

# Marine Life Protection Act Initiative



## Overview of Fisheries Uses and Values Project

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# Overview

- Who we are
- Why we are here
- Project overview
- Data collection for the MLPA South Coast Study Region
- Summary Statistics
  - Commercial fisheries
  - Recreational fisheries



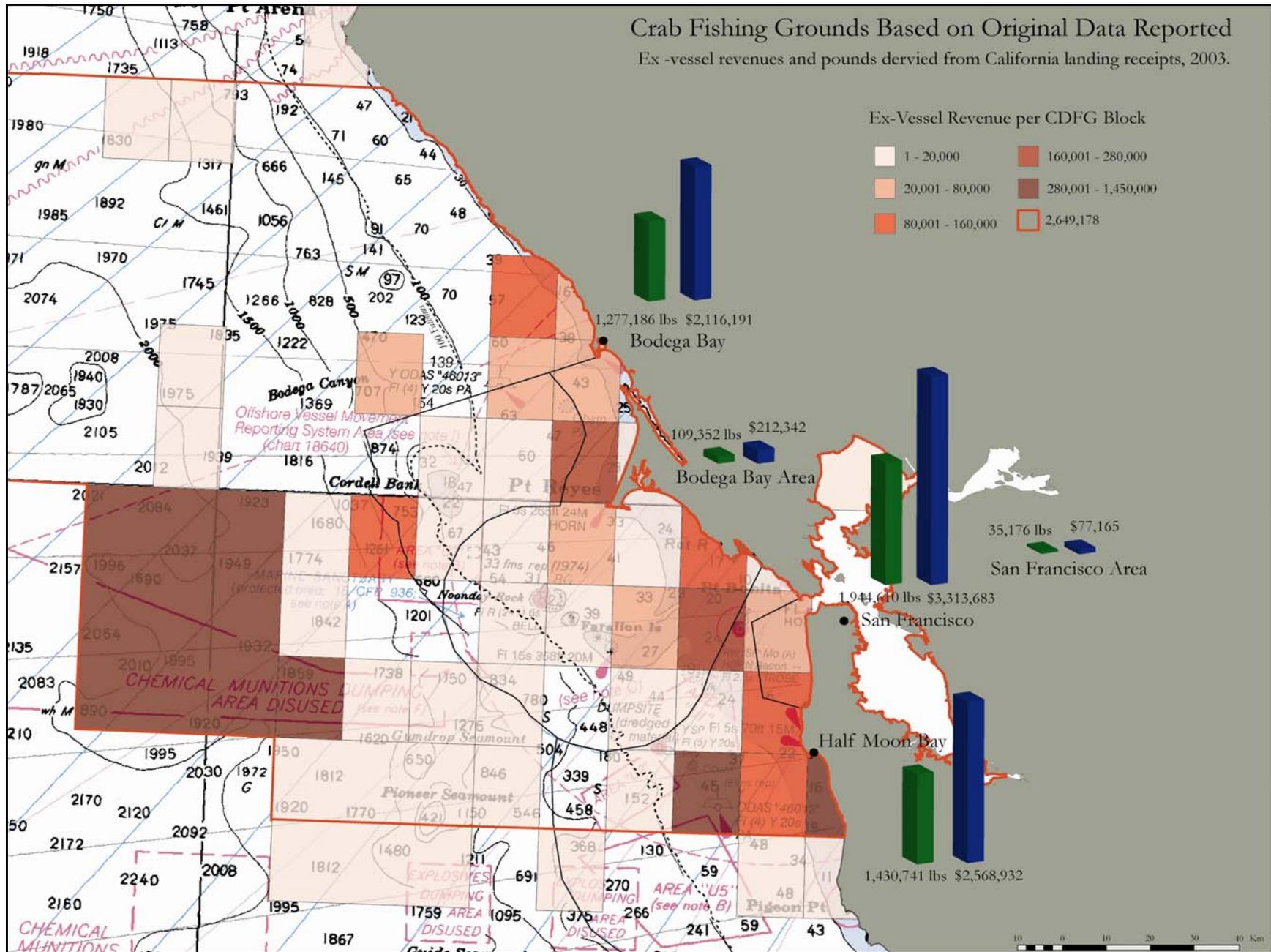
## Ecotrust: Who we are

- Non-profit working from Bering to Baja
- Working to build a conservation economy: balancing economy, ecology, and equity (3E)
- Sectors: fisheries, forestry, food & farms
- Focus on middle ground solutions to resource management issues
- Capital & knowledge: research, ecosystem mapping, decision support tools, investments



## Why We Are Here

- Ecotrust contracted by MLPAL to:
  - Supplement existing data
  - Collect data on commercial and recreational fishing (use and values) to characterize the spatial extent and relative importance
  - Evaluate the potential economic (gross and net impacts) of the MPA proposals designed by RSG
  - Focus is on the fisheries, and not on regional multipliers of economic impact





## Project Overview

- Data collection components involve:
  - Outreach through informational one-on-one and group meetings and working with port liaisons
  - Survey design
  - Data collection – Open OceanMap (desktop and on-line)
  - Quality assurance and control
  - Analysis
  - Results



## Survey Design

- Identify key fisheries in the region
  - Differentiate in terms of practices (target strategy) and/or gear configurations (e.g., lobster-trap, urchin-dive, spot prawn-trap)
- Stratified study area into port complexes
- At least 50% of the total ex-vessel revenue from 2000-07 by fishery, gear type, and port complex
- At least 5 fishermen except in cases where the overall population is <5, then 100%



## Survey Design - Commercial

- Target commercial fisheries: urchin, lobster, wetfish, spot prawn, rock crab, nearshore rockfish, and live bait
- These were the focus, but we collected data for others (i.e., California halibut, sea cucumber, sablefish, thornyheads,.....)
- Port complexes: Santa Barbara, Ventura, Port Hueneme, San Pedro, Dana Point, Oceanside, and San Diego



## Survey Design - Recreational

- Recreational user groups: commercial passenger fishing vessels, divers, kayak anglers, private boaters, pier and shore anglers
- Target recreational species: white sea bass, lobster, California halibut, yellowtail, calico bass, sand bass, California sheephead, California scorpionfish, rockfish, lingcod, croaker, barracuda, surfperch, and tuna
- Species vary per user group, not full list



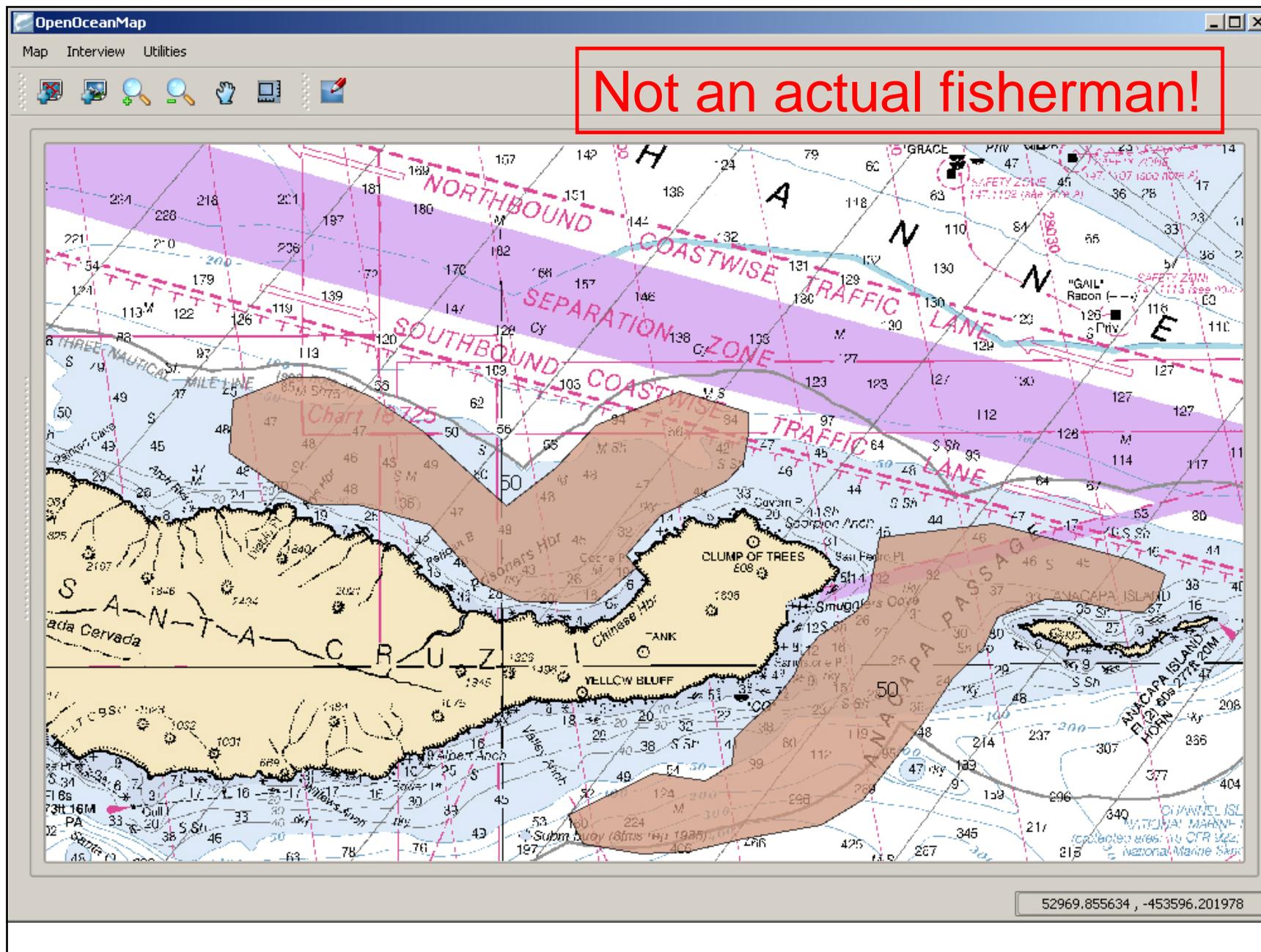
## Survey Process

- Conduct outreach and work with port liaisons on survey design and identifying fishermen
- Use computer based map interface to administer survey and collect data – Open OceanMap
  - In person interviews for commercial and commercial passenger fishing vessels
  - Web-based for recreational
- Have fishermen map the extent and stated importance of their fishing grounds for commercial and recreational fisheries



## Data Collection

- All interviews follow a shared protocol for each fishery which the interviewee participates:
  - Fishermen are asked to identify all fishing areas/locations that are of economic importance over their cumulative fishing experience and to rank these using a weight percentage – an imaginary “bag of 100 pennies”
  - For recreational fishermen, “economic” is removed and just “importance” is used
  - Non-spatial information pertaining to demographics and basic operations (costs) are also collected





## Quality Assurance and Control

- Edits may need to be made: e.g., for shape A. fishermen F12345 – 10 fathoms shore side and 50 fathoms ocean side, from Point Loma to....
- After editing, we send each fisherman a set of his/her maps (paper or electronic) for review
- Follow up meetings with participants and fishing community to verify results
- Work with fishing community to ensure confidentiality of any publically displayed information



## Use of Survey Information

- Data used by regional stakeholder group to inform the marine protected area design process: regional and port level maps and summary statistics
- Use the survey data and maps to:
  - Evaluate the potential impacts of various MPA proposals on the commercial and recreational fishing grounds
  - Conduct socioeconomic impact analysis on commercial fisheries



## Summary Statistics – Commercial

- 245 interviews resulting in 479 individual fishing grounds
- Example representation – # of fishermen and % of total ex-vessel revenue, 2000-07:
  - Lobster/trap – 92 fishermen (70%)
  - Urchin/dive – 78 fishermen (47%)
  - Squid/seine – 50 fishermen (42%)
  - Coastal pelagics/seine – 36 fishermen (58%)
  - Rock crab/trap – 47 fishermen (58%)
  - Nearshore rockfish/trap – 25 fishermen (65%)
  - Spot prawn/trap – 16 fishermen (88%)
  - Live bait – 7 fishermen



## Summary Statistics - CPFV

- Commercial passenger fishing Vessel (CPFV):
  - 128 CPFV captains interviewed
  - Approximately 1,500 individual fishing grounds
  - Most all captains provided data for: whitefish, calico bass, sand bass, white seabass, pacific bonito, barracuda, California halibut, lingcod, rockfish, California sheephead, and California scorpionfish
  - Also captured data for: tuna, shark, squid, and yellowtail



## Summary Statistics - Recreational

- Recreational fisheries:
  - 504 fishermen completed on-line survey
  - 3,902 individual fishing grounds (IFG)
- Fishermen could provide information from more than one user group
  - Dive – 168 (732 IFG)
  - Kayak – 170 (785 IFG)
  - Pier/shore – 174 (483 IFG)
  - Private – 294 (1,902 IFG)



## Next Steps

- Aggregating data and generating draft maps for review
- Reviews by individual fishermen and groups of fishermen
- Final products by next MLPA South Coast Regional Stakeholder Group meeting
  - Maps
  - Methods paper
  - Detailed summary statistics



## Thank You

- All the fishermen that participated and encouraged others to participate as well
- Port Liaisons
- Field Staff: Cheryl Chen, Jessica Spence, Tony Rafferty, Clare Shelton, Kristine Faloon, Katie Cole, Kelsey Catlin, Matthew Strang, Greg Bratman and Laura Brands