

Recreational Fishing Activity Report on Joint Base Elmendorf-Richardson During 2021

May 2022

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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 2021 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

2021 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. 2021 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. “Q”, “W” and “O”), which was reviewed and changed to the most likely possible number based on computer and phone keyboard locations (i.e. changed to “1”, “2” and “0”, respectively).

Results

JBER recreational fishing information was analyzed for the period of 1 January through 31 December 2021. 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 2021, a total of 6,381 check-ins for fishing on JBER occurred through the iSportsman system. The number of check-ins for fishing decreased 10% from 2020 (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 69% and Military ID Card Holders (Dependents, Retirees, VA Card Holders) accounted for 26% of the anglers fishing in 2020. The other 5% of fishing was done by DoD civilian employees and the general public.

In 2021 the estimated number of fishing activity (days fished) on JBER overall decreased from 2020 (-10%). Although fishing activity by military affiliated recreators (military and DoD affiliated) decreased from 2020, Military CAC Card Holder and Military ID Card Holders were still the highest user groups fishing on JBER. 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. In 2021, general public fishing activity increased by 34% from 2020, which is most likely due to the same base access restrictions in 2020.

Table 1 – JBER iSportsman recreational fishing activity by user category, 2018-2021.

Affiliation Category	Fishing Activity Check-ins				
	2018	2019	2020	2021	Δ from 2020
Military CAC Card Holder	4723	4102	5166	4382	-15%
Military ID Card Holder	2102	1628	2190	1669	-24%
DoD - Civilian Employee	7	45	113	108	-4%
Civilian	134	213	166	222	34%
Total	6966	5988	7635	6381	-10%

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

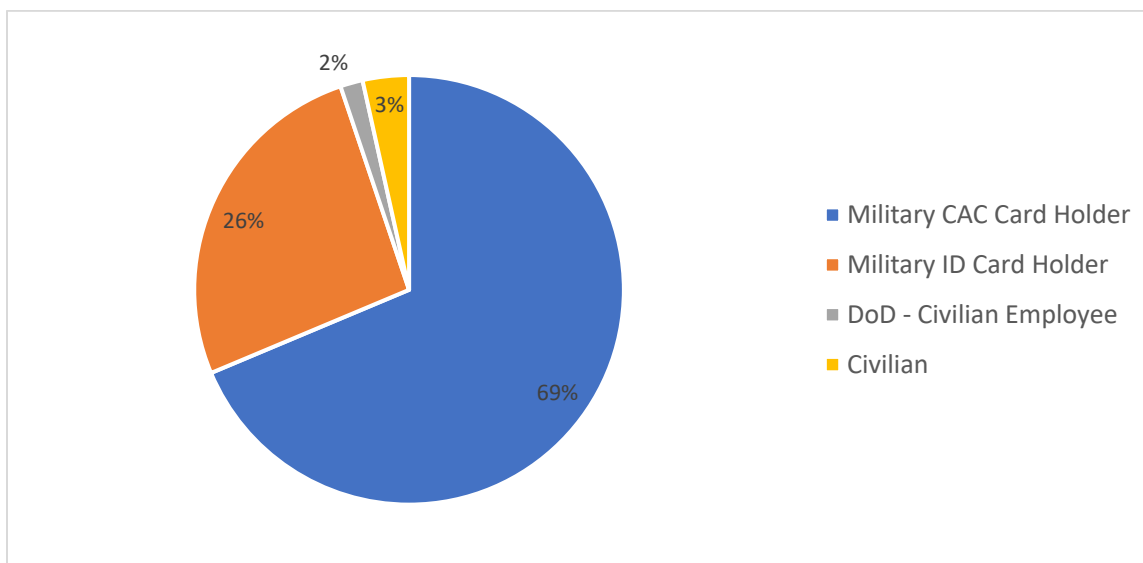


Figure 1: iSportsman fishing activity on JBER by user category, 2021.

Most of the fishing on JBER occurred during the summer months (Figure 2). During 2021, 59% of all fishing activity occurred during the months of May, June, and July.

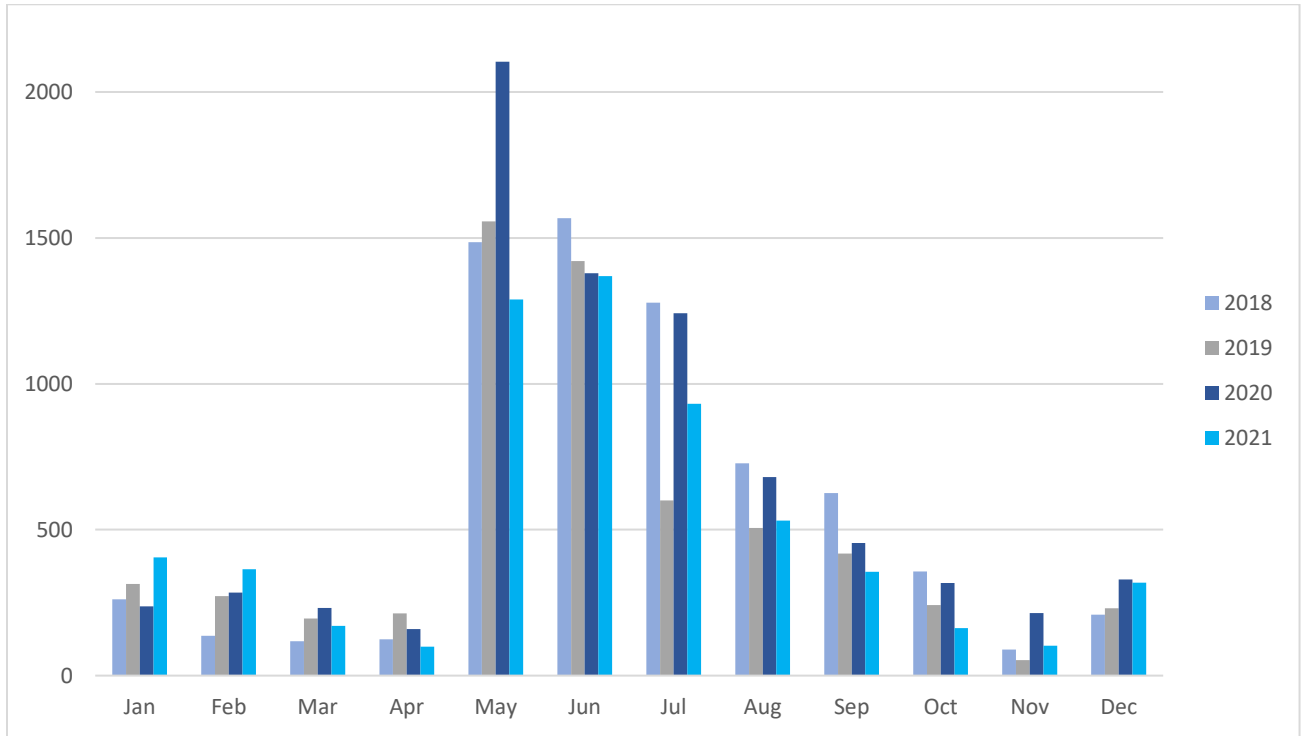


Figure 2: iSportsman monthly fishing activity on JBER, 2018-2021.

Note: Check-ins equate to fishing days.

Participation in Exit Survey Success

A total of 1,341 harvest reports were submitted by a total of 523 anglers. An overall participation rate of 21% 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 1,341 harvest reports submitted identified a specific lake fished, allowing all harvest reports to be utilized.

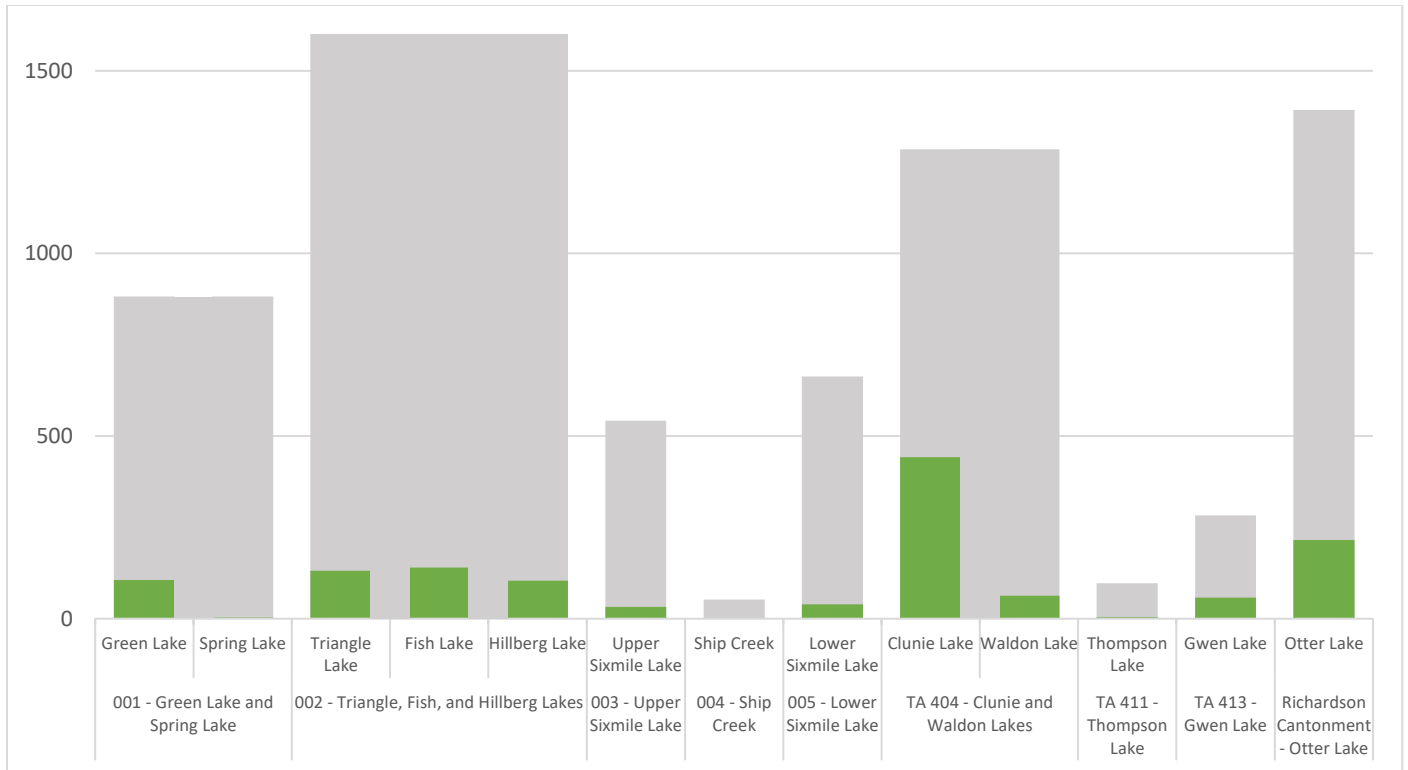


Figure 3: iSportsman fishing activity check-ins and completed harvest forms by location, 2021. The grey shaded columns represent the number of check-ins to the general area. The green columns represent the number of harvest surveys completed, by specific lake or stream fished.

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 55% of the total 2021 check-ins in iSportsman. Areas 002 (Triangle, Fish and Hillberg Lakes), Otter Lake, and TA 404 – Clunie and Waldon Lakes, were the areas with the most user check-ins (24%, 20% and 19%, 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 19% 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. In 2021, base was accessible to the public again, unlike 2020 when 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 2021, there were 79 days in which activities closed Clunie and Waldon Lakes to recreation. Therefore, all the fishing activities occurred during the 286 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 76 days in 2021.

Based on the harvest reports submitted, Clunie Lake was the most reported as fished, accounting for 33% of all harvest reports (Figure 5). Fish and Triangle Lakes had the most harvest reports submitted on

JBER-E, accounting for 10% (each) of all harvest reports. Otter Lake (16%), Hillberg Lake (8%) and Green Lake (8%) were also popular lakes fished in 2021.

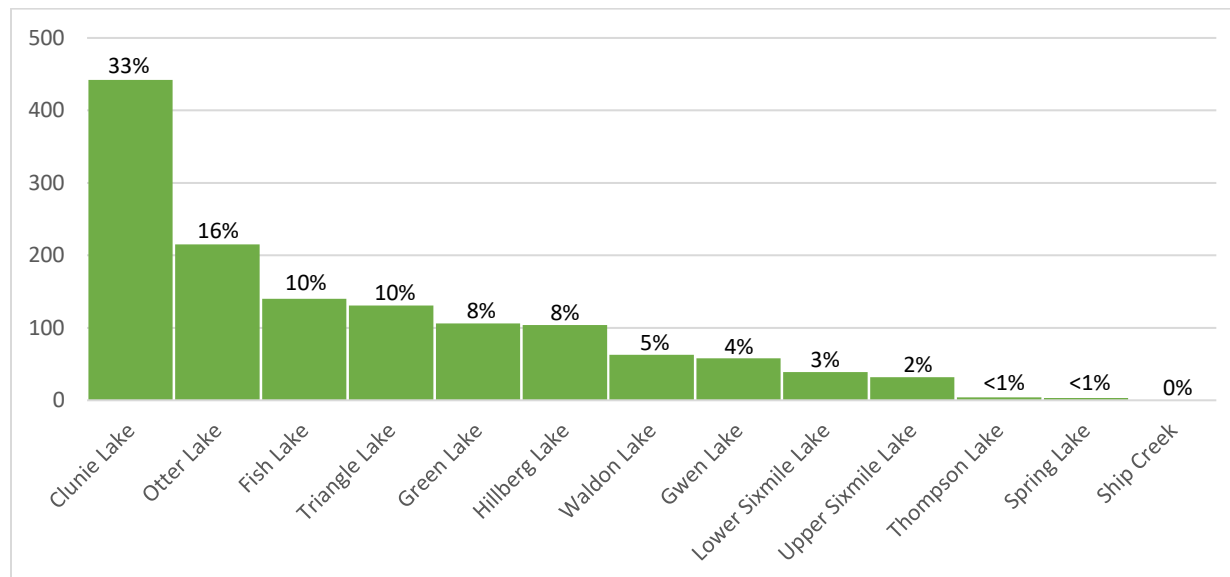


Figure 4: Harvest Report Fishing Activity by Location. Percentages on the figure is the cumulative proportion of angler reports (days fished).

Catch and Harvest

Harvest is defined as fish kept, whereas catch or caught is defined as fish harvested plus fish released. Of the 1,341 Harvest Reports 1,339 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	Total Angler Hours	Catch (all species)	Mean Catch/hr*	Reported Harvest (all species)
Clunie Lake	442	1414	3525	2.67	953
Fish Lake	140	287.5	795	3.01	146
Green Lake	106	261	613	2.40	142
Gwen Lake	58	179.5	431	2.82	130
Hillberg Lake	104	269.5	664	3.00	346
Upper Sixmile Lake	32	71	157	3.12	37
Lower Sixmile Lake	39	117.5	105	1.36	39
Mouth of Sixmile	1	2	12	6	1
Otter Lake	215	574	1070	2.36	276
Ship Creek	0	-	-	-	-
Spring Lake	3	7	19	2.89	0
Thompson Lake	4	11	10	1.79	7
Triangle Lake	131	290.5	1007	3.9	195
Waldon Lake	63	170.5	755	4.02	164

*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, 14 reports included questionable or invalid species reported (for example, reports that identified pink and chum salmon caught in Clunie Lake, pink salmon caught in Green Lake, chum, pink and red salmon caught in Fish Lake). A reported estimate of 10,632 fish were caught in 2020, in 2021 a reported 9,163 fish were caught, which is a decrease of 14% from the previous year. The 2021 total included 8,345 (91.1%) rainbow trout, 127 (1.4%) Dolly Varden/Arctic char, 408 (4.5%) King salmon, 20 (0.2%) Sockeye salmon, 138 (1.5%) Coho salmon, 2 lake trout at Clunie Lake and 125 (1.4%) mis-ID'd fish. There were also two reports of two northern pike caught in Lower Sixmile Lake. Reported fish harvested was 2,436 fish which included 2,230 (27% of catch) rainbow trout, 61 (48% of catch) Dolly Varden/Arctic Char, 83 (20%) King salmon, 2 red salmon (10% of catch) and 27 (20%) silver salmon.

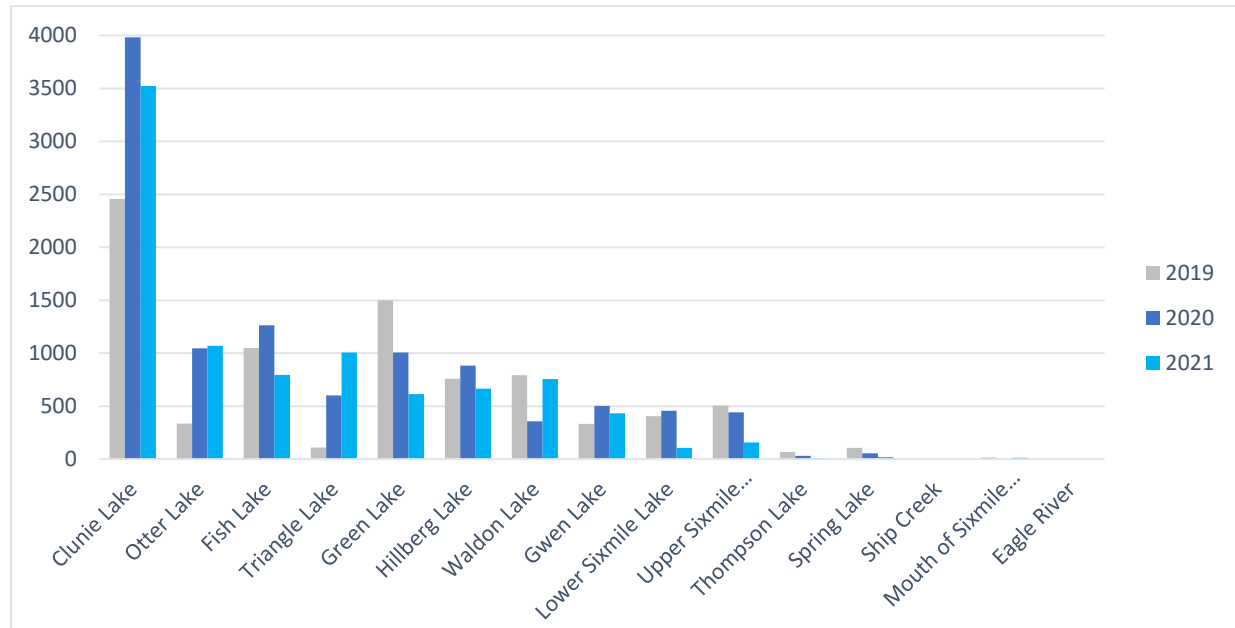


Figure 5: iSportsman Harvest Report total catch by location, 2019 - 2021.

Discussion

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.