

North Coast Salmon Report Card Annual Report 2022



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Summary

Recreational salmon harvest on the Klamath, Trinity and Smith Rivers requires the possession and use of the North Coast Salmon Report Card. Anglers use this card to self-report effort and catch, primarily for Chinook Salmon. However, as a self-reporting tool, the card does not currently provide a robust data set, with about a one-third return rate. At this point, salmon card data is not used for harvest estimates. As detailed in the report below, the cards provide issuance, revenue and shows trends in effort data across the usage area, which is useful for areas in which there are no active creel surveys. In 2022, North Coast Salmon Report Cards generated a net total of \$127,778 from a total of 20,577 annual and lifetime report cards issued. This represented approximately a 2.6 percent decrease in revenue from the prior year.

Introduction

Salmon are a popular sport fish among California's recreational anglers. In particular, Chinook Salmon (*Oncorhynchus tshawytscha*) are targeted by anglers in the ocean and in-river fisheries. For fishing in-river salmon on the North Coast of California, anglers are required to report their effort and catch to the California Department of Fish and Wildlife. The North Coast Salmon Report Card (salmon card) is a required license endorsement for all recreational anglers targeting Chinook Salmon in the Klamath-Trinity and Smith River systems. The salmon card was first issued in 2008, and was preceded by the Salmon Punch Card, which was a reporting system for recreational salmon fishing state-wide.

The salmon card can be purchased as required to supplement annual and lifetime fishing licenses, as well as purchased individually for unlicensed anglers (younger than 16 years of age), or those fishing on a California "Free Fishing Day". The card includes three reporting requirements; fishing location, effort and catch. The effort component includes the month and day fishing took place, and the location code of where fishing took place. The catch component includes retention and release information for grilse (jack) and adult Chinook Salmon, as well as hatchery mark information for each fish when applicable. The salmon card also includes release and hatchery mark information for Coho Salmon (*Oncorhynchus kisutch*), which are state and federally listed as threatened. Issuance of the salmon card comes with several requirements, including but not limited to: have report card in immediate possession while fishing, entries shall be made legibly in indelible ink, catch to be immediately reported upon landing a fish (retained or released), report cards are non-transferable, and cards must be returned by January 31 of the following year. Information and regulations for Sport Fishing Report Cards (including the North Coast Salmon Report Card) can be found in the current California Department of Fish and Wildlife Freshwater Sportfishing Regulations. Additional report card(s) may be purchased when the first card is completed, if the angler shall continue salmon angling.

Funding from salmon report cards goes into the Department's General Fund, which is used for various expenditures throughout the Department. For purposes of the Klamath River Project, the cards fund the Department's spring creel survey in the lower Klamath River, including both the field data collection and data entry. Additionally, these funds are used for salmon card data entry from cards submitted by mail.

Year in Review

In 2022, the Klamath Basin and Smith River were open to recreational salmon fishing. The spring Chinook Salmon fishery in the Klamath Basin was operating under the truncated season length for the fourth year since Upper Klamath Trinity River Spring Chinook Salmon were petitioned, and subsequently listed as “threatened” under the California Endangered Species Act (CESA). The Spring Chinook season for 2022 began July 1 and ran through August 14. Total harvest (estimated from creel surveys) was 481 spring Chinook Salmon. The Klamath River Fall Chinook (KRFC) fishery beginning August 15 on the Klamath and September 1 on the Trinity River, was allocated a small basin quota of 2,119 adults. All sector quotas were met over the course of the season, with the exception of the Lower Trinity River. Post-season harvest estimates from creel surveys totaled 240 Chinook Salmon harvested during the spring creel survey (July 1 through August 5), and during the fall creel survey (August 6 through November 4) with a post-season harvest estimate of 3,191 fall Chinook Salmon. Additionally, harvest estimates for the Upper Klamath sector (from the Highway 96 bridge at Weitchpec upstream to Iron Gate Hatchery) totaled 768 KRFC. On the Trinity River, estimates of harvest are derived from angler tag returns from fish tagged at Junction City weir for spring Chinook Salmon, and from Willow Creek weir for fall Chinook Salmon. A total of 186 spring Chinook Salmon, and 309 fall Chinook Salmon were harvested in 2022 from the Trinity River.

For the Smith River, as there is no active creel survey or tagging weirs, fishing seasons can only be effectively compared from year to year through salmon card analysis. In that respect, in 2022, the Smith River had an ~36% decrease in effort since the previous year (830 trips in 2021, as compared to 534 trips in 2022). In similar fashion, the total number of fish reported harvested decreased from the previous year; 99 adult Chinook Salmon harvested in 2021, as compared to 79 adult Chinook Salmon harvested in 2022.

Issuance and Revenue

In 2022, a total of 20,577 North Coast Salmon Report Cards were issued. A total of 18,254 annual cards were sold at a \$7.00 fee (a \$0.25 increase from 2021). As of 2019 the “Lifetime” North Coast Salmon Report Cards cost \$0.00, (no longer a fixed \$1.00). A total of 2,323 report cards were issued to holders of Lifetime Sport Fishing Licenses were issued. This accounted for a total revenue of \$127,778 for 2022. This year ranked fourth lowest in total number of cards issued, but only eighth lowest in terms of annual revenue (Figures 1 and 2). To date, North Coast Salmon Report Card sales have generated \$1,840,253 in the fifteen years of issuance, with an average of \$122,684 per year. As seen in Figure 1, sales peaked in 2012, which coincided with the highest Klamath in-river quota since establishment of the cards in 2008.

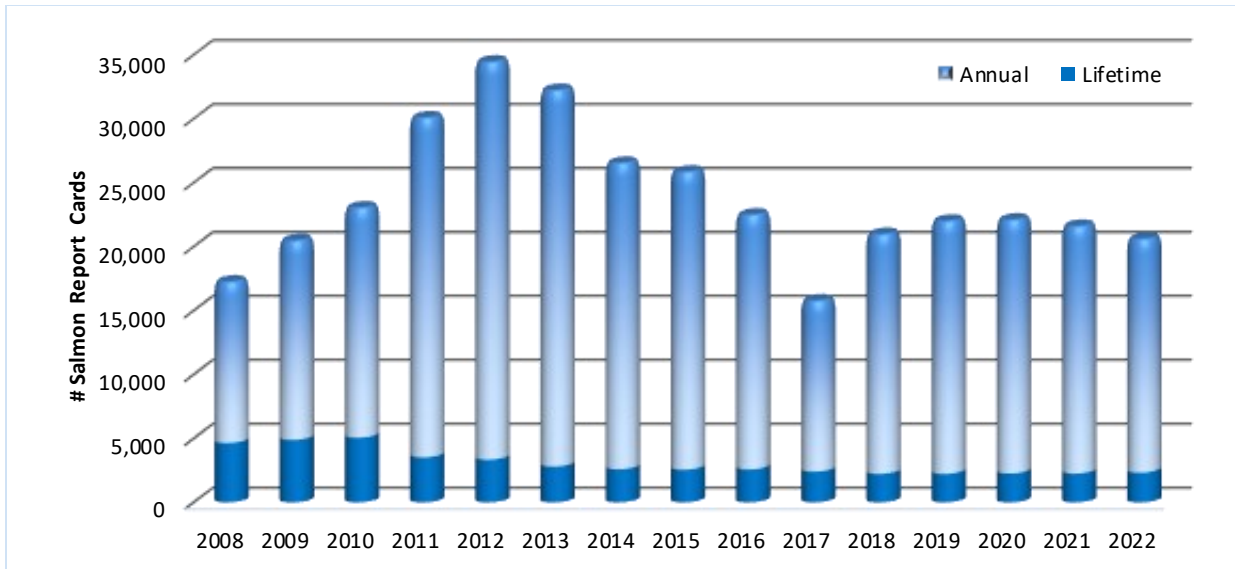


Figure 1. North Coast Salmon Report Card number issued by year.



Figure 2. North Coast Salmon Report Card revenue and annual purchase price by year.

Harvest Reporting

Under the current Code of Regulations, anglers with a salmon card are required to report harvest. This can be done by mailing the card directly to 5341 Ericson Way Arcata, CA 95521, or anglers can submit their harvest information through the Department’s online portal at:

<http://www.wildlife.ca.gov/Licensing/Fishing#44521416-harvest-reporting>

Though anglers are required to return their salmon cards by January 31 of the following year, return rate is far less than 100%, however most returned cards are submitted by the deadline. A significant number of cards are submitted after that date, with most being not returned at all. As of May 1, 2023 the total number of returned 2022 North Coast Salmon Report Cards was 6,057; a 29.44% return rate.

Most cards are submitted by the card holder via the Department's online harvest reporting portal. For 2022, a total of 5,824 were submitted through the online portal, and the remaining 233 cards were mailed into the address above and entered by CDFW staff. Comparing usage levels, those submitted through the online portal account for 1,289 used and 4,535 unused, while mailed in cards accounted for 143 used and 90 unused report cards. Of the total returned cards, 5,888 were returned by anglers that purchased one report card. Additionally, 81 anglers purchased and returned two cards (the original and an additional report card), 1 angler that purchased and returned three cards (the original and two additional report cards), as well as a single angler that returned four cards (the original and three additional report cards).

Report Card Use and Usage by River

Of the 6,057 cards returned, a total of 4,625 (76.36%) were returned "Not Used". Of the 1,432 cards that were used, 546 (38.12%) were used for a single angling trip. Cumulatively, the data reported indicates a total of 5,082 instances of angler effort. Of this effort, the Klamath River accounted for 3,148 trips (61.94%); followed by the Trinity River for 1,378 trips (27.12%); and the Smith River for 534 trips (10.51%). Additionally, 22 (0.43%) instances of effort were from any "Tributaries of the Klamath and Trinity Rivers open to salmon fishing" (although there are no tributaries of the Klamath open to salmon take). This could possibly be explained by anglers completing their salmon report card at the same time as their steelhead report card as a matter of habit, if they caught a salmon while fishing for steelhead in no salmon take locations or recording the wrong location code on their card.

Location distribution is categorized by the location codes on the salmon card, to be entered by the angler when engaging in recreational angling. Report card data indicates that on the Klamath River, of 3,148 instances of effort, 2,576 (81.83%) of which occurred in the area from the Highway 96 Bridge to the mouth. On the Trinity River, of the 1,378 instances of effort, 1,033 (74.96%) of which occurred in the area from Old Lewiston Bridge to Hawkins Bar Bridge. On the Smith River, of 534 instances of effort, 337 (63.11%) instances occurred from the Smith River mouth up to the mouth of Rowdy Creek and 171 (32.02%) occurred from the mouth of Rowdy Creek to the confluence of the North and South Forks.

Effort Demographics

Issuance of salmon cards is primarily to California resident anglers, however, in 2022 cards with at least one line of effort were returned by anglers from California and 19 other states and the District of Columbia. No report cards were returned by anglers of international origin. In terms of effort, California resident anglers accounted for 4,750 of the total 5,082 (93.47%) reported instances of effort. Oregon,

with 122 (2.4%) of total reported effort, is the second most representative state, with all other location origins accounting for 4.13% of angler effort.

Catch and Harvest

Total reported catch for Chinook salmon (adults and jacks) was 3,972, which included 2,366 harvested and 1,606 released. Currently Smith River jacks are identified as ≥ 22 " TL, while Klamath-Trinity basin jacks are identified ≥ 23 " TL. Hatchery adipose-clipped Chinook account for varying percentages of catch depending on basin or sub-basin. Hatchery Chinook accounted for 19.52% of the total harvest in the Klamath River, and 18.02% in the Trinity River and 20.2% in the Smith River. Jacks accounted for 42.81% (1,013 divided by 2,366) of harvest, and 37.36% (1,484 divided by 3,972) of total Chinook catch, and representing 50.00%, 23.72% and 20.20% of total catch in the Klamath, Trinity and Smith Rivers, respectively. Breaking out total Chinook harvest by river; the Klamath harvested 78.07%, the Trinity 16.79%, Tributaries 0.39%, and the Smith 4.75%. Additionally, a total of 67 coho were released, including 10 hatchery maxillary clipped individuals (Tables 1 and 2).

Table 1. 2022 Angler harvested jack and adult ad-clipped and unmarked Chinook Salmon by river.

River	Chinook Adults		Chinook Jacks		Totals
	Ad-clip	Non-clip	Ad-clip	Non-clip	
Klamath	164	702	174	692	1,732
Trinity	65	337	30	95	527
KT Tribs	3	3	0	2	8
Smith	19	60	1	19	99
Totals	251	1,102	205	808	2,366

Table 2. 2022 Angler released jack and adult ad-clipped and unmarked Chinook Salmon and maxillary clipped and unmarked Coho Salmon by river.

River	Chinook Adults		Chinook Jacks		Coho (All)	
	Ad-clip	Non-clip	Ad-clip	Non-clip	Max-clip	Non-clip
Klamath	185	518	29	129	9	29
Trinity	65	268	56	196	12	12
KT Tribs	0	2	0	1	4	6
Smith	18	79	6	54	0	1
Totals	268	867	91	380	25	48

Discussion

Since first issuance in 2008, the North Coast Salmon Report Card has generated over \$1.84 million in revenue for the Department. In 2022, salmon card sales generated just under \$128,000, or ~104% of the average annual revenue over the past fifteen years. Despite the \$0.25 increase over the 2021 license year, fewer licenses were sold, which attributes to the slight decrease in annual revenue from the previous year.

As noted above, 2022 North Coast Salmon Report Cards were subject to a single fee structure change. The annual card increased in price by \$0.25 to a total of \$7.00. This gradual price increase continues to offset the elimination of the fixed \$1.00 fee for Lifetime license salmon cards, which would have generated \$2,323 under the previous (2018) fee structure. As indicated from CDFW staff conversations with LRB staff, the change in fee structure for the lifetime license salmon card was done to eliminate all lifetime license elements from leveraging the lifetime trust fund and are now distributed directly to their respective element (Sivak, 2020. Pers. Comm.)

In 2022, the Klamath and Trinity comprised over 89% of the total reported effort. With regards to salmon card return rates and reporting requirements, based on historic anecdotal information from project staff, the return rate for salmon cards has been steady around ~30-35%, and 2022 (29.44%) was no exception. For purposes of completing this report in a timely manner, we must select a cut-off date. As noted, the cut-off date for this year's analysis was May 1, the same date as most previous reports. It is intended that May 1 will continue to be used as the annual cut-off date for collecting salmon card data, as it is three months after the submission deadline. Although report cards are continually submitted late throughout the year, the bulk are submitted on time, or shortly thereafter. Although the return rate has remained steady at about one-third, this is still well below the goal of 100% return rate for sport fishing report cards and will continue to be monitored and observed in previous and future years' data.

There are efforts being made to standardize report card requirements. Section 1.74(d)(A) states that "Any report card holder who fails to return or report their salmon, steelhead, sturgeon, or abalone report card to the Department by the deadline may be restricted from obtaining the same card in a subsequent license year or may be subject to an additional fee for the issuance of the same card in a subsequent license year." Implementation of such fees or report card issuance restrictions could increase return rate, as evidenced by the Sport Lobster Report card. Lobster cards had very low return rates (10-15%) in the early years of implementation (2008-2012). Upon implementation of the fee in regulatory year 2012-2013, the return rate roughly doubled (25-30%), but also resulted in a substantial increase in logistics and data management (Tom Mason, pers. comm. 2018). As of 2022, lobster report card returns are reported to be trending around 50%, with return rates appearing to continue to increase. In contrast to the recreational lobster fishery, a substantial portion of North Coast recreational salmon fisheries are well-monitored by various surveys; lower Klamath River creel survey, Trinity River Angler Tag>Returns and a creel survey conducted on the Hoopa Reservation by Hoopa Valley Tribal Fisheries. The Smith River is the only major sector that is currently not surveyed for recreational effort (historical and recent surveys; see Zuspan 2018), and report card data is not currently used in

management applications. The cards do however assist in enforcement efforts regarding daily bag and possession limits, as well as providing indications of general trends in fishing locations.

In addition to items noted above, the Department is working towards implementing digital licensing, endorsements and harvest cards across all hunting and fishing validations. At this point, digital harvest cards are under development, and remain solely as printed “hard copy” versions. With the implementation of digital licensing/harvest reporting, it is hoped that automatic uploading of report card information will be provided to the Department in near real-time and eventually will no longer rely upon card holders to submit their information under their own volition. This presumably will increase reported data, and perhaps offer enough information to use in crafting regulation. As these digital products are developed and implemented, report results may need to be altered to reflect the organizational structure of these data.

In the Smith River, there are some additional factors not related to the report card that bear mentioning. Firstly, unlike the Klamath-Trinity basin, the Smith River is subject to low flow closure management. In 2022, this closure went into effect approximately one month earlier (in September), and likely resulted in the substantial decrease in fishing effort from the previous year. Additionally, recent updates in monitoring efforts on the Smith should provide additional sonar video data and observation data available for use in fishery management.

Until 2020, length cut-off between jacks and adults were the same for both the Smith River and the Klamath-Trinity basin, at 22” total length, at which time, the length cut-off in the Klamath-Trinity basin was increased to 23” TL. This has partially accounted for the recent overages in the Klamath-Trinity basin recreational harvest estimates. In 2023, the Fish and Game Commission approved regulation changes that allow for an annually variable length cut-off to be implemented with the quota and bag/possession limits each year. This new tool will likely allow for more effective in-season management of the Klamath basin in-river quota, and result in the decreased likelihood of post-season estimates exceeding the harvest allocations. A similar annual variable length cut-off is not currently established for the Smith River basin.

With regards to the planned removal of four dams on the Klamath River mainstem in 2023 and 2024, it is anticipated that the North Coast Salmon Report Card will need to be updated to reflect the additional locations that will be accessible to anglers in the future. Similar to digital updates in licensing, these items are currently under development and will be integrated into this report as they are implemented.

In conclusion, salmon cards may prove to be a valuable tool in corroborating the validity of other management methods, monitoring regional effort trends, assessing angler demographics, identifying bias in angler reported information, and in general, providing the Department with another resource that educates recreational anglers on regulations and resource management.

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