

Recreational Fishing Activity Report on Joint Base Elmendorf-Richardson During 2019

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Prepared by
JBER Fisheries Program Manager
Colette Brandt, Biologist
673 CES/CEIEC
Joint Base Elmendorf-Richardson

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Introduction

Joint Base Elmendorf-Richardson (JBER) provides recreational fishing opportunities to military members and the general public through the recreational program iSportsman. JBER is included in the Alaska Department of Fish and Game (ADF&G) Division of Sport Fish, Region II Statewide Stocking plan. Within the ADF&G stocking plan, JBER is identified as a small sub-unit with a separate management plan.

Information on where recreational fishing occurs, the extent of participation, the preferences of participants, and the species and numbers of fishes being caught and harvested is essential to support management decisions with regards to stocking efforts on JBER. This information helps establish priorities ADF&G stocking decisions and JBER Conservation on planning and evaluation of rehabilitation, enhancement, habitat protection, and access.

This report summarizes the 2019 fishing activity on JBER utilizing the web-based iSportsman fishing harvest survey. This summary includes general overall usage, harvest survey participation, estimates of catch and harvest for fishing activities. Additional analysis of recreational fishing effort on JBER may be completed at a later date pending discussion with ADF&G about further desired information from JBER.

Background

The JBER iSportsman Recreational program provides military and general public access to training areas for recreation on JBER when not in conflict with military training activities. iSportsman is a web-based system that was implemented to manage compatible use of military training areas for recreation (<https://JBER.isposman.net>). The system has been in place since 2014 and is required for use by anyone recreating on JBER. Recreators are required to sign in for specific activities and in specific locations using the web-based system. Upon signing out, a “harvest survey” is required to gather information on the results of the recreators harvest, by activity.

In previous years, the fishing harvest reports received through iSportsman were not very informative and only analyzed for extent of participation and location. However, the locations were grouped by training area, with some lakes within the same recreational sign-in area, individual lakes could not be separated to identify usage. In the fall of 2018, the harvest survey was updated to include questions such as specific lake, location (boat or shore), species caught, number of caught fish, number of kept fish, and hours fished. The objective of the update was to be able to gather more usable information than the previous survey could provide.

iSportsman Fishing Harvest Survey

2019 JBER recreational fishing participation and catch and harvest data was collected through the JBER recreational access system iSportsman.

Participation (number of anglers) is documented through the check-in process when a recreator signs into an area for a specific activity such as fishing. Number of anglers and total fishing activity is documented and reported through the iSportsman Activity Use – Customer Type report which compiles the data for single person check-ins for an activity. The customer type is broken out by the user categories: civilian; DoD – Civilian Employee; Military CAC Card Holder (i.e. Active Duty); Military ID Card Holder (Dependents, Retirees, VA Card Holder).

JBER fishing catch and harvest data for the 2019 JBER recreational fishing activities were collected using the iSportsman harvest form that is provided during the sign-out process in the form of an “exit survey” about their fishing experience and activities. 2019 is the first full year using the updated iSportsman harvest survey and used to produce the results presented in this report.

The 2019 fishing exit survey had the following main questions/sections:

- What lake did you fish?
- Where did you fish from?
- How long did you fish?
- What did you catch?
- How many did you catch and keep?

Harvest Survey Review Methods

The iSportsman Activity Use – Customer Type and Harvest Form reports were downloaded and reviewed. The harvest reports were reviewed for completeness to identify how many reports could be used for review of fishing activity at specific lakes and estimates of fish caught and harvested.

Misidentified Species

The next data check identified records with species reported as caught or harvested that are not known to occur at that location. Records containing invalid species were flagged and not included in the analysis.

Outlier Detection

In some of the harvest reports, anglers provided a range of caught fish (ex. 10-12) which was changed to the lower limit of the range provided. Other outliers consisted of partial information filled out. The general approach was to change or match fish information. For example: if hours spent fishing was provided, but fish caught and kept were left blank, those were changed to zeros; if hours and caught fish were filled out, but kept fish was left blank, the kept fish was changed to zero; and if hours and kept fish were filled out, but caught fish was left blank, the caught fish was changed to match the number of fish indicated for kept. Additionally, on two occasions, the number of caught fish and kept fish was filled in with a letter rather than a number (ex. “R” and “Q”), which was reviewed and changed to the most likely possible number based on computer and phone keyboard locations (i.e. changed to “4” and “1”, respectively).

Results

JBER recreational fishing information was analyzed for the period of 1 January through 31 December, 2019. The estimated harvests of sport fish on JBER are primarily interpreted as descriptive. Specifically, individuals who do not appropriately sign into iSportsman for the correct activity or do not report their harvest or catch appropriately are not included in the estimation. Also, there is no attempt to estimate illegal harvest of fish on JBER.

Recreational Fishing Activity

During 2019, a total of 5,988 check-ins for fishing on JBER occurred through the iSportsman system. The number of check-ins for fishing decreased 14% from 2018 (Table 1 and Figure 2). It is important to note

that check-ins do not represent individual fisherman that have fished on JBER, but rather the number of times recreators have signed-in to fish. The majority of the check-ins were affiliated with the military (Figure 1). Military CAC Card Holder (Active Duty Military) accounted for 68% and Military ID Card Holders (Dependents, Retirees, VA Card Holders) accounted for 27% of the anglers fishing in 2019. The other 5% of fishing was done by DoD civilian employees and the general public.

In 2019, the estimated number of fishing activity (days fished) on JBER decreased from 2018 (14%). The number of check-ins (days fished) by military affiliated recreators decreased, while the non-military affiliated groups increased from 2018 (Table 1). There was a decrease (-13% and -23%) in the total number of military affiliated fishing activity from 2018 to 2019, but a large increase in fishing activity by DoD Civilian Employees (543%) and the general public (59%). Fishing activity by military affiliated members remained higher than military civilians and general public in both 2018 and 2019.

Table 1 – JBER iSportsman recreational fishing activity by user category, 2019 and 2018.

Affiliation Category	Fishing Activity Check-ins		
	2019	2018	% Δ
Military CAC Card Holder	4,102	4,723	-13 %
Military ID Card Holder	1,628	2,102	-23 %
DoD - Civilian Employee	45	7	543 %
Civilian	213	134	59 %
Total	5,988	6,966	-14 %

Note: Fishing activity check-ins equate to fishing days by recreators, not total number of individuals.

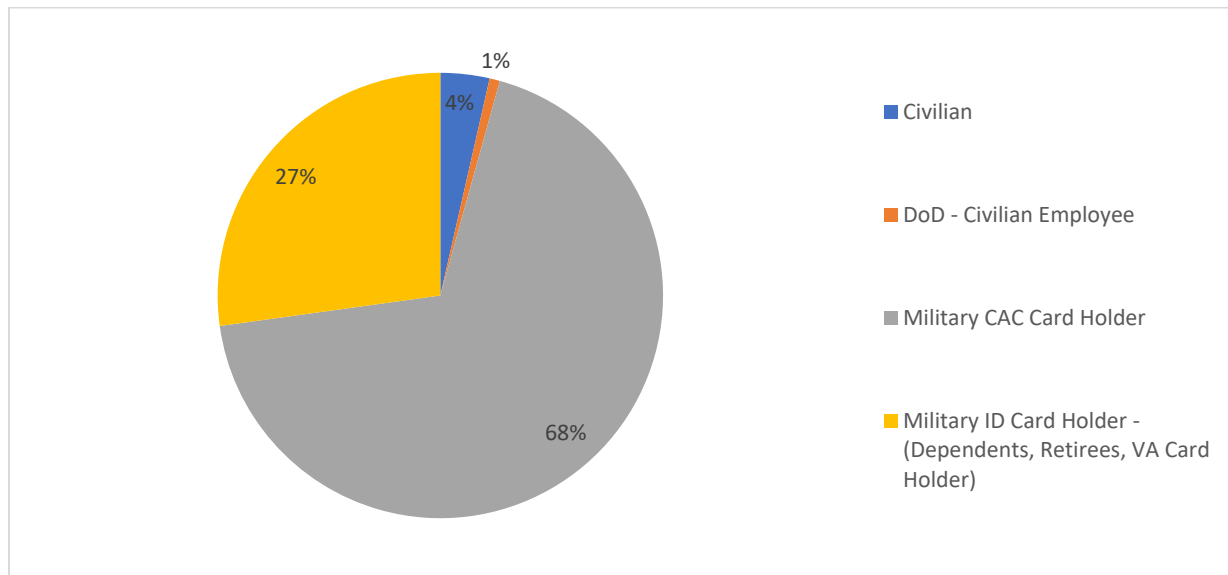


Figure 1: iSportsman fishing activity on JBER by user category, 2019.

The majority of fishing on JBER occurred during the summer months (Figure 2). During 2019, 50% of all fishing activity occurred during the months of May and June, and 10% during July.

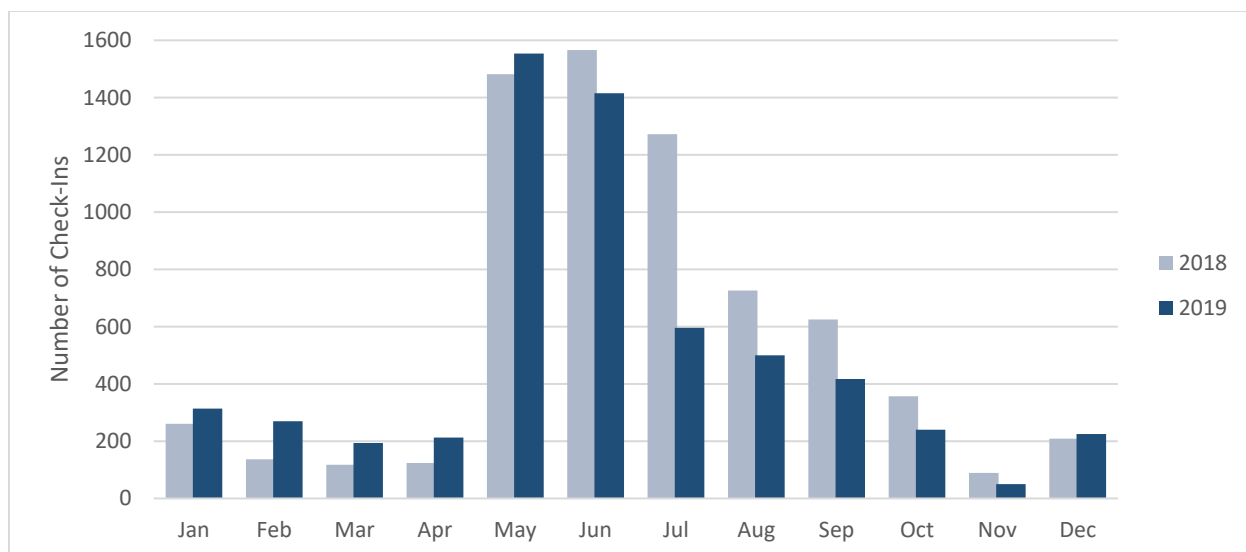


Figure 2: iSportsman fishing activity on JBER, 2019.

Note: Check-ins equate to fishing days.

Participation in Exit Survey Success

A total of 1,368 harvest reports were submitted by a total of 485 anglers. An overall participation rate of 23% of total JBER fishing activity check-ins identified fish were caught and filled out the harvest form. The remainder of the anglers checking out from fishing within iSportsman opted to identify “no fish caught” during the sign-out process of their iSportsman activity. The following sections are based on the JBER iSportman harvest reports.

Fishing Activity by Area and Lake

There are nine areas that are available for anglers to sign-in for fishing within iSportsman, which include a total of 14 lakes or creeks available to fish. Some areas contain multiple lakes and the way the iSportsman system is set up does not allow a recreator to sign into a specific lake during the sign-in process. Therefore, areas that have more than one lake cannot be differentiated as to which lake was fished unless the harvest form was completed. All 1,368 harvest reports submitted identified a specific lake fished, allowing all harvest reports to be utilized.

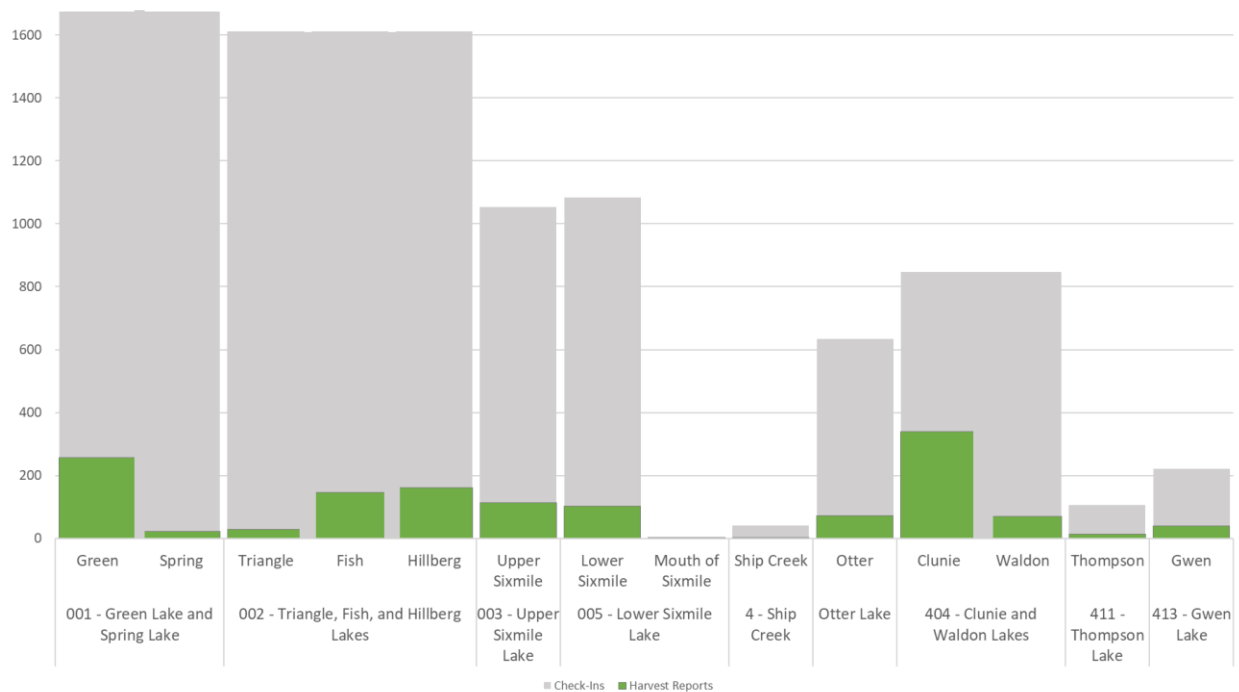


Figure 3: iSportsman fishing activity check-ins and completed harvest forms by location, 2019.

Check-ins for the recreational areas on the Elmendorf side of JBER (JBER-E) were higher than the Richardson side of JBER (JBER-R), accounting for 75% of the total 2019 check-ins in iSportsman. Areas 001 (Green and Spring Lake) and 002 (Triangle, Fish and Hillberg Lakes), were the highest fished areas. Although JBER-E had more days fished than the lakes within the Richardson training areas, Clunie Lake accounted for a total of 12% of all the check-ins in iSportsman.

It is important to note that JBER-E is available for recreation 365 days of year, whereas JBER-R is only available when recreation of specific areas does not interfere with military training or safety concerns are not present from military training activities. Training Area 404, which includes Clunie and Waldon Lakes is open to recreation when there is no training occurring within that Training Area or activities are not occurring on the Malemute Drop Zone, or ranges being utilized in Training Area 403. During 2019, there were 200 days in which activities closed Clunie and Waldon Lakes to recreation. Therefore, all the fishing activities occurred during the 165 days Training Area 404 was available for recreating. Thompson Lake is within Training Area 411 which was closed to recreation for 17 days and Gwen Lake, in Training Area 412, was closed to recreation for 16 days in 2019.

Based on the harvest reports submitted, Clunie Lake was the most reported as fished, accounting for 24.8% of all harvest reports (Figure 5). Green Lake was the most fished lake on JBER-E, accounting for 18.7% of all the harvest reports. Hillberg Lake (11.8%) and Fish Lake (10.7%) were also popular fished lakes in 2019.

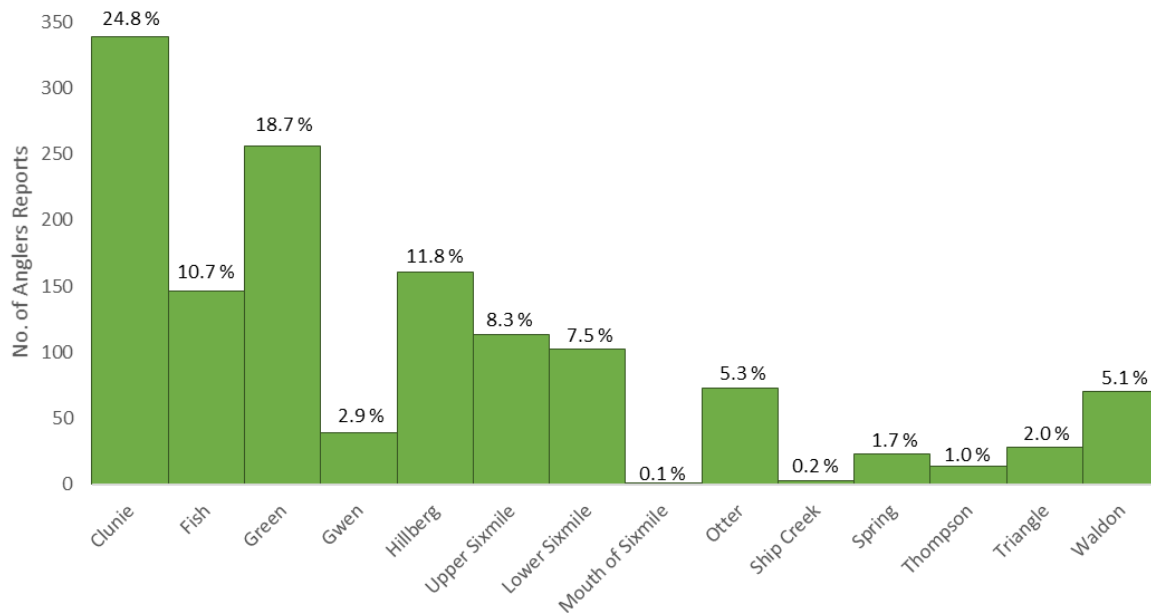


Figure 4: Harvest Report Fishing Activity by Location. Percentages on the figure is the cumulative proportion of angler reports (days fished).

Catch and Harvest

Harvest is defined as fish kept, whereas catch or caught is defined as fish harvested plus fish released. Of the 1,368 Harvest Reports, 1,352 reports included information on the number and species of fish caught and harvested from the lakes fished.

Table 2: Summary of the 2019 iSportsman Harvest Surveys and Harvest Estimates

Lake	Angler Harvest Reports	Angler Hours	Catch (all species)	Mean Catch/hr* (fish/hr)	Reported Harvest (all species)
Clunie Lake	339	1098.5	2457	2.19	911
Fish Lake	146	348.5	1050	2.99	339
Green Lake	256	792.5	1499	1.88	480
Gwen Lake	39	110.5	336	3.04	90
Hillberg Lake	161	365.5	759	1.82	380
Upper Sixmile Lake	113	247.5	525	2.06	160
Lower Sixmile Lake	102	333	404	1.21	187
Mouth of Sixmile	1	2	5	2.5	0
Otter Lake	73	218.5	350	1.60	88
Ship Creek	3	10	14	1.39	0
Spring Lake	23	47.5	105	2.06	50
Thompson Lake	14	56	66	1.18	41
Triangle Lake	28	66.5	109	1.61	40
Waldon Lake	70	236	792	3.36	161

*Mean catch/hr only used the angler harvest reports that provided both hours spent fishing and number of fish caught. In some cases the calculation are from less than the identified number of angler harvest reports listed and total catch in the table.

Of the angler harvest reports, 12 reports included questionable or invalid species reported For example, reports that identified chum salmon caught in Clunie Lake, pink salmon caught in Hillberg Lake).

Therefore, a total of 1,340 harvest reports were included in the following review of fish caught and harvested. A reported estimate of 8,460 fish were caught in 2019. The total included 7,168 (85%) rainbow trout, 547 (6.5%) Dolly Varden/Arctic char, 551 (6.5%) King salmon, 12 (0.1%) Sockeye salmon, 128 (1.5%) Coho salmon, and 22 (0.3%) pink salmon.

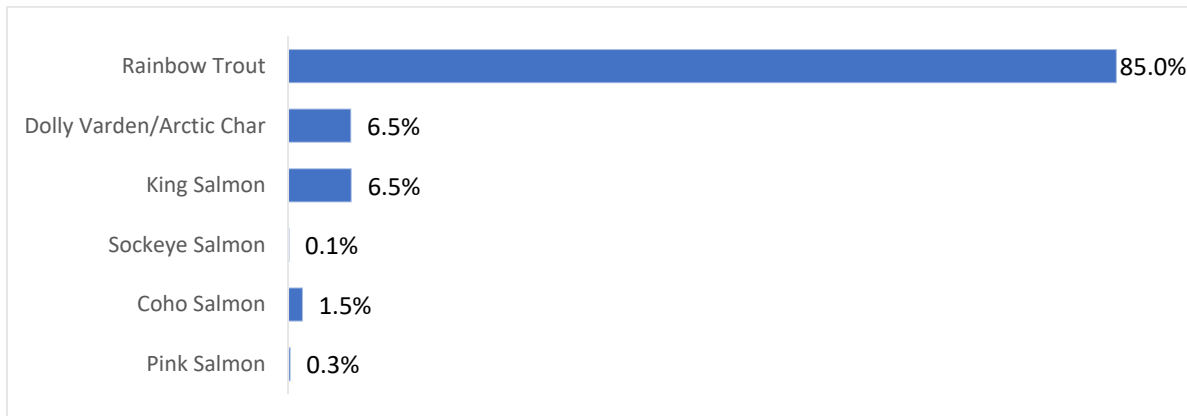


Figure 5: iSportsman Harvest Reports percentage of total catch by species, 2019.

The reported fish harvest of 2,925 fish in 2019 included 2,439 (83.4%) rainbow trout, 247 (8.4%) Dolly Varden/Arctic Char, 188 (6.4%) King salmon, and 32 (1.1%) Coho salmon.

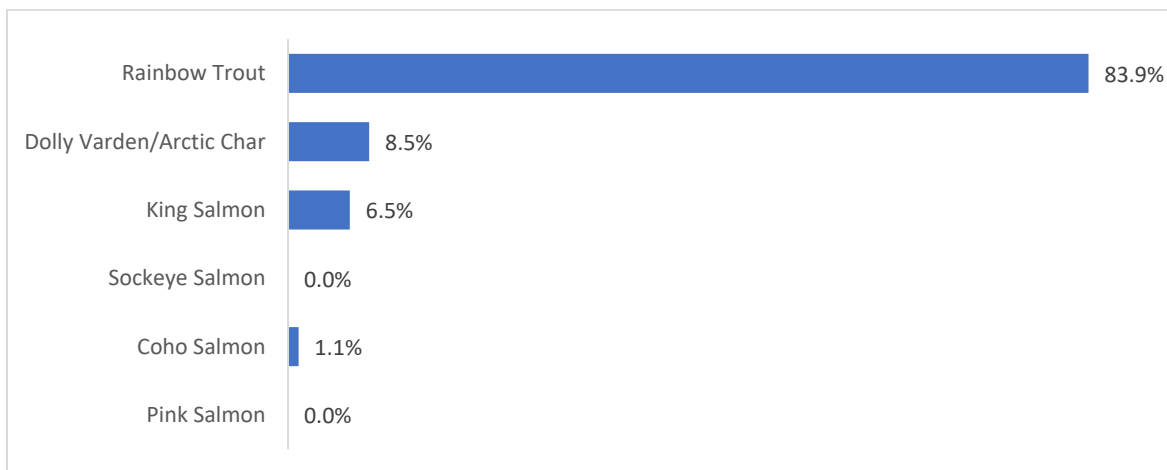


Figure 6: iSportsman Harvest Reports percentage of total harvest by species, 2019.

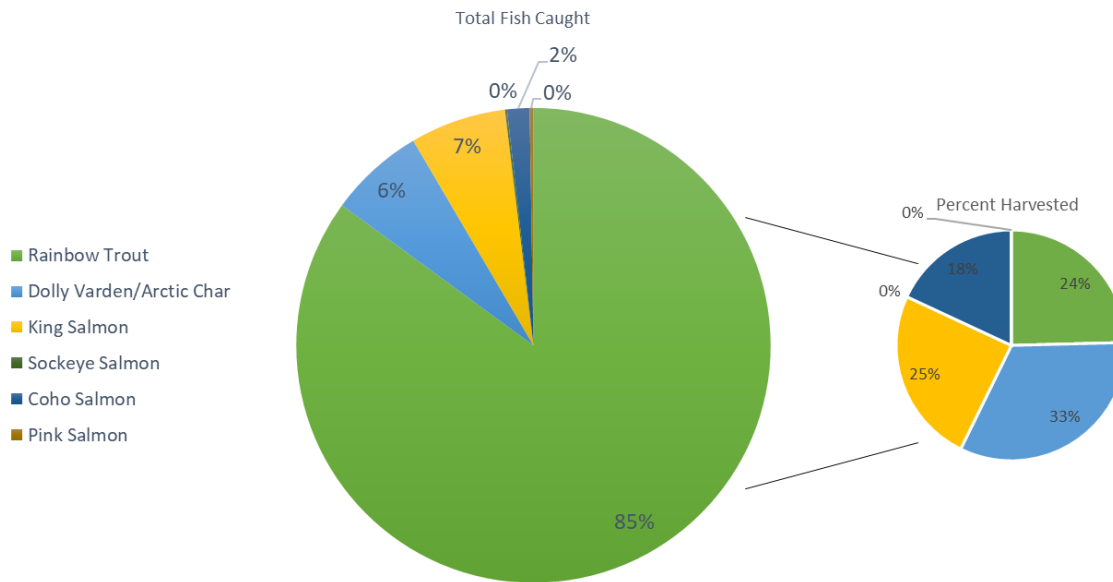


Figure 7: iSportsman Harvest Reports total catch and percent harvest of catch by species, 2019.

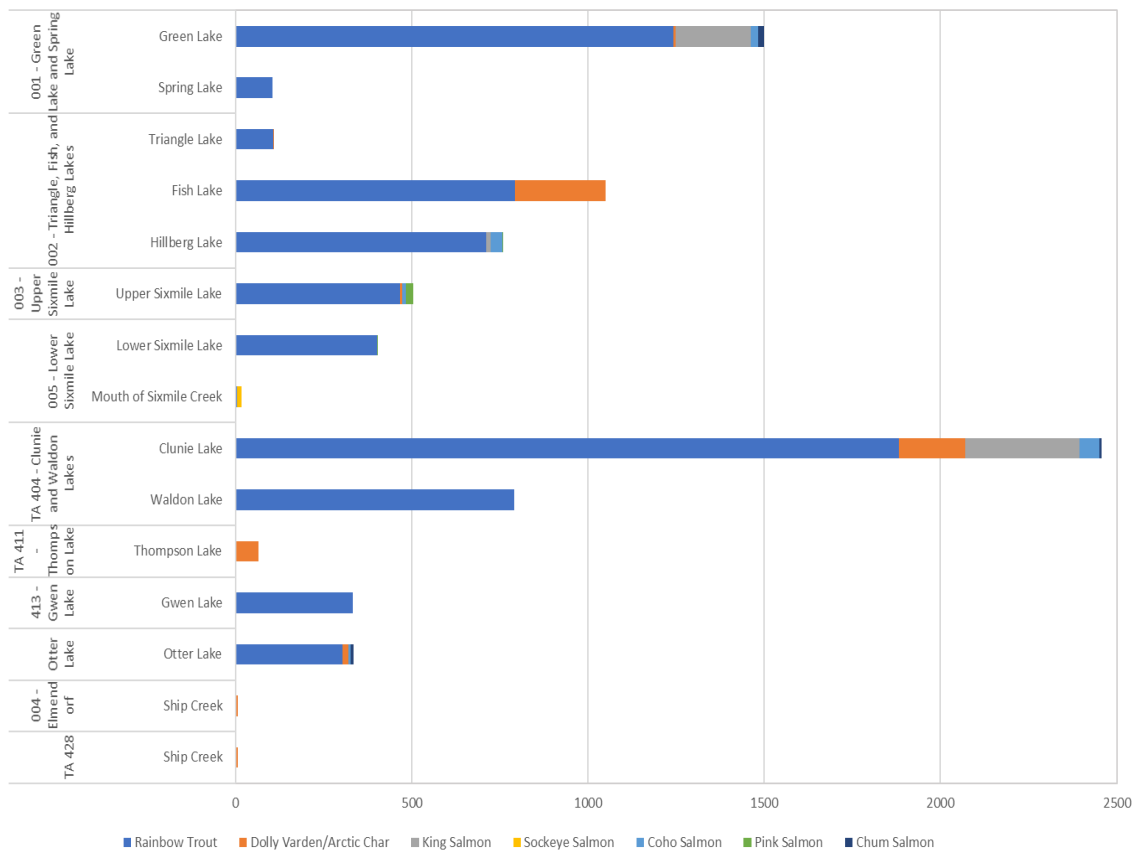


Figure 8: iSportsman Harvest Report total catch by location, 2019.

Discussion

This was the first year using the updated survey in iSportsman. The quality of information provided by the updated survey will result in greater detail regarding fishing experiences on JBER and improve our ability to make better management decisions in the future.

It is difficult to determine the total number of anglers who fished on JBER using the iSportsman system and did not participate in the harvest report (identified no fish caught). However, information provided by those who did participate in the harvest report was much more valuable than in the past. Based on the participation in the harvest surveys during the check-out process, a minimum number of anglers can be identified (anglers who reported catch). The number of anglers cannot be combined or compared to the number of sign-ins for fishing. Sign-ins in iSportsman for fishing only keeps track by affiliation (military affiliated, DoD civilian, General Public) or by the area that was signed in to. The sign-in by affiliation report generates the total number of sign-ins for the activity broken down by affiliation, which is the equivalent to number of days fished. The report generated by sign-ins by area is less accurate and should only be used for descriptive summary of areas fished. Activity sign-ins by affiliation only counts a person at check-in, but activity sign-ins by area double counts when a person signs into more than one area. The reason is due to the fact that recreators can sign into more than one area at check-in, and the report counts the two areas as separate check-ins. For example, if an active duty angler signs into Otter Lake and TA413 for Gwen Lake the report by area provides a total of two sign-ins, whereas the report by affiliation shows only one sign-in for active duty affiliation.

The harvest reports also have a comment section that has provided beneficial information regarding lake conditions, such as identifying one of the docks at Triangle Lake is in need of repair or identifying other wildlife activity in certain areas. Additional analysis of recreational fishing effort on JBER may be completed at a later date pending discussion with ADF&G about further desired information from JBER. Additional review may include, individual lake fishing activities, catch per unit effort, and comparison of activities from boat or shore.