Marine Protected Area Long-term Monitoring Program

Human Dimensions: Commercial & CPFV Fishing

across California's MPA Network

Photo: Canva

MPA Monitoring

California's Marine Protected Area (MPA) Network is approaching its first-ever 10-year 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 legislature 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.

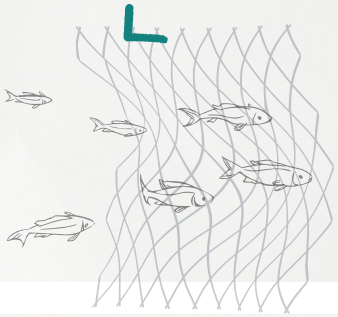
Program Overview

This project conducted focus groups with commercial and commercial passenger fishing vessel (CPFV) fishermen across California to better understand socioeconomic outcomes of MPAs. Through the focus groups, the project team gathered robust data on port community well-being, attitudes, and perceptions of MPA impacts. This project also used geospatial modeling to refine commercial fishing activity both inside and outside of MPAs. The baseline data collected will continue to be used to evaluate effects of MPA implementation statewide. The team created a website with their key findings.

Partner Institutions

Ecotrust, Cal Poly Humboldt, Strategic Earth

Access all of California's MPA data: California MPA Monitoring Portal



EcoTrust

Program Highlights

20
species or species complexes geospatially modeled

85
participants in the commercial fishing focus groups

18
port groups surveyed

20
participants in the CPFV focus groups

CALIFORNIA MARINE PROTECTED AREAS

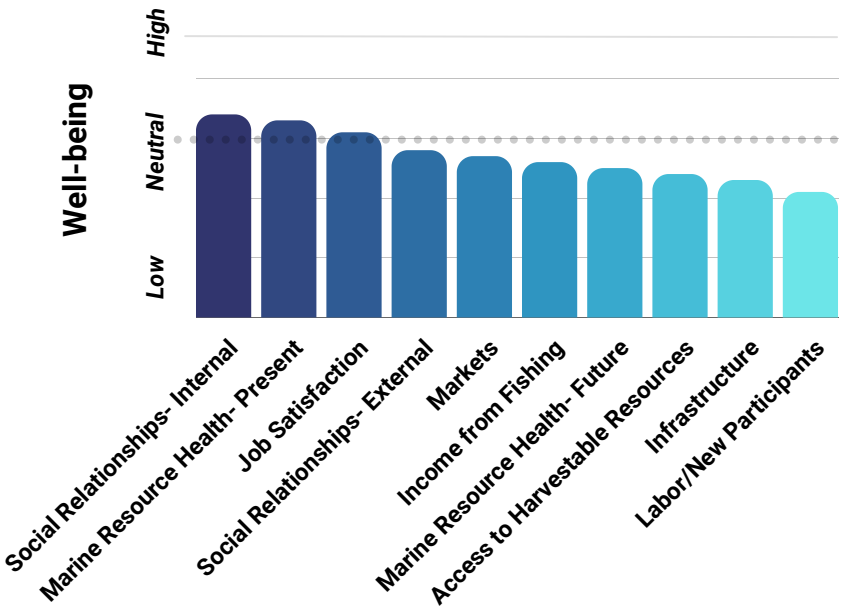
Sea Grant California

Key Findings from MPA Monitoring

Human Dimensions: Commercial & CPFV Fishing

1 Varied Well-being

Perceived community **well-being varied** across the state, indicating that not all ports may be experiencing the same type or extent of challenges. On average, **commercial** fishing participants rated community social relationships, present marine resource health, and job satisfaction as **positives**. Port infrastructure, access to harvestable resources, and future resource health were seen as **below neutral**.



2 Catch Increased Near MPAs

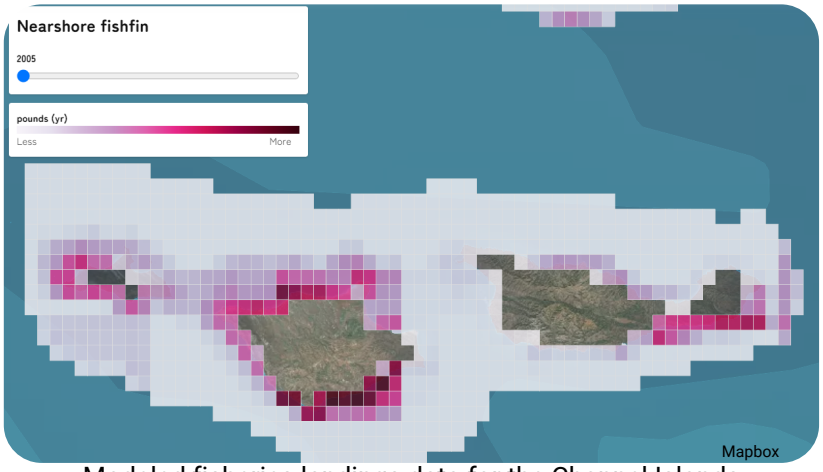
The project team developed a modeled spatial dataset to better understand fishing patterns in and around California MPAs between 2005-2020. Using a modeled dataset, proportion of catch in areas adjacent to MPAs **increased** from pre-MPA implementation years compared to post-implementation. Nearshore finfish saw a greater increase in modeled landings compared to urchin and lobster: the proportion of catch of finfish in adjacent areas was 7% in pre-MPA years (2005-2009), and increased to 15% in post-MPA years (2010-2020).

3 Negative MPA Effects

Focus group responses indicated commercial fishermen across California were both **dissatisfied** with and had experienced **negative effects** from the MPA network. Some CPFV fishermen felt MPAs were **positively affecting ecological outcomes**, however, the majority of participants expressed **negative** or **neutral** views on the impacts of MPAs on their fishing livelihoods, ecological outcomes, and businesses and fishing practices.

4 Dissatisfaction with Management

Statewide, **CPFV** participants were **dissatisfied** with MPA management, monitoring, and enforcement, specifically highlighting their perceptions that managers did a poor job **communicating** about the MPA Program. On average, CPFV participants reported **negative feelings** regarding their income from fishing, relationships with external groups, allocation of resources, and the state of future marine health.



Modeled fisheries landings data for the Channel Islands nearshore finfish fishery at 1x1nm block resolution for 2005.

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

- Human Dimensions: Commercial & CPFV Fishing technical report
- California Sea Grant website to access all 7 MPA long-term technical reports
- CDFW's MPA Decadal Management Review webpage