Volunteer Newsletter 2022

A Summary of the 2021 Sampling Season

California Collaborative Fisheries Research Program

Greetings CCFRP Volunteer Anglers,

With your help, Cal Poly CCFRP has completed the 2021 sampling season; this was our 15th season of data collection inside and outside of marine protected areas (MPAs) on the central California coast! This season, we completed 12 trips, fishing for a total of 249 person hours. In that time, we caught a total of 2,933 fishes comprised of 28 species. This season, we caught approximately 12 fishes per angler hour. Thank you for participating in this remarkable season; we couldn't have done it without you!

To celebrate all the hard work you did this season, we would like to invite you to our annual volunteer angler appreciation event and data workshop, which will be held in person for the first time since 2019! All past, present, and future volunteer anglers are welcome! We will be discussing the data we have collected this season, as well as some projects completed in the past year. We would appreciate your attendance very much.

Cal Poly Research Pier
Avila Beach, CA
Saturday, May 21, 2022, 11am-2pm

We will send out an E-mail in the coming weeks with more details about this appreciation event and data workshop. If you are able to attend, **please RSVP to Erin's E-mail which will come from the address** ccfrpslo@gmail.com so that we can plan accordingly. Lunch will be provided. Stay tuned for more updates on this event through email and by liking CCFRP on Facebook -we look forward to seeing you there!

Join Us for the 2022 Sampling Season

We need your help to have another successful season! Be sure to monitor your email for details about the upcoming 2022 CCFRP sampling season. This email will include the 2022 sampling schedule and updates related to COVID-19. Once the schedule is released, make sure to email us promptly to secure your fishing spots. We are working hard behind the scenes to prepare and get those dates to you as soon as possible.

CCFRP Science Crew Updates

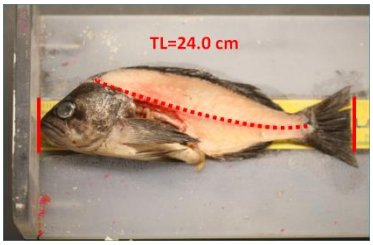
Many of our science crew earned their Bachelor of Science degree in 2021! **Nicholas Soares** finished his B.S. in Marine Sciences with minors in both Statistics and Environmental Studies; he is now the Monitoring Coordinator for the Morro Bay National Estuary Program. **Noel Clark** also finished her B.S. in Marine Sciences and is currently working with the Watershed Stewards Program serving with the NOAA Southwest Fisheries Science Center in Santa Cruz. **Callie Perdue** graduated with a B.S. in Marine Sciences; she moved to Colorado where she is a ski instructor and raft guide. Callie plans to apply to the Watershed Stewards Program this fall. **Maddie Verburg** earned her B.S. in Marine Sciences and moved to Washington where she is looking for amazing opportunities in marine science. **Rachel Blumer** earned her B.S. in Environmental Management and Protection and moved down to San Diego where she works as a chemical support specialist for J&J. **Robert Moon** earned his B.S. in Marine Sciences; he works as a researcher for the Wendt Lab, as an oyster farmer for Grassy Bar Oyster Company, and as a marine technician on the Cal Poly research pier. **Kaila Fritch** graduated with her B.S. in Environmental, Earth, and Soil Sciences; she is now a research technician in the Wendt Lab working with the Office of Naval Research on a paint testing project in Morro Bay. Kaila is also writing a manuscript on the relationship between prefillet and post-fillet lengths of fish carcasses (see pg. 3). **Tommy Gray** plans to graduate in the fall with a B.S. in Marine Sciences and is looking forward to another great CCFRP season. **Dylan Corpron** is finishing up his last year as an undergraduate in Marine Sciences. **Ellie Brauer** earned her M.S. in Biological Sciences this winter; she moved to Humboldt and has a job as a SeaGrant state fellow working with Caltrans. **Erin Johnston** is finalizing her work on the correlation between marine heatwaves and Blue rockfish abundance as well as analyzing information from the CCFRP survey that volunteers participated in last year (see pg. 5). Erin will be taking on the role of lead technician for CCFRP SLO this season.

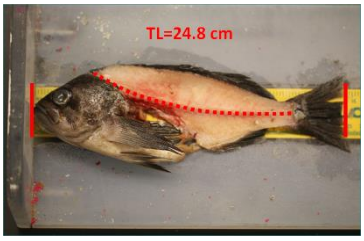
Our advanced and dynamic lead researcher, **Grant Waltz**, moved to Oregon and is a Supervising Fish and Wildlife Biologist with the Northern Pikeminnow Management Program for the Oregon Department of Fish and Wildlife. Grant has been instrumental to running CCFRP for nearly a decade. It was a bittersweet goodbye!

Dr. Benjamin Ruttenberg is one of our fearless Cal Poly CCFRP PIs. Ben runs the Marine Conservation Lab at Cal Poly and is the director of the Center for Coastal Marine Sciences. One of Ben's numerous interests is the effects of climate variability on fish populations. We are lucky to have this great researcher on our team!

Dr. Dean Wendt, our magnificent and venerable CCFRP PI, continues to head not only our collaborative fisheries research program, but the entire Cal Poly College of Science and Mathematics. We aren't sure how he does it all, but we are surely in awe! Dean's passion for marine research is only rivaled by his desire to see his students succeed.

What's Up with Those Fishes?





West Coast rockfish stock assessments are often limited by a lack of available biological data. Stock assessments provide resource managers with information to monitor and manage fish populations but require large amounts of data. One potential source of unused biological data is from Commercial Passenger Fishing Vessels (CPFVs), much like the ones we use for CCFRP. Filleted carcasses are often discarded after sportfishing trips, creating a potentially huge source of unused data. Recent graduate, **Kaila Fritch**, is investigating how the filleted length of a rockfish can be related to its' pre-filleted length. The three pictures above show the different ways that a fish carcass can be placed when taking post-fillet measurements. The spine of the fish can be placed in a natural position (picture 1), it can be compressed (picture 2) or it can be hyperextended (picture 3). This information could be used by the California Department of Fish and Wildlife to establish a carcass collecting program from the California CPFV fleet, which would enhance the amount of length-at-age and life history data available for stock assessments and other estimates of rockfish populations. Stay tuned to hear some of her findings at the angler appreciation event!

The rockfish used in this study were collected on CCFRP trips, as well as by the Cal Poly Observer Program, which is conducted on CPFVs in SLO County.

Kaila will analyze the pre-fillet length and post-fillet length obtained from these fishes to investigate if post-fillet length can be used to determine the pre-fillet length of a rockfish.

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Center for Coastal Marine Sciences

Tag Recaptures in 2021

Tag returns are an exciting part of our program! This is one valuable way for us to learn about the movement and growth rates of fishes that are caught and released on our sampling trips. We only had one tag return this year from Point Buchon. It was at liberty for 1,478 days – just over four years!!

Representative Copper rockfish, caught the same day

Date Tagged	Date Recaptured	Days at Liberty	Fish Species	Area Caught
8/7/17	8/24/21	1,478	Copper rockfish	Point Buchon MPA

Please remember to check for tags next time you are out fishing!

We rely on the fishing community for this important source of information on tagged fishes. Remember that information from a tagged fish is worth $20 and is priceless information for fisheries science! If you catch a tagged fish, please record the species, length, depth, and coordinates and contact: seagrant@mlml.calstate.edu

2021 CCFRP Angler Survey

We sent out a survey to our statewide CCFRP volunteer anglers. We received 262 responses out of 1,386 volunteer anglers, which is a response rate of 18.9%!! We asked questions related to your opinions about the creation of marine protected areas (MPAs) before and after volunteering with CCFRP, your perception about fishes inside and outside of MPAs, and we queried your general knowledge about ocean issues. We are busy analyzing those data. Here are some preliminary results. Thank you so much for your participation!

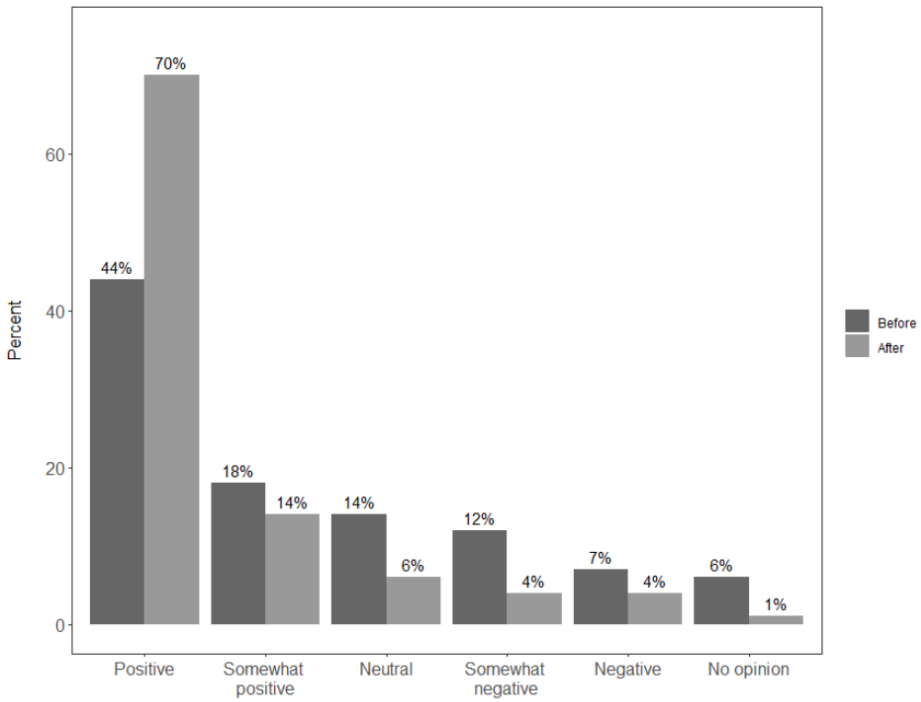


Figure 1. Percentages of angler opinions towards the creation of marine protected areas before and after volunteering with CCFRP *

The percentage of respondents who had a positive opinion of the creation of MPAs increased after volunteering with CCFRP.

The percentage of respondents who had a somewhat positive, neutral, somewhat negative, negative, and no opinion of the creation of MPAs decreased after volunteering with CCFRP.

CCFRP anglers come from all over the state of California

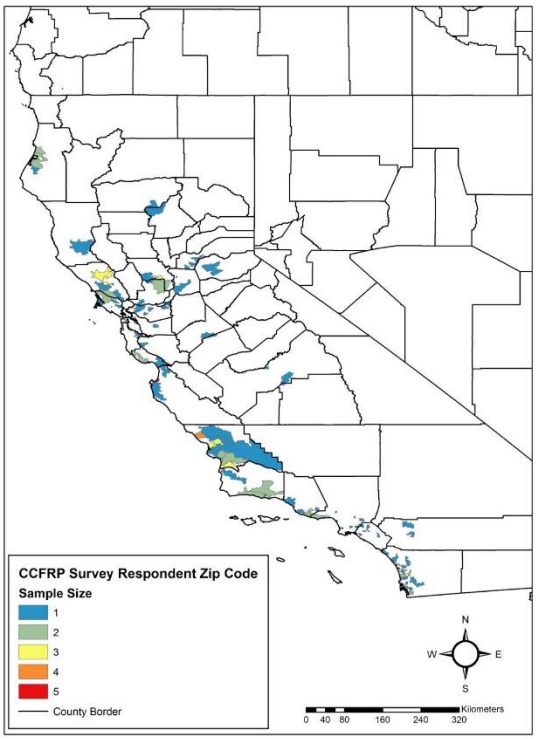
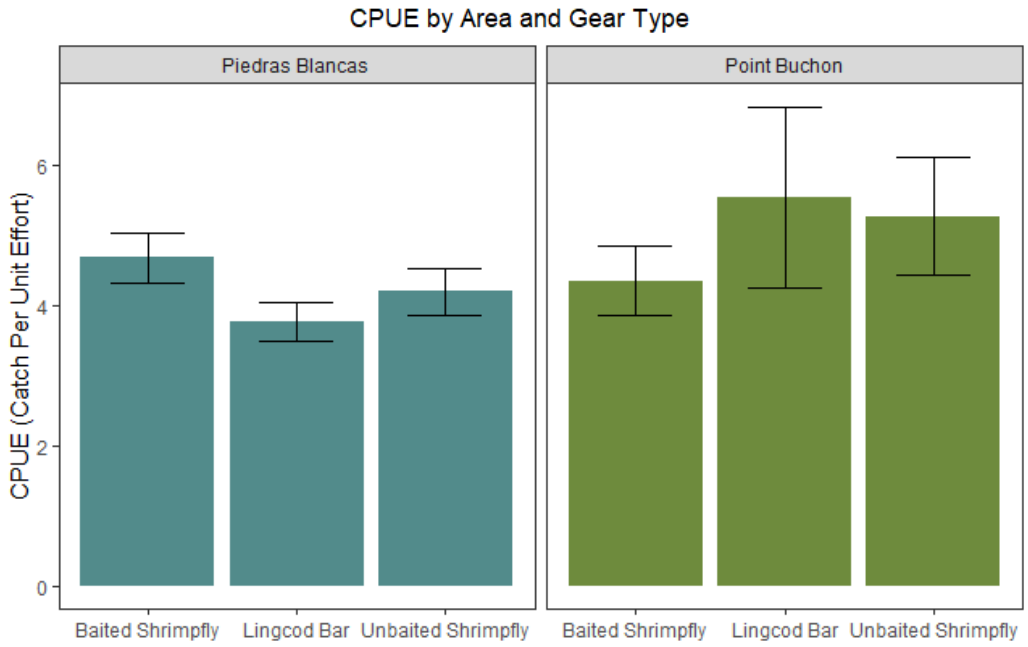


Figure 2. A heatmap that represents zip codes of the CCFRP statewide anglers.

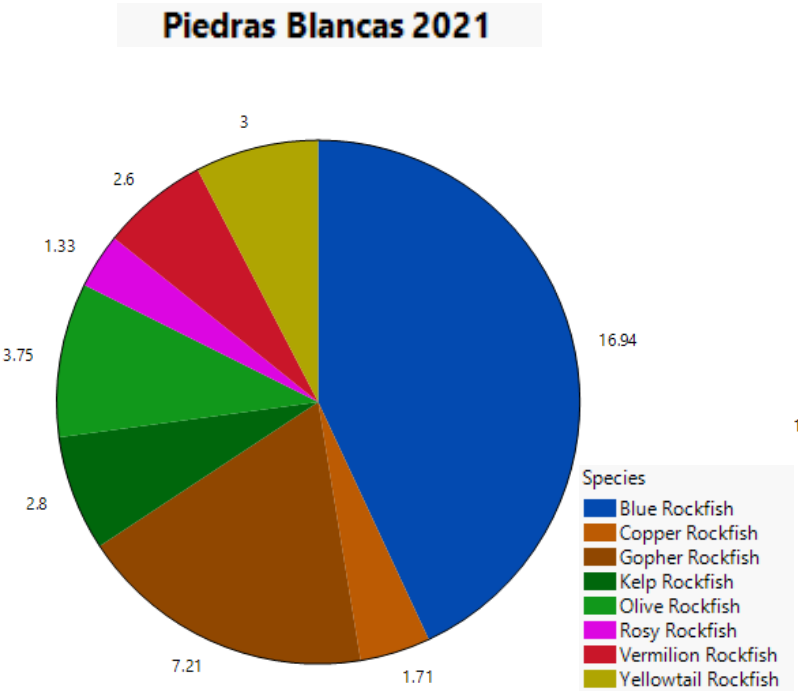
*** Figures presented here are preliminary and represent answers from the entire statewide angler base**

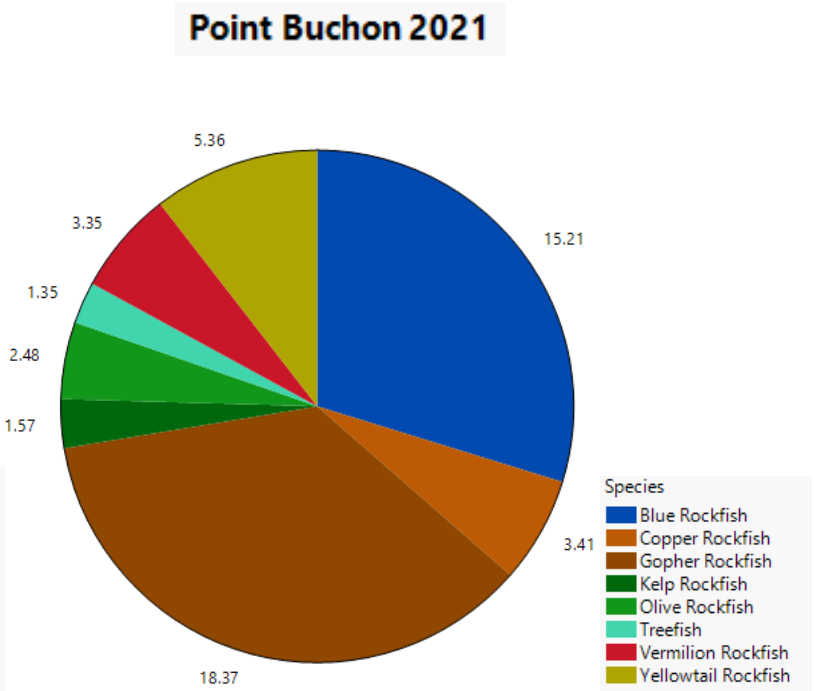
Cal Poly 2021 CCFRP Summary Statistics

The bar chart below displays how catch per unit effort (CPUE), calculated as the number of fishes per angler hour, differed between area and type of gear for Cal Poly in 2021.



The pie charts represent 2021 CPUE of the top eight species in each area. Blue rockfish was the primary species caught in Piedras Blancas and Gopher rockfish was the primary species caught in Point Buchon. An interesting difference in the top eight species caught in each area is that Rosy rockfish were in the top eight in Piedras Blancas while Treefish were one of the top eight in Point Buchon.





THANK YOU SO MUCH!