MARINe

Multi-Agency Rocky Intertidal Network

Scientists from 40 agencies, academic institutions and private organizations, coordinated through MARINe, have been monitoring rocky shores for years, and in some cases, decades, along the Pacific coast.

www.MARINe.gov

MARINe

CHANNEL ISLANDS NATIONAL PARK

U.S. Department of the Interior

Bureau of Ocean Energy Management, Regulation and Enforcement

PISCO

UC SANTA CRUZ

NATIONAL PARK SERVICE

UCSC

UCLA

CALIFORNIA DEPARTMENT FISH&GAME

CAL STATE FULLERTON

SIMoN
SANCTUARY INTEGRATED MONITORING NETWORK

NCEAS

Berkeley

U.S. NAVY

SANDAG
San Diego's Regional Planning Agency

T-NEMS

Types of MARINe Monitoring

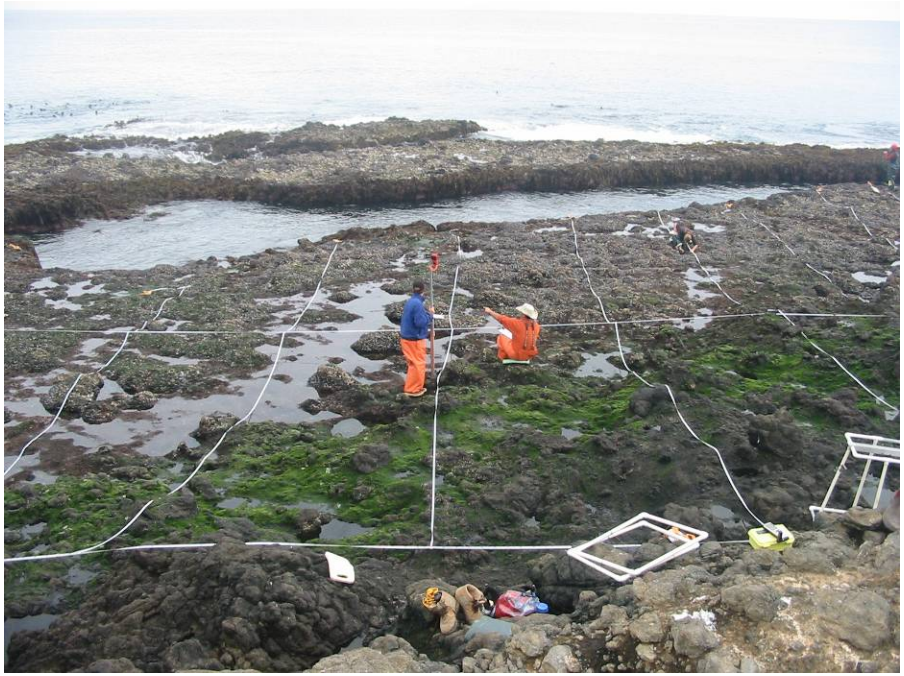
- Core Long-Term Surveys
- Biodiversity Surveys
- Other Surveys
  - Panorama Photos
  - Temperature
  - Motile invertebrates
  - Recruitment
  - Research studies

Core Long-Term Monitoring

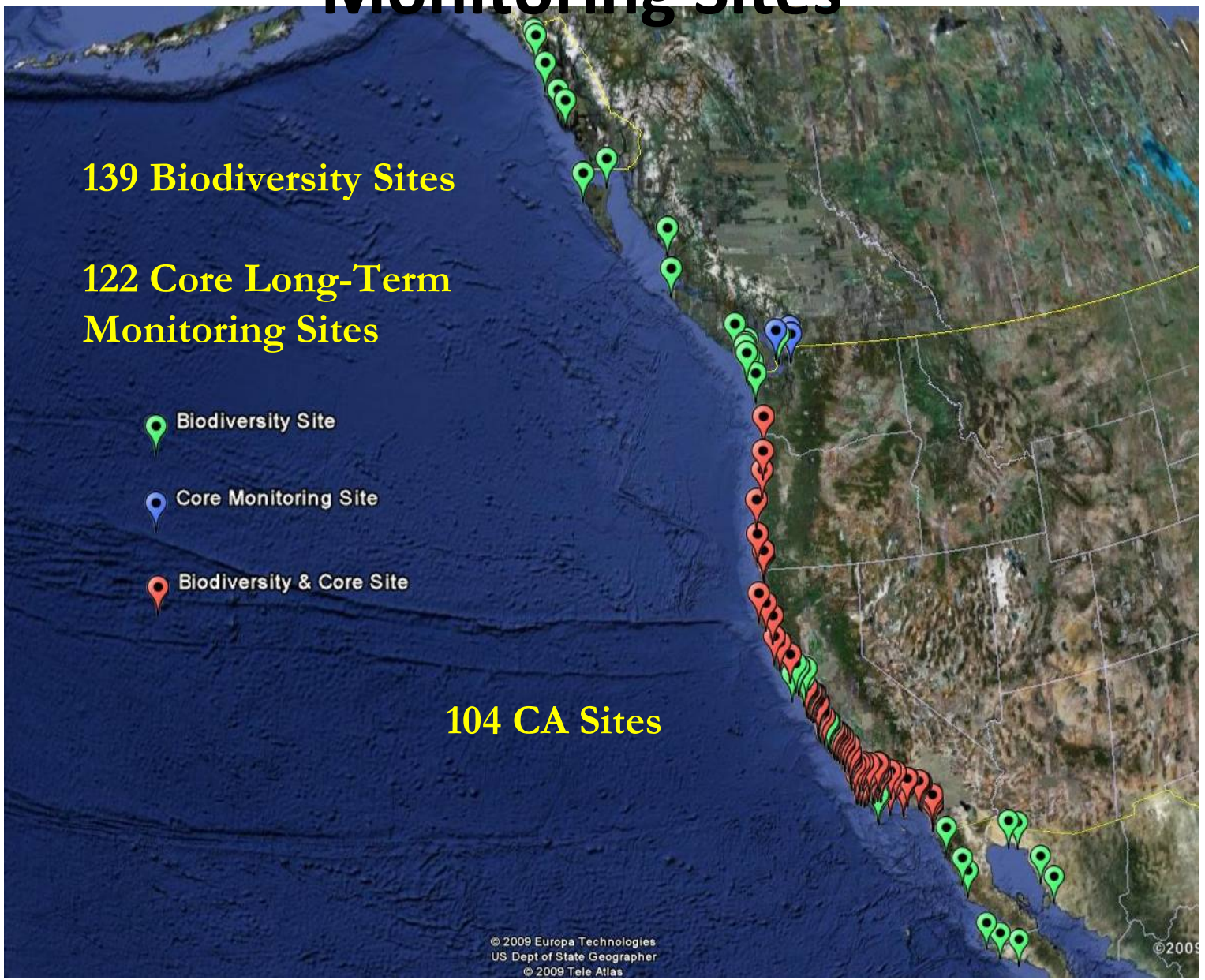
- Semi-annual or annual surveys
- Cover or count/size abundances
- Target species assemblages
- Permanent plots or transects

Biodiversity Surveys

- Single, annual or multi-year surveys
- Species diversity and abundance
- All identifiable species
- Numerous high to low intertidal transects



West Coast Biodiversity & Core Monitoring Sites



Development of the Webportal

In September 2009, the Monitoring Council decided that MARINe's data was the most ready for future portal development of those organizations addressing aquatic ecosystem health.

The Council identified the following needed items:

- Question-based assessment framework
- Connection to agency decision making and funding
- Public focus

Webportal Mockup

nsm.fullerton.edu/cawqmc/www/

State of California
ENVIRONMENTAL PROTECTION AGENCY
NATURAL RESOURCES AGENCY
CALIFORNIA WATER QUALITY MONITORING COUNCIL

Home | Safe to Drink | Safe to Swim | Safe to Eat Fish | Ecosystem Health | Stressors & Processes | Contact Us

Wetlands | Estuaries | Streams, Rivers & Lakes | Ocean | Rocky Intertidal Coastal Habitats

Governor's Website

- Cal/EPA
- Natural Resources Agency
- About the California Water Quality Monitoring Council

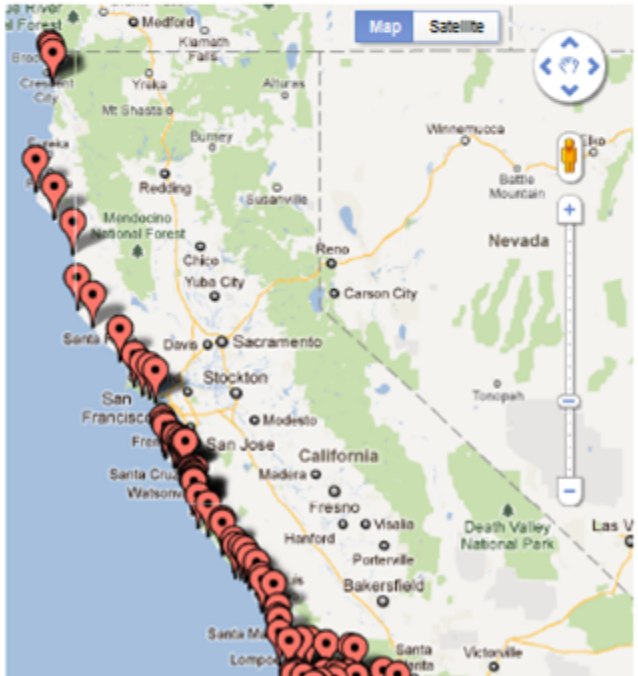
AQUATIC HEALTH LINKS

- Stressors
- Laws, Regulations & Standards
- Regulatory Activities
- Enforcement Actions
- Research
- Monitoring Programs, Data Sources & Reports

Home Cawqmc Www

Rocky Intertidal Coastal Habitats

Are our tidepools healthy?



Rocky intertidal zones, sometimes referred to as tidepools, are a diverse ecosystem. Organisms living in tidepools have to deal with naturally harsh conditions such as spending time out of water and dealing with strong wave action. In addition, tidepools are impacted by human activities, such overexploitation and trampling and are vulnerable to climate change. Long term monitoring of these habitats helps us understand how tidepool plant and animal populations change over time and gives us information to help determine the condition of these ecosystems.

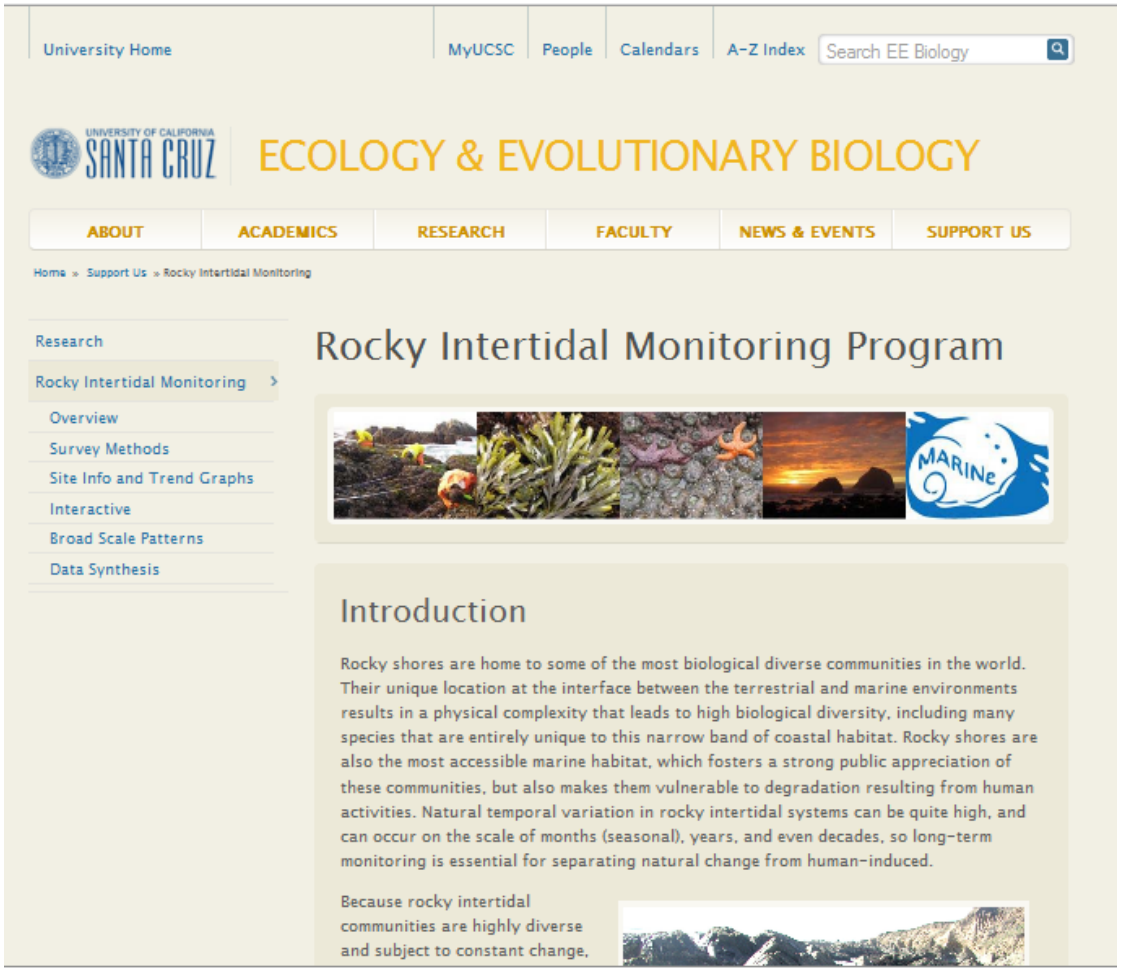
QUESTIONS ANSWERED

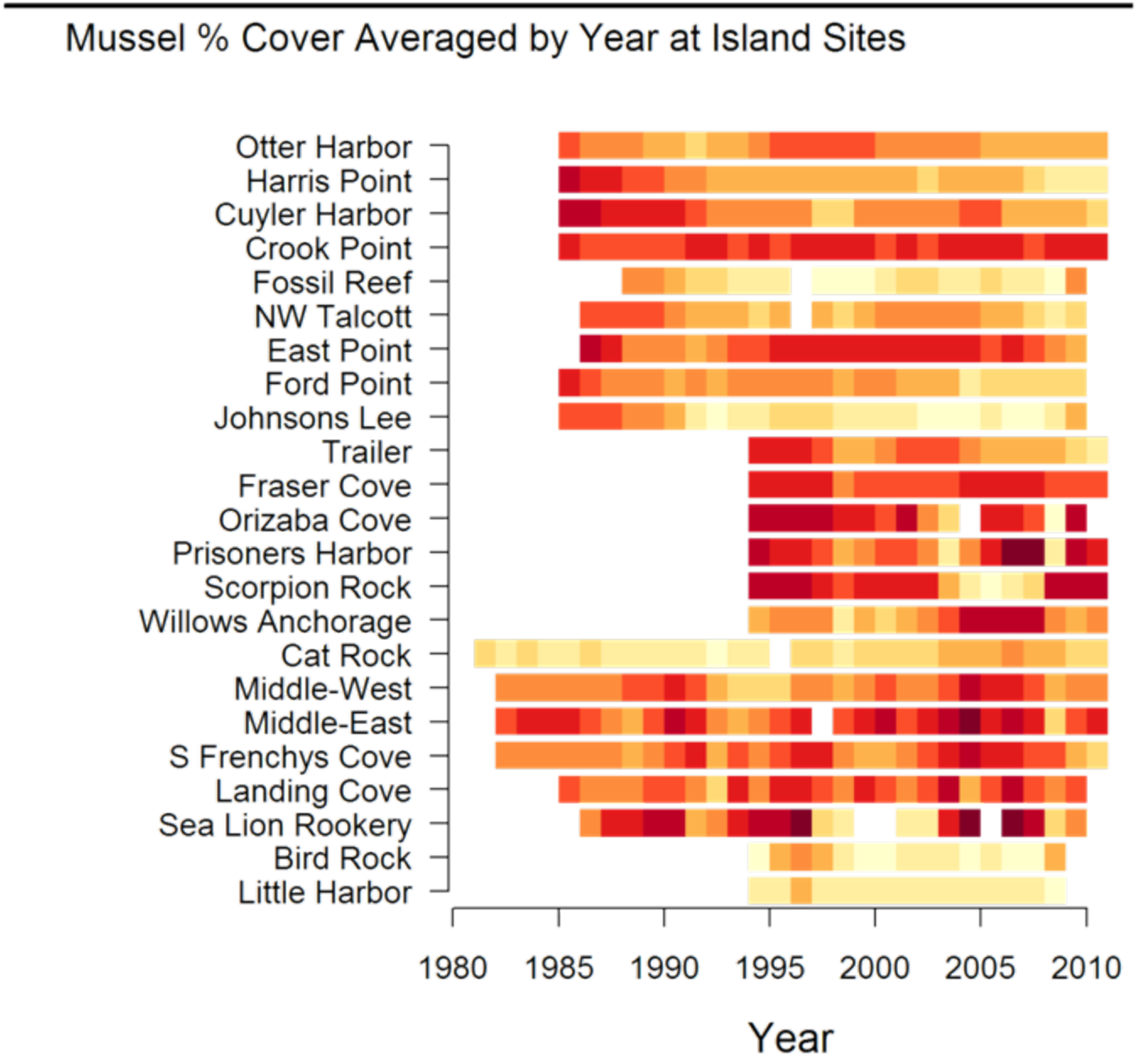
- Where are the tidepools?
- Who monitors tidepools?
- What lives there and what species are monitored?
- How healthy is my tidepool?
- What protects them?
- Are there rules that I should follow when I explore tidepools?

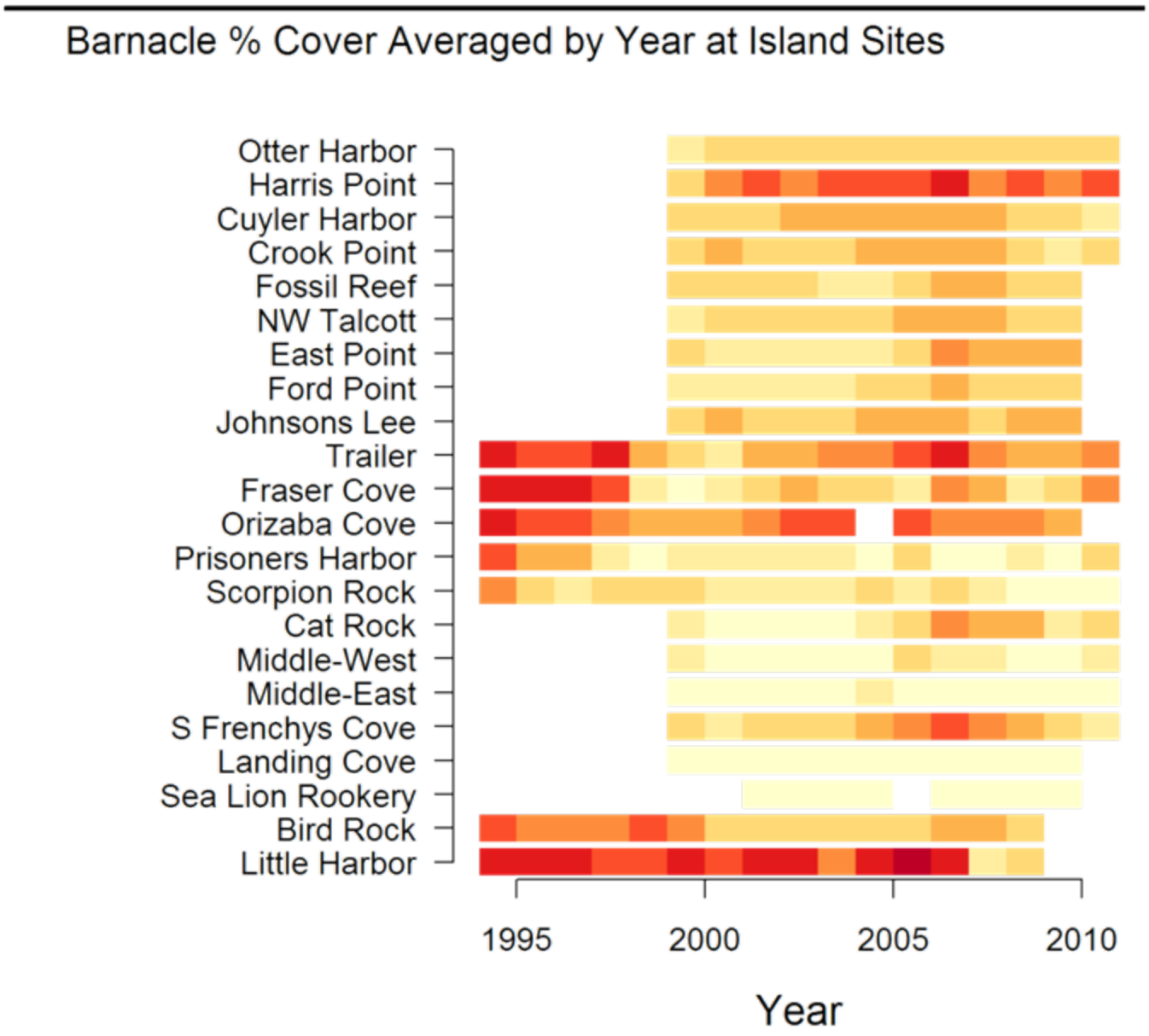
Online MARINe Report for BOEMRE: In Development

eebiology-new.ucsc.edu/research/pacificrockyintertidal/index.html

Currently under development, password protected




Mussel % Cover Averaged by Year at Island Sites
Otter Harbor
Harris Point
Cuyler Harbor
Crook Point
Fossil Reef
NW Talcott
East Point
Ford Point
Johnsons Lee
Trailer
Fraser Cove
Orizaba Cove
Prisoners Harbor
Scorpion Rock
Willows Anchorage
Cat Rock
Middle-West
Middle-East
S Frenchys Cove
Landing Cove
Sea Lion Rookery
Bird Rock
Little Harbor
1980
1985
1990
1995
2000
2005
2010
Year


Barnacle % Cover Averaged by Year at Island Sites
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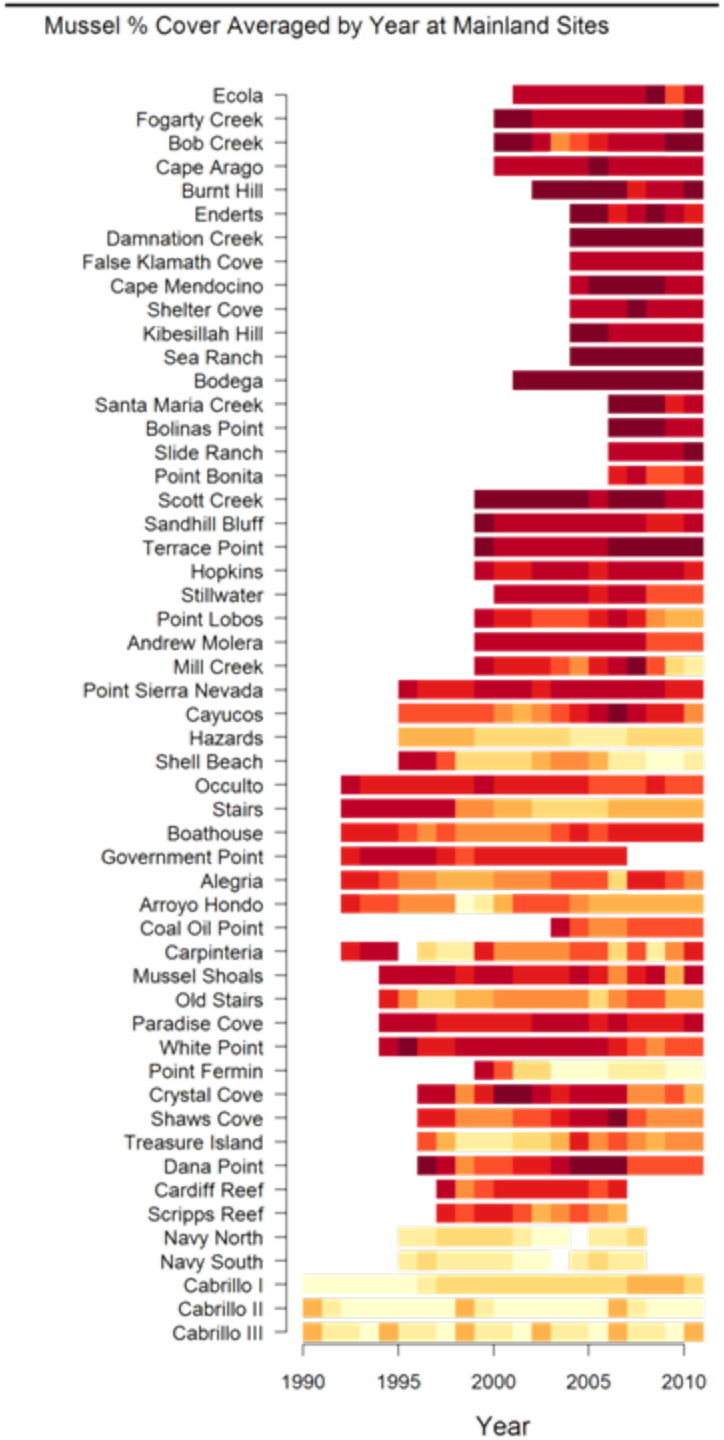
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Ecola
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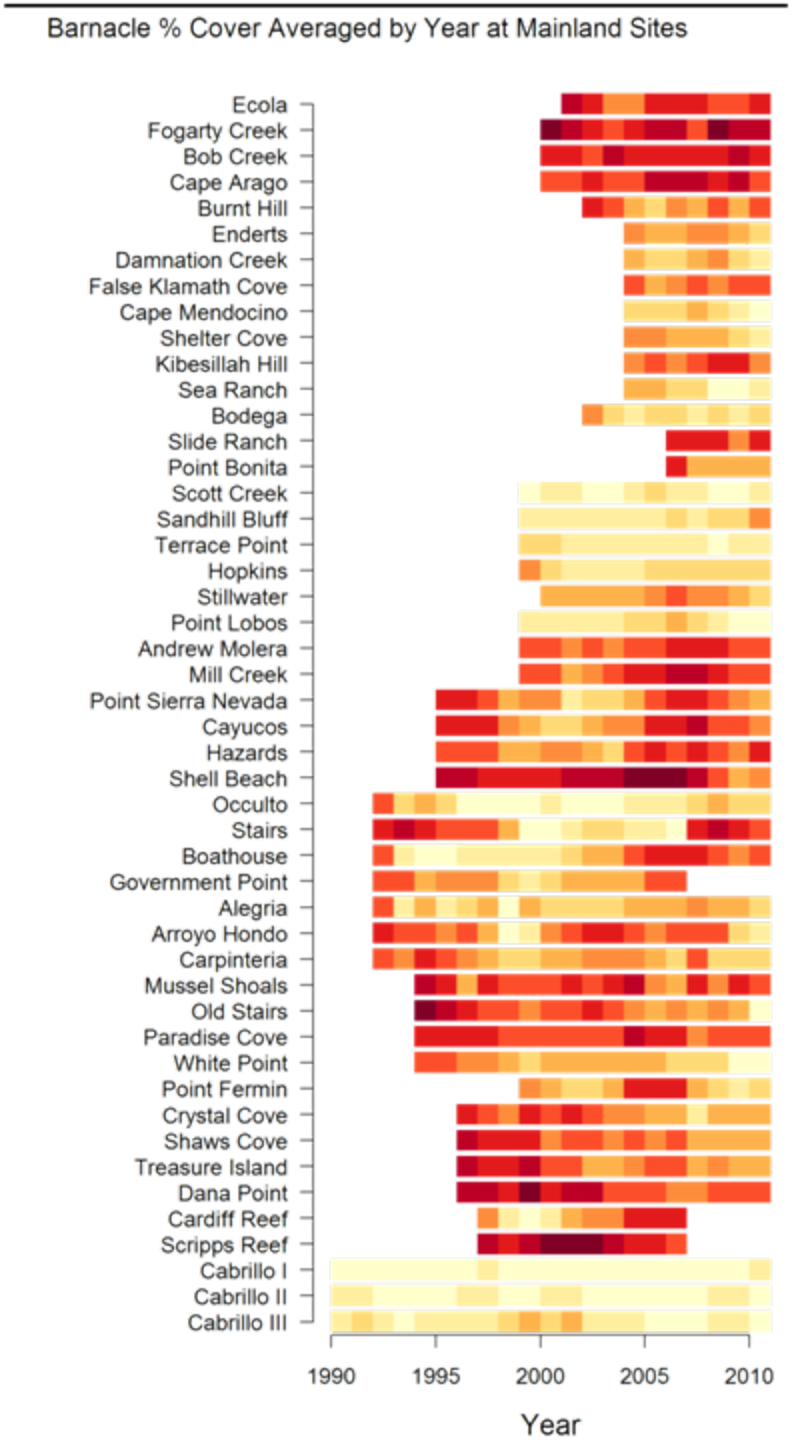
Bob Creek
Cape Arago
Burnt Hill
Enderts
Damnation Creek
False Klamath Cove
Cape Mendocino
Shelter Cove
Kibesillah Hill
Sea Ranch
Bodega
Santa Maria Creek
Bolinas Point
Slide Ranch
Point Bonita
Scott Creek
Sandhill Bluff
Terrace Point
Hopkins
Stillwater
Point Lobos
Andrew Molera
Mill Creek
Point Sierra Nevada
Cayucos
Hazards
Shell Beach
Occulto
Stairs
Boathouse
Government Point
Alegria
Arroyo Hondo
Coal Oil Point
Carpinteria
Mussel Shoals
Old Stairs
Paradise Cove
White Point
Point Fermin
Crystal Cove
Shaws Cove
Treasure Island
Dana Point
Cardiff Reef
Scripps Reef
Navy North
Navy South
Cabrillo I
Cabrillo II
Cabrillo III
1990
1995
2000
2005
2010
Year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