N	Calgary, AB	WSCT	2
109	2018-07-02	1	1	N	Calgary, AB	NA	NA
110	2018-07-02	1	1	N	Calgary, AB	NA	NA
111	2018-07-02	1	1.75	N	St. Albert, AB	WSCT	3
112	2018-07-02	1	1.75	N	St. Albert, AB	NA	NA
113	2018-07-02	1	3	N	Calgary, AB	WSCT	5
114	2018-07-02	1	0.25	Y	Gibbons, AB	WSCT	1
115	2018-07-02	1	0.25	Y	Calgary, AB	NA	NA
116	2018-07-02	1	1.5	N	Calgary, AB	WSCT	5
117	2018-07-02	1	1.5	N	Calgary, AB	WSCT	7
118	2018-07-02	1	6	Y	Calgary, AB	WSCT	1
119	2018-07-02	1	6	Y	Calgary, AB	NA	NA
120	2018-07-02	1	3.5	Y	Calgary, AB	WSCT	1
121	2018-07-02	SAA	NA	NA	NA	WSCT	1
122	2018-07-02	1	3.5	Y	Calgary, AB	WSCT	2
123	2018-07-04	1	4.5	N	Calgary, AB	WSCT	2
124	2018-07-04	1	4.5	N	Calgary, AB	WSCT	2
125	2018-07-04	SAA	NA	NA	NA	WSCT	1
126	2018-07-04	1	3	Y	Canmore, AB	WSCT	8
127	2018-07-04	1	5	N	Edmonton, AB	WSCT	2
128	2018-07-04	1	5	N	Calgary, AB	WSCT	2
129	2018-07-04	1	7	N	Calgary, AB	WSCT	15
130	2018-07-04	1	7	N	Calgary, AB	WSCT	12
131	2018-07-04	SAA	NA	NA	NA	RNTR	3
132	2018-07-14	1	0.5	N	Calgary, AB	WSCT	2
133	2018-07-14	1	4	N	Calgary, AB	WSCT	6
134	2018-07-14	SAA	NA	NA	NA	WSCT	14

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
135	2018-07-14	1	4	N	Calgary, AB	WSCT	3
136	2018-07-14	SAA	NA	NA	NA	WSCT	13
137	2018-07-14	1	6	Y	Calgary, AB	WSCT	1
138	2018-07-14	1	6	Y	Calgary, AB	WSCT	2
139	2018-07-14	1	6	Y	Calgary, AB	WSCT	3
140	2018-07-14	1	6	Y	Calgary, AB	WSCT	10
141	2018-07-14	1	6	Y	Calgary, AB	WSCT	2
142	2018-07-14	1	5	N	Calgary, AB	WSCT	4
143	2018-07-14	1	10	N	Killam, AB	WSCT	1
144	2018-07-14	1	4	Y	Canmore, AB	WSCT	4
145	2018-07-14	SAA	NA	NA	NA	WSCT	1
146	2018-07-14	1	4	Y	Canmore, AB	WSCT	4
147	2018-07-14	SAA	NA	NA	NA	WSCT	1
148	2018-07-14	1	4	Y	Canmore, AB	NA	NA
149	2018-07-14	1	5	N	Calgary, AB	WSCT	1
150	2018-07-14	1	5	N	Calgary, AB	NA	NA
151	2018-07-14	1	5	N	Calgary, AB	WSCT	1
152	2018-07-14	1	0.25	N	Calgary, AB	NA	NA
153	2018-07-14	1	0.25	N	Calgary, AB	NA	NA
154	2018-07-14	1	0.25	N	Calgary, AB	WSCT	1
155	2018-07-14	1	0	N	Calgary, AB	NA	NA
156	2018-07-14	1	0	N	Calgary, AB	NA	NA
157	2018-07-14	1	0	N	Calgary, AB	NA	NA
158	2018-07-14	1	0	N	Calgary, AB	NA	NA
159	2018-07-14	1	0.5	N	Calgary, AB	NA	NA
160	2018-07-14	1	0.5	N	Granum, AB	WSCT	1
161	2018-07-14	1	1	N	Calgary, AB	NA	NA
162	2018-07-14	1	1	N	Calgary, AB	NA	NA
163	2018-07-20	1	0.5	N	Cochrane, AB	NA	NA
164	2018-07-20	1	6	N	Calgary, AB	WSCT	6
165	2018-07-20	SAA	NA	NA	NA	WSCT	2
166	2018-07-20	SAA	NA	NA	NA	BLTR	1
167	2018-07-20	1	4	N	Lethbridge, AB	WSCT	3
168	2018-07-20	1	4	N	Lethbridge, AB	WSCT	2

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
169	2018-07-20	1	6	N	Edmonton, AB	WSCT	1
170	2018-07-20	1	6	N	Gibbons, AB	WSCT	3
171	2018-07-20	1	4.5	N	Calgary, AB	WSCT	9
172	2018-07-20	1	5	Y	Calgary, AB	WSCT	2
173	2018-07-20	SAA	NA	NA	NA	BLTR	1
174	2018-07-20	1	1	Y	Calgary, AB	WSCT	5
175	2018-07-20	SAA	NA	NA	NA	BLTR	1
176	2018-07-20	1	1	Y	Calgary, AB	WSCT	4
177	2018-07-20	1	4.5	Y	Calgary, AB	WSCT	5
178	2018-07-20	SAA	NA	NA	NA	MNWH	1
179	2018-07-21	1	4	N	Longview, AB	WSCT	5
180	2018-07-21	1	1.5	N	Calgary, AB	WSCT	3
181	2018-07-21	1	0.5	N	Calgary, AB	NA	NA
182	2018-07-21	1	0.5	N	Calgary, AB	NA	NA
183	2018-07-21	1	3	Y	Calgary, AB	NA	NA
184	2018-07-21	1	3	Y	Calgary, AB	NA	NA
185	2018-07-21	1	5	N	Lethbridge, AB	WSCT	10
186	2018-07-21	1	5	N	Lethbridge, AB	WSCT	4
187	2018-07-21	1	8	Y	Calgary, AB	WSCT	8
188	2018-07-21	SAA	NA	NA	NA	WSCT	2
189	2018-07-21	1	8	Y	Calgary, AB	WSCT	6
190	2018-07-21	1	2	Y	Calgary, AB	WSCT	2
191	2018-08-01	1	3	N	Calgary, AB	CRTR	1
192	2018-08-01	SAA	NA	NA	NA	CRTR	1
193	2018-08-01	1	3	N	Calgary, AB	WSCT	2
194	2018-08-01	1	3	N	Calgary, AB	WSCT	5
195	2018-08-01	1	0.25	N	Calgary, AB	NA	NA
196	2018-08-01	1	0.25	N	Calgary, AB	NA	NA
197	2018-08-01	1	0.25	N	Okotoks, AB	NA	NA
198	2018-08-01	1	1.5	N	Calgary, AB	WSCT	5
199	2018-08-01	1	4.5	Y	Calgary, AB	WSCT	4
200	2018-08-01	1	4.5	Y	North Carolina	WSCT	4
201	2018-08-01	1	7	Y	Calgary, AB	WSCT	4
202	2018-08-01	SAA	NA	NA	NA	WSCT	3

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
203	2018-08-01	1	7	Y	Calgary, AB	WSCT	1
204	2018-08-05	1	0.5	N	Lethbridge, AB	WSCT	1
205	2018-08-05	1	0.5	N	Calgary, AB	NA	NA
206	2018-08-05	1	0.25	N	British Columbia	NA	NA
207	2018-08-05	1	0.25	N	British Columbia	NA	NA
208	2018-08-05	1	1	N	Calgary, AB	WSCT	1
209	2018-08-05	1	1	N	Calgary, AB	NA	NA
210	2018-08-05	1	0.25	N	Vermont	NA	NA
211	2018-08-05	1	0.25	N	Calgary, AB	NA	NA
212	2018-08-05	1	3	N	Canmore, AB	NA	NA
213	2018-08-05	1	3	N	Canmore, AB	NA	NA
214	2018-08-05	1	1.5	N	Calgary, AB	WSCT	1
215	2018-08-05	1	2	N	Canmore, AB	WSCT	1
216	2018-08-05	1	2	N	Canmore, AB	WSCT	2
217	2018-08-05	SAA	NA	NA	NA	NA	NA
218	2018-08-12	1	0.25	N	Calgary, AB	NA	NA
219	2018-08-12	1	0.25	N	Calgary, AB	NA	NA
220	2018-08-12	1	0.25	N	Calgary, AB	NA	NA
221	2018-08-12	1	2.5	N	Manitoba	WSCT	1
222	2018-08-12	1	0.25	N	Sundre, AB	WSCT	2
223	2018-08-12	1	0.25	N	Airdrie, AB	NA	NA
224	2018-08-12	1	0	N	Okotoks, AB	NA	NA
225	2018-08-12	1	0	N	Okotoks, AB	NA	NA
226	2018-08-12	1	0	N	Okotoks, AB	NA	NA
227	2018-08-12	1	0	N	Okotoks, AB	NA	NA
228	2018-08-12	1	0	N	Okotoks, AB	NA	NA
229	2018-08-12	1	0	N	Okotoks, AB	NA	NA
230	2018-08-12	1	2	N	Calgary, AB	WSCT	1
231	2018-08-12	SAA	NA	NA	NA	RNTR	1
232	2018-08-12	1	2	N	Calgary, AB	WSCT	1
233	2018-08-12	1	4	N	Calgary, AB	WSCT	1
234	2018-08-12	1	4	N	Calgary, AB	WSCT	2
235	2018-08-12	1	1	N	Lethbridge, AB	WSCT	1
236	2018-08-12	1	1	N	Lethbridge, AB	NA	NA

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
237	2018-08-12	1	1	N	Lethbridge, AB	NA	NA
238	2018-08-25	1	6	N	Ontario	WSCT	3
239	2018-08-25	1	5	N	Calgary, AB	WSCT	4
240	2018-08-25	1	5	N	Longview, AB	WSCT	10
241	2018-08-25	1	6	N	Calgary, AB	WSCT	15
242	2018-08-25	1	6	N	Calgary, AB	WSCT	17
243	2018-08-25	1	5	N	Calgary, AB	WSCT	2
244	2018-08-25	1	5	N	Calgary, AB	NA	NA
245	2018-08-25	1	5	N	Calgary, AB	WSCT	4
246	2018-08-25	1	2.5	N	Okotoks, AB	WSCT	2
247	2018-08-25	1	2	N	Okotoks, AB	NA	NA
248	2018-08-25	1	7	N	Edmonton, AB	WSCT	1
249	2018-08-25	1	7	N	Edmonton, AB	WSCT	5
250	2018-08-25	1	6	N	Banff, AB	WSCT	4
251	2018-08-25	SAA	NA	NA	NA	WSCT	1
252	2018-08-25	1	6	N	Banff, AB	WSCT	1
253	2018-08-25	1	6	N	Banff, AB	NA	NA
254	2018-08-25	1	6	N	Edmonton, AB	WSCT	2
255	2018-08-25	1	4.5	Y	Lethbridge, AB	WSCT	3
256	2018-08-25	1	4.5	Y	Lethbridge, AB	WSCT	9
257	2018-08-25	1	5	Y	Calgary, AB	WSCT	8
258	2018-08-25	1	5	N	Calgary, AB	WSCT	8
259	2018-08-25	1	5	N	British Columbia	WSCT	4
260	2018-08-25	1	2	N	Calgary, AB	NA	NA
261	2018-08-25	1	6	N	Edmonton, AB	WSCT	12
262	2018-09-09	1	8	N	Calgary, AB	WSCT	1
263	2018-09-09	1	8	N	Toronto, ON	WSCT	2
264	2018-09-09	SAA	NA	NA	NA	WSCT	1
265	2018-09-09	SAA	NA	NA	NA	MNWH	1
266	2018-09-09	1	4.5	N	France	WSCT	20
267	2018-09-09	SAA	NA	NA	NA	MNWH	1
268	2018-09-09	1	1	N	Calgary, AB	WSCT	2
269	2018-09-09	1	1	N	Calgary, AB	NA	NA
270	2018-09-09	1	6	N	Calgary, AB	WSCT	12
271	2018-09-09	1	6	N	Olds, AB	WSCT	5

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
272	2018-09-10	1	3	N	Oregon	WSCT	3
273	2018-09-10	1	0	N	Ontario	NA	NA
274	2018-09-10	1	0	N	Saskatchewan	NA	NA
275	2018-09-10	1	2.5	N	Calgary, AB	WSCT	2
276	2018-09-10	1	2.5	N	Calgary, AB	WSCT	4
277	2018-09-10	1	2	N	Lethbridge, AB	WSCT	1
278	2018-09-10	1	2	N	Calgary, AB	NA	NA
279	2018-09-10	1	0	N	Edmonton, AB	NA	NA
280	2018-09-10	1	0	N	Edmonton, AB	NA	NA
281	2018-09-10	1	0	N	Edmonton, AB	NA	NA
282	2018-09-10	1	0.25	N	Calgary, AB	NA	NA
283	2018-09-10	1	0.5	N	Calgary, AB	WSCT	1
284	2018-09-13	1	3	N	Okotoks, AB	WSCT	3
285	2018-09-13	1	5	N	Ontario	WSCT	7
286	2018-09-13	1	5	N	Ontario	WSCT	4
287	2018-09-13	1	5	N	Ontario	WSCT	7
288	2018-09-13	1	1	N	Saskatchewan	WSCT	3
289	2018-09-13	1	1	N	Saskatchewan	NA	NA
290	2018-09-13	1	5.5	Y	Okotoks, AB	WSCT	5
291	2018-09-13	1	5.5	Y	Okotoks, AB	WSCT	6
292	2018-09-13	1	8	N	Massachusetts	WSCT	15
293	2018-09-13	SAA	NA	NA	NA	MNWH	1
294	2018-09-13	1	8	N	Massachusetts	WSCT	1
295	2018-09-14	1	2.5	N	Edmonton, AB	NA	NA
296	2018-09-14	1	2.5	N	Edmonton, AB	NA	NA
297	2018-09-14	1	0	N	Edmonton, AB	NA	NA
298	2018-09-14	1	0	N	Edmonton, AB	NA	NA
299	2018-09-14	1	0.25	N	Calgary, AB	NA	NA
300	2018-09-14	1	2	N	Calgary, AB	WSCT	2
301	2018-09-14	1	0.5	N	Ontario	WSCT	1
302	2018-09-14	1	0.5	N	Ontario	NA	NA
303	2018-09-22	1	0	N	Calgary, AB	NA	NA
304	2018-09-22	1	0	N	Calgary, AB	NA	NA
305	2018-09-22	1	0	N	Calgary, AB	NA	NA
306	2018-09-22	1	1.5	N	Calgary, AB	NA	NA

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
307	2018-09-22	1	0	N	Calgary, AB	NA	NA
308	2018-09-22	1	0	N	Lethbridge, AB	NA	NA
309	2018-09-22	1	2	N	Calgary, AB	RNTR	2
310	2018-09-22	1	2	N	Calgary, AB	NA	NA
311	2018-09-22	1	2	N	Calgary, AB	NA	NA
312	2018-09-22	1	1.5	N	Lethbridge, AB	WSCT	2
313	2018-09-22	1	1.5	N	Lethbridge, AB	NA	NA
314	2018-09-22	1	1.5	N	Lethbridge, AB	NA	NA
315	2018-09-22	1	3	N	Calgary, AB	WSCT	2
316	2018-09-22	1	3	N	Calgary, AB	WSCT	1
317	2018-09-23	1	0	N	Calgary, AB	NA	NA
318	2018-09-23	1	0	N	Calgary, AB	NA	NA
319	2018-09-23	1	0	N	Calgary, AB	NA	NA
320	2018-09-23	1	0	N	Calgary, AB	NA	NA
321	2018-09-23	1	1	Y	Lethbridge, AB	WSCT	1
322	2018-09-29	1	0	N	Calgary, AB	NA	NA
323	2018-09-29	1	0	N	Calgary, AB	NA	NA
324	2018-09-29	1	1	N	Carseland, AB	WSCT	2
325	2018-09-29	1	0.5	N	Calgary, AB	NA	NA
326	2018-10-13	1	0	N	Cochrane, AB	NA	NA
327	2018-10-13	1	0	N	Cochrane, AB	NA	NA
328	2018-10-13	SAA	NA	NA	NA	NA	NA
329	2018-10-14	1	0	N	Calgary, AB	NA	NA
330	2018-10-14	1	0	N	Calgary, AB	NA	NA
331	2018-10-14	1	4	Y	Okotoks, AB	WSCT	8
332	2018-10-14	SAA	NA	NA	NA	BLTR	1
333	2018-10-14	1	1	N	Calgary, AB	BLTR	1
334	2018-10-14	SAA	NA	NA	NA	NA	NA
335	2018-10-20	1	6	Y	Calgary, AB	BLTR	1
336	2018-10-20	1	6	Y	Calgary, AB	WSCT	3
337	2018-10-20	SAA	NA	NA	NA	MNWH	1
338	2018-10-20	1	4	N	Calgary, AB	WSCT	1
339	2018-10-20	1	4	N	Okotoks, AB	WSCT	2
340	2018-10-20	SAA	NA	NA	NA	CRTR	1
341	2018-10-20	1	4	N	Edmonton, AB	NA	NA

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
342	2018-10-20	1	5	Y	Calgary, AB	WSCT	1
343	2018-10-20	1	5	Y	Edmonton, AB	WSCT	1
344	2018-10-20	1	5	Y	Strathmore, AB	WSCT	1
345	2018-10-20	1	6	Y	Calgary, AB	WSCT	5
346	2018-10-20	1	3	Y	Calgary, AB	WSCT	2
347	2018-10-20	1	6	N	Calgary, AB	WSCT	7
348	2018-10-20	1	6	N	Calgary, AB	WSCT	1
349	2018-10-20	1	6	N	Calgary, AB	WSCT	1
350	2018-10-20	1	6	N	Calgary, AB	NA	NA
351	2018-10-20	1	6	N	Calgary, AB	NA	NA
352	2018-10-22	1	4	N	British Columbia	WSCT	1
353	2018-10-22	1	4	N	Calgary, AB	WSCT	3
354	2018-10-22	1	3.5	N	Canmore, AB	WSCT	1
355	2018-10-22	1	3.5	N	Canmore, AB	BLTR	1
356	2018-10-22	1	7	N	Calgary, AB	WSCT	1
357	2018-10-22	1	7	N	Calgary, AB	NA	NA
358	2018-10-22	1	4	N	Crowsnest Pass, AB	WSCT	2
359	2018-10-22	1	5	N	Calgary, AB	WSCT	2
360	2018-10-22	SAA	NA	NA	NA	WSCT	1
361	2018-10-22	1	5	N	Calgary, AB	NA	NA
362	2018-10-24	1	0.5	N	Calgary, AB	WSCT	1
363	2018-10-24	1	0	N	Calgary, AB	NA	NA
364	2018-10-24	1	0	N	Calgary, AB	NA	NA
365	2018-10-24	1	2	N	Calgary, AB	NA	NA
366	2018-10-24	1	2	N	Calgary, AB	NA	NA
367	2018-10-26	1	5	N	Calgary, AB	WSCT	1
368	2018-10-26	1	5	Y	Calgary, AB	WSCT	5
369	2018-10-26	1	5	Y	Calgary, AB	WSCT	3
370	2018-10-26	1	5	Y	Calgary, AB	NA	NA
371	2018-10-26	1	5	Y	Calgary, AB	NA	NA
372	2018-10-26	1	5	Y	Calgary, AB	WSCT	2
373	2018-10-26	1	5	Y	Calgary, AB	WSCT	3
374	2018-10-27	1	5	N	Calgary, AB	NA	NA
375	2018-10-27	1	2.5	N	Ontario	NA	NA

Appendix 5. cont.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
376	2018-10-27	1	6	N	Calgary, AB	WSCT	2
377	2018-10-27	SAA	NA	NA	NA	MNWH	1
378	2018-10-27	1	6	N	Calgary, AB	WSCT	1
379	2018-10-27	SAA	NA	NA	NA	BLTR	1

Appendix 6. Data from Dutch Creek collected during the June 16 to October 31, 2018 angler survey.

Species codes: WSCT = westslope cutthroat trout, CRTR = westslope cutthroat x rainbow trout hybrid, RNTR = rainbow trout, BLTR = bull trout, MNWH = mountain whitefish.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
1	2018-06-19	1	3	N	Drumheller, AB	WSCT	3
2	2018-07-06	1	5	Y	Claresholm, AB	WSCT	6
3	2018-07-06	1	5	Y	Claresholm, AB	WSCT	3
4	2018-07-06	SAA	NA	NA	NA	CRTR	3
5	2018-08-03	1	3	Y	Claresholm, AB	WSCT	2
6	2018-08-03	1	3	Y	Nanton, AB	WSCT	1
7	2018-08-03	1	1	Y	Lethbridge, AB	WSCT	1
8	2018-08-16	1	0	N	Calgary, AB	NA	NA
9	2018-08-16	1	0	N	Calgary, AB	NA	NA

Appendix 7. Data from Racehorse Creek collected during the June 16 to October 31, 2018 angler survey.

Species codes: WSCT = westslope cutthroat trout, CRTR = westslope cutthroat x rainbow trout hybrid, RNTR = rainbow trout, BLTR = bull trout, MNWH = mountain whitefish.

	Date	Angler count	Trip length (h)	Completed trip	Angler residence	Species	Fish total
1	2018-07-06	1	1	N	Edmonton, AB	NA	NA
2	2018-07-06	1	1	N	Edmonton, AB	NA	NA
3	2018-07-06	1	1	N	Lethbridge, AB	NA	NA
4	2018-07-15	1	1.5	N	Calgary, AB	WSCT	3
5	2018-07-15	SAA	NA	NA	NA	WSCT	1
6	2018-07-15	1	4	N	Lethbridge, AB	WSCT	1
7	2018-07-16	1	0.25	N	Calgary, AB	NA	NA
8	2018-08-30	1	5	N	Red Deer, AB	WSCT	1
9	2018-09-01	1	4	Y	Calgary, AB	WSCT	7
10	2018-09-01	1	4	Y	Calgary, AB	NA	NA
11	2018-09-01	1	1	N	Longview, AB	NA	NA
12	2018-09-01	1	1	N	Longview, AB	WSCT	1
13	2018-09-01	1	1	N	Longview, AB	WSCT	1
14	2018-09-08	1	2	Y	Calgary, AB	WSCT	1
15	2018-09-08	SAA	NA	NA	NA	WSCT	1
16	2018-09-08	1	2	Y	Calgary, AB	WSCT	1
17	2018-10-23	1	2	Y	British Columbia	RNTR	2
18	2018-10-23	1	5	Y	Banff, AB	WSCT	10

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Alberta

