SWAMP
Surface Water Ambient Monitoring Program


# Bight '18 Contaminant Bioaccumulation in Sport Fish

Presentation to Commission

December 10, 2021

# Why Bioaccumulation Monitoring?

- Contaminant monitoring tells us extent and magnitude of environmental impact

- Bioaccumulation monitoring provides a direct linkage to human health
  - Assess the fish species people catch and the tissues they consume

# There are fish advisories for the entire Southern California Bight

# Consumption advisories are based on risk to human health

- State Office of Environmental Health and Hazard Assessment (OEHHA) sets advisory thresholds for fish tissue contaminants

- Focus on contaminants considered to pose the greatest potential health risk from seafood consumption
  - Mercury, Selenium, Total PCBs, Total DDTs

- Guidelines that recommend how often you can safely eat fish caught from water bodies in California

# What is the human health risk from consuming seafood in the Southern California Bight?

- What is the extent and magnitude of human health risk from seafood contamination?

- Is it getting better?

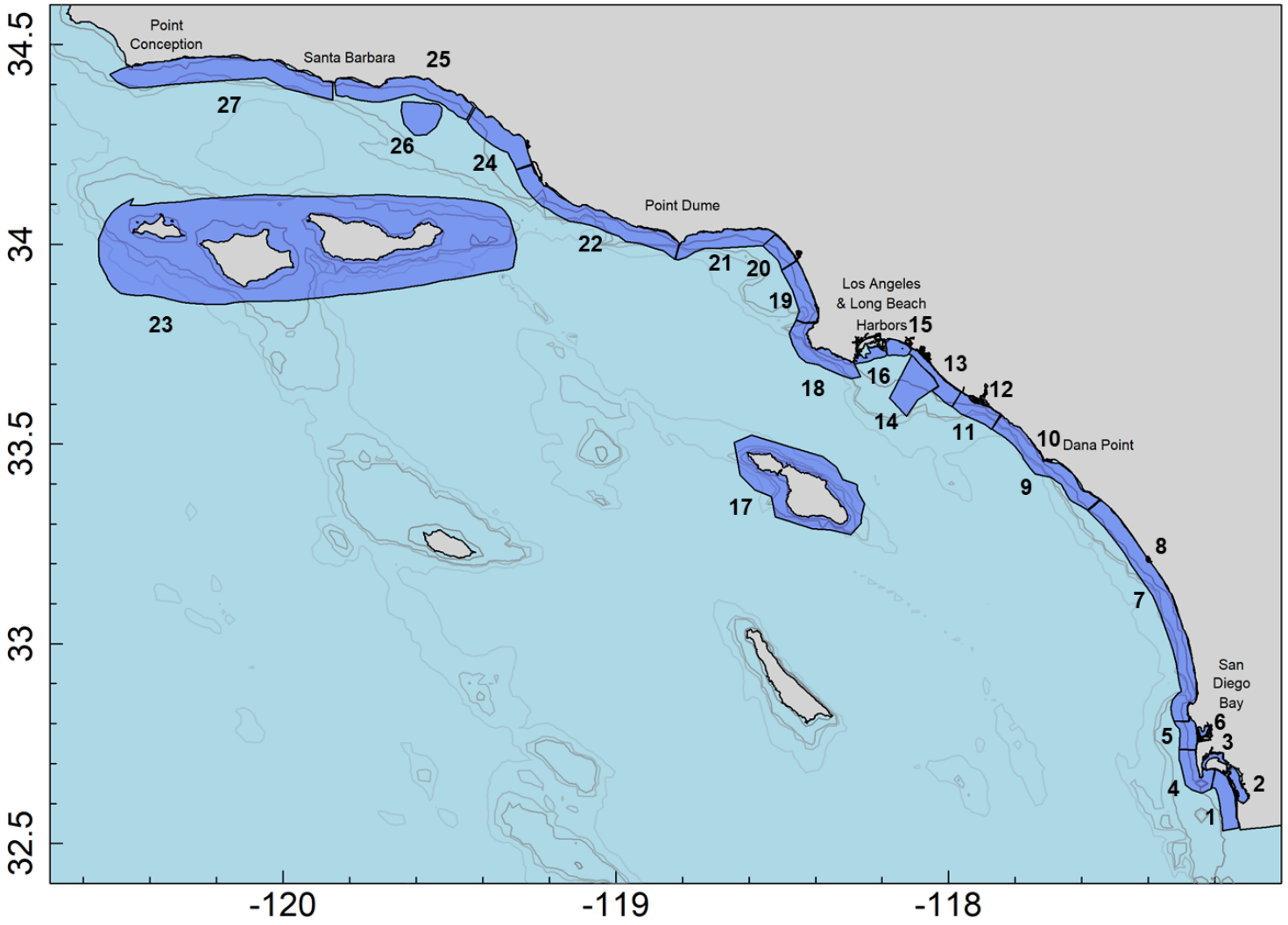
# Bight Bioaccumulation Key Findings

- Good News- fish tissues collected during the program are generally below OEHAA “do not consume” threshold
  - Concentrations are generally lower than they were 10 years ago
- Bad News- we had some exceedances of thresholds for mercury and total PCBs

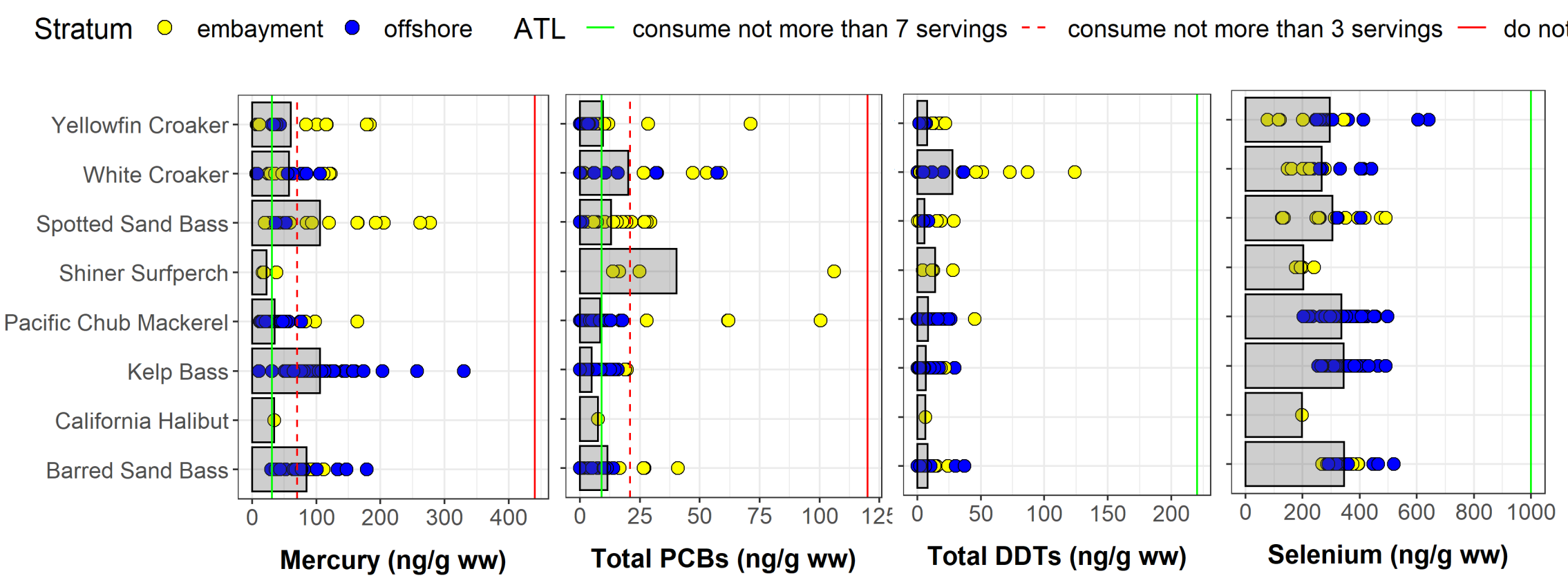
# Study Design

Fishing zones defined by exposure and fishing pressure

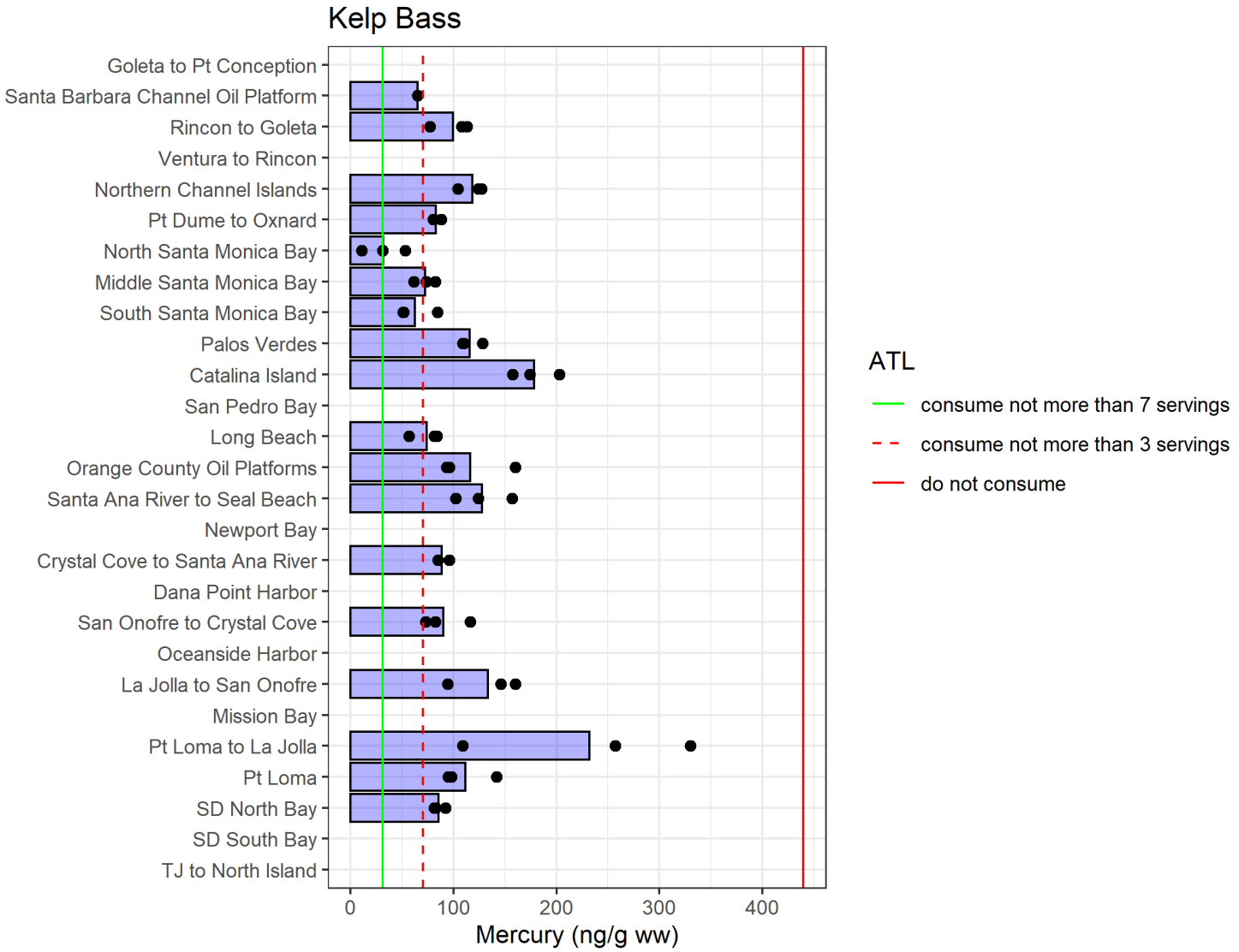
Fish species selected based on what people catch and eat, also comparable to other monitoring



# All fish tissue samples were below the “do not consume” threshold, some tissues exceeded OEHAA thresholds for mercury and total PCBs

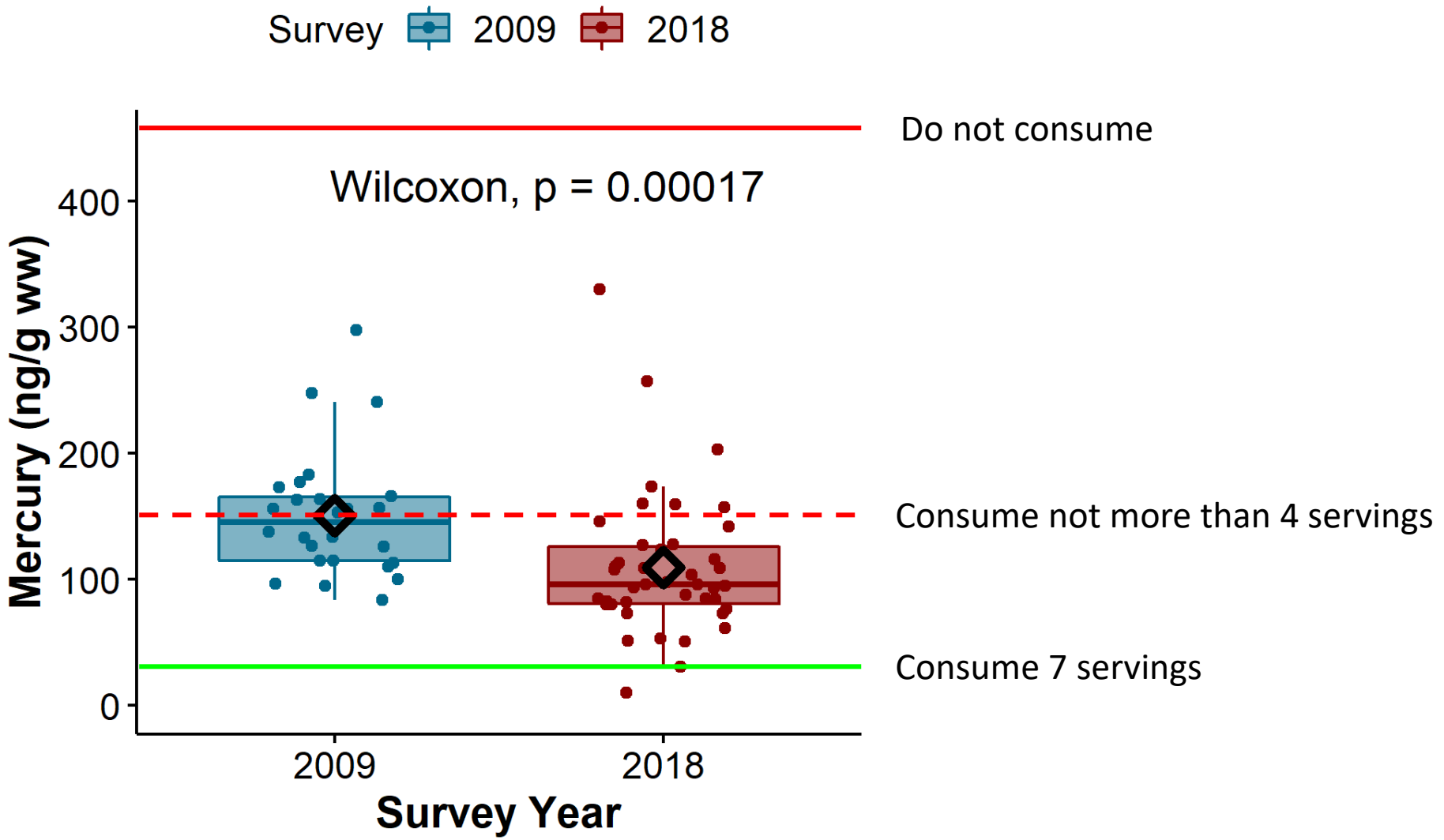


# The Problem is Regionwide



# Mercury concentrations have decreased since 2009

## Kelp Bass



# Next Steps…

- Put the SCB into context.
  - This is part of a larger study of California State waters
- OEHHA will use results from this study the to update advisories.
- Unmonitored emerging contaminants
  - Perfluorinated compounds
  - Other CECs
  - HABs toxins
- Investigate a new class of organism
  - Marine mammals are a candidate

# Questions?

- karenm@sccwrp.org