

# Recreational Fishing Activity Report on Joint Base Elmendorf-Richardson During 2020

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## Introduction

Joint Base Elmendorf-Richardson (JBER) provides recreational fishing opportunities to military members and the general public pursuant to the Sikes Act and Air Force Manual (AFMAN) 32-7003 Section 3.32.1 and E.O. 13443 of Aug 16, 2007. JBER's recreational program is managed through the web-based recreational access 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.

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 pertinent to stocking efforts on JBER. This information helps ADF&G prioritize stocking decisions and JBER Conservation on planning and evaluation of rehabilitation, enhancement, habitat protection, and access.

This report summarizes the 2020 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 added later 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.

Prior to 2019, the fishing harvest reports received through iSportsman were not very informative and only analyzed for extent of participation and location. The locations were grouped by training area, with some lakes within the same recreational sign-in area, so 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 gather more usable information than the previous survey provided.

## iSportsman Fishing Harvest Survey

2020 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 survey parameters did not change from 2019. 2020 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. 2020 is the second full year using the updated iSportsman harvest survey and used to produce the results presented in this report.

The fishing exit survey includes 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. Results are based on the lake users identified they fished.

### ***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 who provided a range of caught fish (ex. 10-12), or a range of hours spent fishing (ex. 10+), were included in the analysis using 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 three occasions, the number of caught fish and kept fish was filled in with a letter rather than a number (ex. “P”, “O” and “Q”), which was reviewed and changed to the most likely possible number based on computer and phone keyboard locations (i.e. changed to “0”, “0” and “1”, respectively).

### **Results**

JBER recreational fishing information was analyzed for the period of 1 January through 31 December 2020. 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 misuse of iSportsman or illegal harvest of fish on JBER.

### Recreational Fishing Activity

During 2020, a total of 7,635 check-ins for fishing on JBER occurred through the iSportsman system. The number of check-ins for fishing increased 28% from 2019 (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 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 29% of the anglers fishing in 2020. The other 3% of fishing was done by DoD civilian employees and the general public.

In 2020, the estimated number of fishing activity (days fished) on JBER increased from 2019 (28%). The number of check-ins (days fished) by military and DoD affiliated recreators increased. Fishing activity by military affiliated members remained higher than military civilians and general public. There was a decrease (-22%) in the total general public (civilian) fishing activity from 2019 to 2020, but this is most likely due to base access restrictions in 2020 due to the COVID-19 pandemic. HPCON Charlie Public Health Emergency (PHE) was instituted by 673 ABW/CC on 24 March 2020, which prevented all non-essential visitors from entering JBER and continued through the remainder of 2020.

Table 1 – JBER iSportsman recreational fishing activity by user category, 2018-2020.

Affiliation Category	Fishing Activity Check-ins			
	2018	2019	2020	Δ from 2019
Military CAC Card Holder	4723	4102	5166	26%
Military ID Card Holder	2102	1628	2190	35%
DoD - Civilian Employee	7	45	113	151%
Civilian	134	213	166	-22%
<b>Total</b>	<b>6966</b>	<b>5988</b>	<b>7635</b>	<b>28%</b>

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

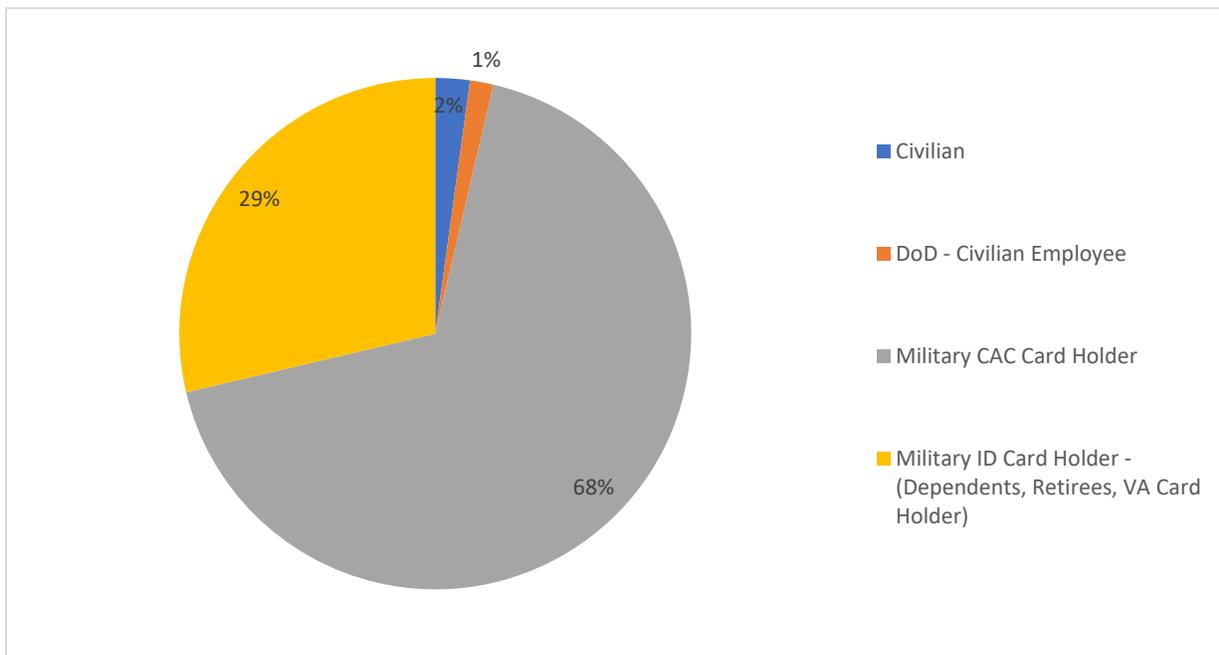


Figure 1: iSportsman fishing activity on JBER by user category, 2020.

Most of the fishing on JBER occurred during the summer months (Figure 2). During 2020, 62% of all fishing activity occurred during the months of May, June, and July.

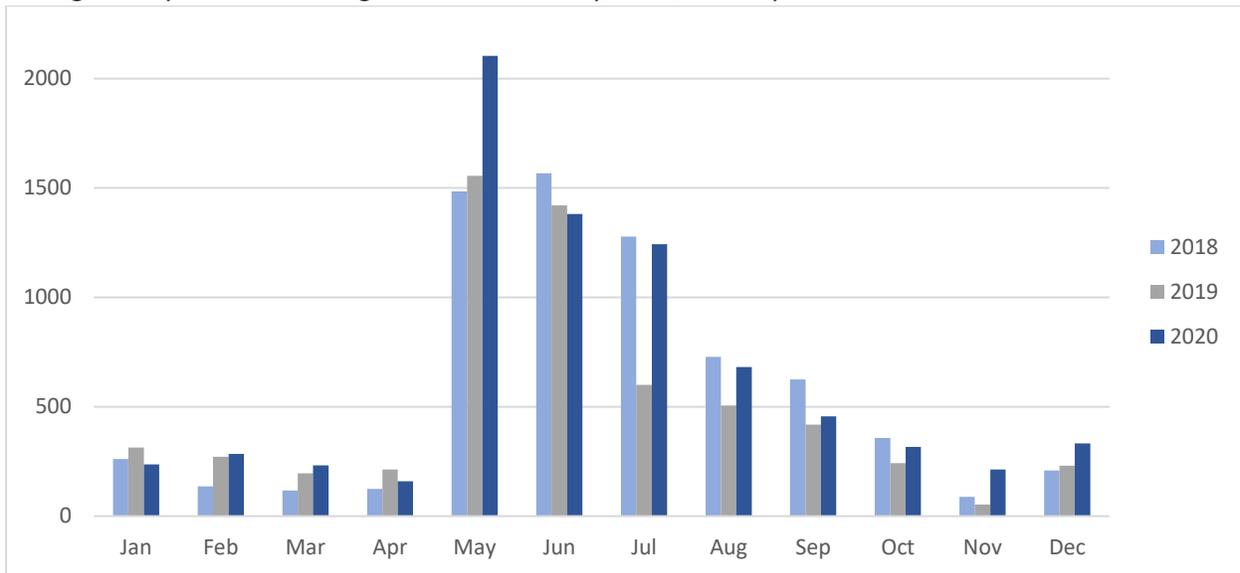


Figure 2: iSportsman monthly fishing activity on JBER, 2018-2020.

Note: Check-ins equate to fishing days.

### Participation in Exit Survey Success

A total of 1,770 harvest reports were submitted by a total of 559 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 using 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 using 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 by which lake was fished unless the harvest form was completed. All 1,770 harvest reports submitted identified a specific lake fished, allowing all harvest reports to be utilized.

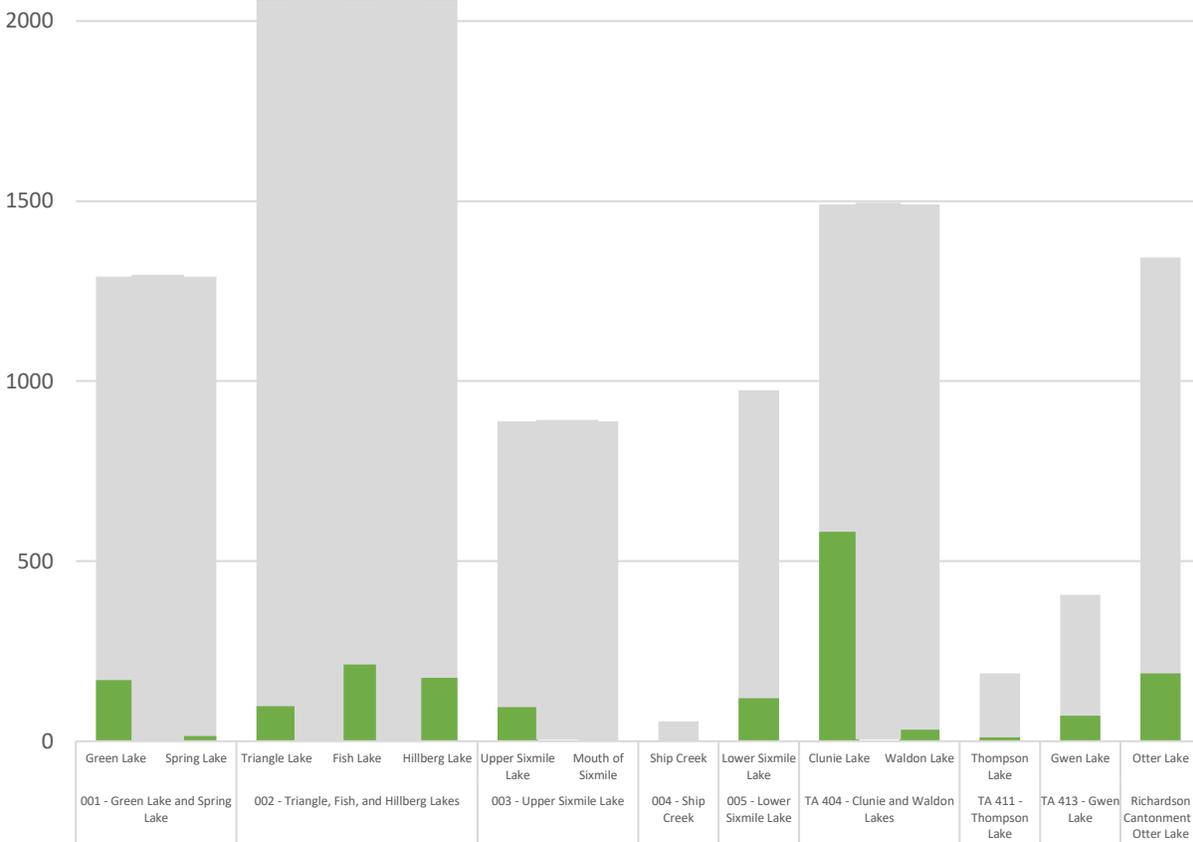


Figure 3: iSportsman fishing activity check-ins and completed harvest forms by location, 2020. The grey shaded columns represent the number of check-ins to the general area. The green columns represent the number of harvest surveys completed, by specific lake or stream fished.

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 60% of the total 2020 check-ins in iSportsman. Areas 002 (Triangle, Fish and Hillberg Lakes) and TA 404 – Clunie and Waldon Lakes, were the areas with the most user check-ins (24% and 17%, respectively). Although JBER-E had more days fished than the lakes within the Richardson training areas, TA 404 - Clunie and Waldon Lakes accounted for a total of 17% of all the Fishing check-ins in iSportsman.

It is important to note that JBER-E is available for recreation 365 days of the year, whereas JBER-R is only available when recreation in specific areas does not interfere with military training or when safety concerns are not present from military training activities. 2020 was a unique year in that JBER was in Health Protection Condition (HPCON) Charlie for part of the year which restricted access to the base by the general public. 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 2020, there were 128 days in which activities closed Clunie and Waldon Lakes to recreation. Therefore, all the fishing activities occurred during the 238 days Training Area 404 was available for recreating. Thompson Lake is within Training Area 411 which was closed to recreation for 56 days and Gwen Lake, in Training Area 413, was closed to recreation for 102 days in 2020.

Based on the harvest reports submitted, Clunie Lake was the most reported as fished, accounting for 33% of all harvest reports (Figure 5). Fish Lake had the most harvest reports submitted on JBER-E, accounting for 12% of all harvest reports. Otter Lake (11%), Hillberg Lake (10%) and Green Lake (10%) were also popular lakes fished in 2020.

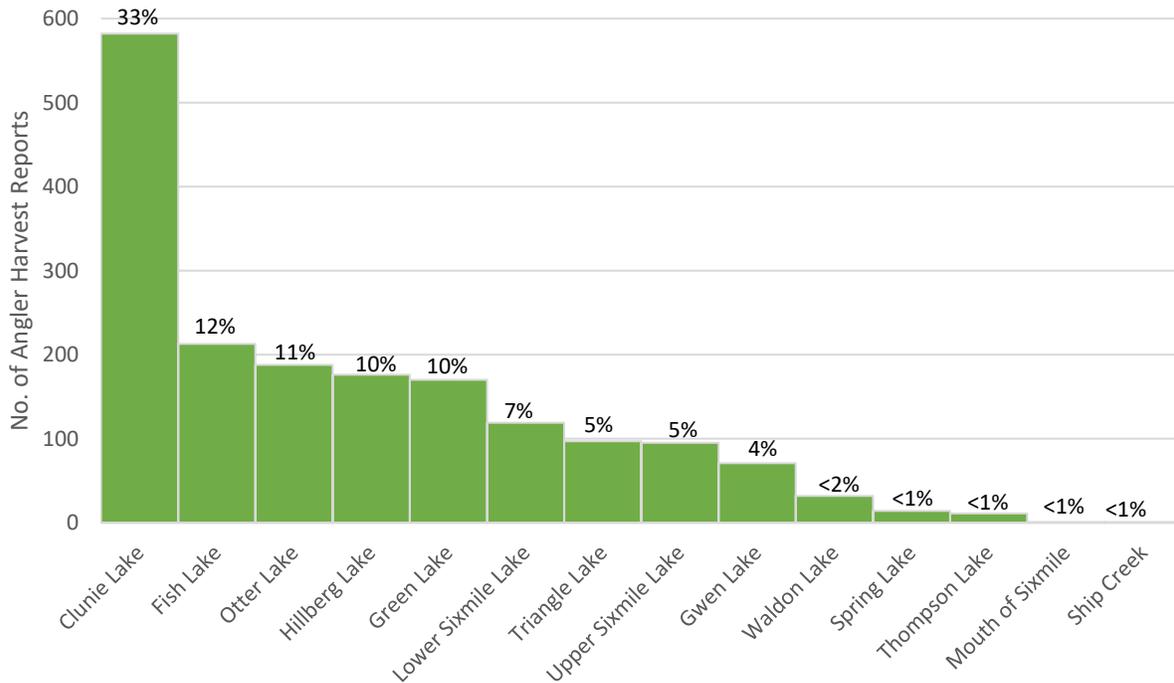


Figure 4: Harvest Report Fishing Activity by Location. Percentages on the figure is the cumulative proportion of angler reports (days fished).

### Catch and Harvest

Harvest is defined as fish kept, whereas catch or caught is defined as fish harvested plus fish released. Of the 1,770 Harvest Reports, 1,748 reports included information on the number and species of fish caught and harvested from the lakes fished.

Table 2: Summary of the 2020 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	579	2025.5	3982	2.13	1649
Fish Lake	211	535	1263	2.71	347
Green Lake	169	499	1006	2.23	304
Gwen Lake	70	218.5	501	2.69	150
Hillberg Lake	172	466	883	2.02	453
Upper Sixmile Lake	95	234	443	2.21	195
Lower Sixmile Lake	117	377	459	1.38	255
Mouth of Sixmile	1	3	3	1	1
Otter Lake	185	555.5	1046	3.05	288

Ship Creek	1	5	1	0.2	1
Spring Lake	14	45	56	1.3	26
Thompson Lake	10	27	32	1.77	23
Triangle Lake	92	241	601	3.33	204
Waldon Lake	32	93	356	4.05	79

\*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 is from less than the identified number of angler harvest reports listed and total catch in the table.

Of the angler harvest reports, 5 reports included questionable or invalid species reported (for example, reports that identified pink salmon caught in Clunie Lake, red salmon caught in Green Lake). Therefore, a total of 1,748 harvest reports were included in the following review of fish caught and harvested. A reported estimate of 10,632 fish were caught in 2020. The total included 9,745 (91.7%) rainbow trout, 416 (3.9%) Dolly Varden/Arctic char, 301 (2.8%) King salmon, 6 (0.1%) Sockeye salmon, 160 (1.5%) Coho salmon, and 3 (0.03%) pink salmon. There was also one report of one northern pike caught in Lower Sixmile Lake. Reported fish harvested was 3,975 fish which included 3,613 (37.1% of catch) rainbow trout, 231 (55.5% of catch) Dolly Varden/Arctic Char, 84 (27.9%) King salmon, 3 red salmon (50% of catch) and 44 (1.1%) silver salmon.

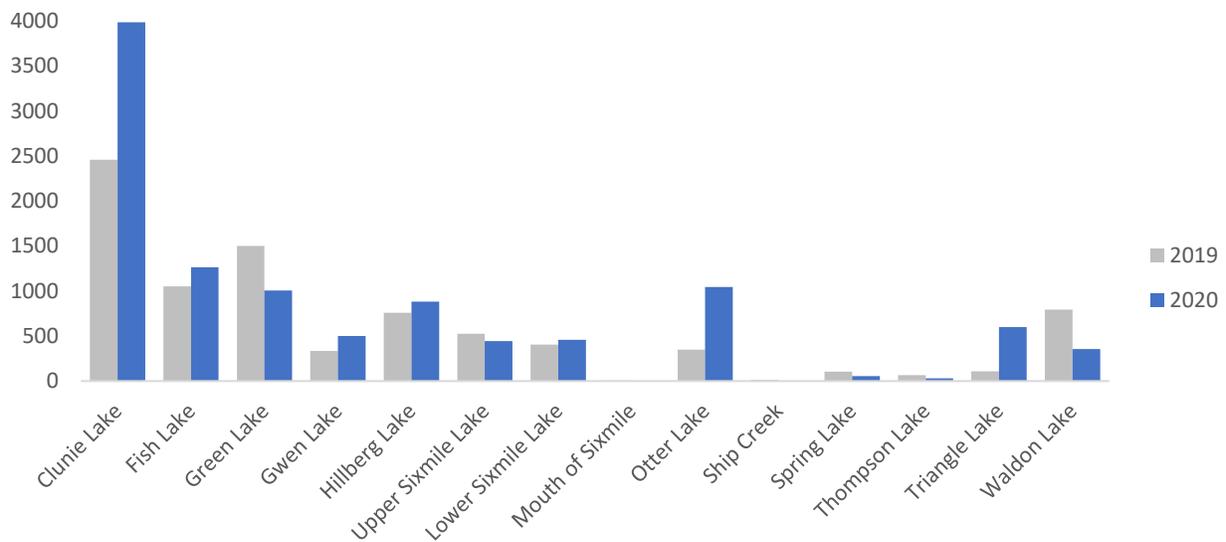


Figure 5: iSportsman Harvest Report total catch by location, 2019 and 2020.

## Discussion

This was the second year using the updated harvest survey in iSportsman. The quality of information provided by the updated survey resulted in capturing greater detail regarding fishing experiences on JBER and will 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 tracks 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. Further analysis of recreational fishing effort on JBER may be completed at a later date pending discussion with ADF&G about additional desired information from JBER. Additional review may include, individual lake fishing activities, catch per unit effort, and comparison of activities from boat or shore.