

The 2003 Coastside / RFA Groundfish Survey Report

A cooperative analysis by the Coastside Fishing Club and
the Recreational Fishing Alliance.

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Acknowledgements

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Introduction / Objectives

All aspects of the fishery management team have repeatedly acknowledged the need for quality data concerning the health of the groundfish fishery. In particular, the groundfish catch attributed to the recreational fishing community has been difficult to quantify, because of the distributed and individual nature of the recreational fishing segment, which makes data collection difficult.

From its inception, the Coastside Fishing Club has collected voluntary data from its members in order to share our catch data among our membership for the purpose of enhancing our fishing experiences. The leadership of the Coastside Fishing Club and the Recreational Fishing Alliance have recognized that the resulting database can be also be used to enhance the data available to the fishery managers. It is our intention to make this data available in order to augment and enhance the data traditionally used to manage the fishery.

Executive Summary

The Coastside/RFA analysis of the recreational rockfish catch for Northern California for the months of July and August 2003 utilizes the combined information contained in the unique database of the Coastside Fishing Club, Harbormaster data, and the traditional fishery management MRFSS database. Our analysis focuses on the recreational catch of the private boaters in Northern California. These results must be combined with the catch data from the Northern California CPFVs to determine the overall recreational rockfish catch.

In essence, the Coastside data assesses the relative frequency that recreational fishermen target rockfish, finding that it constitutes less than 20% of their fishing effort. When combined with the launch data, it demonstrates that during the months of July and August 2003, the private boating segment of the recreational community took approximately 45 Metric Tons of rockfish in Northern California waters.

Additionally the availability of the Coastside data, and this effort, open the door to future opportunities to work cooperatively to improve the management of the various Pacific fisheries pertinent to the recreational fishing community.

Analysis Methodology

This report brings forth two independent catch assessments of the Coastside membership: one based exclusively on the daily postings of our membership, and another based on a solicited survey of our membership. These two independent data sources assess the quality of our data, and are then combined with data elements from the MRFSS database to create a new assessment of the recreational groundfish catch in Northern California.

Daily Coastside Postings – This database consists of voluntary postings from our membership of our daily fishing experiences. The essential feature of these postings is the credibility of the database. Since its purpose is to advise “tomorrow’s” fisherman of where “today’s” fishermen were successful, or not successful, the database relies of the openness and honesty of the reporting members. The success of the Club is in large part attributed to the quality of the data on the daily postings – since we rely on the data to guide our fishing plans. If the data were found by our membership to not be helpful in enhancing our fishing experience, the Club would have failed long ago. That the Club prospers is a testament to the quality of the data contained in the database.

The database itself consists of postings from individual fisherman on where they caught (or did not catch) fish (usually by lat / long), what and how many fish were caught, and by what technique or tackle. The postings are made the day of the trip, contributing to the quality of the data – timeliness is as essential as accuracy when planning “tomorrow’s” trip.

To acquire the data for this report, approximately 1246 individual postings were reviewed, line by line, by Coastside volunteers to extract the number of fishing trips taken by our members during the months of July and August 2003. Each posting was reviewed and categorized according to the targeted species (Tuna, Salmon, Rockfish, or Halibut). These data were then used to compute the percentage of our membership’s effort devoted to these categories of fish. Since the postings are voluntary, and were not planned for the purpose of fishery management, they cannot be used to represent the actual numbers of fishing trips or effort – but they do accurately reflect the percentage of our effort devoted to these categories.

Solicited Survey – This instrument (see Appendix B) was created expressly for assessing the accuracy of our analysis of our daily postings. It consisted of a direct questionnaire to our roughly 4000 members, asking them to recount their fishing trips for the months of July, August, September, and October, by the targeted species, and their results. We received 520 responses, which were analyzed to again provide the percentage of our membership’s effort, by month, devoted to Tuna, Salmon, Rockfish, or Other categories. While the response rate is somewhat lower than desired, the actual number of responses is significantly greater than other fishing data surveys.

Additional Data Sources – Other sources of data are required to create the assessment of the recreational rockfish catch. While the Coastside data discussed above provides a credible assessment of the frequency that the recreational fishing community targets rockfish, it does not address the actual numbers of fishing trips, the success rate of the trip, nor the size of the fish caught. For these data, we needed to acquire additional data.

To accurately assess the total fishing effort, we surveyed the 13 harbors (launch ramps) that serve the Northern California coastal fishing community. These range from Morro Bay in the south, to Crescent City in the north. Where possible we received precise data from the harbor masters, based on their launch ramp receipts, indicating the total number of skiffs launched during the months of July and August 2003. In two instances (Eureka

and Bodega Bay), we used Coast Guard estimates of launches in this period. Where no other sources of data were available, Coastside and RFA members, based on their local knowledge of the particular harbor, estimated the number of launches. See Table 01 for the details of the total ocean sport fishing launches in Northern California by harbor.

Still other data is needed to compute the total recreational private boater rockfish catch. We needed to estimate the number of fishermen per boat (launch), which we did based on our Club's collective assessment of boatloads. In addition, we needed estimates for the number of rockfish caught per person-trip, and of the average size of the fish caught. For these two pieces of data, we used the traditional MRFSS data. These data are typically derived from direct launch ramp surveys, which are of similar quality to our Coastside database.

Analysis Assumptions and Approach

In conducting this analysis, we were guided by the following basic premise: that the safety and health of the rockfish fishery is paramount. If we were to error, it would be on the side that would provide the most protection to the fishery, not the fisherman. To that end, we made several assumptions discussed below.

In assessing the total fishing effort, we relied on launch ramp data. While we recognize that not all boats that launch actually engage in fishing (particularly in the large harbors like Monterey and San Francisco where many launches are purely pleasure boaters – sail, whale watching, etc.), we assumed that all launches were fishermen. While this will overestimate the number of fishing trips, this assumption compensates for those recreational fishermen who berth their boats, rather than launch, and so provides a reasonable estimate of the number of trips.

When we used two methods to arrive at a computational element, we chose to use the number that would compute the larger catch, and used the lower number purely as a quality check on the methodology.

We did not attempt to discount the fishing effort due to weather. That is, even though bad weather (wind, swells, fog, and wind waves) many times will prevent a launched vessel from reaching the fishing grounds, or shorten the duration of the fishing effort, we counted each launch as a full fishing trip.

By utilizing the information in the 1246 daily Coastside posts and the 520 Coastside survey responses, we are able to achieve a significant sample size, and significantly enhance the quality of the fishery management data. By its nature, those fishermen who actively participate in a fishing club, and those of the Coastside Fishing Club in particular, tend to be the most dedicated, skilled, and successful fishermen. Never the less we attributed all fishermen with the same prowess as our Coastside membership.

In addition, we are confident that the Coastside database is true and valid for the purposes and methods of this analysis. Particularly so, since it was created to provide unbiased, accurate, and timely information to our club members. In both of these Coastside sources, the relative frequency information includes data from those who berth their boats and those who launch their boats.

Results

Computing the total private boat recreational rockfish catch is reasonably straight forward according to the following formula:

$$\text{Rockfish Catch} = (\# \text{ Avg launches per harbor}) * (\# \text{ anglers per boat}) * (\% \text{ targeting rockfish}) * (\# \text{ rockfish caught per angler}) * (\text{average rockfish weight}) * (\# \text{ of harbors}).$$

For the months of July and August 2003, for Northern California, the private boater total Rockfish Catch is determined to be:

$$= 1428 * 2 * 18\% * 5 * 3 * 13$$

$$= 100,245.6 \text{ lbs}$$

$$= 45.46 \text{ Metric Tons.}$$

Table 01 provides the data indicating an average of 1428 launches per harbor. While there is considerable variation from harbor to harbor, the average is applied to all harbors. Since some of the best rockfishing occurs from those harbors with smaller numbers of launches, using the average will tend to overestimate the catch.

San Francisco Ports represent an aggregate of various launch ramps utilized by recreational fishermen in the Bay Area, including Sausalito, Richmond, Emeryville, Berkeley, San Leandro, Coyote Point, Oyster Point....

Our best estimate of the number of fishermen per boat, based on our personal fishing knowledge is 2. While some variation on this number was explored, our assessment of reasonable excursions did not significantly change the outcome.

We utilized the Coastside daily posting database and the solicited survey to arrive at the percent of the fishing effort devoted to rockfishing. Both methods arrived at very similar rates of targeting rockfish – approximately 18 percent from the survey and 13 percent from the daily posts. Both clearly reflect the preference of the recreational fishing community for Tuna and Salmon. Rockfish are often targeted only as a backup in those instances when Tuna or Salmon are not available, and then only enough fish are caught to salvage an otherwise unproductive day, and to provide something for that night's dinner table. In computing the Rockfish catch, we used the larger of the two percentages (18%).

Table 02 provides the detailed breakout of the Coastside Daily Postings for the months of July and August 2003, and Table 03 provides the similar data from the Solicited Survey. Figures 01, 02, and 03 graphically portray the data in Table 03.

Table 01: Ocean Sport fishing Effort of Northern California Private Boaters for the Months of July and August 2003, compiled by the Coastside Fishing Club and RFA.

Port	Jul/Aug Skiff Launches	Quality	Info provided by
Crescent City	534	Actual	Harbormaster
Eureka	1,000	Estimate	Coast Guard
Shelter Cove	530	Estimate	RFA / Coastside
Fort Bragg	1,944	Actual	Harbormaster
Point Arena	250	Estimate	RFA / Coastside
Timber Cove	200	Estimate	RFA / Coastside
Bodega Bay	2,200	Estimate	Coast Guard
SF ports	4,000	Estimate	RFA / Coastside
Pillar Point	2,121	Actual	Harbormaster
Moss Landing	178	Actual	Harbormaster
Santa Cruz	3,385	Actual	Harbormaster
Monterey	1,200	Estimate	Harbormaster
Morro Bay	1,022	Actual	Harbormaster
Total	18,564		
Average Launches	1,428		

Table 02: Analysis of 1246 Coastside Daily Postings Showing the Number of Trips for Popular Fish Categories

Date	Number of trips					Percent of trips			
	Tuna	Salmon	Rockfish	Halibut	total	Tuna	Salmon	Rockfish	Halibut
1-Jul	0	9	11	1	21	0.0%	42.9%	52.4%	4.8%
2-Jul	2	7	4	1	14	14.3%	50.0%	28.6%	7.1%
3-Jul	1	6	2	0	9	11.1%	66.7%	22.2%	0.0%
4-Jul	0	12	8	3	23	0.0%	52.2%	34.8%	13.0%
5-Jul	0	8	4	3	15	0.0%	53.3%	26.7%	20.0%
6-Jul	0	9	2	1	12	0.0%	75.0%	16.7%	8.3%
7-Jul	0	6	3	1	10	0.0%	60.0%	30.0%	10.0%
8-Jul	0	7	2	2	11	0.0%	63.6%	18.2%	18.2%
9-Jul	0	4	1	0	5	0.0%	80.0%	20.0%	0.0%
10-Jul	0	7	1	0	8	0.0%	87.5%	12.5%	0.0%
11-Jul	1	6	2	2	11	9.1%	54.5%	18.2%	18.2%
12-Jul	0	17	3	2	22	0.0%	77.3%	13.6%	9.1%
13-Jul	1	13	7	3	24	4.2%	54.2%	29.2%	12.5%
14-Jul	0	3	1	0	4	0.0%	75.0%	25.0%	0.0%
15-Jul	0	4	1	0	5	0.0%	80.0%	20.0%	0.0%
16-Jul	0	4	1	3	8	0.0%	50.0%	12.5%	37.5%
17-Jul	0	10	3	0	13	0.0%	76.9%	23.1%	0.0%
18-Jul	1	5	1	0	7	14.3%	71.4%	14.3%	0.0%
19-Jul	0	20	1	0	21	0.0%	95.2%	4.8%	0.0%
20-Jul	1	24	4	2	31	3.2%	77.4%	12.9%	6.5%
21-Jul	4	23	2	0	29	13.8%	79.3%	6.9%	0.0%
22-Jul	3	22	1	3	29	10.3%	75.9%	3.4%	10.3%
23-Jul	0	9	0	0	9	0.0%	100.0%	0.0%	0.0%
24-Jul	0	12	1	1	14	0.0%	85.7%	7.1%	7.1%
25-Jul	3	15	1	0	19	15.8%	78.9%	5.3%	0.0%
26-Jul	8	28	4	3	43	18.6%	65.1%	9.3%	7.0%
27-Jul	6	19	1	1	27	22.2%	70.4%	3.7%	3.7%
28-Jul	5	12	1	0	18	27.8%	66.7%	5.6%	0.0%
29-Jul	9	12	1	0	22	40.9%	54.5%	4.5%	0.0%
30-Jul	17	5	4	1	27	63.0%	18.5%	14.8%	3.7%
31-Jul	12	7	5	1	25	48.0%	28.0%	20.0%	4.0%
July Total	74	345	83	34	536	13.8%	64.4%	15.5%	6.3%

Table 02: Analysis of 1246 Coastside Daily Postings Showing the Number of Trips for Popular Fish Categories - continued

Date	Number of trips					Percent of trips			
	Tuna	Salmon	Rockfish	Halibut	total	Tuna	Salmon	Rockfish	Halibut
1-Aug	18	7	1	1	27	66.7%	25.9%	3.7%	3.7%
2-Aug	22	7	3	1	33	66.7%	21.2%	9.1%	3.0%
3-Aug	28	7	1	0	36	77.8%	19.4%	2.8%	0.0%
4-Aug	21	10	0	0	31	67.7%	32.3%	0.0%	0.0%
5-Aug	17	7	1	1	26	65.4%	26.9%	3.8%	3.8%
6-Aug	15	5	1	1	22	68.2%	22.7%	4.5%	4.5%
7-Aug	17	2	1	1	21	81.0%	9.5%	4.8%	4.8%
8-Aug	33	5	2	0	40	82.5%	12.5%	5.0%	0.0%
9-Aug	32	10	4	2	48	66.7%	20.8%	8.3%	4.2%
10-Aug	17	7	5	4	33	51.5%	21.2%	15.2%	12.1%
11-Aug	3	1	3	0	7	42.9%	14.3%	42.9%	0.0%
12-Aug	1	2	0	1	4	25.0%	50.0%	0.0%	25.0%
13-Aug	0	5	0	2	7	0.0%	71.4%	0.0%	28.6%
14-Aug	0	6	1	1	8	0.0%	75.0%	12.5%	12.5%
15-Aug	0	12	4	0	16	0.0%	75.0%	25.0%	0.0%
16-Aug	0	13	6	0	19	0.0%	68.4%	31.6%	0.0%
17-Aug	3	12	10	0	25	12.0%	48.0%	40.0%	0.0%
18-Aug	4	3	2	2	11	36.4%	27.3%	18.2%	18.2%
19-Aug	7	5	5	0	17	41.2%	29.4%	29.4%	0.0%
20-Aug	7	6	1	3	17	41.2%	35.3%	5.9%	17.6%
21-Aug	11	8	1	5	25	44.0%	32.0%	4.0%	20.0%
22-Aug	20	4	1	5	30	66.7%	13.3%	3.3%	16.7%
23-Aug	33	10	5	2	50	66.0%	20.0%	10.0%	4.0%
24-Aug	19	5	5	2	31	61.3%	16.1%	16.1%	6.5%
25-Aug	16	3	2	1	22	72.7%	13.6%	9.1%	4.5%
26-Aug	6	3	1	1	11	54.5%	27.3%	9.1%	9.1%
27-Aug	11	6	2	1	20	55.0%	30.0%	10.0%	5.0%
28-Aug	10	3	1	0	14	71.4%	21.4%	7.1%	0.0%
29-Aug	3	1	1	2	7	42.9%	14.3%	14.3%	28.6%
30-Aug	7	7	1	7	22	31.8%	31.8%	4.5%	31.8%
31-Aug	13	7	6	4	30	43.3%	23.3%	20.0%	13.3%
August Total	394	189	77	50	710	55.5%	26.6%	10.8%	7.0%
July and August total	468	534	160	84	1246	37.6%	42.9%	12.8%	6.7%

Appendix A: The Coastside Daily Postings

The daily posting board is found on the Coastside Fishing Club website at

<http://www.coastside.juicyweb.com>

Appendix B: The Coastside Solicited Survey Instrument

An e-mailing to our Club membership asked for voluntary submission of recent fishing history, and directed the members to a website that contained the survey questions, and allowed for on-line submission of completed forms. Of the roughly 4000 members invited to participate, 522 completed forms were returned. The actual questions are included below.

For July 2003

- How many days in July did you fish for Tuna?
- How many days in July did you fish for Salmon?
- How many days in July did you fish for Rockfish?
- How many days in July did fish for a species not listed here (halibut, sturgeon, sharks etc..)

Please Enter a number, put in a 0 if you did not catch any

- In July, how many Ling Cod did you (or you boat) catch?
- In July, how many Cabezon did you catch?
- In July, how many Rockfish did you catch?

For August 2003

- How many days in August did you fish for Tuna?
- How many days in August did you fish for Salmon?
- How many days in August did you fish for Rockfish?
- How many days in August did fish for a species not listed here (halibut, sturgeon, sharks etc..)

Please Enter a number, put in a 0 if you did not catch any

- In August, how many Ling Cod did you catch?
- In August, how many Cabezon did you catch?
- In August, how many Rockfish did you catch?

For September 2003

- How many days in September did you fish for Tuna?
- How many days in September did you fish for Salmon?
- How many days in September did you fish for Rockfish?

How many days in September did fish for a species not listed here (halibut, sturgeon, sharks etc..)

Please Enter a number, put in a 0 if you did not catch any

- In September, how many Ling Cod did you catch?
- In September, how many Cabezon did you catch?
- In September, how many Rockfish did you catch?

For October 2003

- How many days in October did you fish for Tuna?
- How many days in October did you fish for Salmon?
- How many days in October did you fish for Rockfish?
- How many days in October did fish for a species not listed here (halibut, sturgeon, sharks etc..)

Please Enter a number, put in a 0 if you did not catch any

- In October, how many Ling Cod did you catch?
- In October, how many Cabezon did you catch?
- In October, how many Rockfish did you catch?