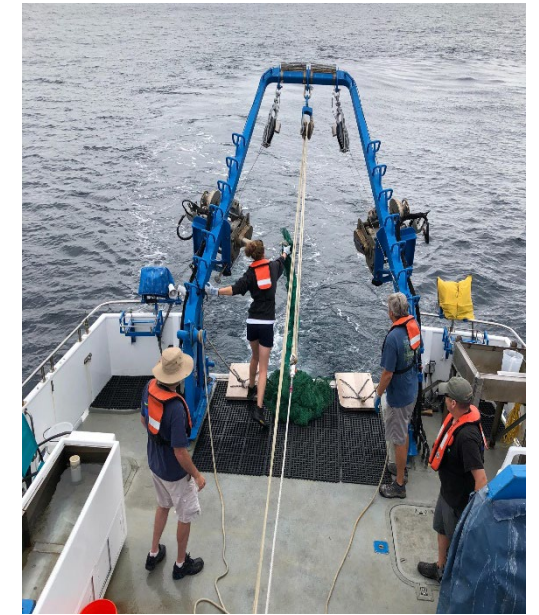


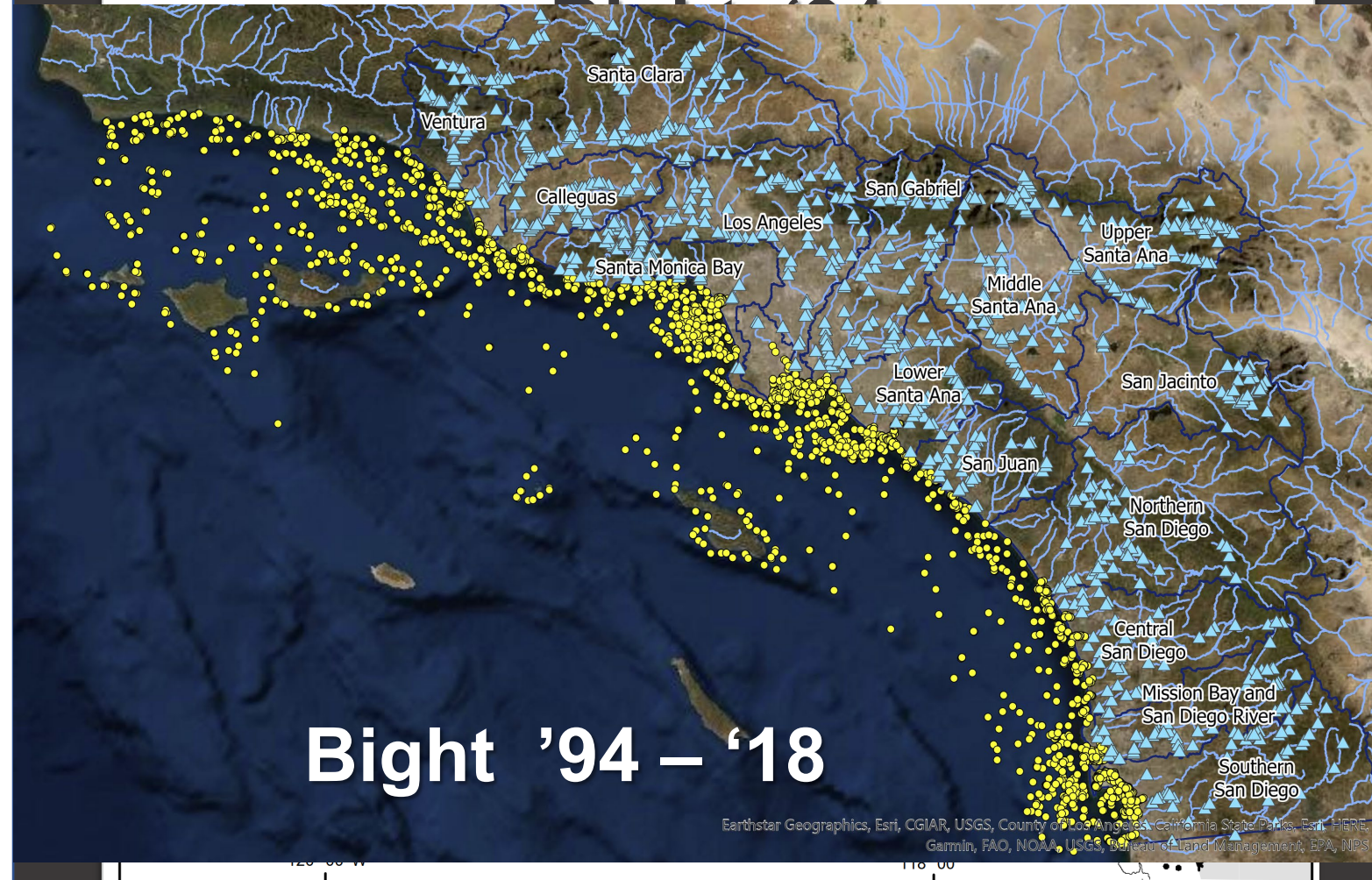
Southern California Bight 2023 Regional Monitoring Program

Karen McLaughlin
Report to Commission
December 2, 2022



This is Our Seventh Survey!

- Bight started in 1994
 - Repeats every 5 years
- Continually grown each survey
- Looks like Bight '23 will be the biggest ever!



Bight '23 Kickoff was September 22

Kickoff by the numbers:



120 people in person



80 people online



90 organizations



All sectors represented

What's New For Bight '23

- New indicators!
- New analytes!
- New assessment tools!
- New habitats!

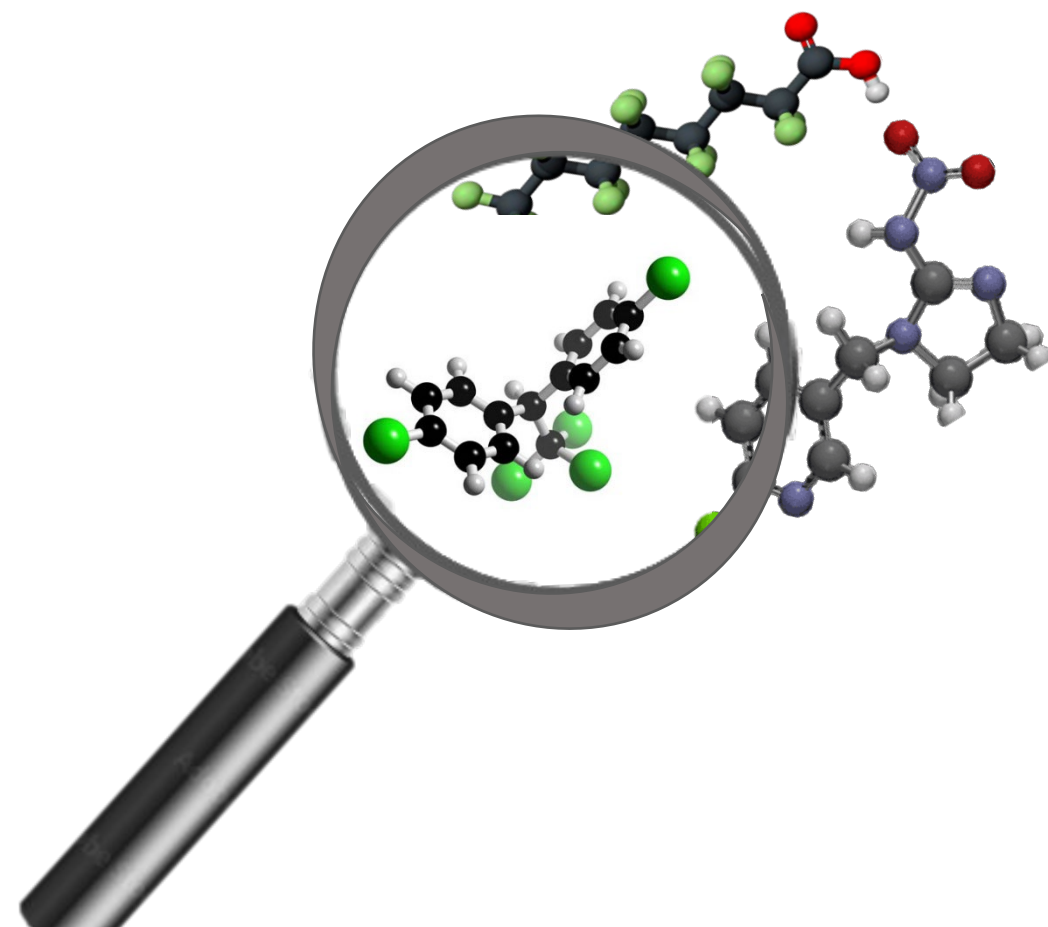
New Indicator- Shellfish

- Are shellfish safe to eat?
- Regional shellfish study
 - 30 sites, Bight wide
- Includes multiple indicators
 - Contaminants
 - HABs toxins- microcystins and domoic acid
 - Pathogens
 - Microplastics
- Human and ecosystem health endpoints



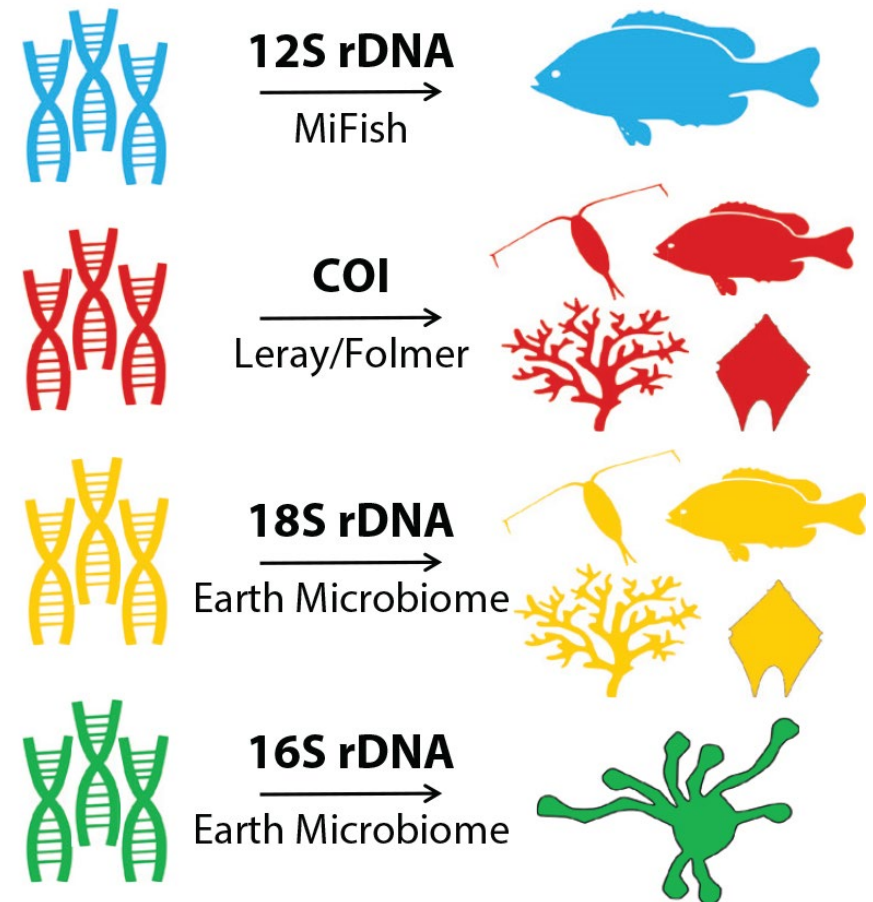
New Analytes- CECs

- Do we have to worry about these CECs affecting sediment quality?
 - PFAS
 - Microplastics
 - Neonicotinoids
 - Tire-wear compounds
 - Expanded DDTs list (40+ isomers)



New Tools: eDNA

- Can we use eDNA to understand biological impacts of changing ocean chemistry?
- Evaluate species composition shifts relative to changing ocean chemistry
 - Habitat compression
- Nearshore and offshore
 - Partnership with CalCOFI



New Habitat- Eelgrass Beds

- Where are they?
- What is their condition?
- What stressors affect them?




New assessment framework- Estuaries

- Regional integrated estuarine condition assessment
 - Overall ecosystem health, response to stress and resiliency
 - ~25 estuaries
- Sampling all estuarine habitat types
 - Subtidal, intertidal, marsh
- Multiple indicators and endpoints
 - Wildlife support, water quality, hydrologic buffering



Bight '23 Elements

- Sediment quality
 - Harmful algal blooms (HABs)
 - Trash
 - Microbiology
 - Estuaries
 - Submerged Aquatic Vegetation (SAV)
 - Water quality (ocean acidification & hypoxia)
- 
- Regional Shellfish Survey

Bight Planning Process

1. Elements & monitoring questions
2. Study design
3. Effort Inventory
4. Workplan and QA Plan
5. Method evaluation, QA/QC, Training, intercalibrations, audits
6. Information Management
7. Launch!

