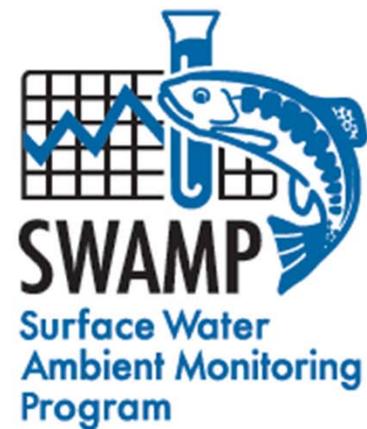




Contaminants in Coastal Fish, 2009-2010





Photos by Michael Short / Special to The Chronicle

Angella Miller of Chicago walks out into the water to skip rocks at Baker Beach, one of two beaches in San Francisco that received top honors in the annual water-quality survey. The other is Ocean Beach.

By Carolyn Jones

Dry weather and stricter regulations have boosted water quality at Bay Area beaches to their cleanest level in years, a report released Thursday found.

Nearly every beach in the Bay Area, and throughout the state, had dramatically lower levels of bacteria and pollution than last year, according to an annual survey of 650 West Coast beaches by Heal the Bay, a Santa Monica environmental group.



Water quality is also better at popular Candlestick Point in S.F.

"This is one of our best years yet," said Amanda Griesbach, a water-quality scientist at Heal the Bay, which compiled its data from weekly water-quality checks throughout the year along the California coast. "Especially with summer coming, people should be happy that beaches in California are clean."

Six local beaches earned top honors, including four in San Mateo County and two in San Francisco: Sharp Park and Rockaway

Water continues on A12

Species of fish dictates level of mercury

By Demian Bulwa

A sweeping state survey of contaminants in sport fish that were hooked, netted or speared in 68 spots on the California coast underscores a lesson for seafood lovers: Choose well your next fillet.

In general, mercury levels in the fish — caught during 2009 and 2010 — were of "high concern," particularly along the North and Central

Fish reports

▶ The state study on contaminants in California sport fish is at links.sfgate.com/ZLKL

▶ The state provides advisories and guidelines on safe fish consumption at links.sfgate.com/ZLKM

coasts, said a report released Thursday by the State Water Resources Control Board.

But while San Francisco Bay and other urban spots showed higher mercury pollution, the key driver of the contamination wasn't location but type of fish.

Long-living predators such as sharks and some forms of rockfish were found to have the highest levels of methylmercury, the type that becomes concentrated in fish tissue, wherever they were caught.

Fish continues on A12

▶ **Student loans:** The Senate fails to pass either of two rival plans to keep rates from doubling. **A7**



Sarah Rice / Special To The Chronicle

Dog tags belonging to Staff Sgt. Elbert W. Pollard, killed in 1950, were saved by his widow.

MILITARY HISTORY S.F. burial ends 62-year-old story

By Demian Bulwa

A Cold War mystery will drift through the cypress trees of the Presidio on Friday when an Air Force gunner is laid to rest, 62 years after he was last seen bailing out of a crippled plane carrying an atomic bomb toward a mock attack on San Francisco.

Staff Sgt. Elbert W. Pollard and four other men were lost off the coast of British Columbia during a secret training exercise that became the United States' first "broken arrow," military code for an accident involving nuclear weapons. A dozen other crew members survived.

Gunner continues on A16

IDY

els of found state fish

INEY
Group

ifornia's water hat certain fish n moderate to ercury, a toxin ous system of here they are

ie global spread and yield new and consumers species tend to nce, the study's verall, the data y and polychlo-Bs, continue to ight in Califor-



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Weather

Mostly cloudy, chance of show-



DAN COYRO/SENTINEL

According to the CHP, ...
Renaissance High stu-

SEE DRIVING ON A2

Renaissance High School students attend a CHP presentation on teen driving Thursday.

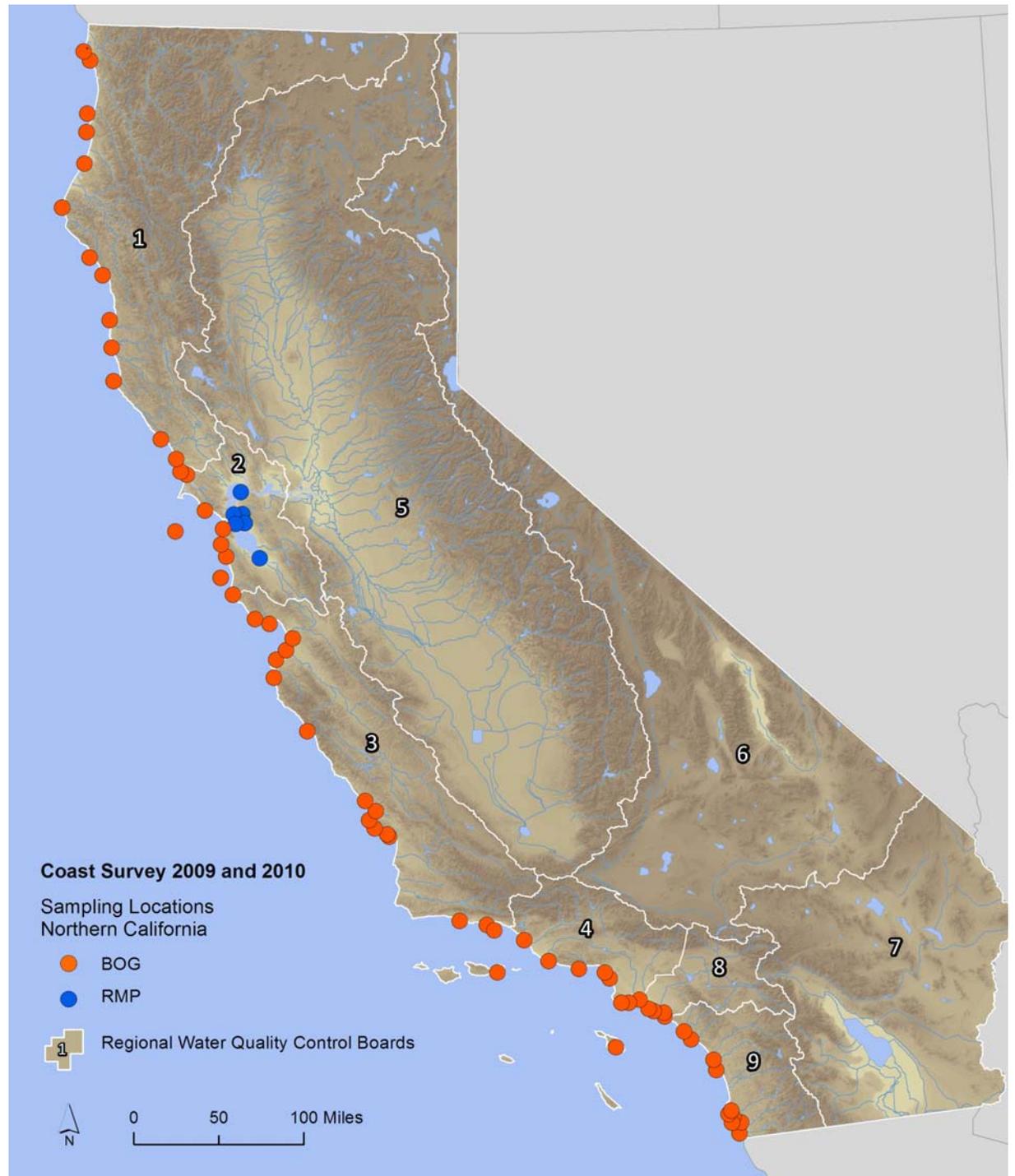
nia waters.

The report identifies seven species of

SEE FISH ON A2

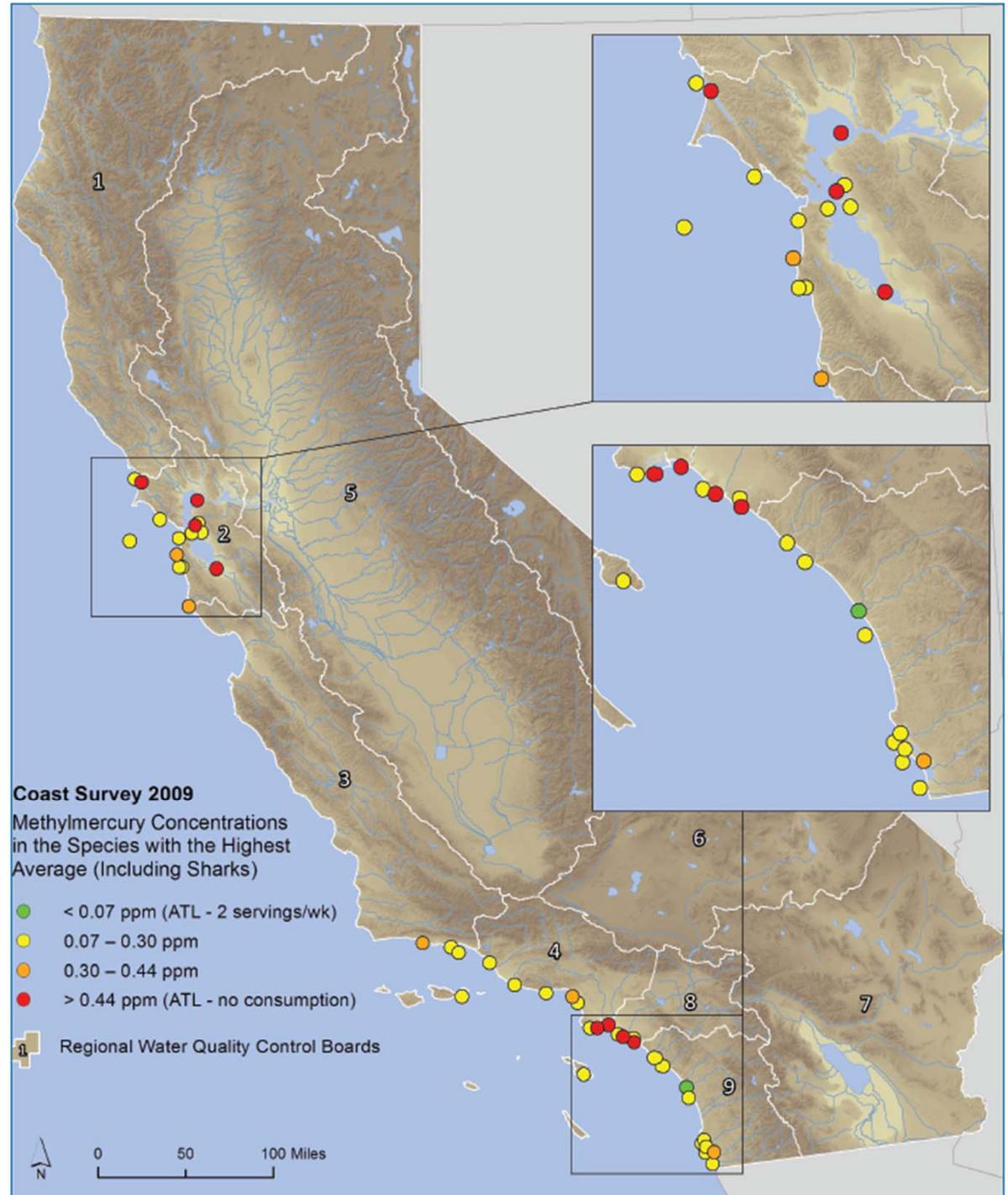
Scope

- 68 locations
- 3483 fish
- 46 species
- 5 species per location
- Unprecedented coordination:
SWAMP, RMP,
Bight Program,
Region 4



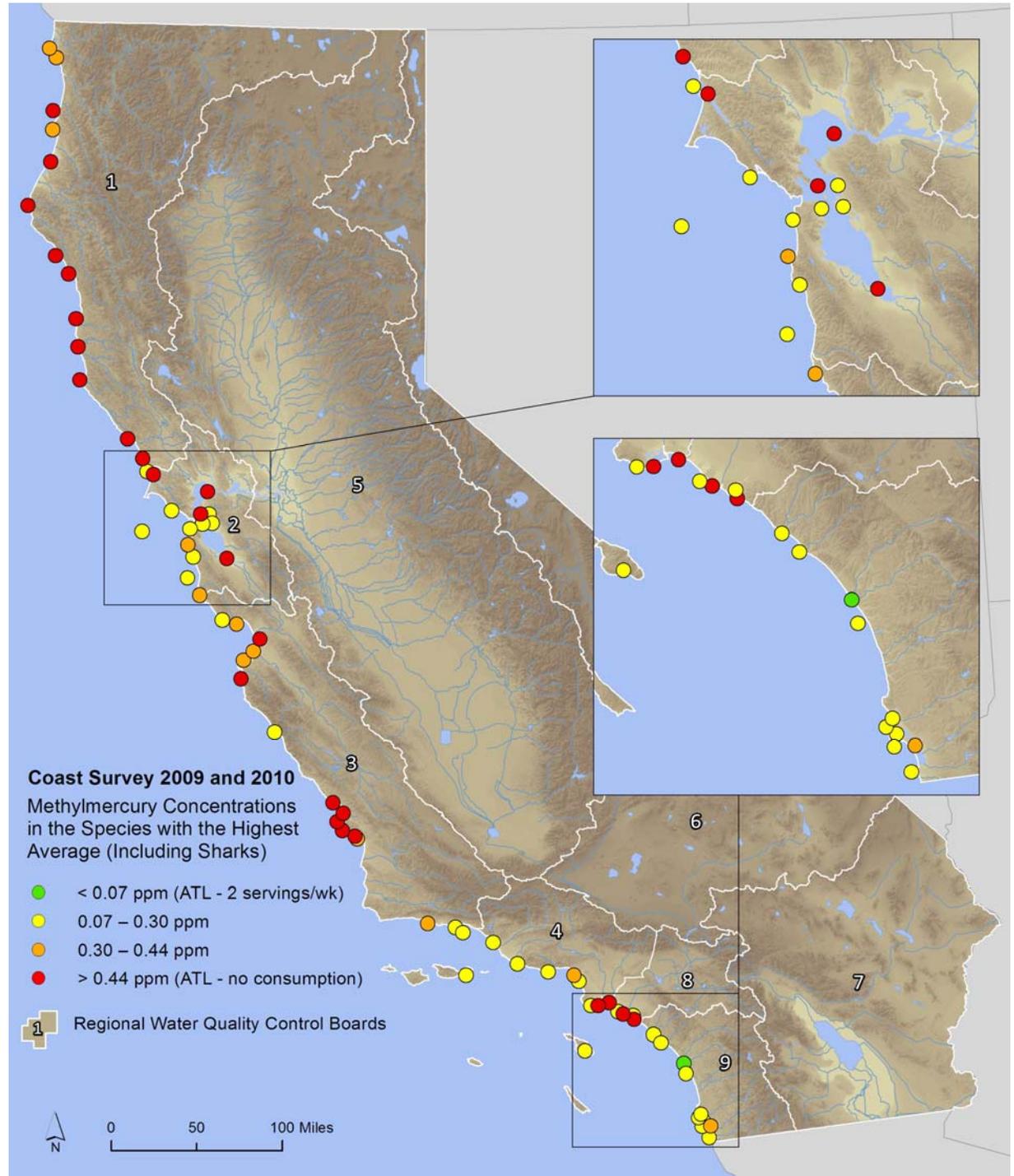
Methylmercury

- 2009
- “Widespread moderate contamination”
- Sharks exceptionally high



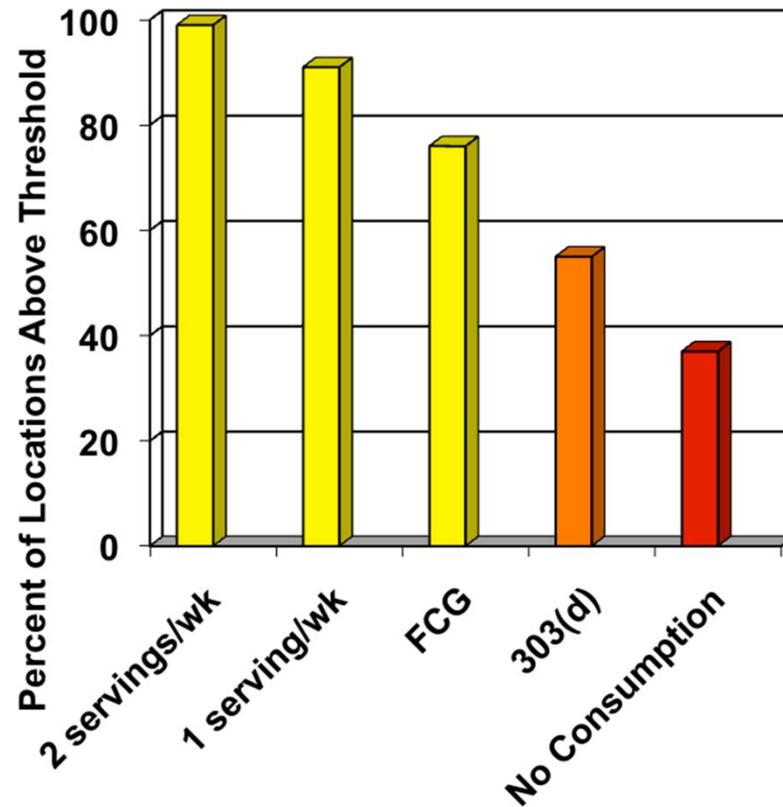
Methylmercury

- 2009-2010
- High concentrations across much of the coast, especially North and Central

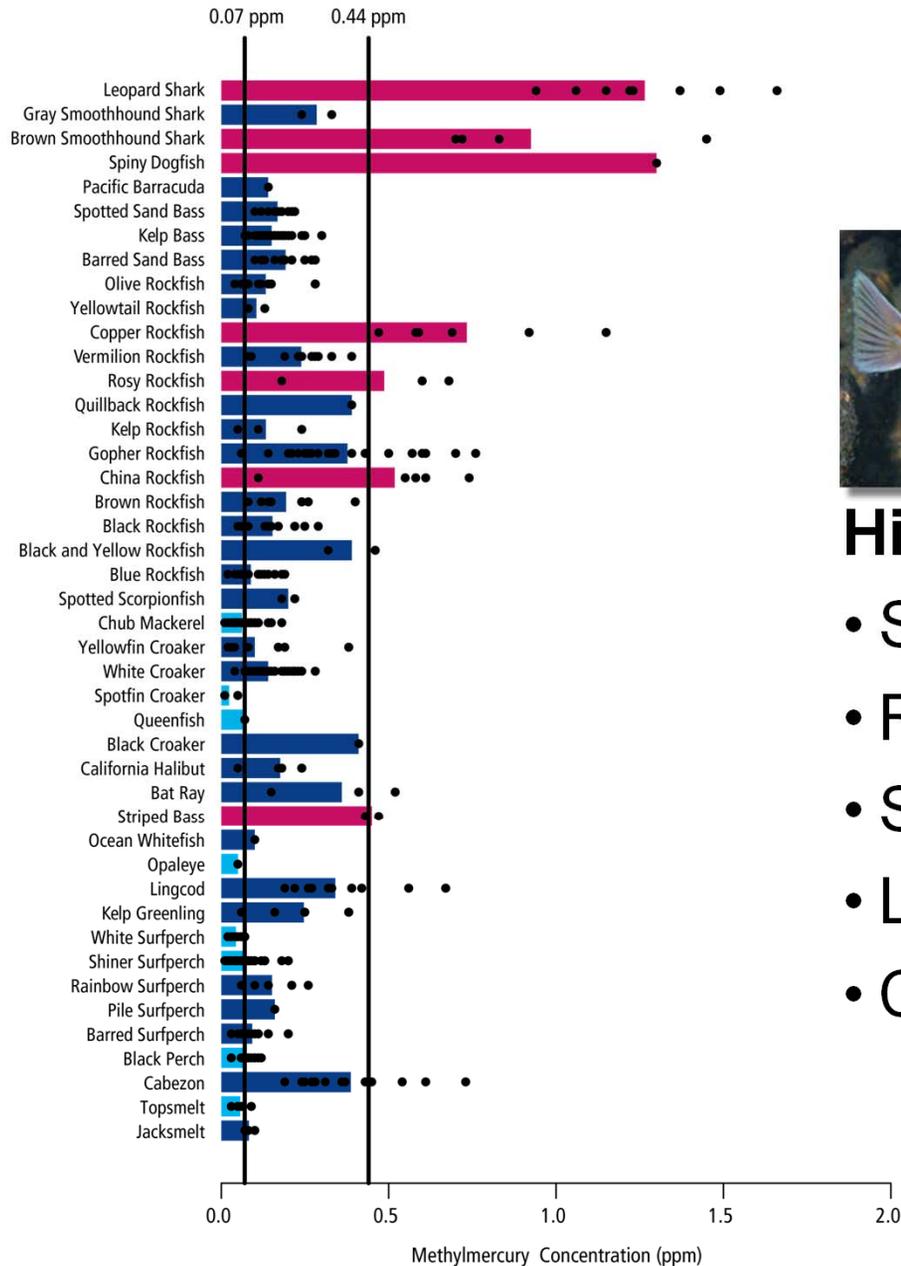


Methylmercury

California Coast



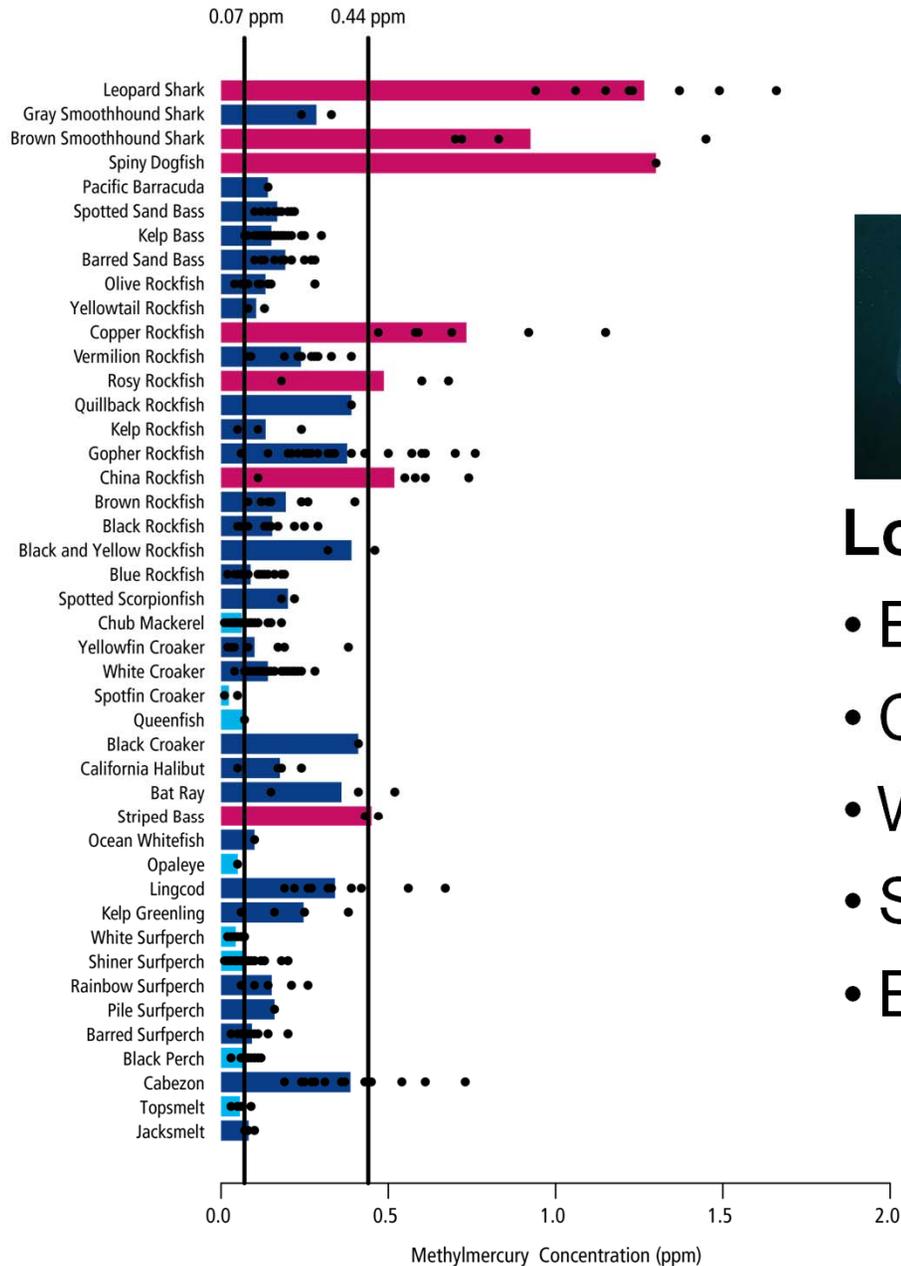
Methylmercury (ppm)



High Species

- Sharks
- Rockfish
- Striped bass
- Lingcod
- Cabezon

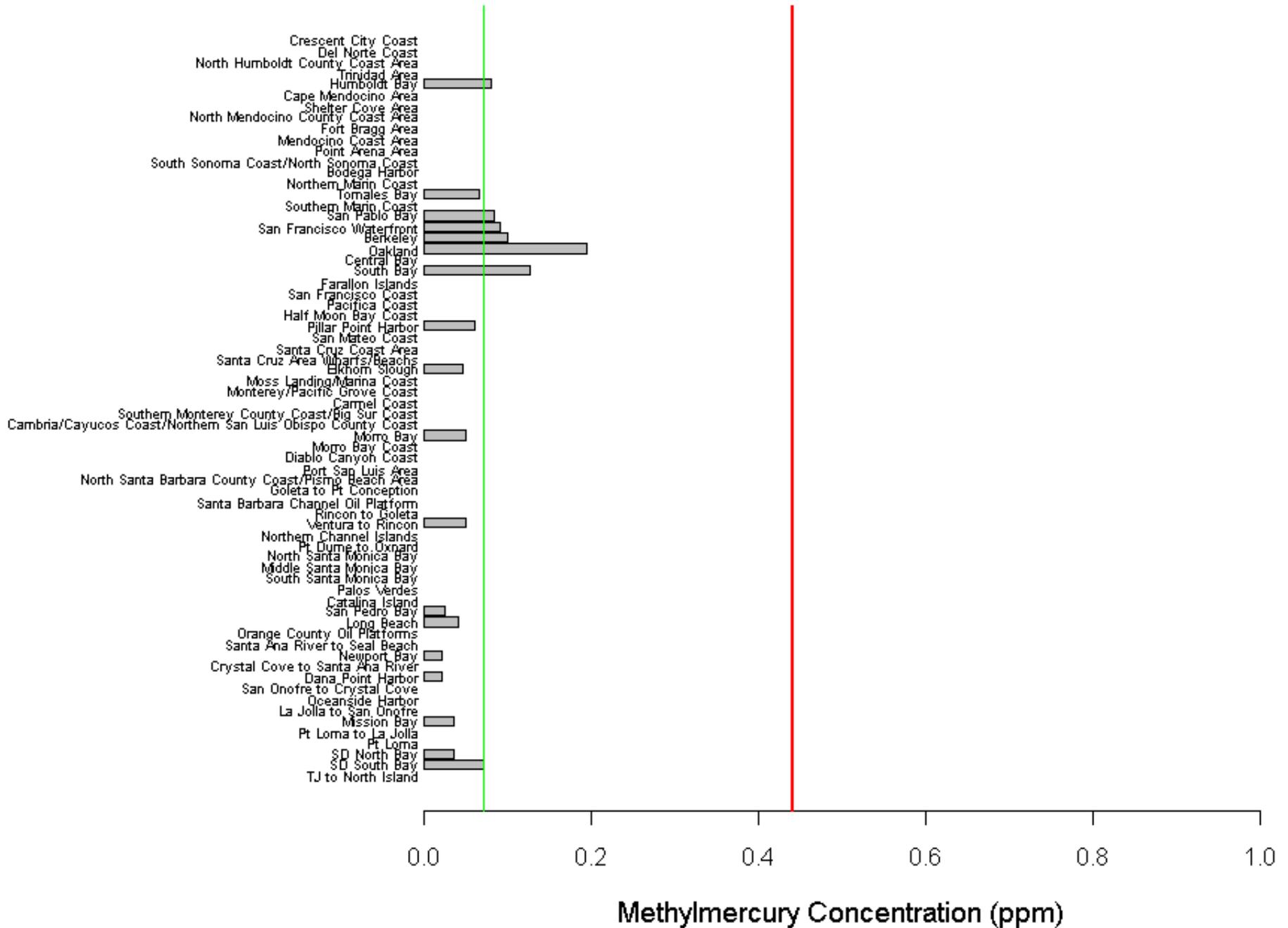
Methylmercury (ppm)



Low Species

- Blue Rockfish
- Chub Mackerel
- White Surfperch
- Shiner Surfperch
- Black Perch

Shiner Surfperch



Methylmercury Spatial Patterns

- Concentrations clearly elevated in San Francisco Bay
 - Shiner surfperch
 - Striped bass
- No clear differences among regions in this screening effort
- Supply of mercury appears sufficient to lead to significant food web contamination and risks to humans wherever long-lived predator fish are caught and consumed



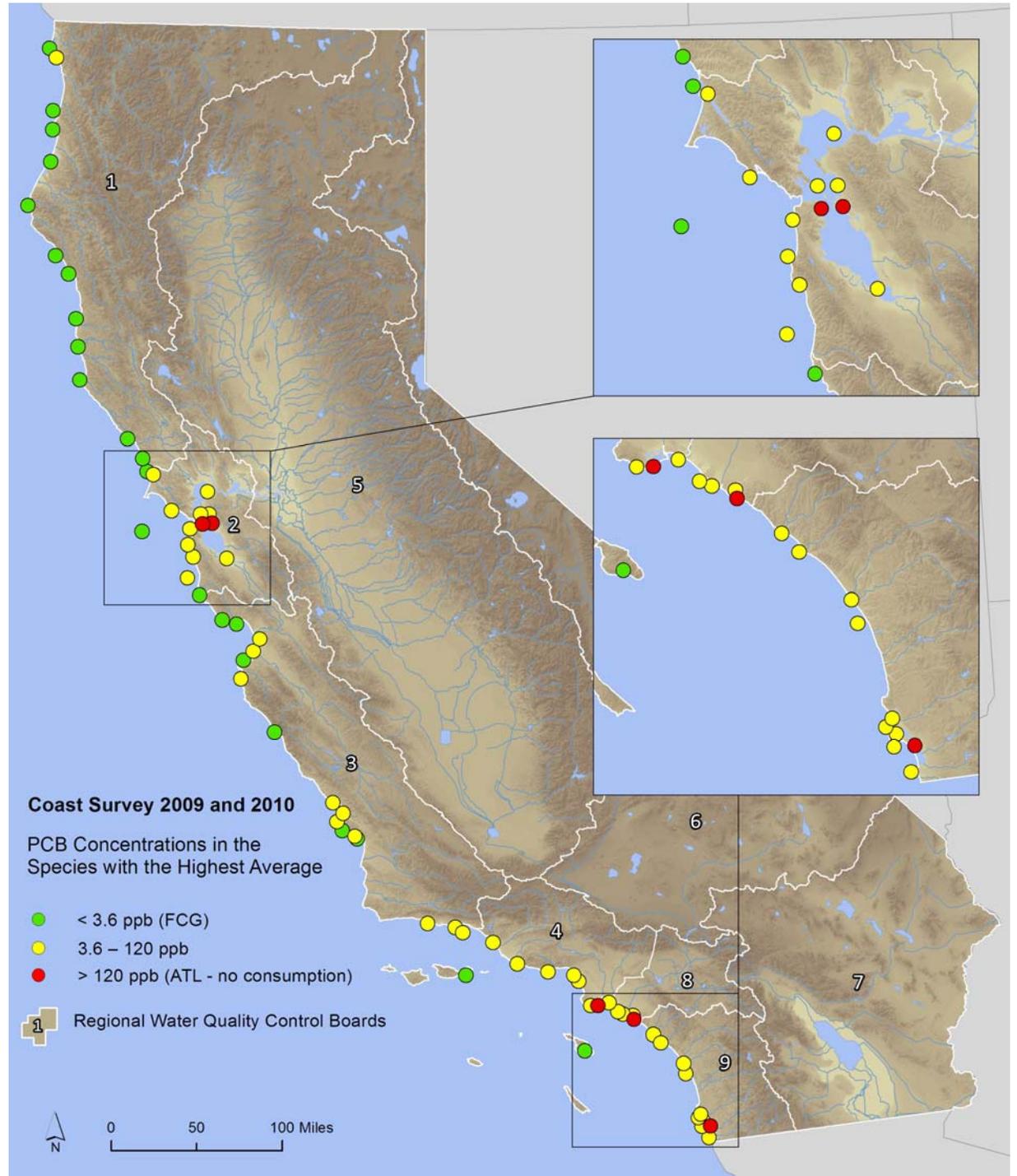
Implications Regarding Sources

- Significant additional inputs to San Francisco Bay
- Urban/industrial sources do not appear to have a prominent role
- Atmospheric deposition is likely contributing significantly to the regional background
- Upwelling may be another source

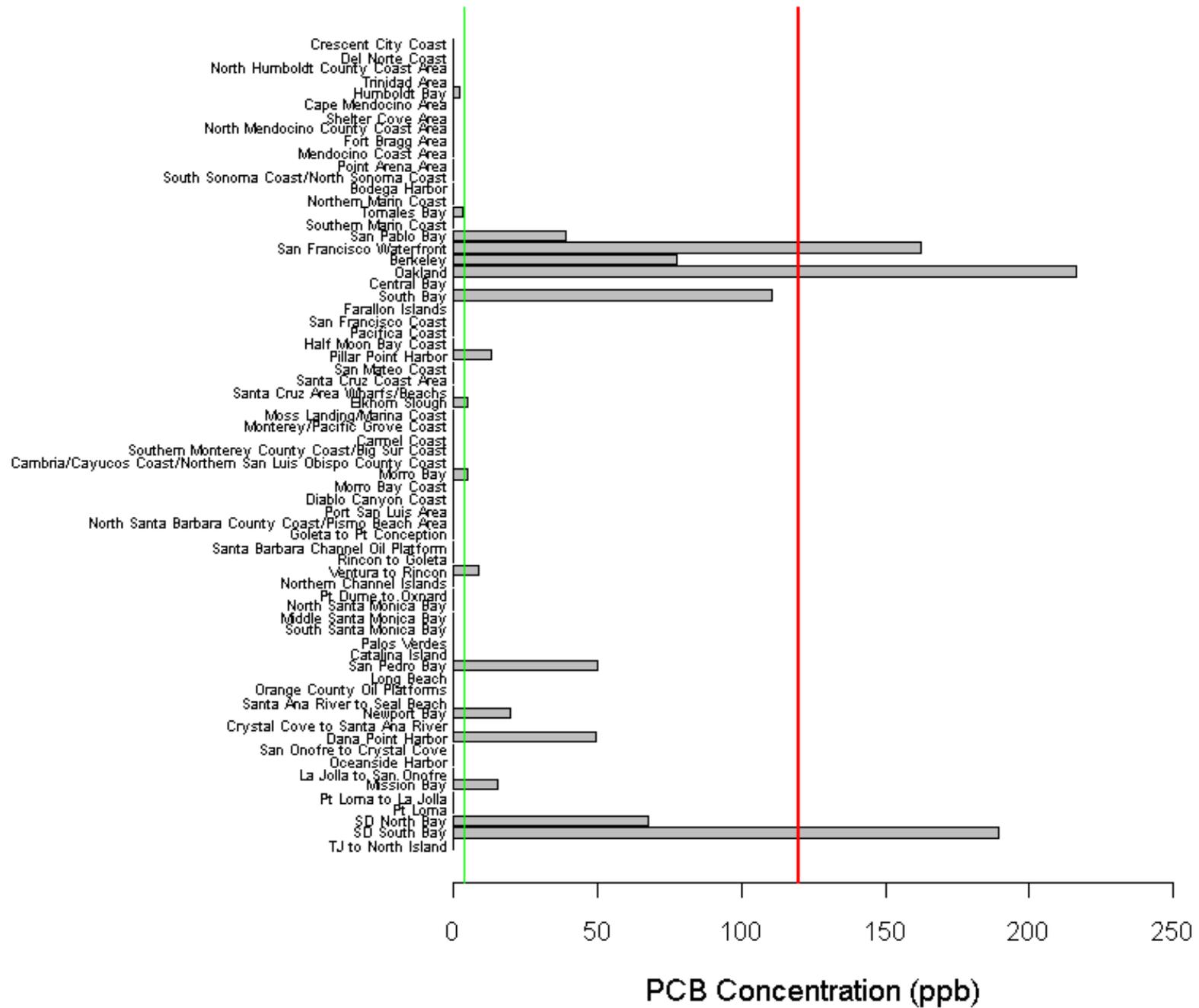


PCBs

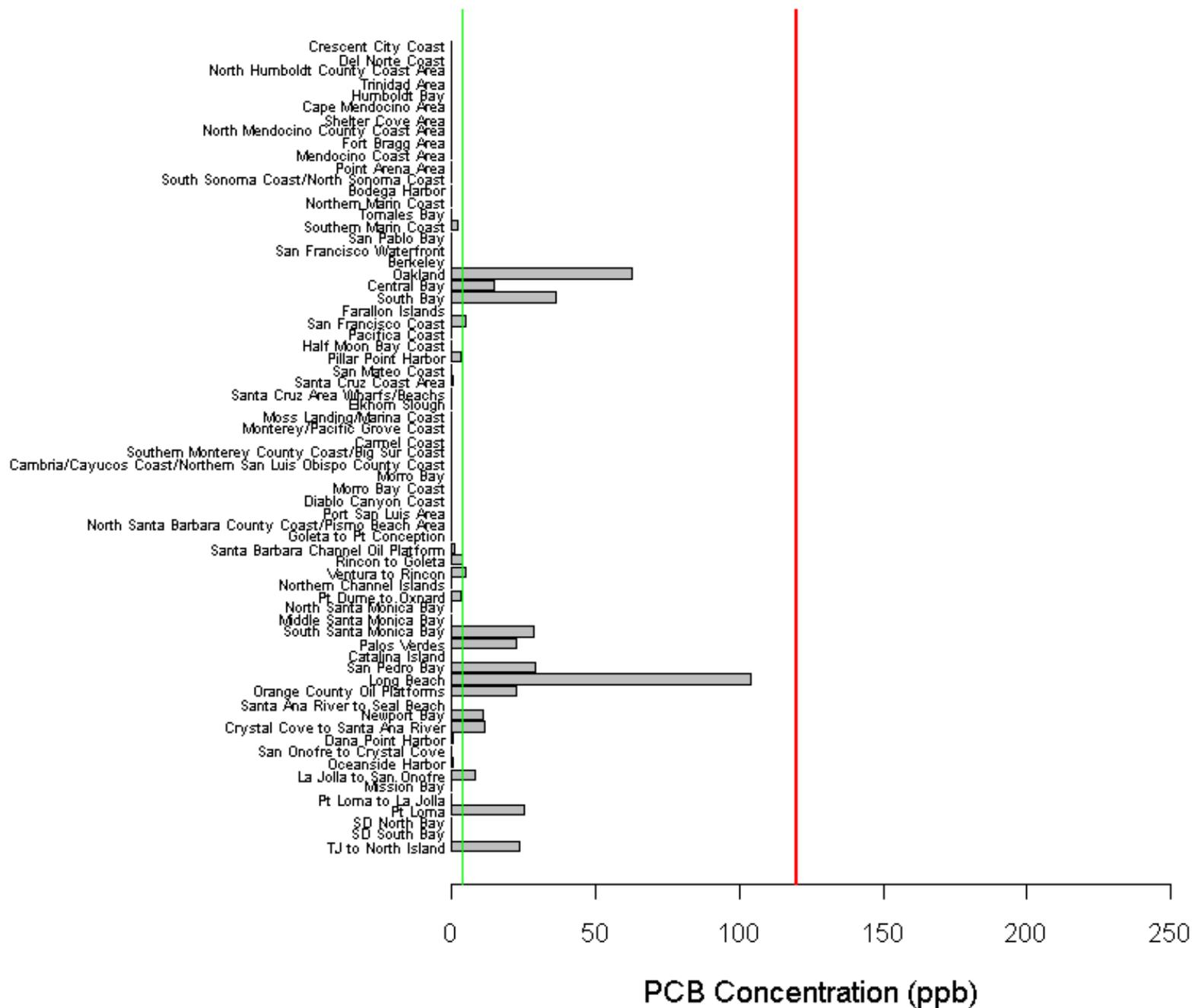
- 2009-2010
- Widespread moderate contamination in Central and South
- A few hotspots
- Clear pattern consistent with urban areas



Shiner Surfperch



White Croaker



PCB Spatial Patterns and Implications

- Concentrations clearly elevated in San Francisco Bay
 - Shiner surfperch
 - White croaker
- Clear association with proximity to urban sources generally, and specific hotspots



Overall Summary

- Methylmercury is the biggest problem
- High concentrations across much of the coast
- No locations with all species below all thresholds
- 26 locations with at least one “clean” species (below all thresholds)



Other BOG Activities

- **Wildlife Study (2012-2013)**
 - Methylmercury exposure and risks in birds on lakes
- **Biotoxins (2013)**
 - Workshop planned for November
- **Mussel Report (Summer)**
 - Good for celebration of successes, CECs
- **“Safe to Eat” Portal**
- **Bioaccumulation Strategy (2012)**
 - Next agenda item

