

CONTAMINANTS IN SPORT FISH: THE BAY IN A STATEWIDE CONTEXT

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San Francisco Estuary Institute

RMP REGIONAL MONITORING PROGRAM
ANNUAL MEETING
Pollutant Effects on Aquatic Life



Background

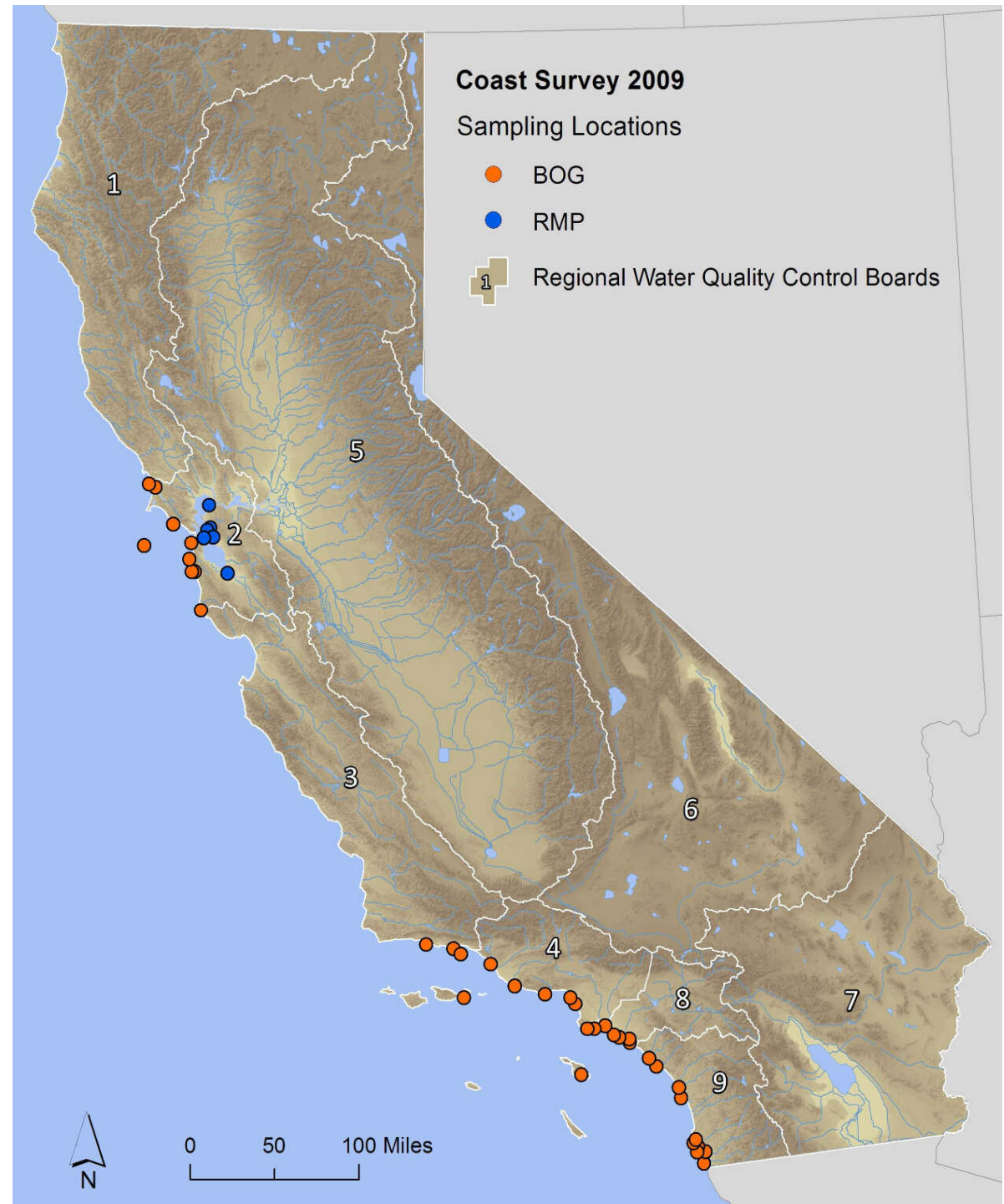
- Problem
 - Lack of statewide information on contaminants in sport fish
 - Lack of safe eating guidelines
- New SWAMP monitoring began in 2007
- \$750,000 to \$1 million per year
- Five-year program to cover all water body types



Study Design

Fishing Locations

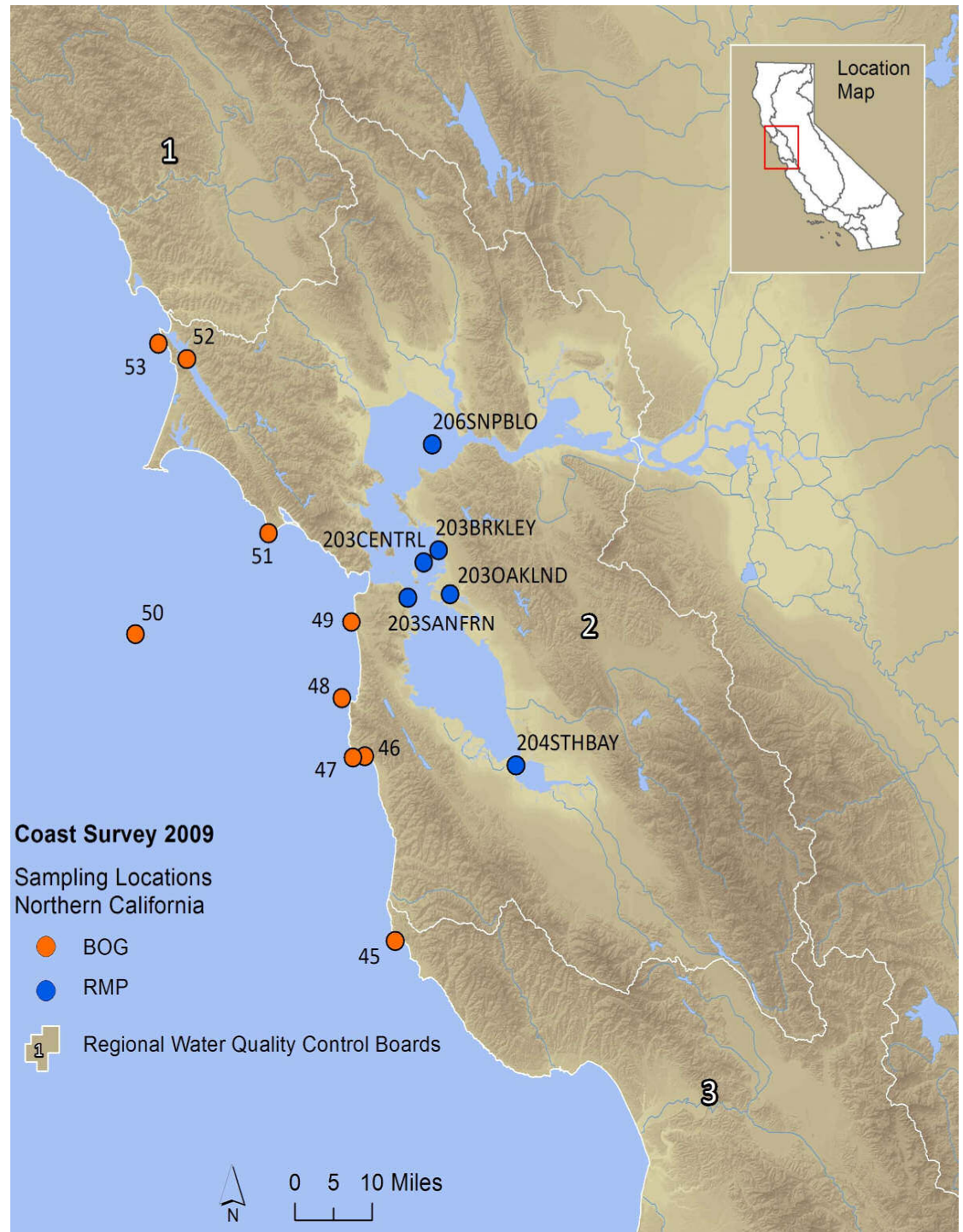
- 69 for the state
- 42 in 2009, urban areas
- Near-shore (includes bays and estuaries)
- Five target species per location



San Francisco Bay and Coast

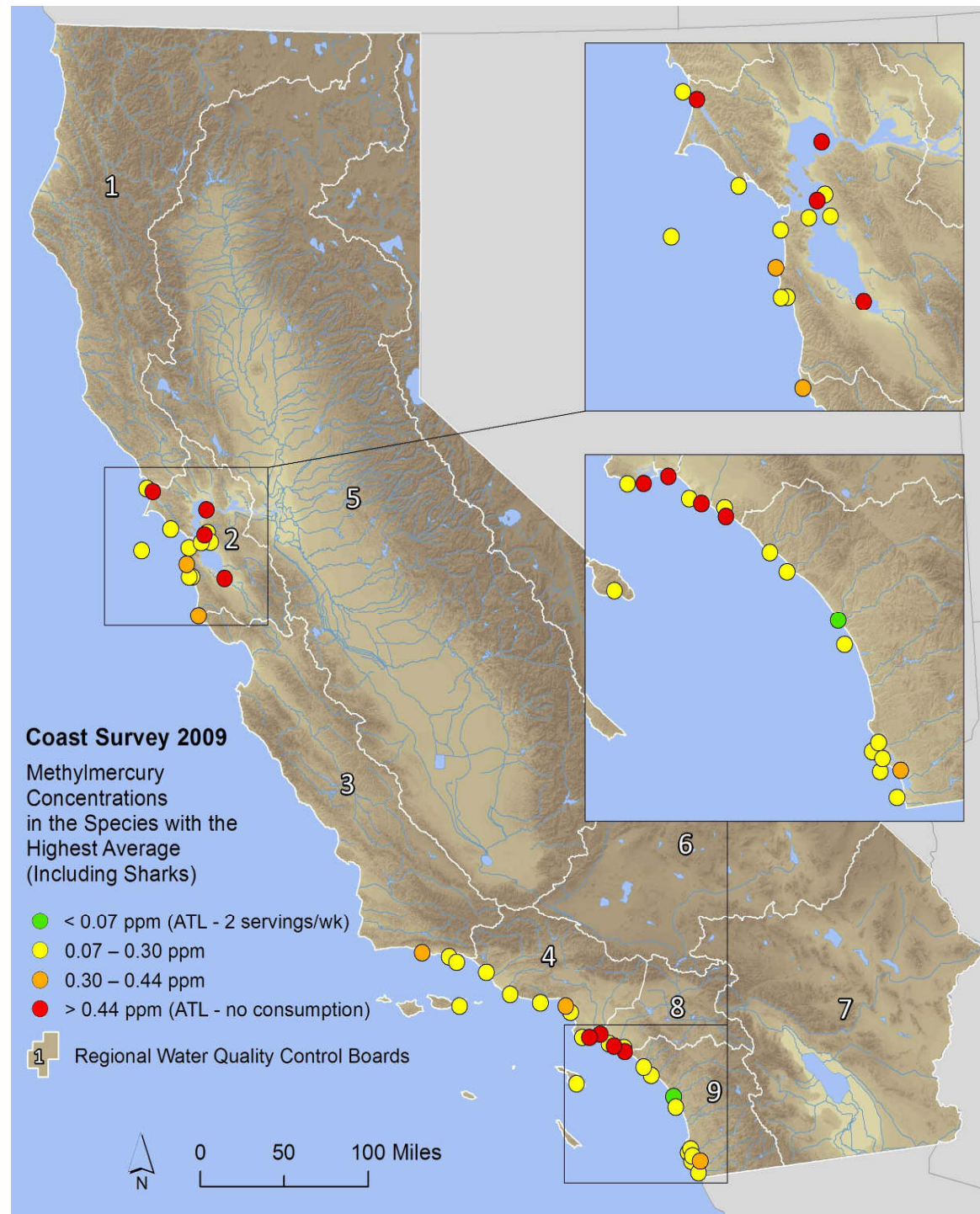
Northern California Fishing Locations

- 6 SF Bay
- 9 Coast

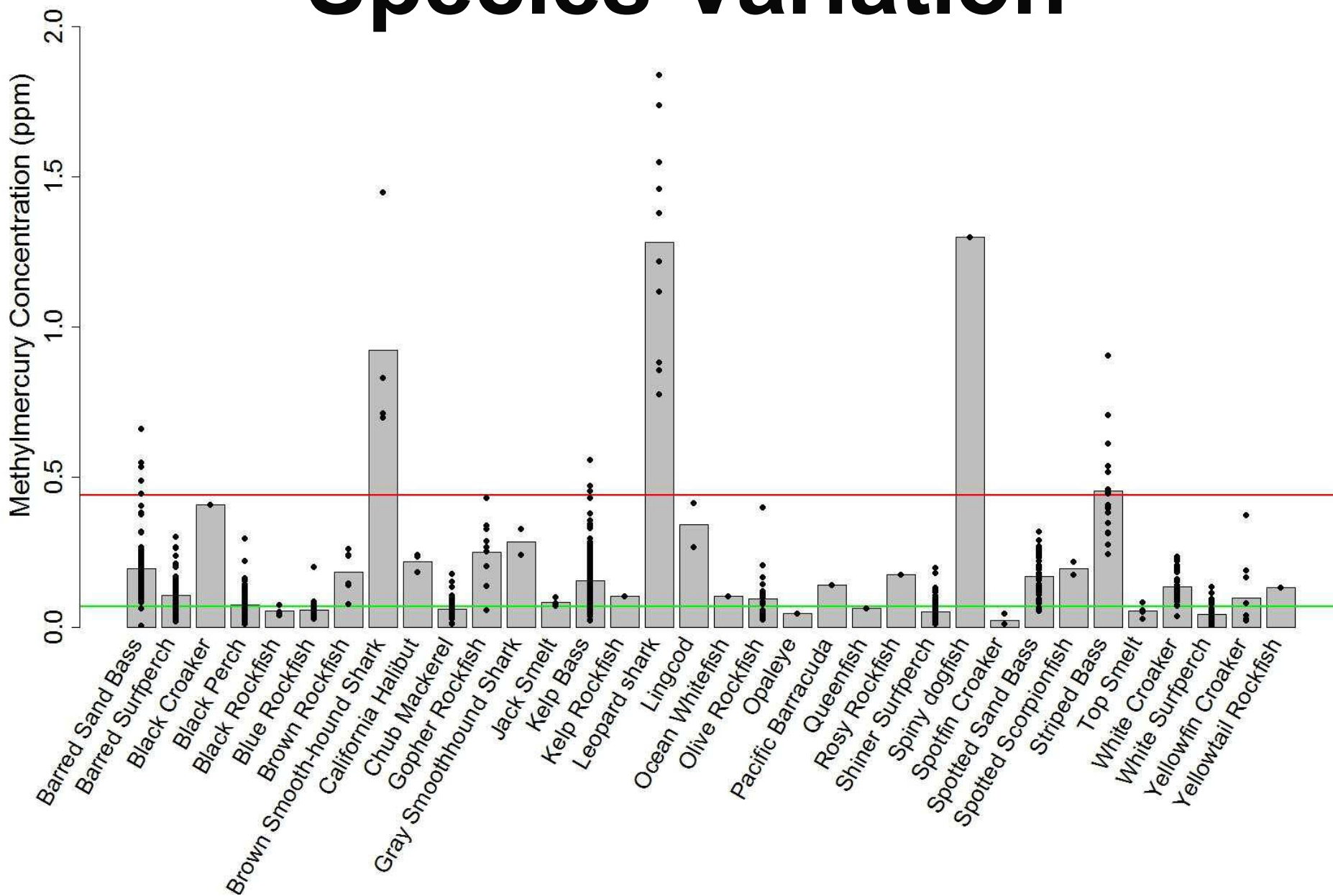


Statewide Assessment

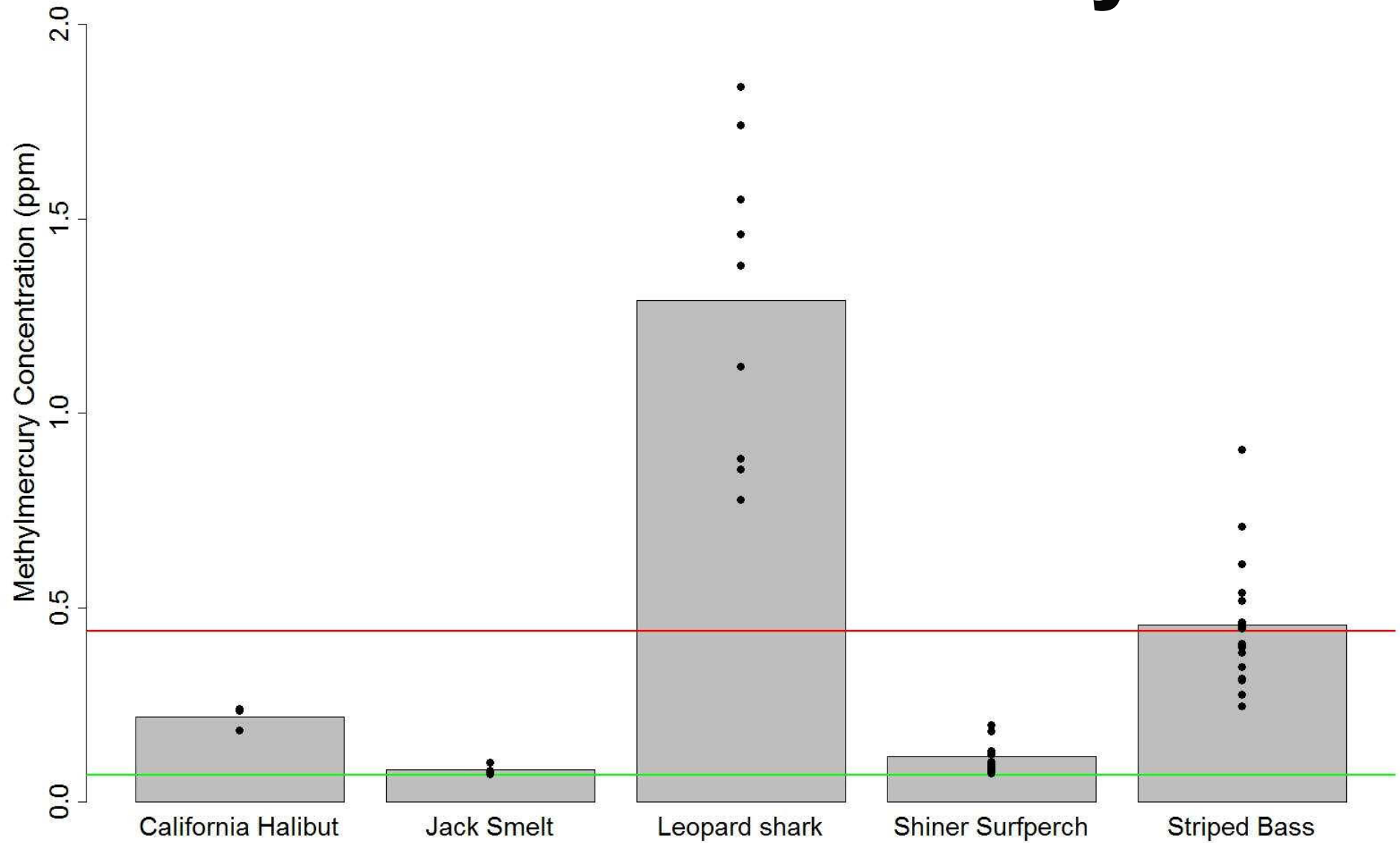
Methylmercury



Species Variation

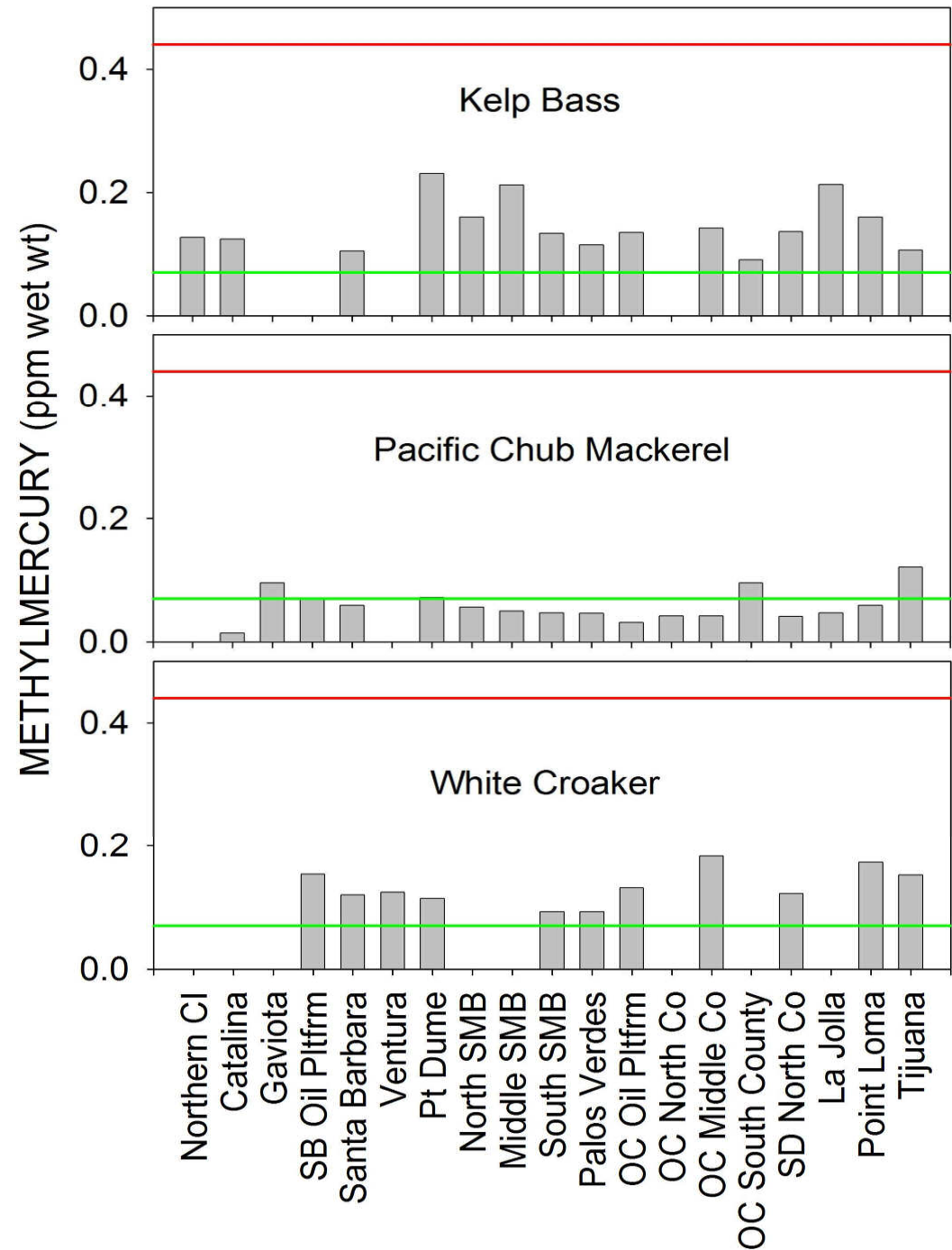


San Francisco Bay



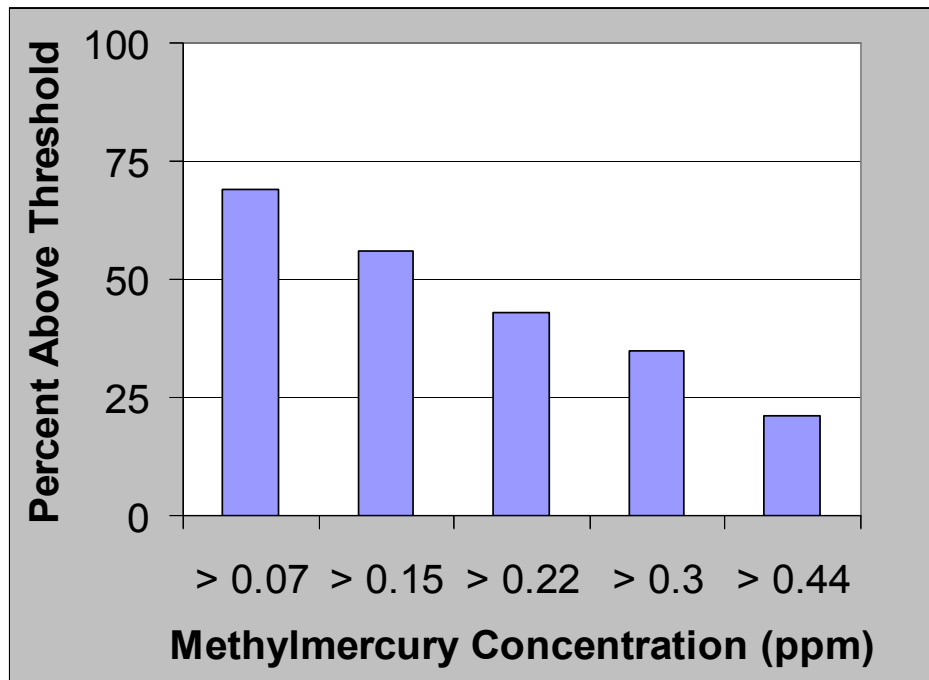
Southern California

Methylmercury

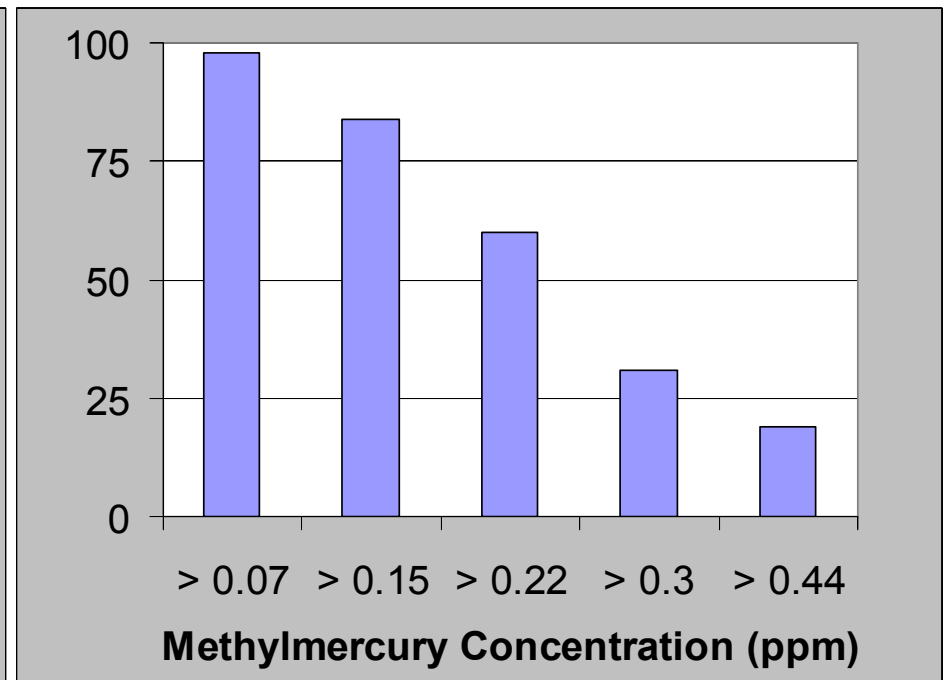


Lakes and Coast

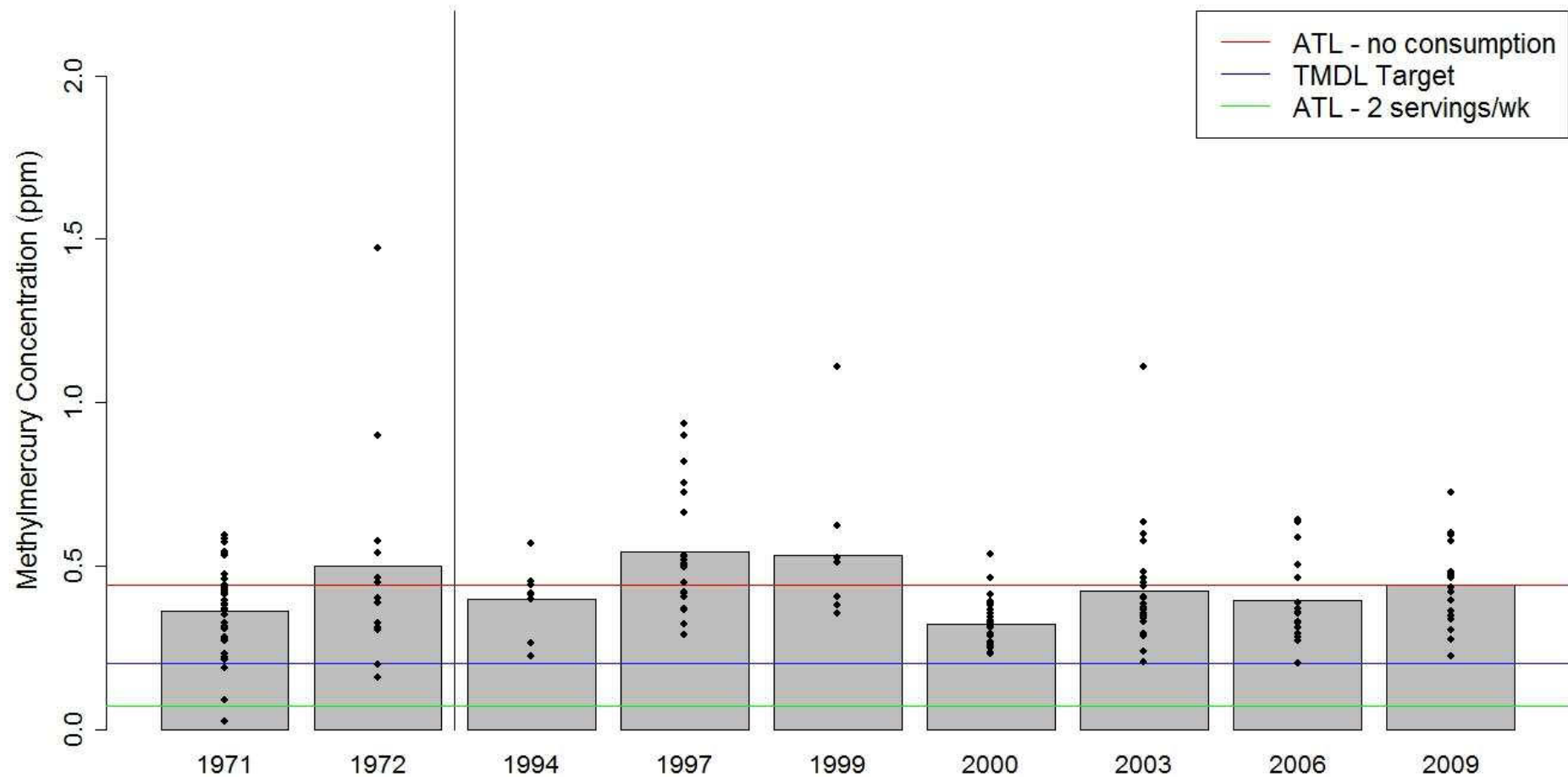
California Lakes (2007 – 2008)



California Coast (2009)

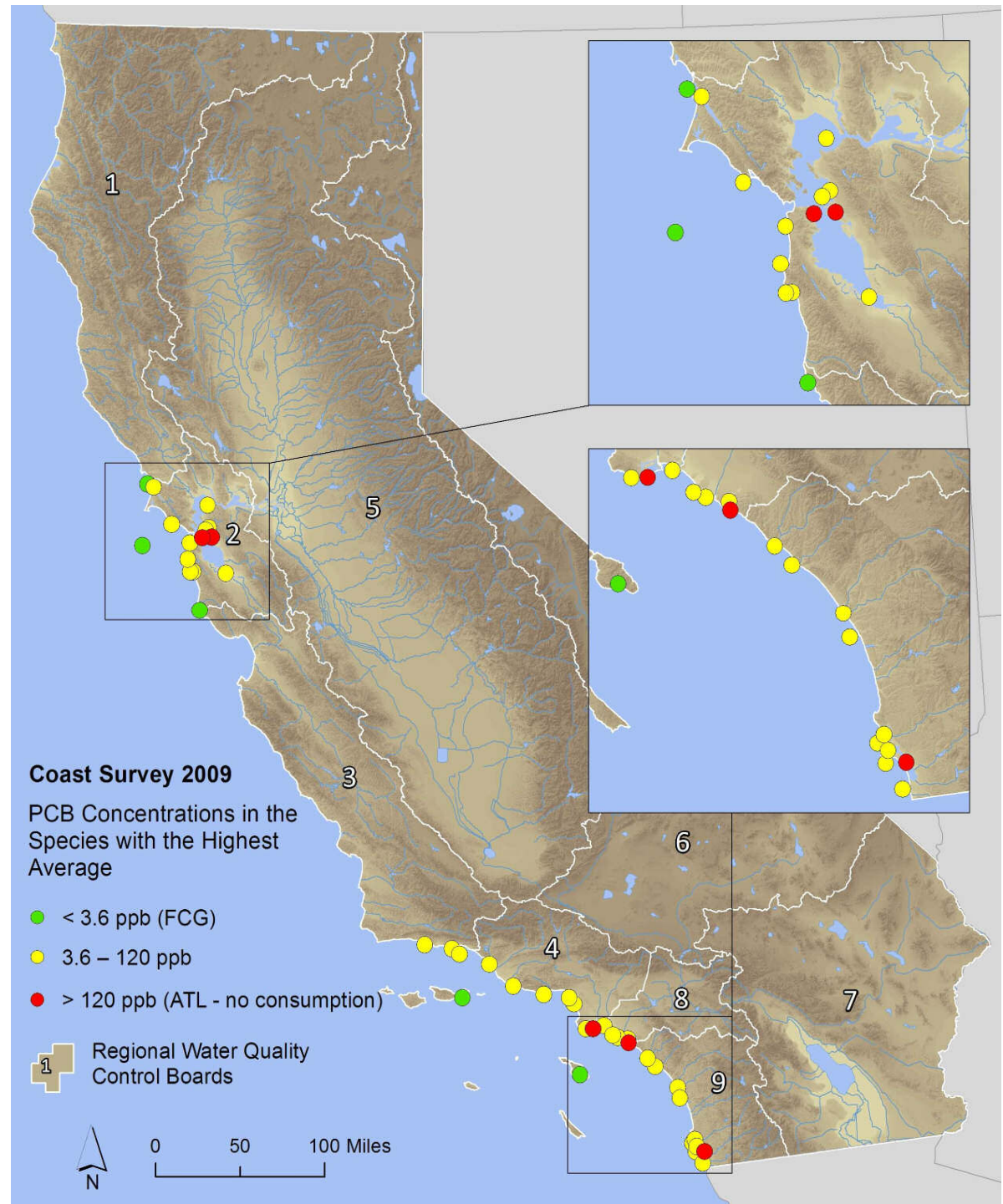


Striped Bass San Francisco Bay



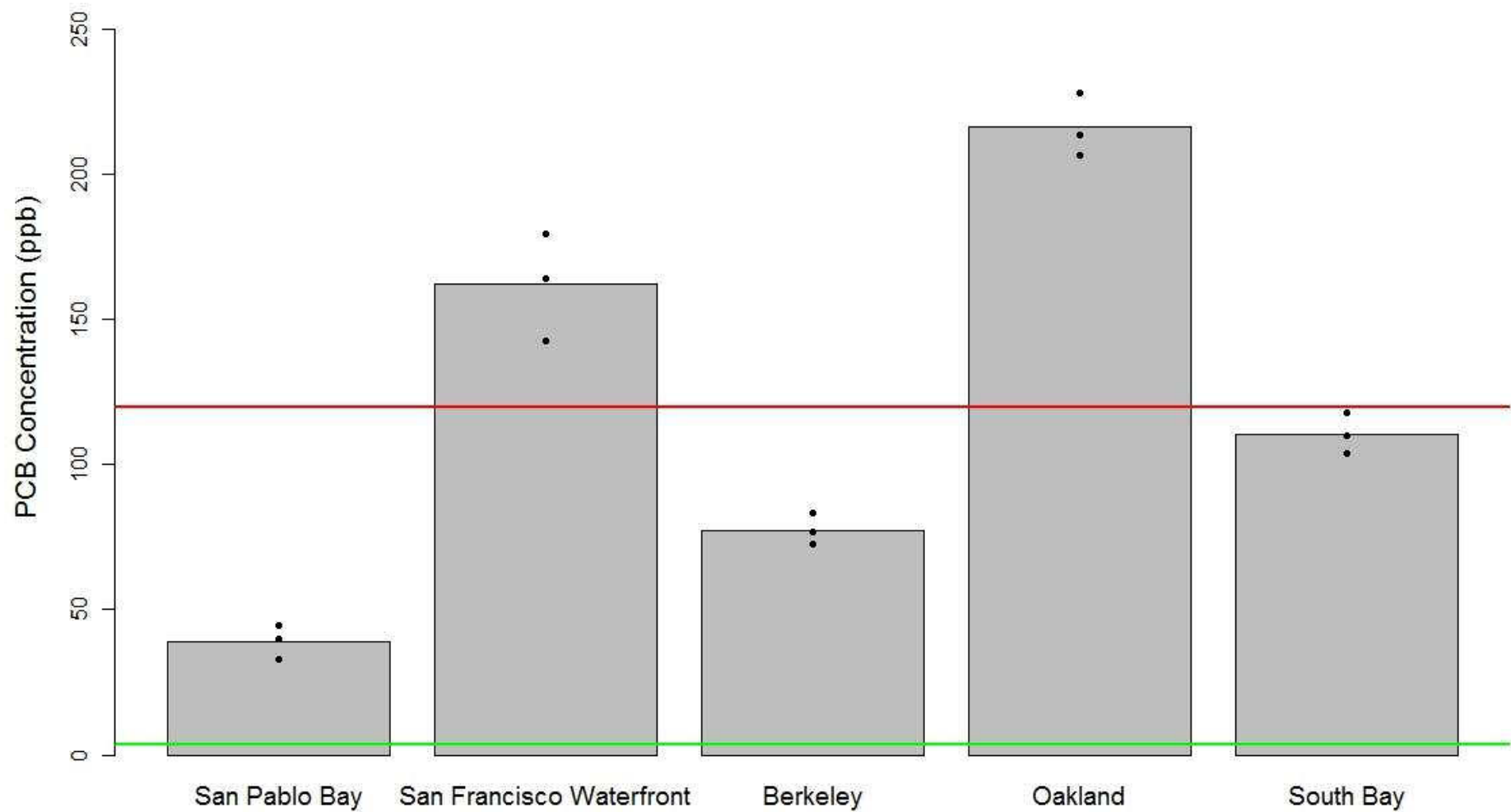
Statewide Assessment

PCBs

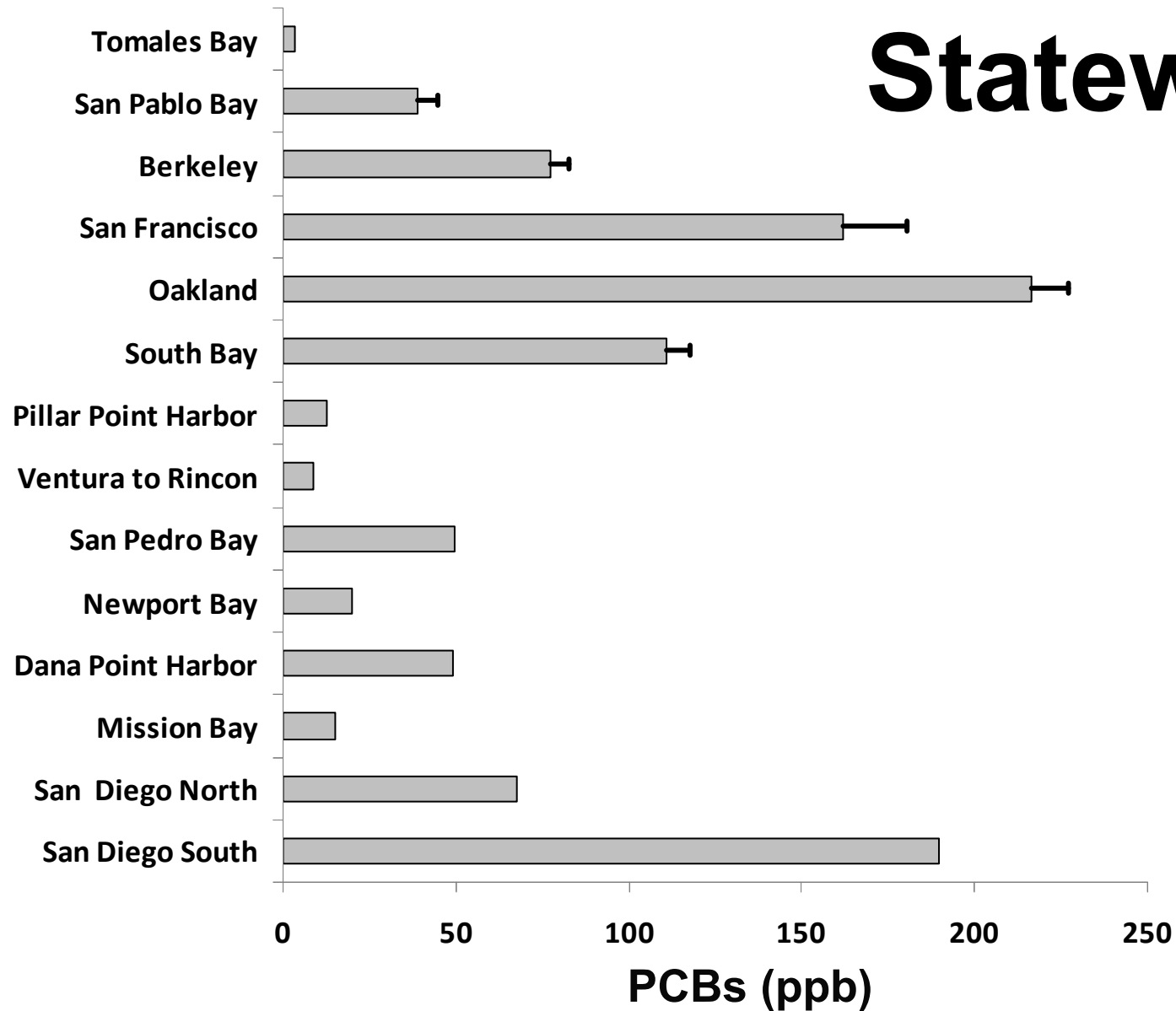


Shiner Perch

San Francisco Bay

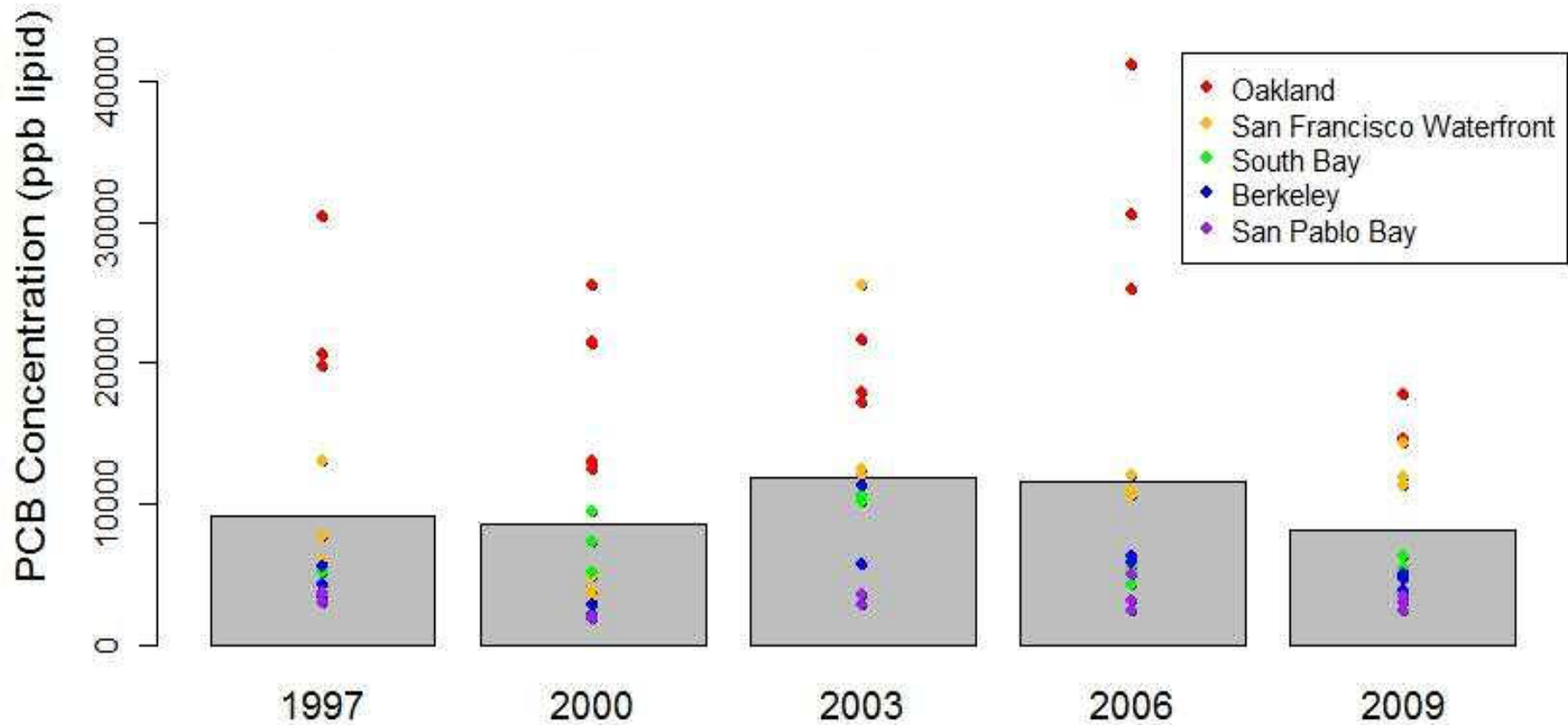


Shiner Perch Statewide



Shiner Perch

San Francisco Bay



Highlights

- Widespread, moderate MeHg and PCB contamination in the Bay and southern California
- Sharks accumulate some of the highest MeHg concentrations
- Shiner perch are good spatial indicators
- Several species, particularly in southern California were below all the thresholds



“Safe to Eat Fish” Web Portal

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

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Consumption Advisories | Recent Conditions | Data & Trends | Impaired Waters | Improvements

Office of Governor
Edmund G. Brown Jr.
Visit his Website

Home -> Safe To Eat -> Data And Trends

What are the Levels and Long-Term Trends in My Lake, Stream, or Ocean Location?

Select location from list. **Contaminant Data**

Zoom to county: Alameda

Show counties

Mercury in Species With Highest Avg Concentration (ppm)
Years: 2007 - 2009

- >0.44
- 0.3 - 0.44
- 0.22 - 0.3
- 0.15 - 0.22
- 0.07 - 0.15
- <0.07

Change Thresholds

Select Species:
Species With Highest Avg Concentration

Select Contaminant:
Mercury

Select Start Date:
2007

Select End Date:
2009

Go Reset Download Map Data

More Information

- Monitoring programs and reports
- Access Complete Datasets from CEDEN
- Assessment thresholds

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

SAFE TO EAT FISH LINKS

- Pollution Sources & Health Risks
- Laws, Regulations, Standards & Guidelines
- Assessment Thresholds
- Regulatory Activities
- Enforcement Actions
- Research
- Monitoring Programs, Data Sources & Reports
- Statewide Perspective
- National Perspective

Consumption Advisories | Recent Conditions | Data & Trends | Impaired Waters | Improvements

Home -> Safe To Eat -> Data And Trends

What are the Levels and Long-Term Trends in My Lake, Stream, or Ocean Location?

This interactive map allows you to explore fish contaminant data for your fishing locations. Data are available from extensive monitoring by SWAMP of lakes and reservoirs in 2007 and 2008, from the coast in 2009, and from other studies. Data from 2007-2009 are shown by default.

- Select parameters of interest from the menus below and click on the "Go" button. The map will display average concentrations for the selected water bodies.
- To view data for all species at your water body, trends, or comparisons with nearby water bodies, click on a map location or select a water body from the menu above the map.
- Enter your own threshold or modify thresholds displayed on the map by clicking the Change Thresholds link in the map legend.
- Markers are general representations of sampling locations, not the precise locations where fish were caught.
- Circles indicate lake and reservoir sampling locations. Triangles indicate coast sampling locations. Diamonds indicate river and stream sampling locations.

www.waterboards.ca.gov/mywaterquality/safe_to_eat

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CONTAMINANTS IN SPORT FISH FROM THE CALIFORNIA COAST, 2009: SUMMARY REPORT ON YEAR ONE OF A TWO-YEAR SCREENING SURVEY

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Link to Report:

[www.waterboards.ca.gov/water_issues/
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http://www.waterboards.ca.gov/water_issues/programs/swamp



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