



California's Response to Marine Life Entanglement

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Presented to:

Entanglement Science Workshop

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Mandates Driving California Management

- Federal ESA & MMPA
- CESA (Leatherback Sea Turtle-Candidate)
- Fish and Game Code 8276.1
- Marine Life Management Act
- OPC Vision Zero Mortality Goal Policy



Entanglement Risk Reduction Measures

- ✓ Dungeness Crab Fishing Gear Working Group
- ✓ Piloted Risk Assessment and Mitigation Program (RAMP)
- ✓ Limited Surface Gear for Commercial Fishery
- ✓ Director's Authority (Risk Assessments)





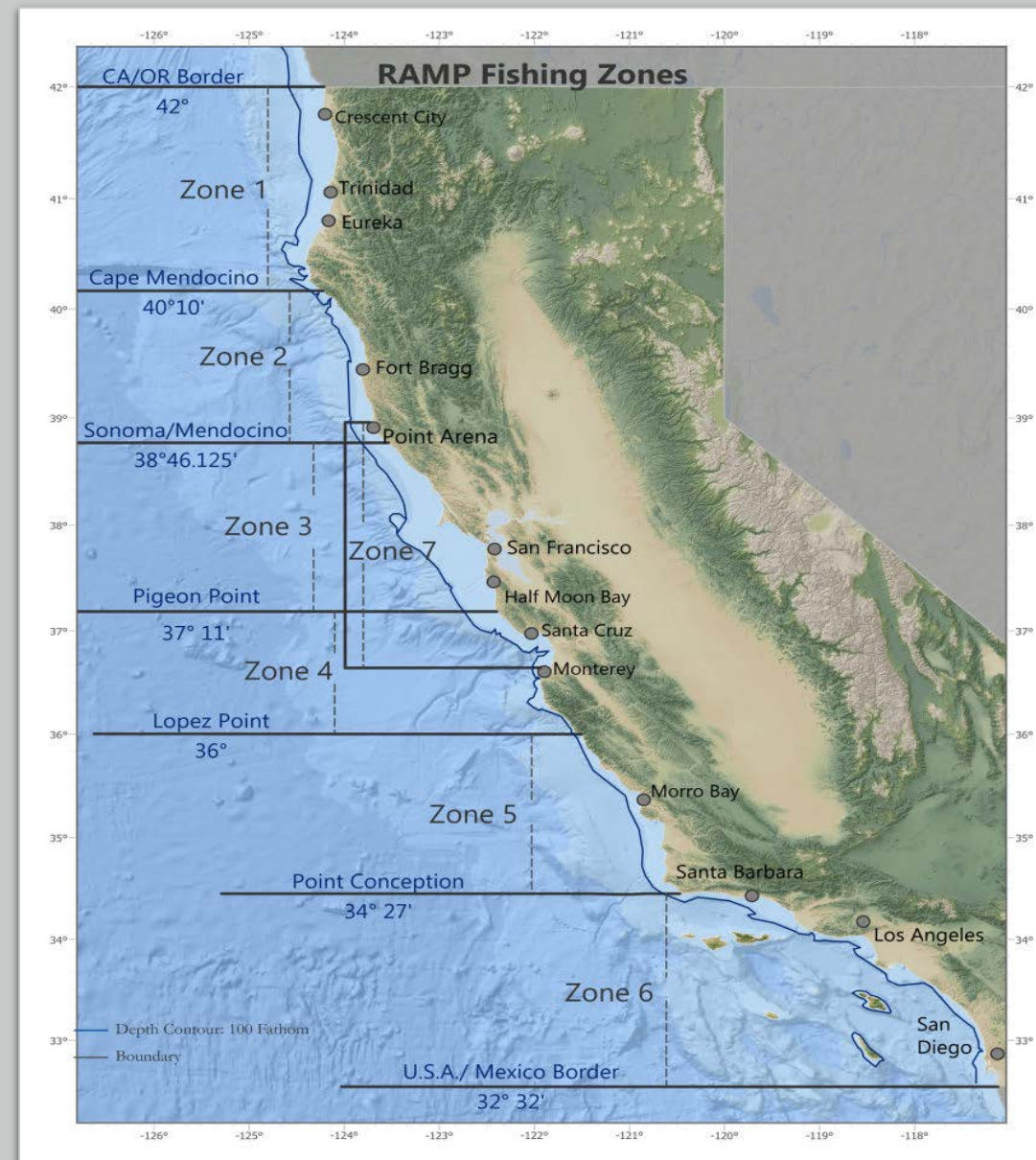
Entanglement Risk Reduction Measures

- ✓ Fixed Trap Gear Marking Program
- ✓ Lost/Abandoned Gear Retrieval Program
- ✓ Draft Conservation Plan/ Incidental Take Permit
- ✓ Recreational Crab Risk Reduction Measures
- ✓ Gear and Data Innovation



RAMP

- Risk Assessment Process
- Entanglement and Marine Life Concentrations Triggers
- Zonal Management Approach
- Management Actions
 - Advisory
 - Season Delay
 - Zone Closure
 - Gear/Depth Reduction
 - Alternative Gear





Science Needs to Support Management

- **Science is integral to the CDFW RAMP program**
 - Species distribution surveys
 - Distribution and habitat modeling
 - Understanding the “how” of entanglement
 - Understanding environmental influences
 - Socioeconomic dynamics of management
- **Priorities**
 - Science to support RAMP and RAMP to support science
 - Refining RAMP framework and inform ITP process
 - Reducing entanglements in state-managed fisheries



Thank you

Whale Safe Fisheries

www.wildlife.ca.gov/Conservation/Marine/Whale-Safe-Fisheries