



Port of
LONG BEACH
THE PORT OF CHOICE



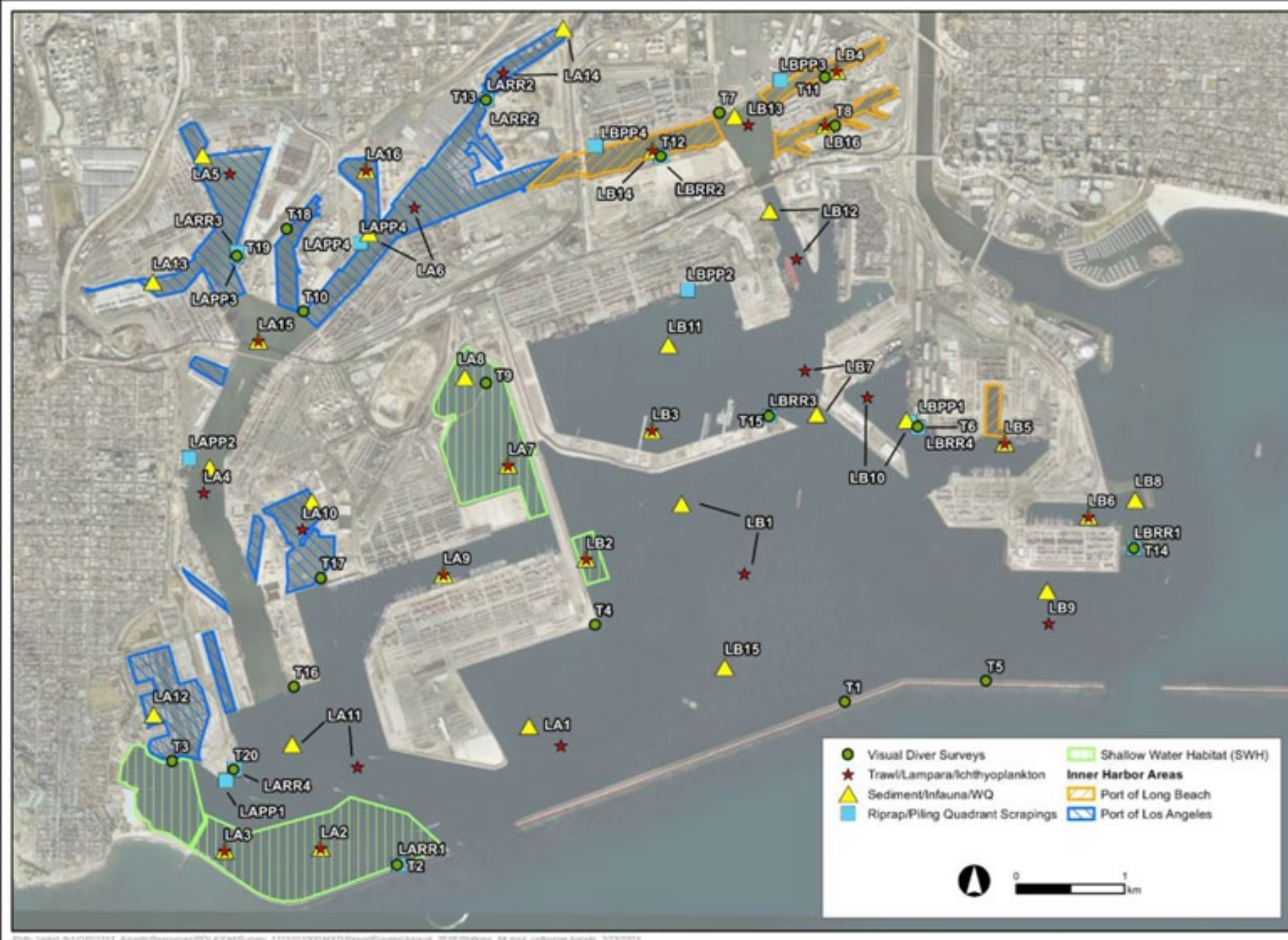
Port of Long Beach Biodiversity Surveys

Justin Luedy
Senior Environmental Specialist
justin.luedy@polb.com

Periodic Biological Surveys of the San Pedro Bay

- Joint effort with the Port of Los Angeles
- Conducted ~5 years (2000, 2008, 2013, 2018)
 - One year of data gathering (over three seasons)
 - 18-24 months of identification, analysis, synthesis
 - 1 year of report writing
- Originally developed to assist regulators determine the level habitat mitigation required to develop port land
- Now a detailed timeline that documents the recovery and health of our harbor
- Survey of all harbor habitat types
 - pelagic (open water)
 - soft-bottom (like eelgrass and sediments)
 - hard substrate (riprap and concrete pilings—FIRST TIME!)
 - birds, marine mammals, and non-native species





Sampling Station Locations
2018 Biological Surveys of the Ports of Los Angeles and Long Beach
San Pedro Bay, CA

Fish Trawling

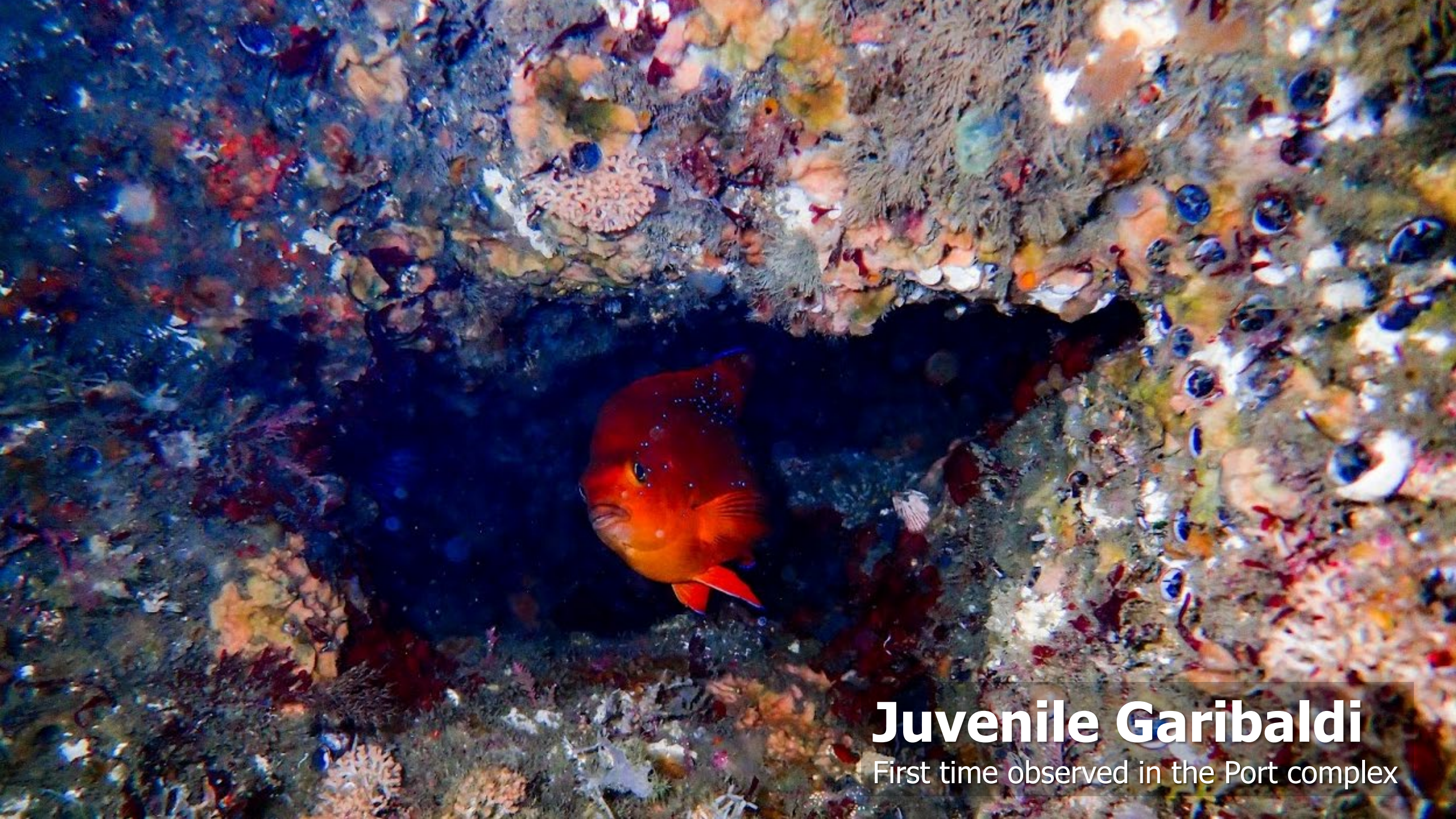




California Giant kelp off the Pier J shoreline



New Survey Methods



Juvenile Garibaldi

First time observed in the Port complex



Survey of Pier Pilings



Green Abalone

3 new abalone species documented

Cormorants



California Sea Lions



The Big Picture

- 2018 survey recorded the greatest diversity of all four survey years, an indicator of the improving quality of our harbor environments and a testament to the Port's water and sediment quality management programs.
 - Green Port Policy
 - Water Resources Action Plan
 - Ballast Water/Vessel Discharge Regs
 - Stormwater Program
- Variety of Outer Harbor habitats (kelp forest, eelgrass, deep channels) promote high species diversity and abundance
- Non-native species do not appear to be displacing native species
- Pollution-sensitive species more common than ever
- Eelgrass found in deeper areas of the Inner Harbor, thus showing improved water clarity and quality

