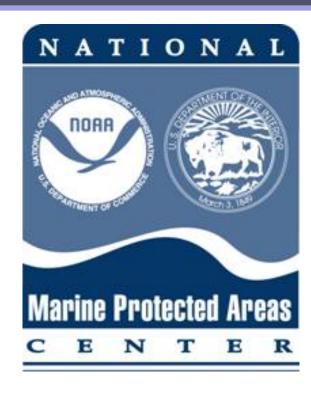
West Coast Marine Managed Areas: Trends in Place-Based Ocean Management

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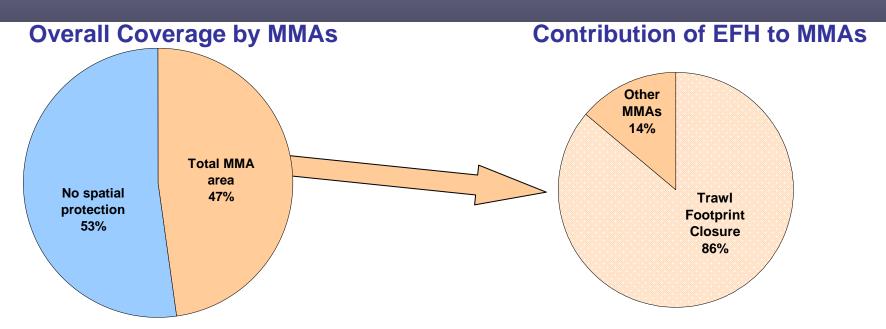


Regional Trends in MMA Use

- 269 MMAs off West Coast
 CA, WA, OR
- Combination of federal, state and local sites
- Many MMAs span state and federal waters
- Recent addition of EFH Sites radically changes the marine landscape of spatial protection
- Most established after 1970's with another big increase in 2000's

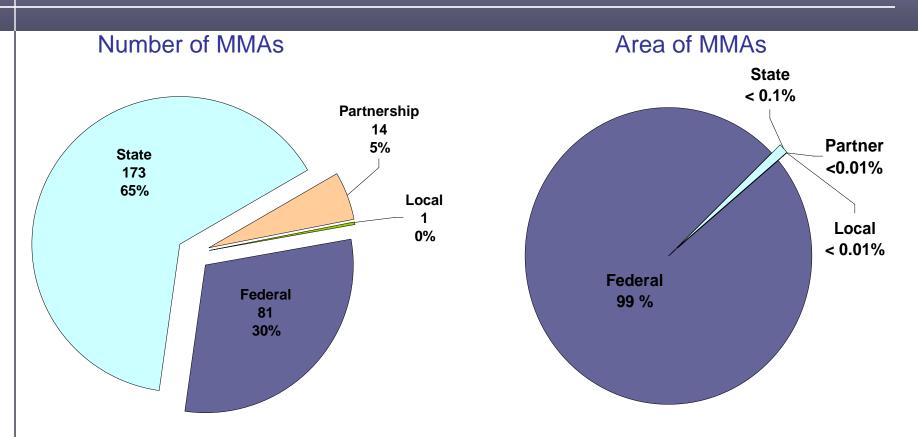


Area of West Coast Waters Covered by MMAs



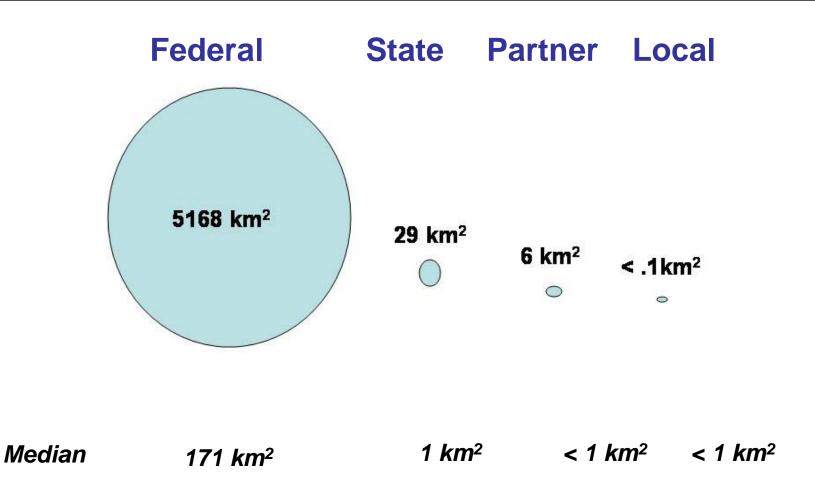
- Dominated by a single EFH site; EFH designation occurred in 2006 –
 52 individual sites
- 47% of west coast waters are covered by some sort of MMAs
- Recent designation of federal EFH areas dramatically increased MMA coverage from 2 % - 47 % of West Coast waters

Who Manages West Coast MMAs? Number versus Area

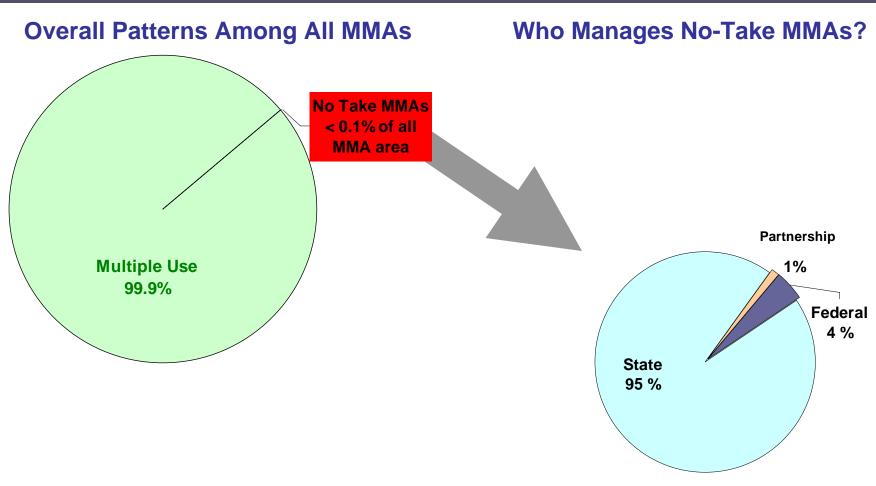


- Twice as many state MMAs as federal MMAs
- Federal MMAs cover vastly more area than state or other MMAs

Differences in MMA Size Among Governments

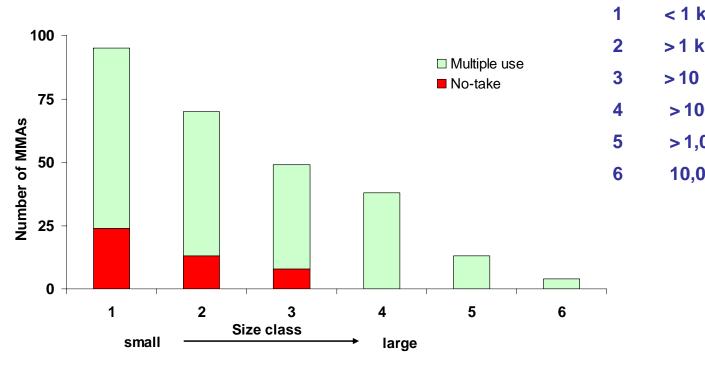


Level of Protection in West Coast MMAs by area



Less than 0.1% of West Coast waters are in No Take MMAs

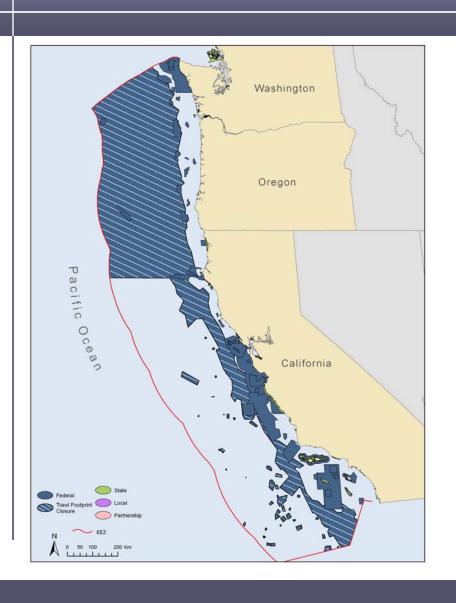
Size of No-Take vs. Multiple Use MMAs



- $< 1 \text{ km}^2$
- $> 1 \text{ km}^2 < 10 \text{ km}^2$
- $> 10 \text{ km}^2 < 100 \text{ km}^2$
- $> 100 \text{ km}^2 < 1000 \text{ km}^2$
- $> 1,000 \text{ km}^2 < 10,000 \text{ km}^2$
- 10,000 km²

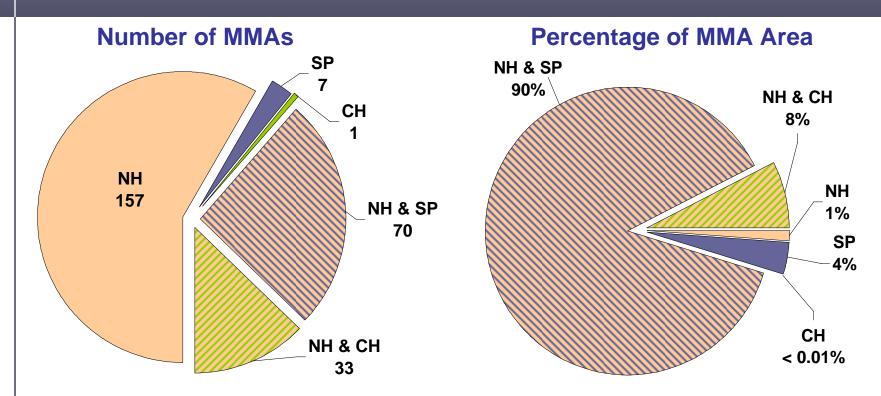
- Most MMAs are small
- No-take MMAs are small
- No large no-take MMAs

Area Covered By No Take MMAs on the West Coast





Conservation Focus: What do West Coast MMAs Protect?



What Do MMAs Protect?

- Many MMAs have >1 conservation focus
- Natural heritage is most common focus
- Dual NH/SP MMAs cover the majority of waters in MMAs

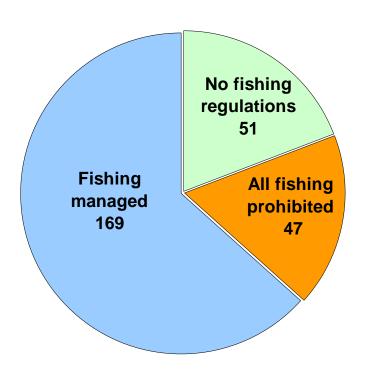
SP = Sustainable production

CH = Cultural Heritage

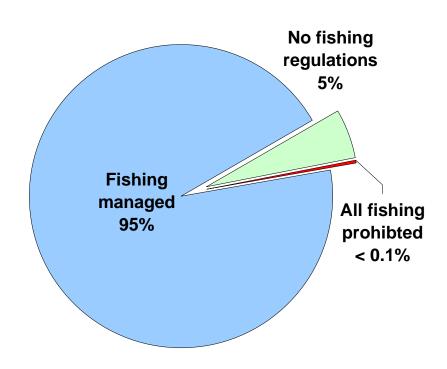
NH = Natural Heritage

Fishing Regulations in West Coast MMAs

Number of MMAs

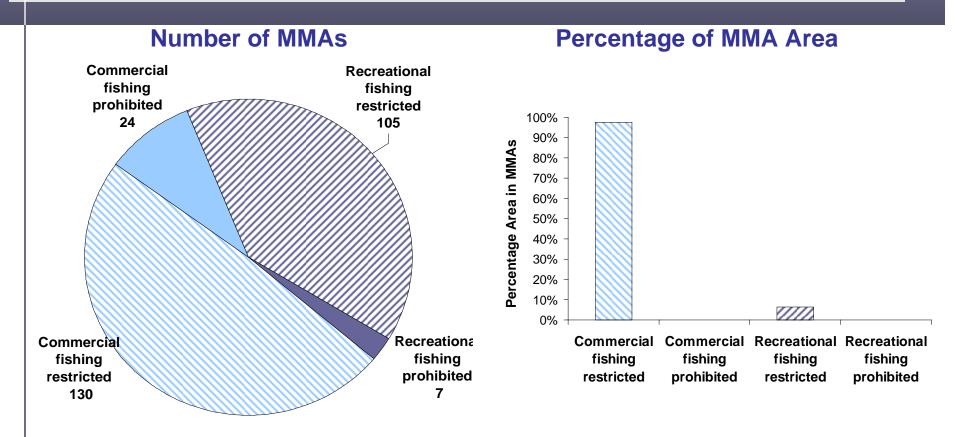


Percentage of MMA Area



- Fishing is managed in most MMAs
- All fishing is prohibited in a very small fraction of MMA area

Commercial and Recreational Fishing



- MMAs regulate commercial fishing more than recreational fishing
- Commercial fishing is typically restricted (e.g., gear restrictions), but rarely prohibited

West Coast MMAs: Types Of Protection

- Permanence of Protection (permanent vs. conditional vs. temporary)
 - 100% (269) of West Coast MMAs are permanently protected
- Constancy of Protection (year round vs. seasonal)
 - 99% (265) provide year-round protection
- Ecological Scale of Protection (ecosystem vs. focal resources)
 - 44% of MMA area targets focal resources (e.g. fish stocks)

West Coast MMAs in summary

- Almost half of the West Coast waters in MMAs;
 BUT......
- Overwhelmingly majority (99.9 %) are multiple use; < 0.01 no –take
- Federal MMAs are typically large and multiple use
- State MMAs are typically small
- No-take MMAs are primarily state sites
- Largest MMAs are Federal with dual conservation focus-
 - -Sustainable Production and Natural Heritage
- Patterns confirm some, and refute other, widely held perceptions about how MMAs are used regionally.

MPA Center Contacts

West Coast Pilot Web Site:

mpa.gov/national_system/west-coast-pilot.html

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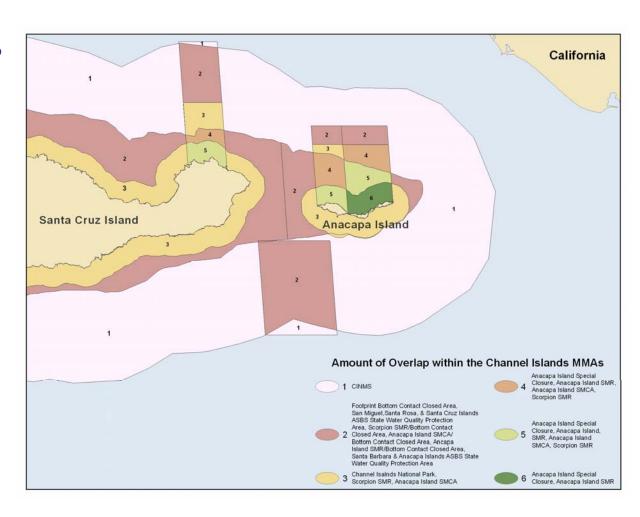
Collaborators

MPA Center staff
NOAA Special Projects Office
National Marine Fisheries Service
National Marine Sanctuary Program
National Estuarine Research Reserve System
National Parks System
National Wildlife Refuge System
Tribal Contacts
State Agency Contacts: CA, OR, WA
Coastal States Organization

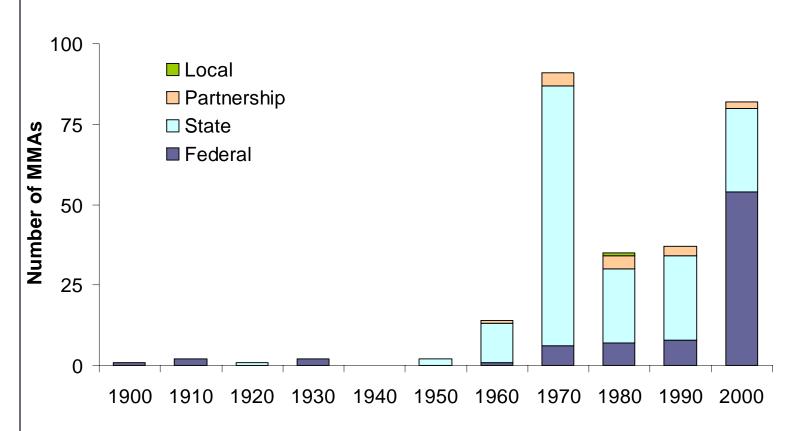
West Coast MMAs: Overlapping Boundaries

Layers of Protection?

- Overlapping MMA boundaries are common
- Some areas contain up to 6 layered sites
- Overlapping MMAs account for 33K km2
- 8% of all WC MMA waters has > 1 site
- Some jurisdictional overlays add little new protection



When Were West Coast MMAs Created?



- •Majority established after 1960, Big increase in 1970's and another in 2000's
- •Relative number of federal vs. state MMAs is growing over time