



California Collaborative Fisheries Research Program

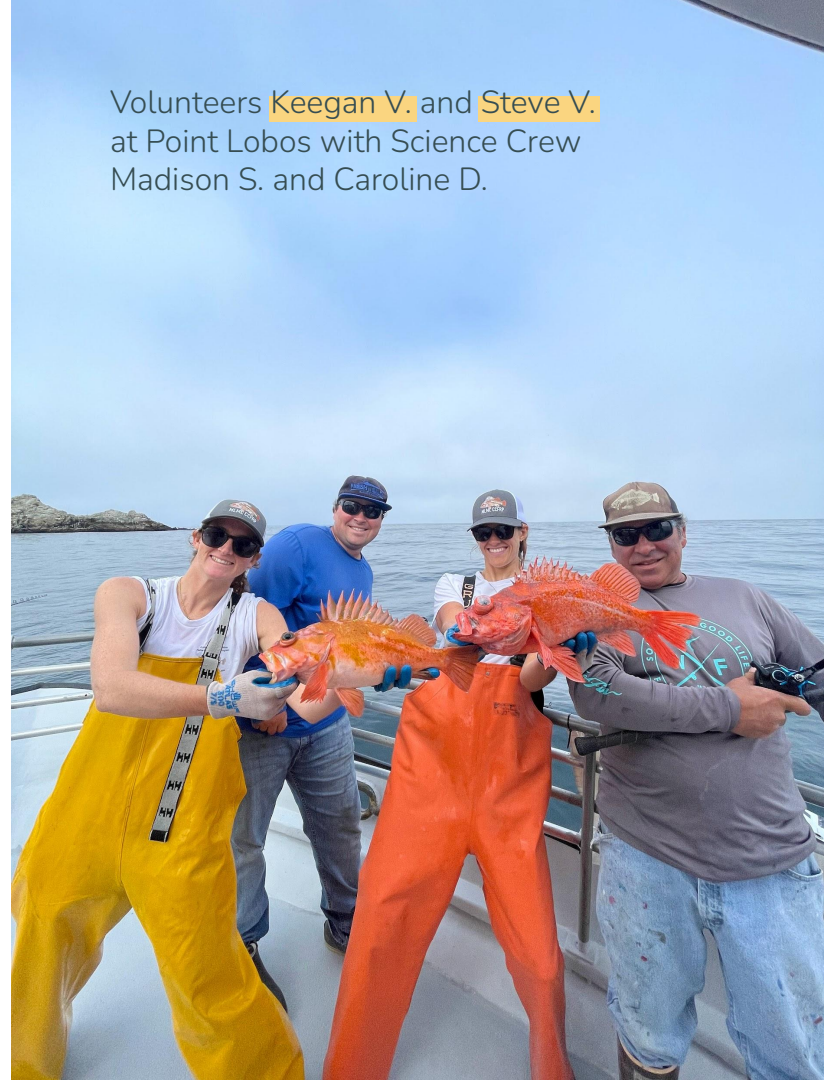
Moss Landing Marine Laboratories

2025 NEWSLETTER

Welcome . . .

We want to thank all our volunteer anglers who helped in this year's surveys and the captains and crew of the F/V New Captain Pete, F/V New Horizon, and F/V Sea Wolf. With your help, MLML has successfully completed our 19th year of data collections inside and outside the Año Nuevo, Point Lobos, and Southeast Farallon Island State Marine Reserves (SMR)! Our statewide effort remains strong, and all partner institutions were able to get out for another successful field season. The National Marine Fisheries Service continues to use the information we collect to improve stock assessments of nearshore fishes and we are excited to say that both the California Department of Fish and Wildlife and the Ocean Protection Council are using the information we've collected over the years to understand the effects of MPAs on the nearshore ecosystem. We can't thank everyone enough for their dedication and support! We're already looking forward to the 2026 season!

Volunteers [Keegan V.](#) and [Steve V.](#) at Point Lobos with Science Crew Madison S. and Caroline D.

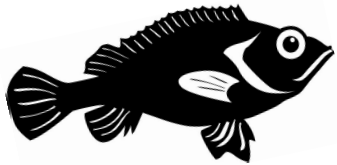


2025 Moss Landing Sampling Season

By The Numbers

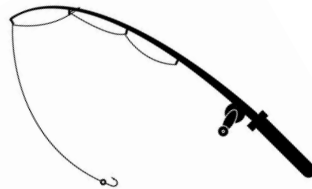
8,354 fish

from **30 unique species** were captured by volunteer anglers on MLML CCFRP sampling trips this season!



147 volunteers

joined us on **18 sampling trips** to monitor **3 MPAs** in Central California.



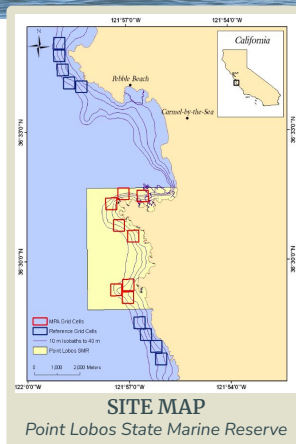
Over 555 angler hours

were spent fishing for rockfish, lingcod, and many other nearshore species.



Point Lobos State Marine Reserve

Point Lobos State Marine Reserve This is one of the oldest MPAs in California, having a portion of the since expanded 5.5 square miles protected in 1963. The State Marine Reserve contains a small piece of the Carmel Submarine Canyon, kelp forests, and a combination of rocky and sandy substrate. It is also a part of the larger Point Lobos Natural Reserve, which protects both land and sea. These factors make the State Marine Reserve a fantastic habitat for an abundance of species, including the fishes we catch each CCFRP season.



Featured Fishes



Gopher rockfish
Sebastes carnatus

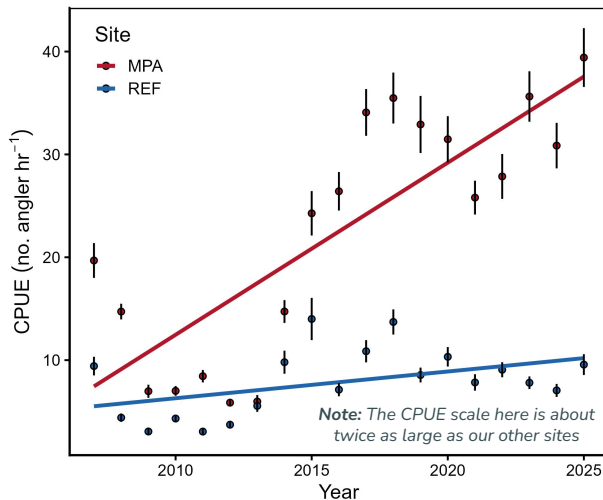
Blue rockfish
Sebastes mystinus



Note: All featured fish icons are sized to scale relative to each other!



Long-Term Trends





Volunteer **Jeff R.** with Science Crew Caroline D. and Neil E.

Science Crew Madison S. measuring a lingcod (*Ophiodon elongatus*).

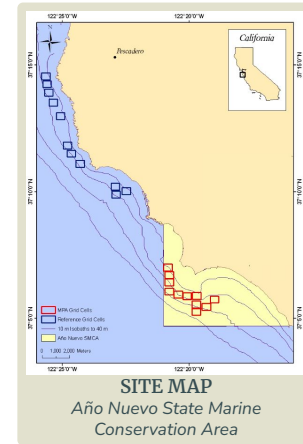
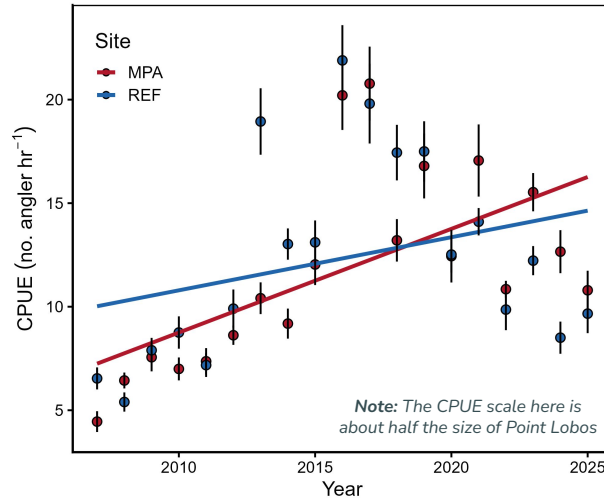
Volunteer **Dave K.** with Science Crew Sam P.



Pigeon Point Lighthouse Pigeon Point Lighthouse was built in 1871 as a guide for maritime traffic associated with the California gold rush. Both Pigeon Point and the lighthouse were named for the ship the *Carrier Pigeon*, which wrecked offshore in 1853. Pigeon Point Lighthouse is the tallest lighthouse on the West Coast of the United States, tied with Point Arena Light. This historic lighthouse is a familiar waypoint for our trips traveling to our Año Nuevo sampling site.



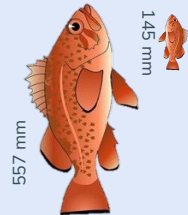
Long-Term Trends



Featured Fishes



Black rockfish
Sebastes melanops



Vermilion rockfish
Sebastes miniatus

Año Nuevo State Marine Reserve



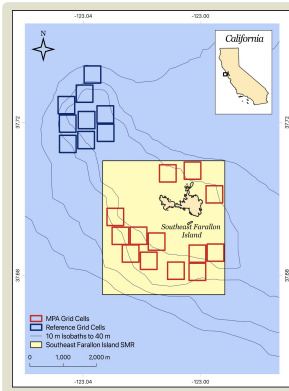
Volunteer **Eddie G.** with Science Crew Sam P.



Volunteer **Lester Y.** with Science Crew Kelsey M.

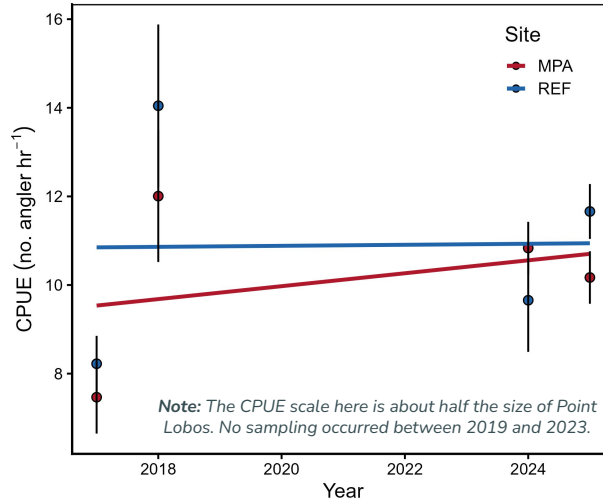
Southeast Farallon Island State Marine Reserve

Farallon Islands The islands are also sometimes referred to by mariners as the "Devil's Teeth Islands," as the islands are the site of multiple shipwrecks. The islands are home to many species of seabirds, seals, and sea lions. The islands are famous for an abundance of white sharks that are attracted by the numerous elephant seal colonies. The waters surrounding the islands are rich with life and whales are frequently spotted. The only inhabitants of the islands are researchers.

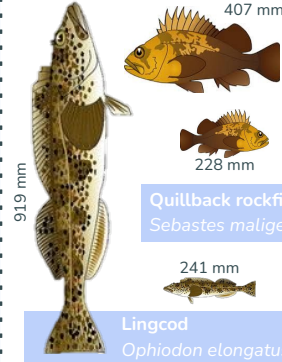


SITE MAP
Southeast Farallon Island State
Marine Reserve

Long-Term Trends



Featured Fishes



Tag Recaptures

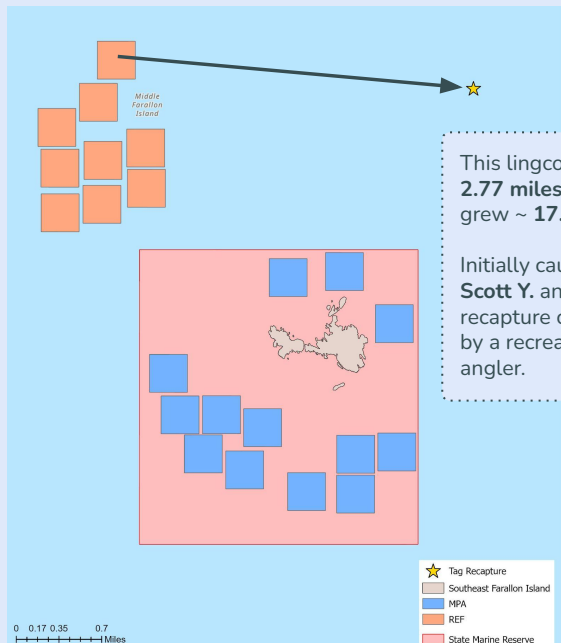
Lingcod On The Move

Lingcod (*Ophiodon elongatus*) are known for their high site fidelity, although it has been shown that this can vary by sex and time of

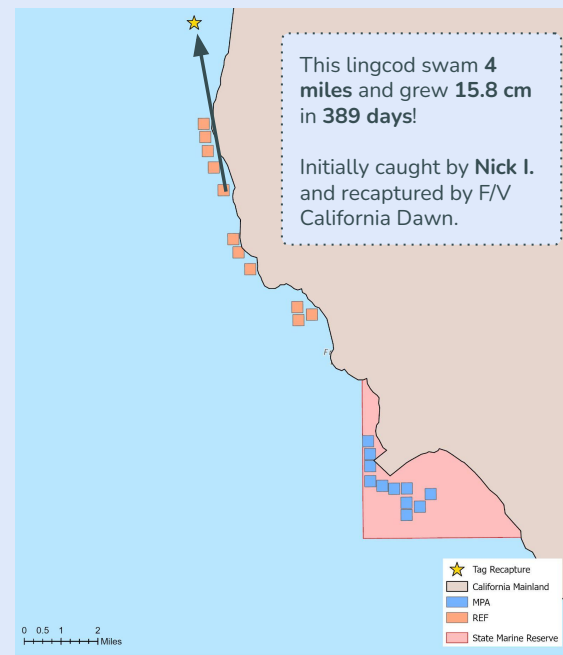
year. Lingcod move to shallower water to breed in the fall and winter months, and young lingcod migrate to deeper waters as they age, favoring rocky, complex habitat. These individuals were recaptured by members of the public, emphasizing the insight we gain from tagging efforts and citizen science.

This lingcod swam **2.77 miles** and grew **~ 17.4 cm!**

Initially caught by **Scott Y.** and recapture called in by a recreational angler.



Southeast Farallon Island
State Marine Reserve



This lingcod swam **4 miles** and grew **15.8 cm** in **389 days!**

Initially caught by **Nick I.** and recaptured by F/V California Dawn.








Año Nuevo
State Marine Reserve

Tag Recaptures

Homebodies

The rest of the tagged fishes we recaptured during our 2025 sampling season were captured in the same grid cell in which they were initially caught! This is not unusual, as these three species exhibit high site fidelity and have relatively small home ranges.



Recapture Location	Species	Initial Capture Size	Estimated Growth	Days at Liberty	Initial Capture	Recapture
Southeast Farallon Island (Reference)	Vermilion Rockfish <i>Sebastes miniatus</i> 	482 mm	0 mm	28	Don C. 9/10/2025	Dave K. 10/8/2025
Año Nuevo (MPA)	Brown rockfish <i>Sebastes auriculatus</i> 	380 mm	30 mm	1450	Alex N. 7/27/2021	Juan P. 7/16/2025
Point Lobos (MPA)	Vermilion rockfish <i>Sebastes miniatus</i> 	472 mm	0 mm	1	Cheryl L. 7/22/2025	EC O. 7/23/2025
	Copper rockfish <i>Sebastes caurinus</i> 	457 mm	8 mm	329	George S. 8/28/2024	Ross W. 7/23/2025
	Copper Rockfish <i>Sebastes caurinus</i> 	394 mm	0 mm	329	Gary T. 8/28/2024	Jackie M. 7/23/2025
	Copper Rockfish <i>Sebastes caurinus</i> 	345 mm	95 mm	329	Gary T. 8/28/2024	Julian M. 7/23/2025
	Copper Rockfish <i>Sebastes caurinus</i> 	396 mm	34 mm	329	Patrick M. 8/28/2024	Julian M. 7/23/2025



Volunteer **Brandi C.** with Science Crew Sam P. and Sebastian C.



Volunteer **Mary Pat C.** with Science Crew Kate R.



Recent Publications

Conservation benefits of a large marine protected area network that spans multiple ecosystems

Joshua G. Smith, Clarissa Anderson, Jacob G. Eurich, Kristin Kaschner, Richard M. Starr, Cori Lopazanski, Mark H. Carr, Tessa B. Francis, David Mouillot, Shelby L. Ziegler, Michelle L. Marraffini, Christopher M. Free, Joachim Claudet, Julien Brun, Jenifer E. Dugan, David A. Gill, Scott L. Hamilton, Peter T. Raimondi, Daniel Malone, Avrey Parsons-Field, Barbara Spiecker, Mallarie Yeager, Kerry J. Nickols, and Jennifer E. Caselle

Published in Conservation Biology, Volume 39, Issue 4, January 2025. <https://conbio.onlinelibrary.wiley.com/doi/10.1111/cobi.14435>.

Key Takeaways

Biomass of species targeted by fishing is...

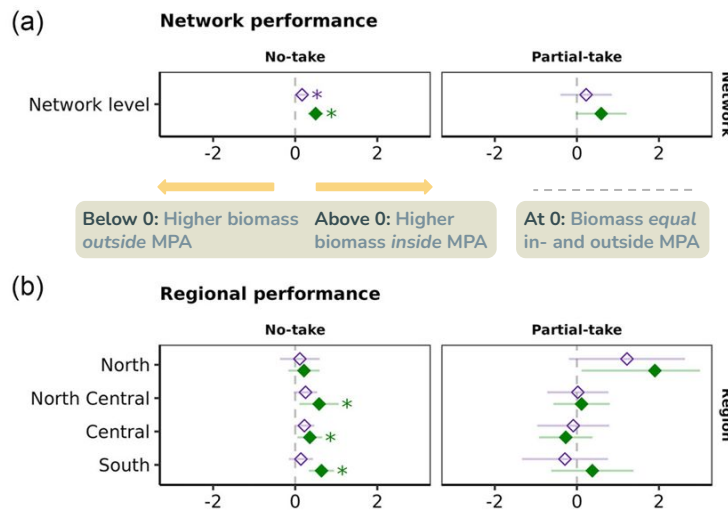
- (1) positively associated with the level of regulatory protection
- (2) and greater inside no-take MPAs

Key features of conservation effectiveness include:

- MPA age
- Pre-implementation fisheries pressure
- Habitat diversity

These characteristics **consistently contribute to the efficacy of MPAs** across the network, **spanning regions and ecosystems.**

Figure Deep Dive



These figures depict fish biomass response ratios for California's network of marine protected areas by protection level (a) across the network and (b) for each region. These data encompass surf zone, kelp forest, shallow reef, and deep reef ecosystems. Follow the tan blurbs for guidance on interpreting these figures.

Recent Publications

Comparing fishery-independent and fishery-dependent data to characterize West Coast groundfish populations

Rose E. Dodgen, Melissa H. Monk, Grant T. Waltz, and Dean E. Wendt

Published in Marine and Coastal Fisheries, Volume 17, Issue 1, April 2025.
<https://academic.oup.com/mcf/article/17/1/vtaf002/8105523>.

Key Takeaways

CCFRP's fisheries-independent surveys generally reflect fish population trends for West Coast groundfish recorded on fishery-dependent surveys in areas open to fishing.

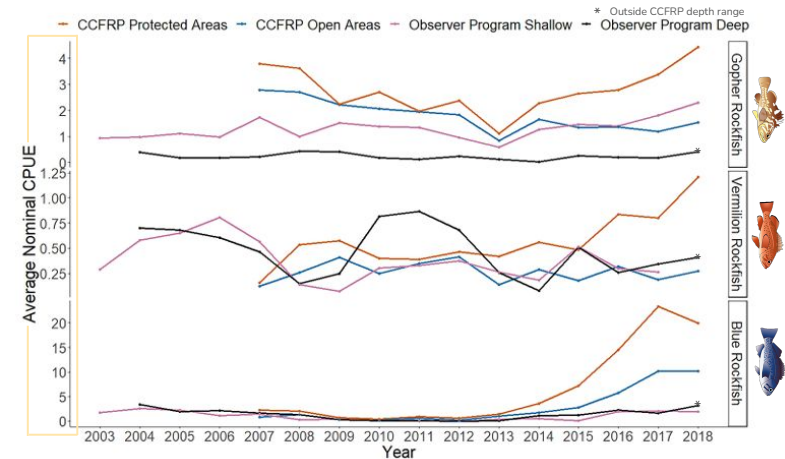
Relationships between fisheries-independent and -dependent data vary by species, depth, and level of fishing protection.

Understanding what various data sources contribute to analyses for different species leads to better informed management and more effective conservation of groundfish populations.

Terms to Understand

Fisheries-independent → collected during standardized scientific surveys (Here, CCFRP data)

Fisheries-dependent → collected directly from commercial or recreational catch (Here, Observer Program data)



Note, the CPUE scale along y-axis varies by species.

Average Catch Per Unit Effort (CPUE) of Gopher, Vermilion, and Blue rockfish from California Collaborative Fisheries Research Program (CCFRP) data between 2007 and 2018 and from Observer Program data between 2003 and 2018.



Volunteer **Jeff R.** with Science Crew Madison S.



Volunteer **Bob C.** with Science Crew Sebastian C.



Science Crew Caroline D. tagging a gopher rockfish (*Sebastes carnatus*).



2025 Science Crew Updates

Returning Science Crew

Jake successfully defended his thesis and graduated in December. He has since moved into a full time role as MLML's CCFRP Lead Technician. He is excited to get back onto the water and see all of our volunteers this upcoming season!



Caroline looks forward to another season wrangling fish and volunteers as MLML's CCFRP Volunteer Coordinator. Meanwhile, she continues to develop her thesis on the impacts of rocky habitat on fish habitat associations and MPA responses using CCFRP data.



Kelsey defended her thesis on juvenile white sharks in the Monterey Bay area during the CCFRP season this past July. She's excited to make the next steps in her career while helping out with CCFRP when she can!



Returning for his fourth season, **Sam** will be part of the CCFRP science crew while finishing his thesis exploring the relationships between ENSO cycles and rockfish reproductive timing and health.



Madison recently defended her thesis investigating the oceanographic drivers of gopher rockfish reproductive potential and is looking forward to coming back for the CCFRP season this year!



Jonah is studying the life history traits of the greenspotted rockfish (*Sebastes chlorostictus*) along the entire US West coast. He is eager to both finish his thesis and go out on some fun-filled fishing trips this upcoming summer.



New Science Crew

Neil is looking forward to another summer helping out with the MLML CCFRP crew. In the meantime he is preparing to graduate from CSU, Monterey Bay with his degree in marine science and finishing his undergraduate capstone project, which he will present in May.



Keeler is a first year at MLML, and is hoping to start data collection this coming CCFRP season (look out for some new cameras) for his thesis on how fish behavior differs across gradients of protection, and how this difference may affect catch.



Kate graduated with her bachelor's degree in marine science, and was hired as MLML's general marine assistant, helping support the work of graduate students and other scientists. Although this new job will keep her busy, she hopes to help out a few days of the 2026 season!



Ben is beyond stoked for his second season with the Moss Landing CCFRP crew! In the meantime, his efforts are focused on recovering from a broken leg while taking credits towards his bachelor's degree!



MLML CCFRP Principal Investigator

MLML's fearless leader, **Dr. Scott Hamilton**, continues to seek out funding, find innovative applications for our data, and offer useful advice to our team. He has a very busy schedule that prevents him from getting out on the water as often as he would like, but we were excited to have Scott on a few trips this season once he's back from his spring sabbatical in New Zealand!



You are cordially invited to...

MLML CCFRP's Angler Appreciation Day

at Moss Landing
Marine Laboratories

on May 2nd, 2026

12:00-3:00pm

Join us for lunch, a data workshop, familiar
faces, and fish talk!

Please RSVP at this link so
we can plan accordingly!





We would like to extend a big thanks to our program partners and research affiliates this season:

The Ocean Protection Council NOAA National Marine Fisheries Service, Santa Monica Seafood, California Department of Fish and Wildlife, Cal Poly Humboldt, Bodega Marine Laboratories, Cal Poly SLO, UC Santa Barbara, and Scripps Institution of Oceanography.

Most importantly, thank you to the captains and crew of the F/V New Captain Pete, F/V New Horizon, and F/V Sea Wolf.

