

# Environmental Justice, Marine Protected Areas & Ocean Access in California

Kennedy Flavin, Ariel Daniels, Melissa Vezard, & Morgan Plummer  
Faculty & PhD Advisors: Anastasia Quintana & Yutian Fang  
Client: Channel Islands National Marine Sanctuary  
Spring 2024

## Environmental Problem

Despite California having 840 miles of coastline and a broad network of Marine Protected Areas (MPAs), little is known about who is served and not served by California's MPAs. Historically and currently, underserved communities face barriers to accessing coastal areas. Up until recently, federal and state agencies have not mentioned ocean access within policies addressing environmental justice. Underserved communities, including subsistence fishers, are often underrepresented in the decision-making process for MPAs and ocean management. Equity and Environmental Justice (EEJ) implications remain unclear.

## Objectives

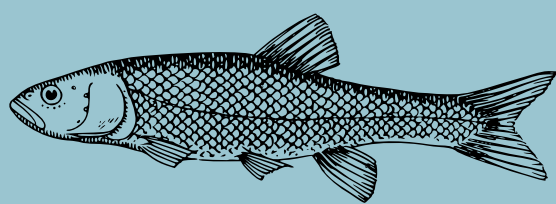
1

Have federal and California policies addressed Equitable Coastal Access?  
Who is served and not served by California's Marine Protected Areas?  
Is access equitable in California?



2

Do age, race, and income predict time traveled from Marine Protected Areas?  
How long does it take to access one of the public access points?



3

What is known about subsistence fishers?  
Who are they in California?  
Where are subsistence fishers coming from?  
What species are subsistence fishers catching and where?

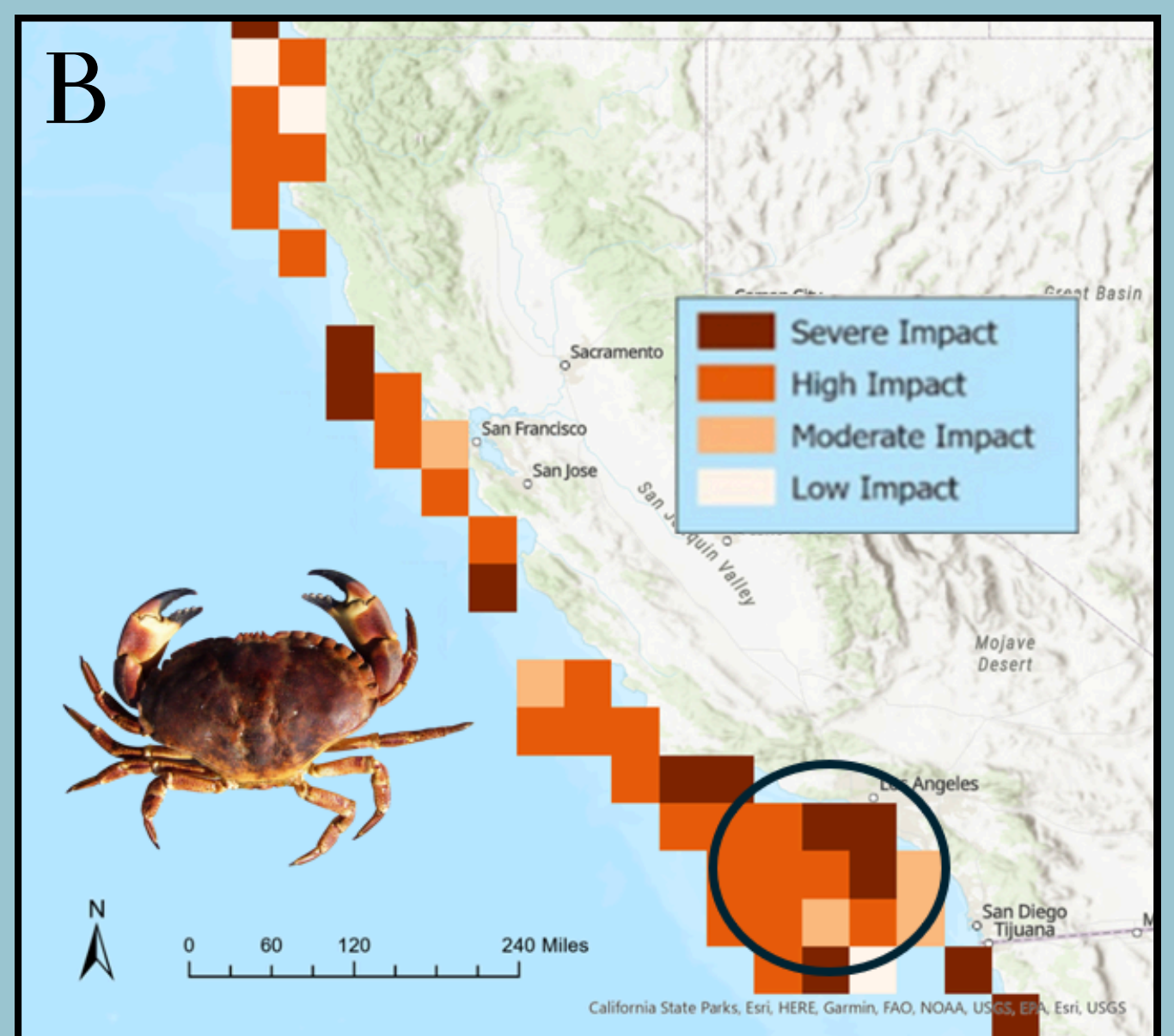
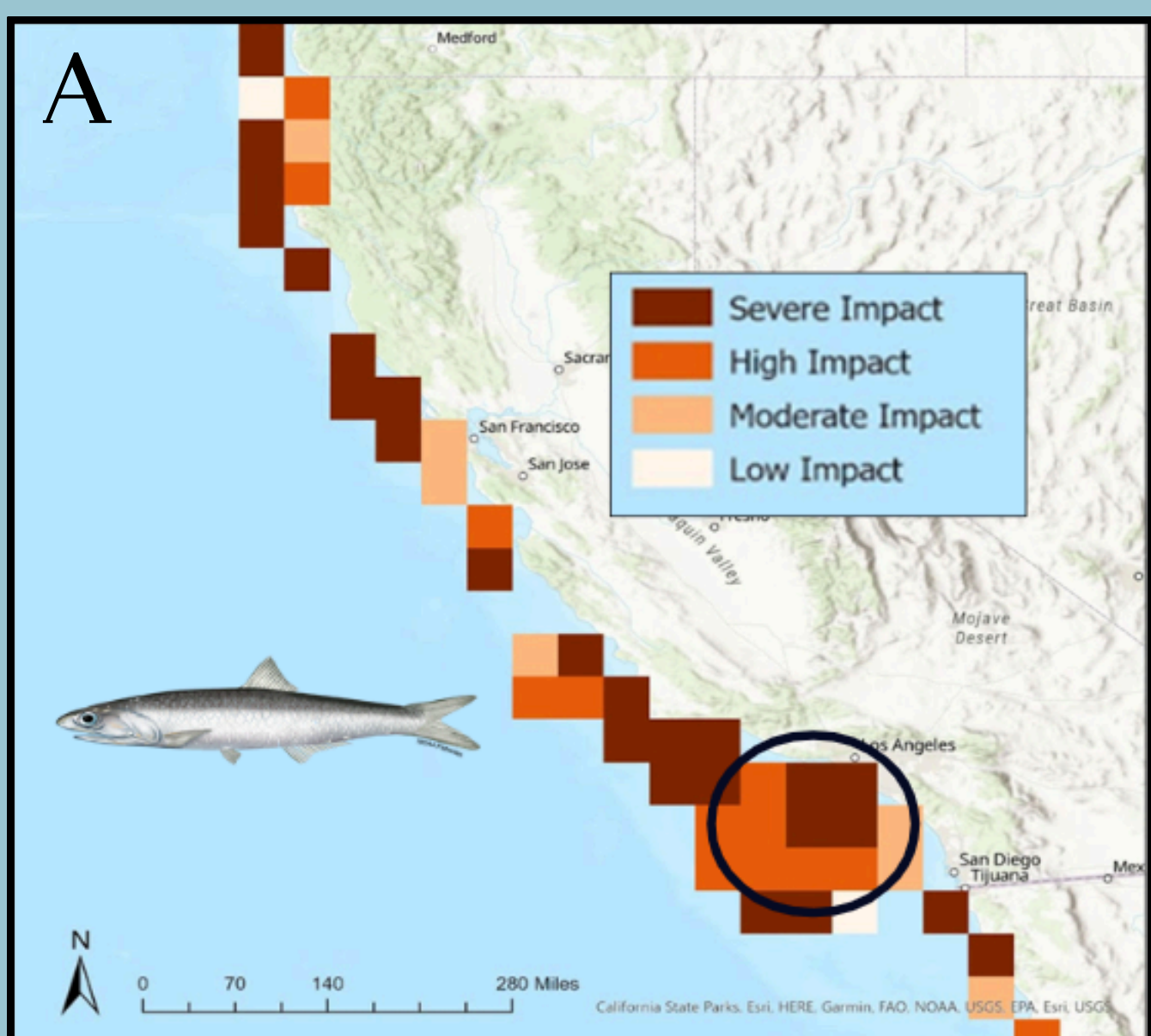


Figure 1A. Illustrates areas where Northern Anchovy overlap with pollution impacts. Darker orange shows areas with more severely impacted by pollution. Figure 1B. Illustrates areas where Dungeness Crabs overlap with pollution impacts. Darker orange shows areas with more severely impacted by pollution. In Figures 1A & 1B., the black circles indicate that Los Angeles County is an area with a large number of fishers and has high pollution.

# Key Findings



The literature review revealed a trend of constrained ocean access among underserved groups, with historical discrimination, available amenities, and cost influencing visitation patterns and community proximity to coastal areas.



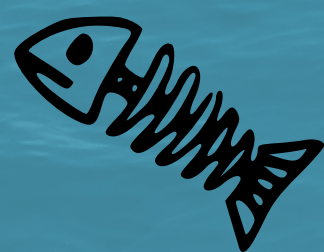
The ocean access analysis links income levels to travel time to public access points, with higher poverty zip codes farther from MPAs. Elderly populations, particularly those over 65, have shorter travel times to the coast, while zip codes with a majority African-American population have the shortest travel time to public access points.



Federal and state agencies have historically overlooked access to nature and resources, including oceans, as a facet of equity and environmental justice (EEJ). Recent changes in the past few years indicate a growing acknowledgment of the significance of equitable access to coastal environments.



Subsistence fishers, primarily from disadvantaged communities in the Central Valley, Los Angeles, and the San Francisco Bay Area, largely identify as non-White and speak English as a second language. A significant portion, 56%, are unfamiliar with MPAs, yet 52% consider their catch vital for sustenance.



The top 5 most targeted marine species by subsistence fishers are in regions of highest pollution impact, Los Angeles and San Francisco Bay

## Implications for Stakeholders

|   |   |
|---|---|
| <p><b>Underserved Communities</b></p>                     | <p>Differences in income, race, and poverty level often affect who gets to take part in ocean activities and enjoy the rewards that come with them. African-American residents in California's Central Valley visit the coast less frequently due to safety concerns. Income disparities also influence coastal visits; 75% of Californians cited a shortage of reasonably priced parking and overnight accommodations as a significant issue, affecting Latino voters and families with children. Understanding the nuanced preferences and challenges of diverse beachgoers sheds light on a spectrum of needs expressed by different demographics.</p> |
| <p><b>Subsistence Fishers</b></p>                         | <p>Subsistence fishers can be aware of where the species they catch are being impacted by pollution to lower their health risks. Providing subsistence fishers with this knowledge can help them voice their concerns at public meetings or other avenues so decision-makers can develop fishing regulations that take these concerns into account.</p>   |
| <p><b>State and Federal Ocean Management Agencies</b></p> | <p>State and federal agencies can utilize our results to develop effective future management strategies that take into perspective the concerns of subsistence fishers from DAC to ensure they are being represented in the decision-making process.</p>  |

## Recommendations

1

Implement practical measures like increased safety (more lights), multilingual signage, and affordable accommodations (cheaper parking & hotels) to improve accessibility at coastal access points.

2

Devise plans to mitigate ocean-based pollution in high-pollution regions to protect marine species targeted by subsistence fishers and support their livelihoods.

3

Continued engagement with disadvantaged communities, including subsistence fishers, through community outreach initiatives and environmental education programs.