

California's Marine Life Protection Act



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Ocean Conservancy
September 5, 2009



Ocean Conservancy
Start a Sea Change



Our Ocean Faces a Crisis

International
Coastal
Cleanup

2008 REPORT

A RISING TIDE OF OCEAN DEBRIS

AND WHAT WE CAN DO ABOUT IT

EUROPEAN
SCIENCE
FOUNDATION

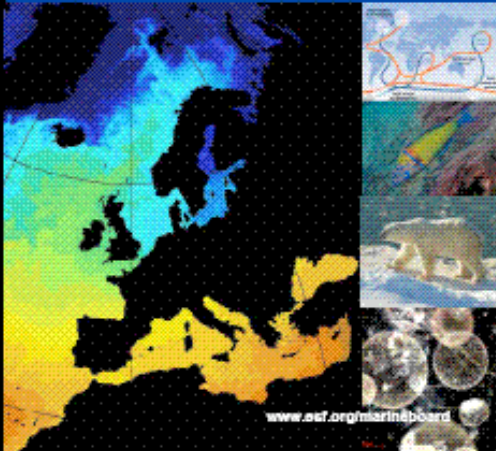
MARINE
BOARD

Position Paper ##

Impacts of Climate Change on the European
Marine and Coastal Environment

Ecosystems Approach

March 2007



The New York Times

Oceans at Risk

March 9, 2008

There is no shortage of scientific studies documenting the degradation of the world's oceans, the decline of marine ecosystems and the collapse of important fish species. Several have appeared in the last month. What is in short supply is a sustained effort by world governments and other institutions to do something about it.

...



Prepared for the
U.S. Carbon Cycle Science Meridional Working Group
and Inter-agency Working Group
by the
Carbon Cycle Science Ocean Interim Implementation Group
Scott C. Steyer
Chair and editor



DESALINATION An Ocean of Problems



'A riveting book of revelations about Earth's
largest and most important habitat.'
Tim Flannery

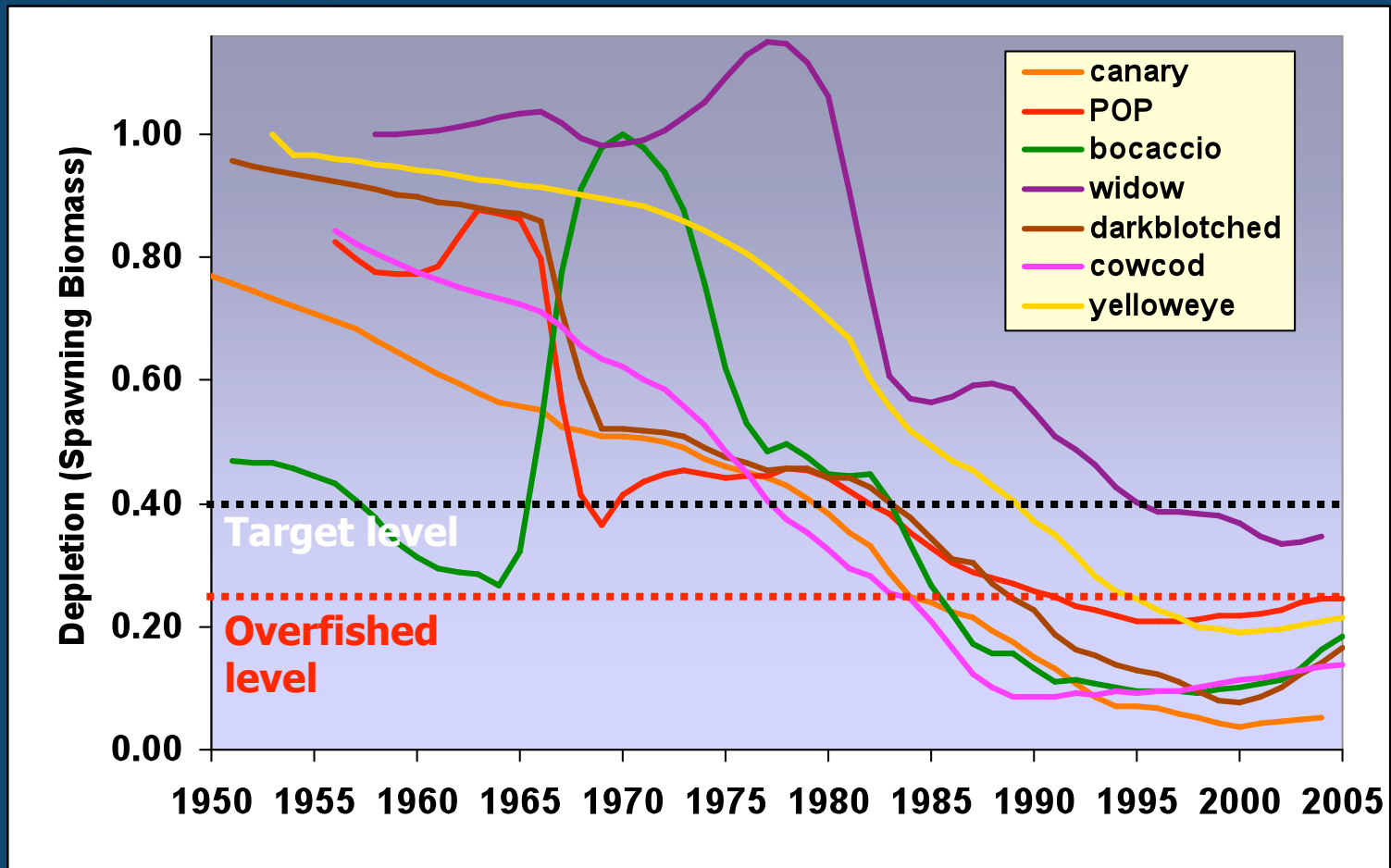
SEASICK

The hidden ecological
crisis of the global ocean
Alanna Mitchell



Species Declines

Rockfish





Shifting Baseline





Shifting Baseline





Marine Protected Areas: Part of the Solution

IUCN
The World Conservation Union



The WCPA - Marine Plan of Action



Photo: © Zak Viana

Working together to secure a global, representative system of effective and lasting networks of marine protected areas

2006 – 2012

2006 initial consultation version

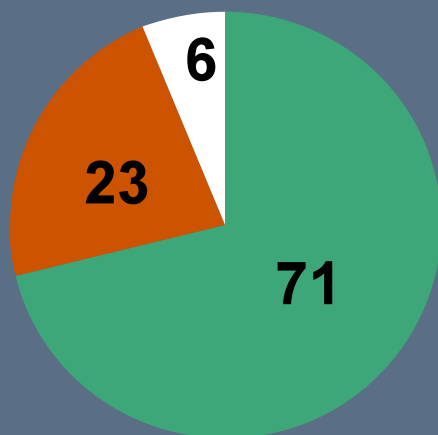




Public Support

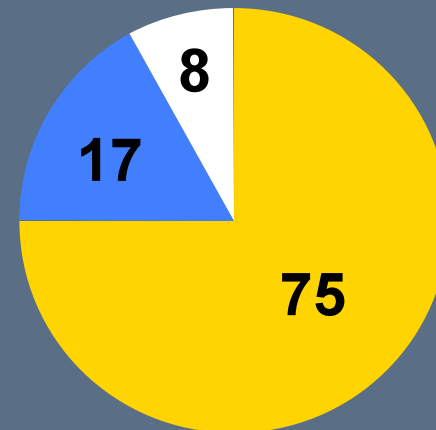
Marine Protected Areas

How about creating more marine reserves off the California coast, even if this means that some ocean areas will be off-limits to commercial and recreational fishing? Do you favor or oppose such an action?



■ Favor
■ Oppose
■ Don't know

Do you think it is a good idea or a bad idea to create new Marine Protected Areas in about 10-20% of the ocean waters along California's coast?

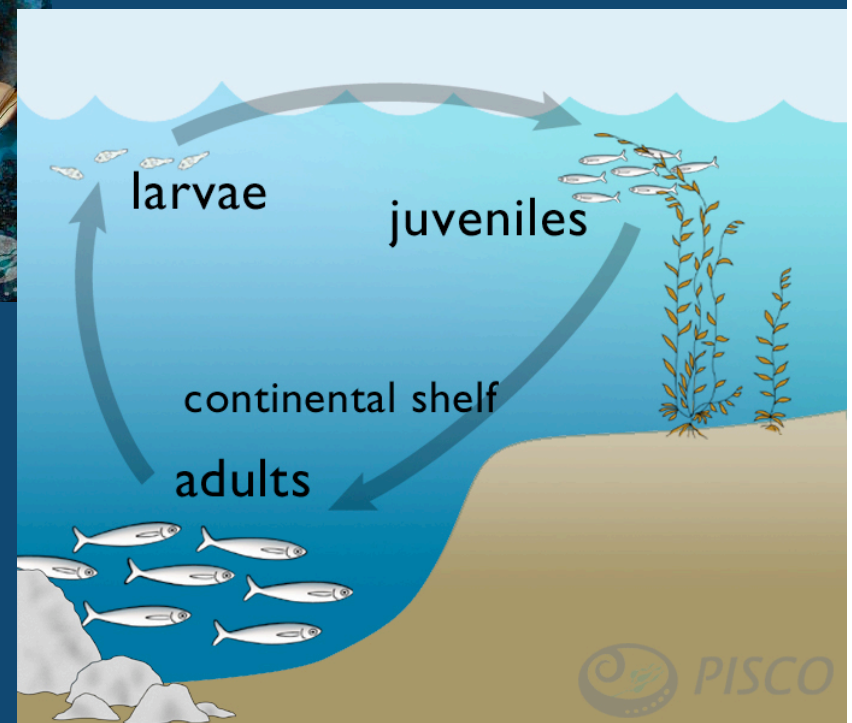
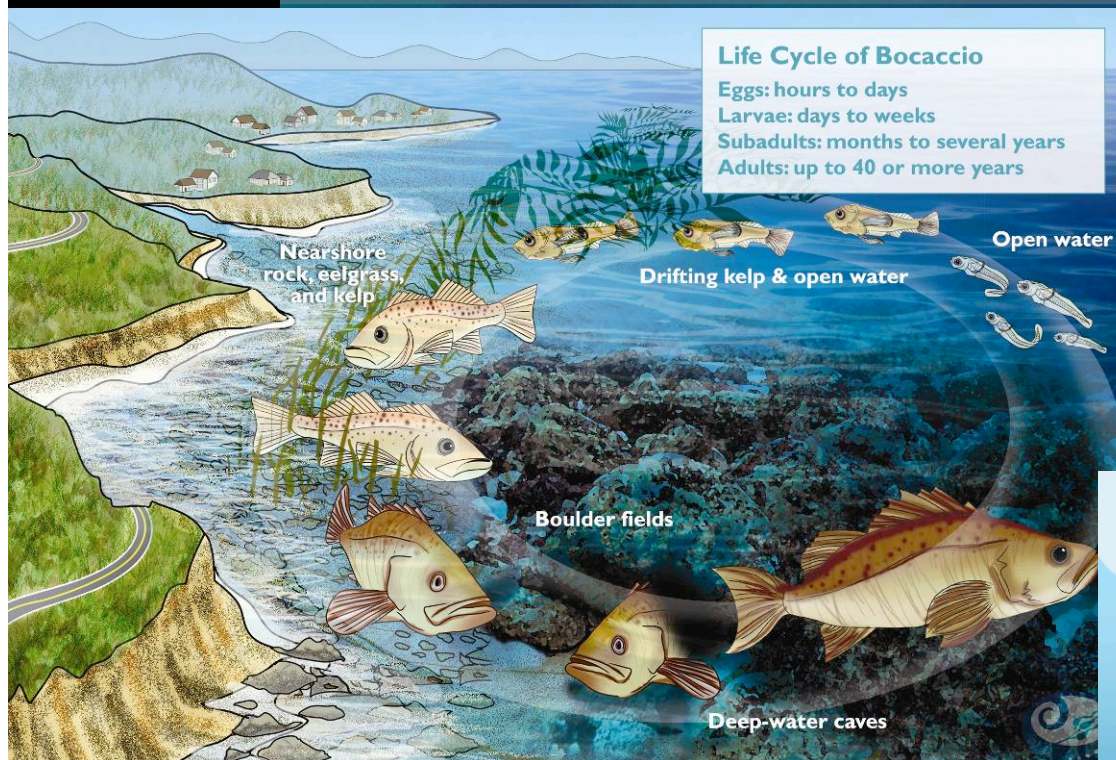


■ Good idea
■ Bad idea
■ Don't know

All Adults

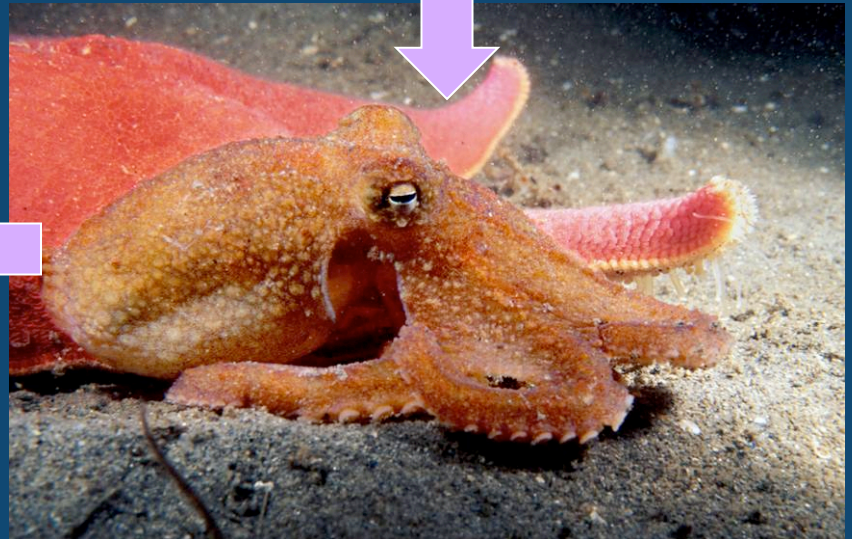
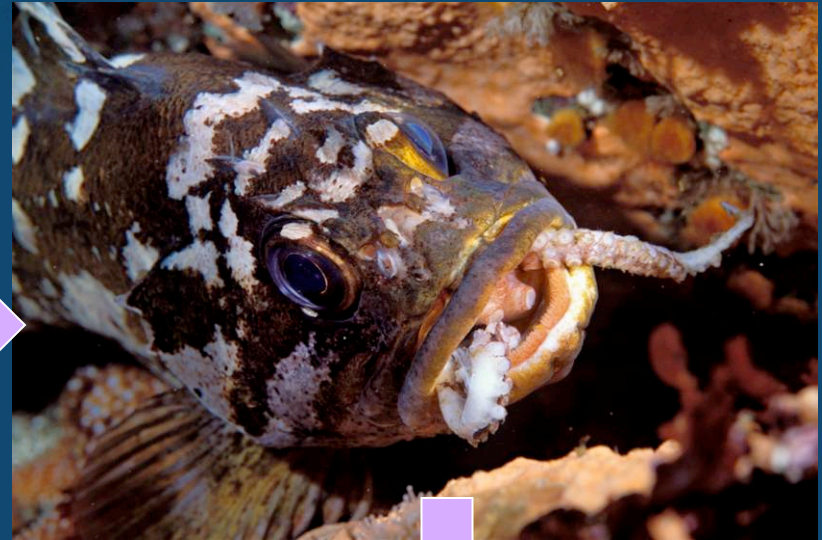


Protecting Habitat



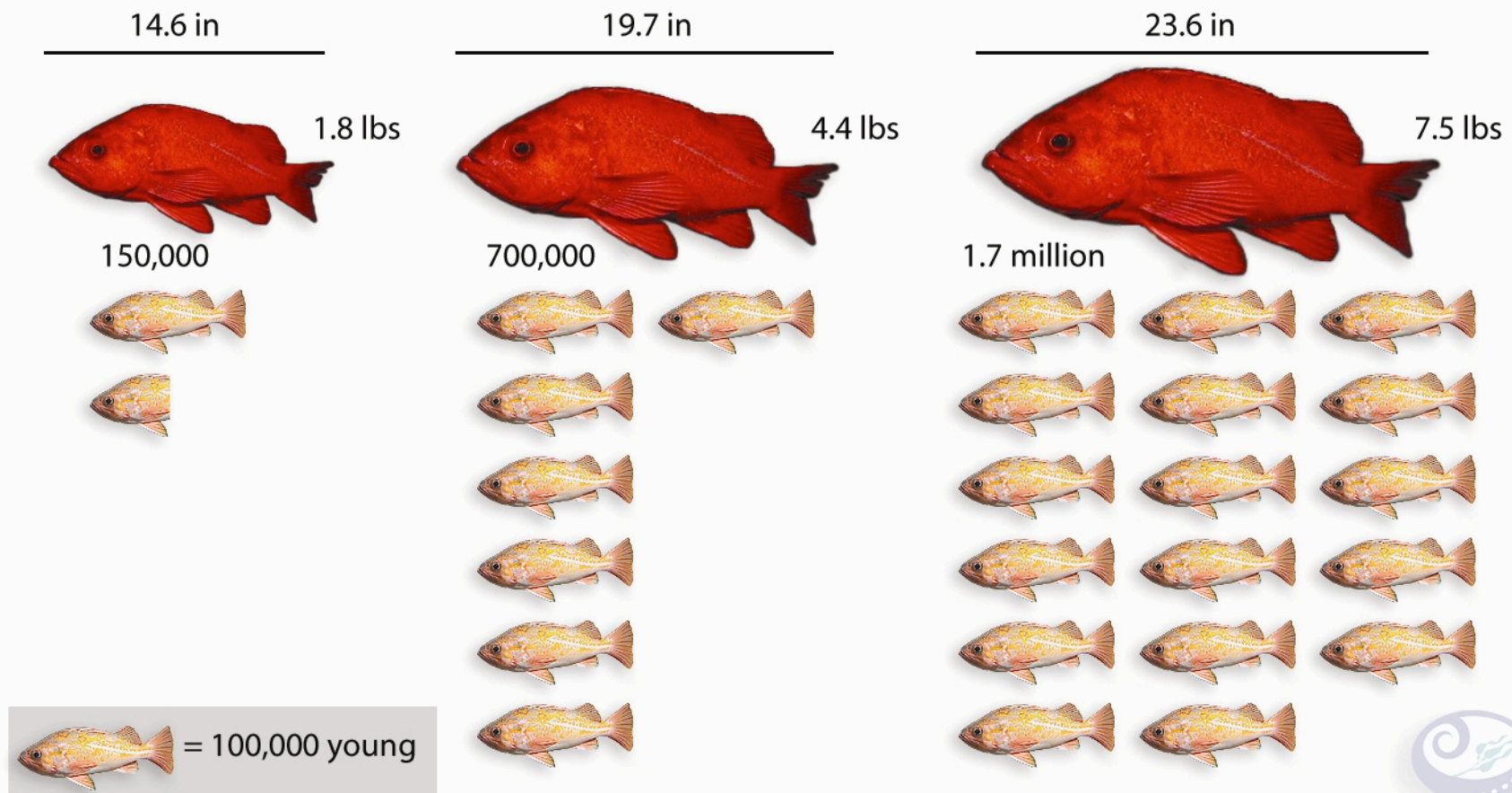


Protecting the Food Chain





Reserve Effects



Average numbers of young produced by three different sizes of vermilion rockfish.
Data: Love et al. (1990) NOAA Technical Report





California's Marine Life Protection Act

- State law passed in 1999
- Mandates a statewide network of marine protected areas (MPAs)
- Purpose: ecosystem protection and habitat representation
- Reform 103 existing state MPAs: postage stamp reserves and paper parks



Statutory Requirements

Goals of the MLPA:

1. To protect the natural diversity and function of marine ecosystems.
2. To help sustain and restore marine life populations.
3. To improve recreational, educational and study opportunities in areas with minimal human disturbance.
4. To protect representative and unique marine life habitats.
5. Clear objectives, effective management, adequate enforcement, sound science.
6. To ensure MPAs are designed and managed as a network.



Marine Protected Areas in CA

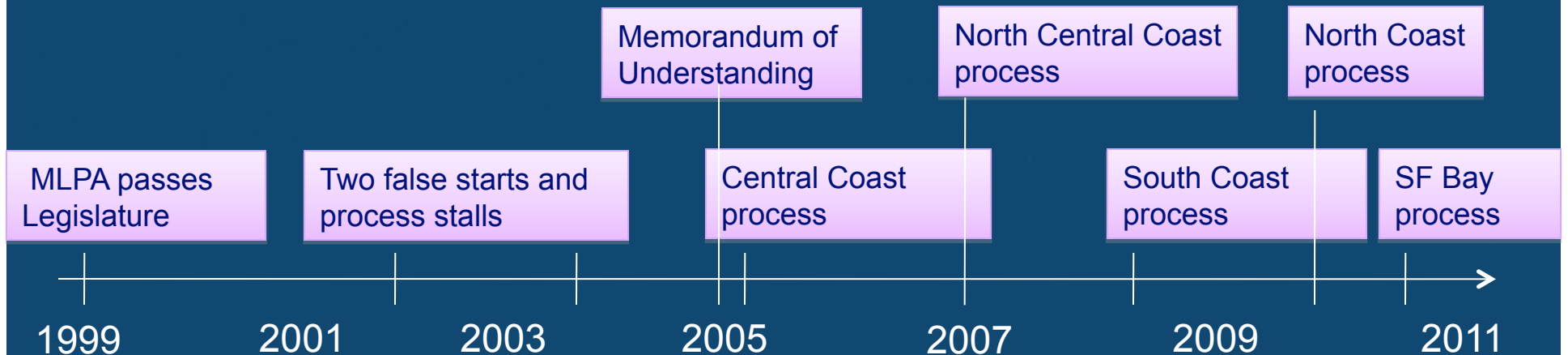
Three Primary MPA Designations:

- **State Marine Reserve (SMR):** no take
- **State Marine Park (SMP):** allows or limits some recreational take; no commercial take
- **State Marine Conservation Area (SMCA):** allows or limits selected recreational and/or commercial take



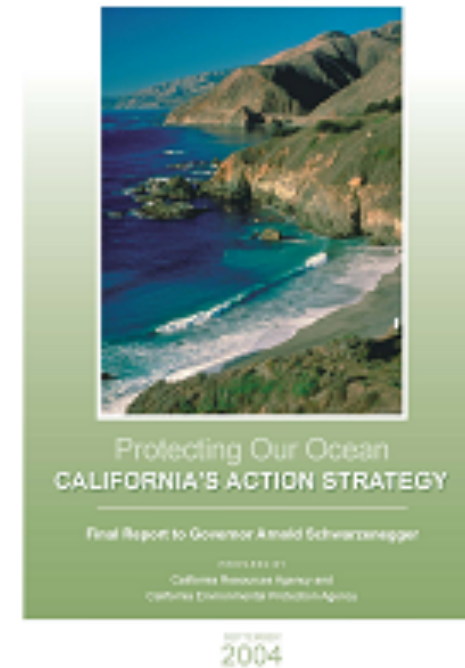
California's Marine Life Protection Act

Timeline Since Enactment:





The Marine Life Protection Act Initiative

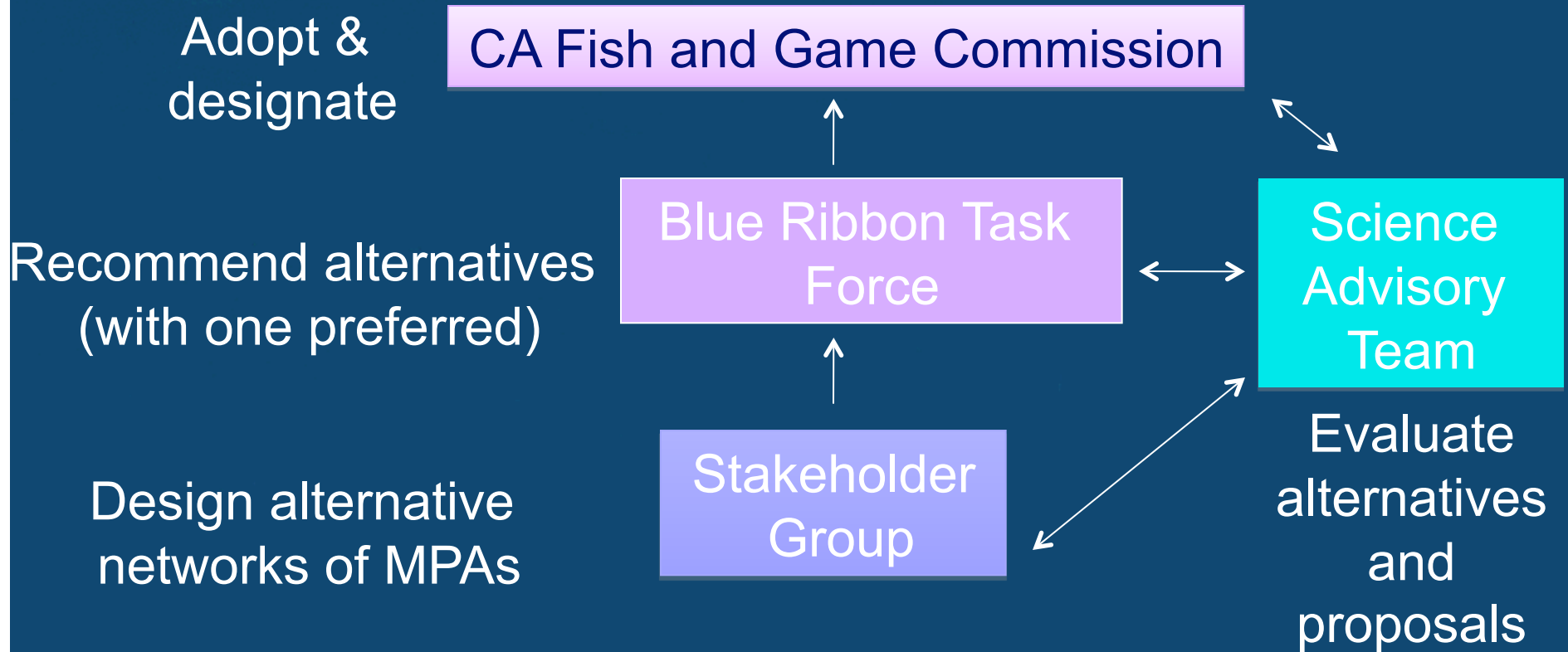


MLPA Subregions

5 Subregions:

1. Central Coast
2. North Central Coast
3. South Coast
4. North Coast
5. San Francisco Bay







Regional Stakeholder Group





Science Guidelines:

- Size Guideline #1

- “For an objective of protecting adult populations, based on adult neighborhood sizes and movement patterns, MPAs should have an **alongshore span of 5-10 km** (3-6 m or 2.5- 5.4 nm) of coastline, and **preferably 10-20 km** (6-12.5 m or 5.4-11 nm). Larger MPAs would be required to fully protect marine birds, mammals, and migratory fish.”

= **big enough**

- Size Guideline #2

- “For an objective of protecting the diversity of species that live at different depths and to accommodate the movement of individuals to and from shallow nursery or spawning grounds to adult habitats offshore, MPAs should **extend from the intertidal zone to deep waters offshore.**”

= **deep enough**

- Spacing Guideline

- “For an objective of facilitating dispersal of important bottom-dwelling fish and invertebrate groups among MPAs, based on currently known scales of larval dispersal, **MPAs should be placed within 50-100 km** (31-62 m or 27-54 nm) of each other.”

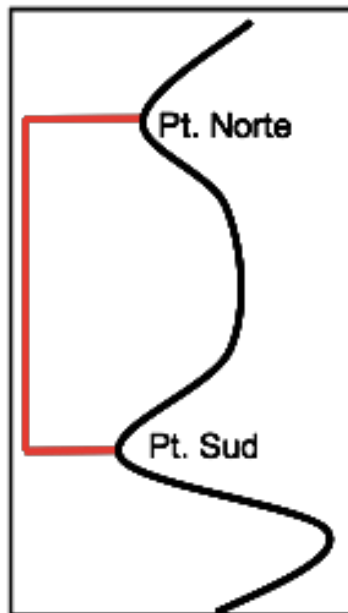
= **close enough together**



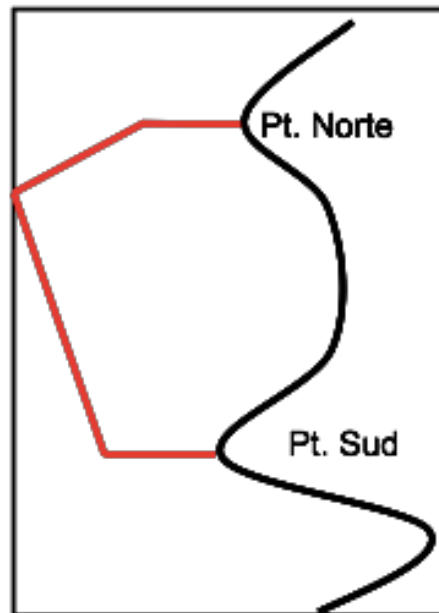
Feasibility and Enforcement Guidelines

The following graphs illustrate some appropriate and inappropriate examples of boundary design:

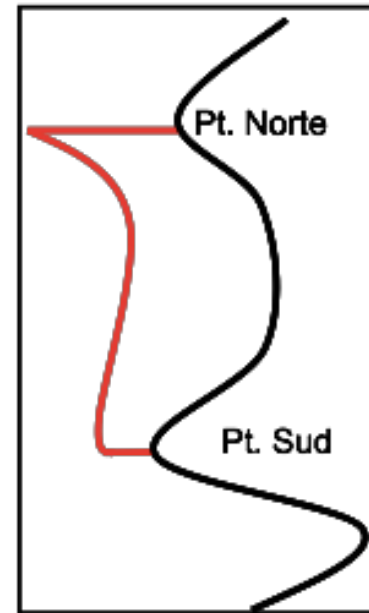
Good!



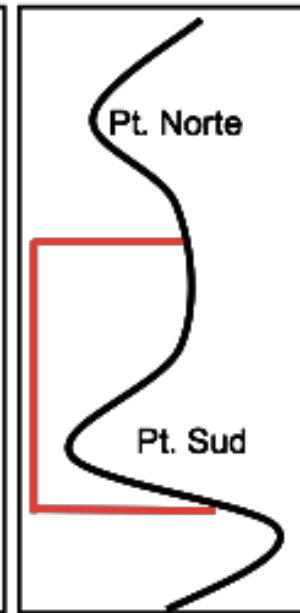
Irregular Lines



Doesn't use straight lines



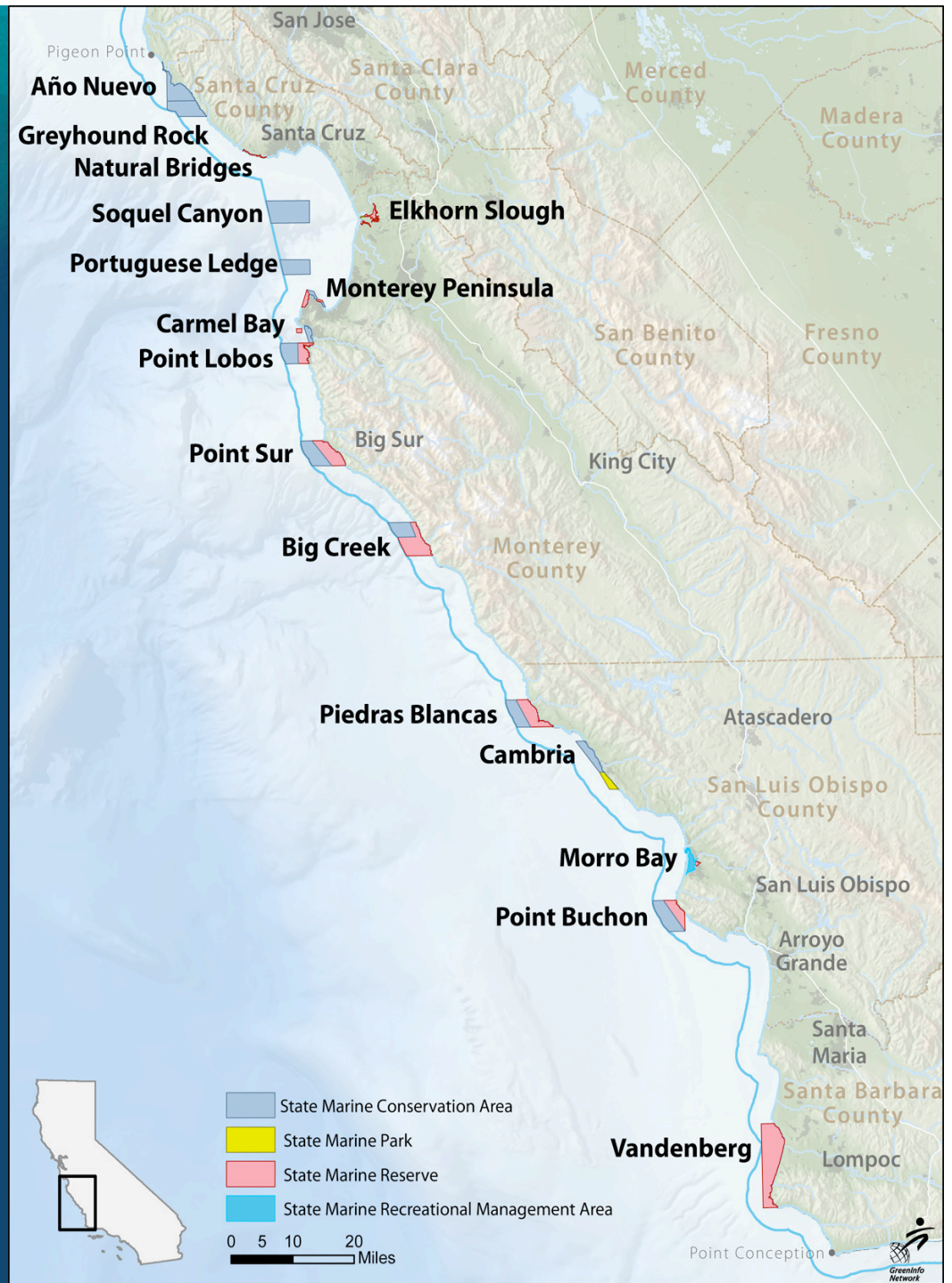
Doesn't use major landmarks



Central Coast Subregion

**MPA Regional Network
Adopted
April 2007 and Implemented
September 2007:**

- **29 MPAs (18% of study region)**
- * 15 state marine reserves (8%)
- * 11 state marine conservation areas
- * 2 state marine park
- * 1 state marine rec mgmt area





Carmel Bay and Point Lobos



(c) Kip F. Evans



Carmel Bay and Point Lobos MPAs

Carmel Pinnacles SMR

.53 sq miles

No-take

Carmel Bay SMCA

2.12 sq miles

Recreational finfish and kelp by hand.

Point Lobos SMR

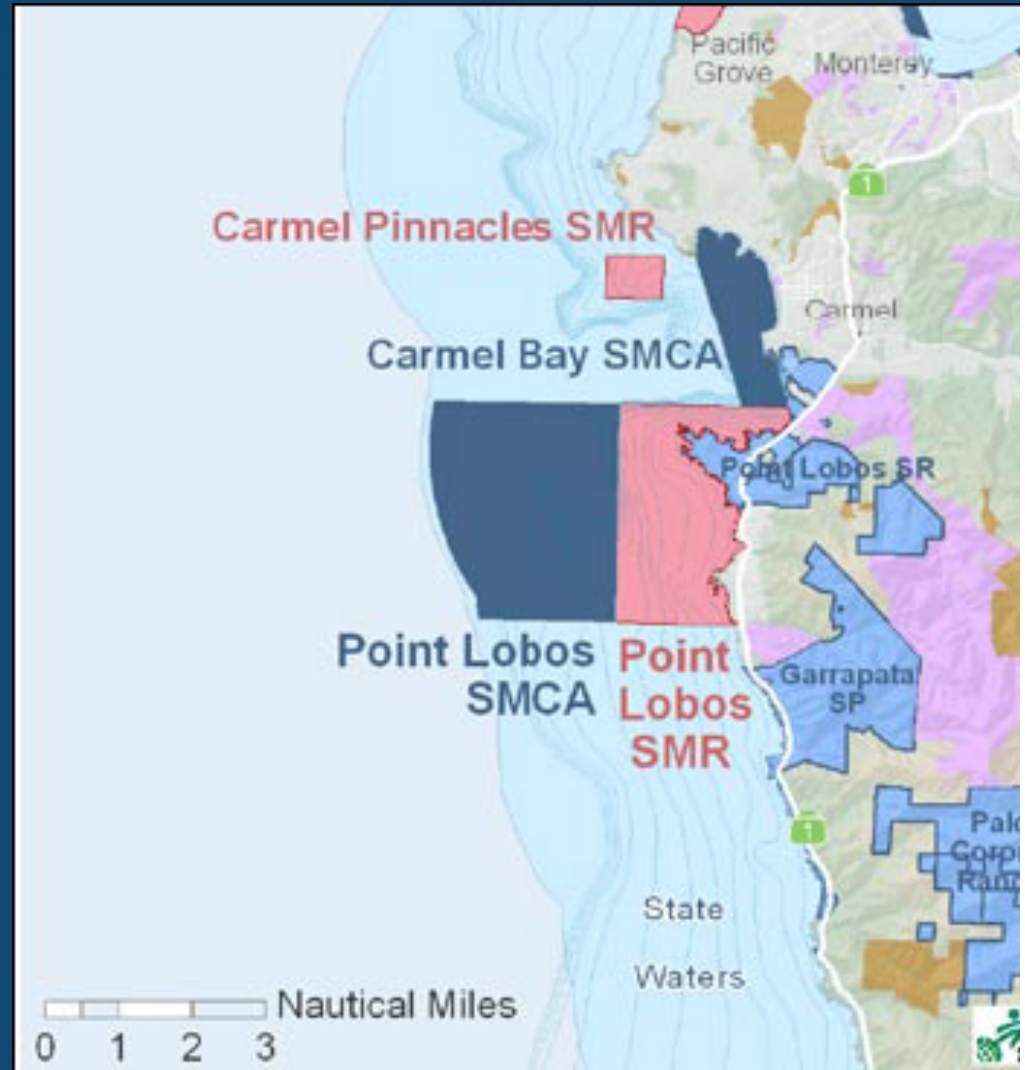
5.36 sq miles

No-take

Point Lobos SMCA

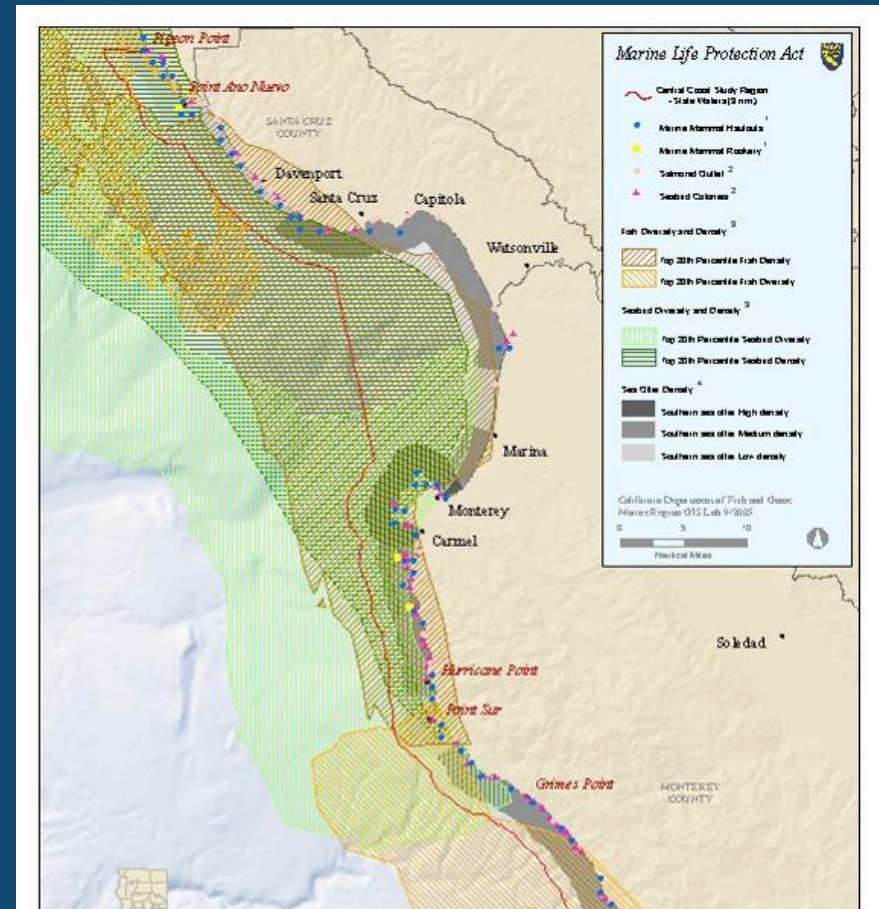
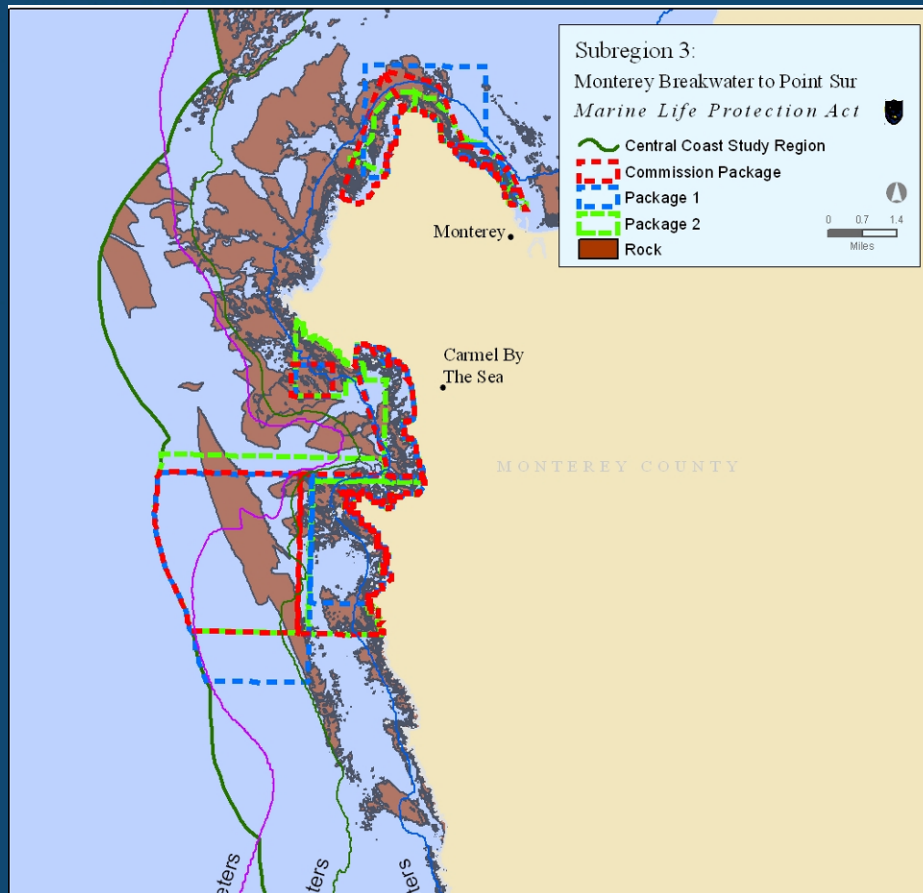
8.85 sq miles

Recreational and commercial salmon, albacore, and spot prawn.





Ecological Data





Point Lobos MPAs



Carmel Pinnacles SMR

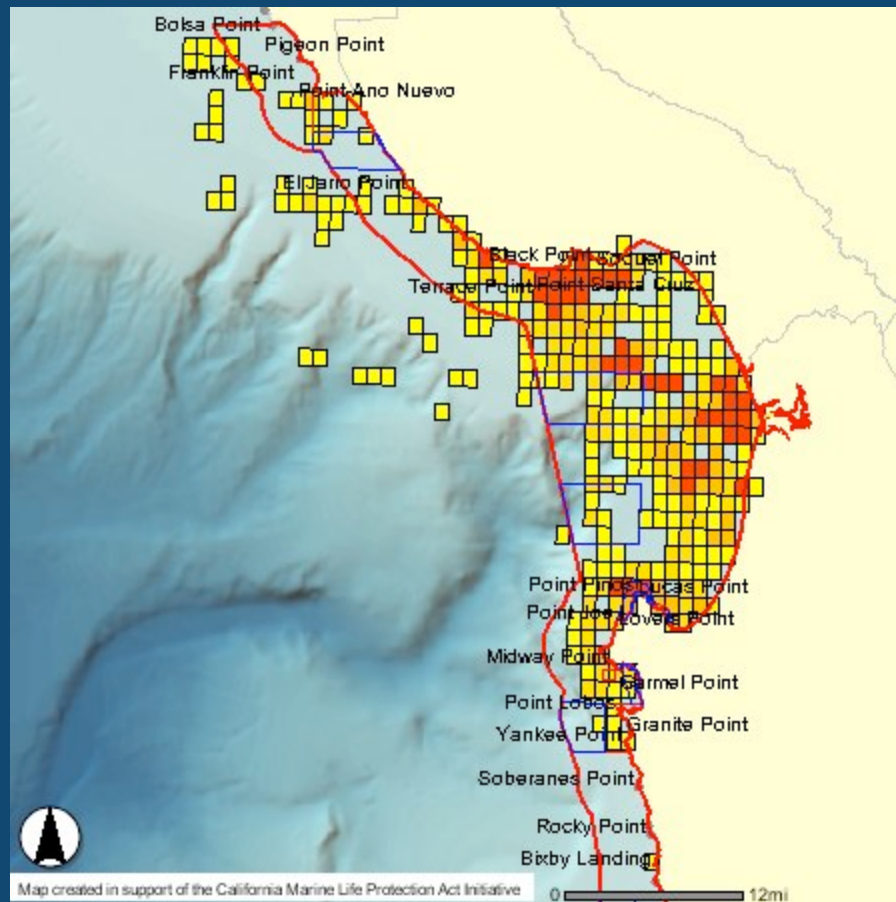


**Carmel Bay
SMCA**

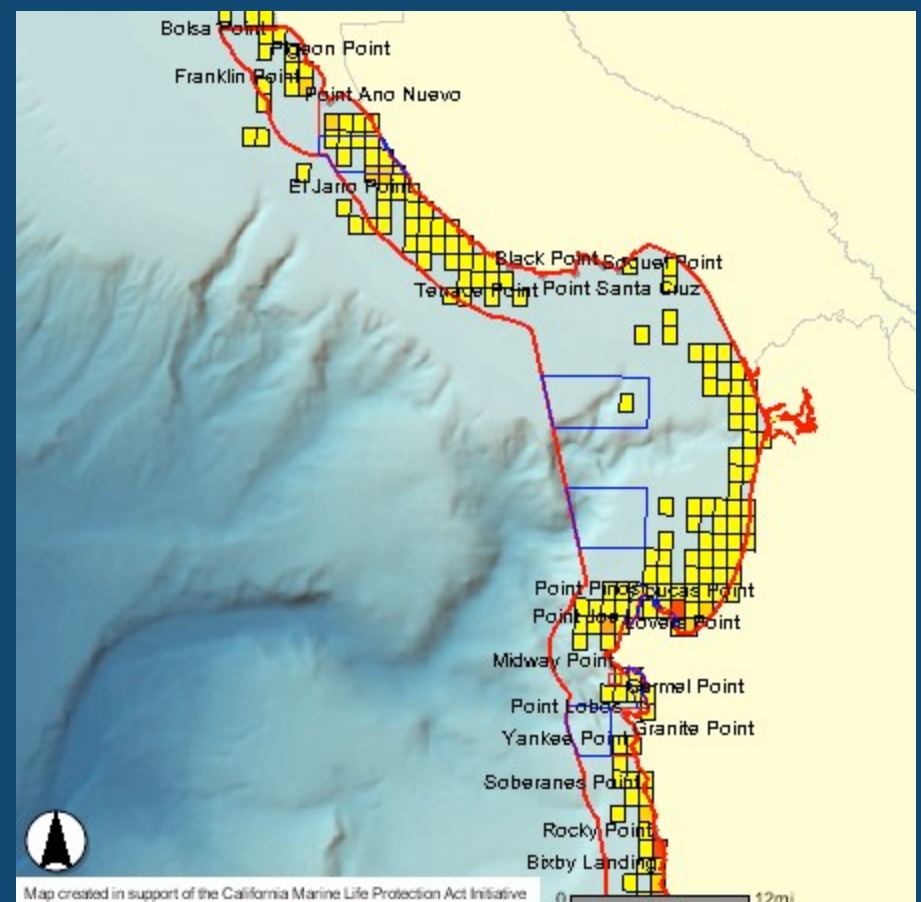


Fishing Data

California Recreational Fisheries Survey – 2004 (Source DFG)



Market Squid Catch Data – 2000-2005 (Source DFG)

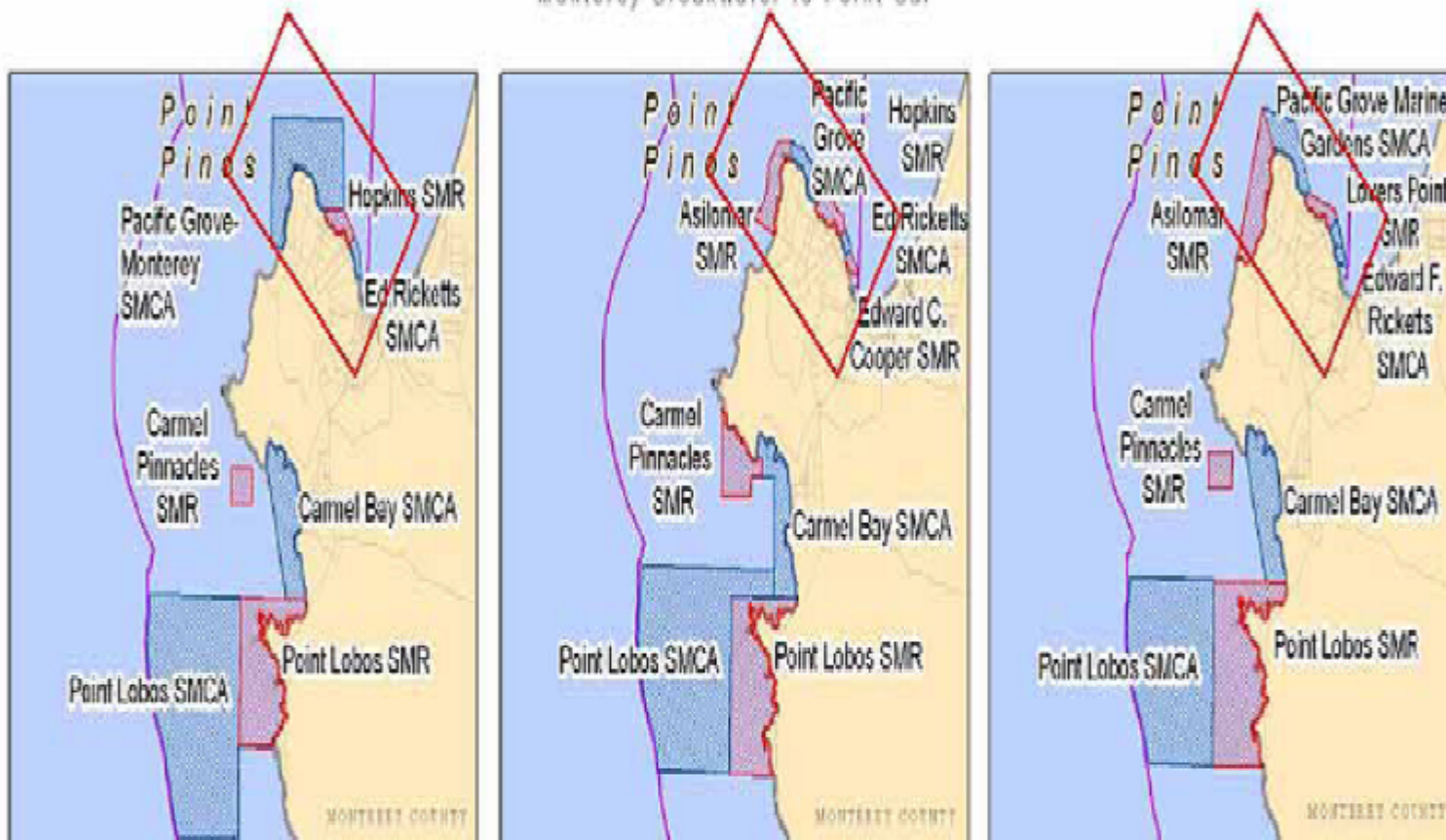




Alternatives

MLPA Central Coast Study Region: Subregion 3

Monterey Breakwater to Point Sur





Media

San Francisco Chronicle

THE VOICE OF THE WEST

AUG 11, 2006

It takes an ecosystem

ALL TOO OFTEN, fisheries management in this country amounts to crisis intervention — a species declines to the point of extinction and draconian measures are taken to revive it. Just Thursday, the U.S. Department of Commerce declared a “commercial fishing failure” as a result of the decimated Chinook salmon numbers that caused a curtailment of the season along the California and Oregon coasts.

In that particular case, the main stresses on the salmon came from drought and the water problems in the Klamath River Basin. But the health of the ocean and pressure from commercial-fishing interests are often huge factors in the state of a species. The severely depleted rockfish population in California is a prime example.

In 1999, California created the Marine Life Protection Act, which was designed to establish a series of strategically located no-fishing reserves along the coast where fish could prosper and reproduce. Various scientific studies have suggested that the benefits of such protected zones — where the taking of fish, invertebrates, plants and other life forms would be banned — would extend for many miles along the coast.

But the science has also been clear that the size, location and spacing of those marine reserves are critical to their potential success. Scientists have generally recommended putting at least 20 percent of coastal waters in such reserves.

A shallow plan

How the DFG plan affects the north central coast:



The California Fish and Game Commission is expected next week to consider the first network of marine reserves under the 1999 act — covering 220 miles from Half Moon Bay to Santa Barbara.

The question is whether the mission will produce a healthy ocean. The Fish and Game department has proposed the plan, setting aside a skimpy 8 coastal waters as marine reserves.

A more meaningful plan, made by a coalition of scientists, whose plan would set aside a larger area of 20 percent — it would provide protection for

OVER THE PAST year, a group of your friends and neighbors, of fishermen and environmentalists and of docents and divers have been working together to try to find common ground in a plan for protecting our ocean, through a network of marine protected areas. It hasn't been easy. In fact, at times it's been downright painful. We've got the bruises and scars to prove it.

Because the north central region of California is so full of marine life, there is virtually no piece of coast that isn't somebody's favorite fishing spot, some birdwatcher's favorite place to look at common murre or some stellar sea lion's favorite place to pick up a date.

What we learned from working together is that stakeholders had

SAMANTHA MURRAY
JOSH CHURCHMAN

Samantha Murray is a diver and conservationist with Ocean Conservancy in San Francisco. Josh Churchman is a commercial and recreational fisherman from Bolinas. They both served on the north central coast regional stakeholder group on marine protected areas.

aside areas of the ocean to ensure protection in the long term can have impacts on ocean users today. That is why it has been so important to make sure everyone has a seat at the table in designing California's marine protected areas.

This week, the governor's Blue Ribbon Task Force will release its

appearances on crabbing boats and taking trips to hidden campgrounds you never knew existed, this common ground effort — dubbed Proposal “1-3” because it draws from stakeholder workgroups 1 and 3 — is supported by several commercial fishermen, charter boat operators, recreational fishermen, conservationists and divers from Mendocino to San Mateo. And we're proud to say we had a hand in it.

Nobody got everything they wanted. Yet all sides ended up saying they could live with the compromise. Not a bad outcome when you consider how diverse the group was, how many people had to find common ground and how elusive that common ground can be. In the end it is about doing the best we can to leave something lasting for future generations. And taking a risk to seek that common ground together.

We've come a long way in realizing that we all have a stake in the ocean's health. The Blue Ribbon Task Force should honor the compromises both sides have made, and recommend an alternative to the California Fish and Game Commission that works for both fishermen and conservationists.

This compromise is called “1-3” and it truly is the middle ground. This balanced proposal is the best avenue all Californians have for a healthy, thriving ocean.

Find out more about the three different proposals for marine protected areas at www.dfg.ca.gov/mipa/ncscsg-proposals.asp

MARIN VOICE

The ocean is for all Californians

Monterey Herald

MONTEREY COUNTY'S NEWSPAPER

The Herald's View

February 24, 2006

A new survey by the Public Policy Institute of California found that a remarkable 87 percent of Californians will give strong weight to the environment and the coast when they next vote for governor and senator...

Seven out of 10 residents agree with plans to create more marine reserves, a view shared by Democrats and Republicans...

The bottom line: Even in a state as diverse as California, there is common ground. It's on the coast.



Education and Outreach

Another World Beneath the Waves

Life in the Kelp Forest

The spectacular landscape around you is just part of what makes Point Lobos State Reserve so special. Beneath the waves is another world of kelp forest and rocky reefs unique to California's Central Coast. Giant kelp grows up to 20 inches a day and to 90 feet high, forming an undersea forest. Kelp forests have a greater yield in production per acre than any plant community on earth. This forest feeds and shelters a rich variety of marine life, including sea otters and other marine mammals, fish, invertebrates, and seabirds. Point Lobos State Reserve offers us a glimpse into their magnificent world.



Bell Medusa *Pelecyra peregrina*



California Scorpionfish *Scorpaenopsis diabolus*



Red Drifted Scorpionfish *Scorpaenopsis diabolus*



Lingcod *Ophiodon elongatus*

The animals pictured here are just a few of the inhabitants of the world beneath the waves of Point Lobos State Reserve. Millions of organisms make this their home.



State Marine Protected areas are managed by the California Department of Fish and Game

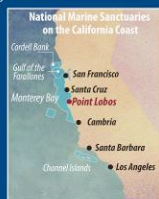
Protecting Precious Places

At shore's edge begins an underwater reserve, the nation's first, created in 1960. In 2007, the original 775 acres of no-take State Marine Reserve (SMR) grew to 2,349 acres. At the same time, a State Marine Conservation Area (SMCA) of 7,558 acres was created at Carmel Bay. California's network of Marine Protected Areas (MPAs) is designed to restore and protect our precious marine ecosystems.

The Point Lobos MPAs lie within the federally protected Monterey Bay National Marine Sanctuary, an area stretching 300 miles from north of the Golden Gate Bridge south to Cambria. There are several National Marine Sanctuaries along California's coast.



Photography by George Jerry Loomis



National Marine Sanctuaries are managed by NOAA



DOING THINGS DIFFERENTLY

We can't stop climate change. It's already happening. However, we can minimize its impacts. There are steps we can take to protect a diversity of habitats, wildlife, and human settlements from being damaged.

CREATING MARINE PROTECTED AREAS

The Marine Life Protection Act of 1999 allows the creation of protected areas for ocean-dwelling plants and animals. These refuges lie all along California's coast and provide safe havens from fishing and development. They also give us places to observe and study the organisms that are trying to survive a changing ocean.



FINAL PROOF

APPROVED: _____
DATE: _____

North Central Coast Subregion

“Preferred” Alternative:

- 22 MPAs (20% of study region)
 - * 11 state marine reserves (11%)
 - * 9 state marine conservation areas
 - * 2 state marine parks
 - * 2 state marine recreational management areas
 - * 6 special closures
- MPA network expected to be adopted August 2009





Thank you!