Marine Protected Area Long-term Monitoring Program

# California Collaborative Fisheries Research Program

across California's MPA Network



## **MPA** Monitoring

California's Marine Protected Area (MPA) Network is approaching its first-ever 10year review. California will lean heavily on its MPA monitoring program to show progress towards meeting the goals of the Marine Life Protection Act, the founding legislation of the MPA Network. Researchers and community scientists have been tracking California's marine ecosystems since MPA implementation, in some cases as far back as 2007. Learn more about this MPA monitoring program below and read the full technical report on California Sea Grant's website.

## **Program Overview**

The California Collaborative Fisheries Research Program (CCFRP) is a diverse partnership of volunteer anglers, boat scientists, nongovernmental captains, organizations, and charter companies interested in promoting sustainable fisheries. CCFRP uses standardized fishing gear and sampling protocols to catch, measure, tag, and release fish caught inside and outside of MPAs. researchers then provide information to the State about the abundance, size, biomass, diversity, and movement patterns of fishes in nearshore waters to help inform management decisions.

#### Partner Institutions

Moss Landing Marine Laboratories, Cal Poly San Luis Obispo, Scripps Institution of Oceanography, UC San Diego, UC Santa Barbara, UC Davis, Cal Poly Humboldt, The Nature Conservancy, California Sea Grant

> Access all of California's MPA data: <u>California MPA</u> <u>Monitoring Porta</u>l

## **Program Highlights**

>1,700

Volunteer Anglers

32

MPAs and associated

reference areas were sampled statewide

175,000

fish were caught and released from 93 different species

>600

sampling trips

14

years monitoring in Central Coast, 4 years statewide 7

stock assessments were informed by CCFRP data











# **Key Findings from MPA Monitoring**

California Collaborative Fisheries Research Program

More & Larger Fish

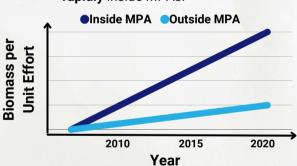
Fish are **larger** and **more abundant** inside MPAs across the state compared to reference areas open to fishing. **79%** of species were larger inside MPAs and **71%** of species saw a higher catch per unit effort (CPUE) inside MPAs.





Bigger Fish Faster

Over 14 years on the Central Coast, fish abundance and biomass **increased more rapidly** inside MPAs.





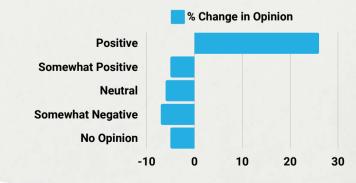


More Resilient
Communities

MPAs appeared more resilient to the 2014-2015 marine heatwave. Fish diversity recovered more quickly in MPAs following the heatwave, despite an initial decrease in diversity both inside and out of MPAs. Similar resilience results were found in the rocky intertidal habitats report.

**Positive Opinions** 

Angler opinions of MPAs became significantly more positive after participating with CCFRP. Anglers reported that they caught more fish, bigger fish, and a higher diversity of fishes inside MPAs on CCFRP sampling trips. More positive responses occurred in anglers that participated more frequently in MPA monitoring.



For more information about MPA long-term monitoring and the Decadal Management Review, please visit:

- California Collaborative Fisheries Research Program technical report
- California Sea Grant website to access all 7 MPA long-term technical reports
- <u>CDFW's MPA Decadal Management Review webpage</u>