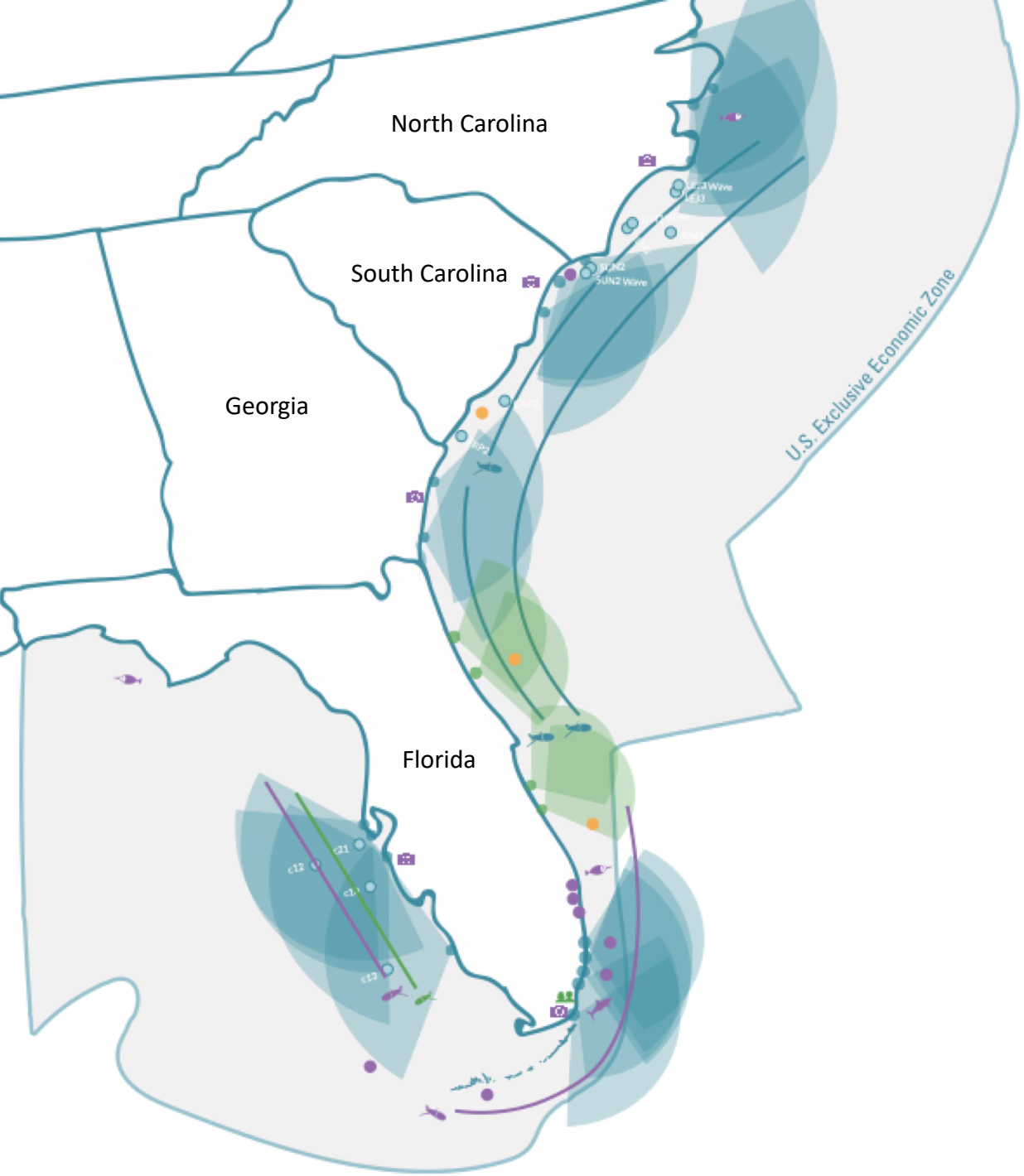

SECOORA
Southeast Coastal Ocean Observing Regional Association

Augmenting Ocean Observing through Artificial Intelligence: Annotation, Data Standards, and Applications

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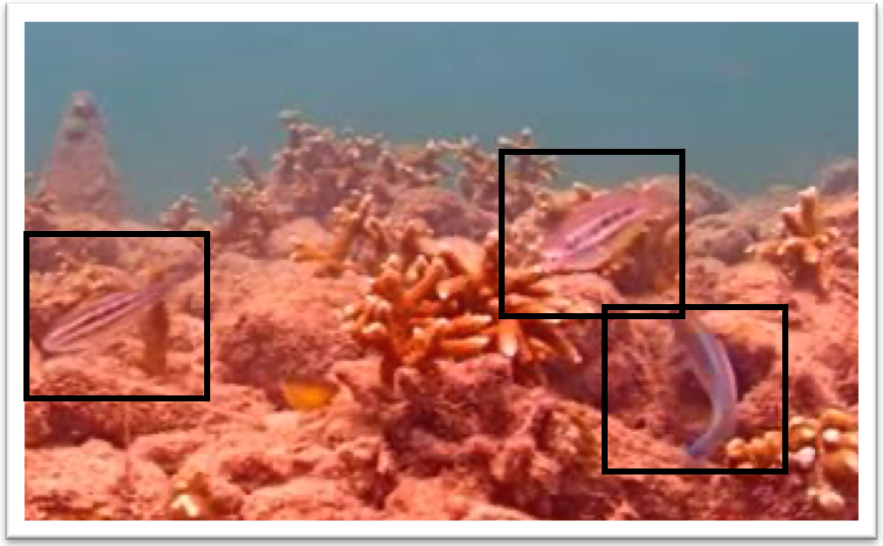
CODAR OCEAN SENSORS

In-Situ

IOOS Integrated Ocean Observing System

Overview of the Project

- We use a lot of resources to estimate patterns from imagery, video, and acoustic data
- AI/ML/DL ocean observing applications, tools, and resources are rapidly evolving
- Goal: Build a SECOORA AI Annotation Data Portal on existing DMAC infrastructure to support marine AI
- Resource for annotated data and labels, standards and metadata, pathways to complementary portals, and worked examples

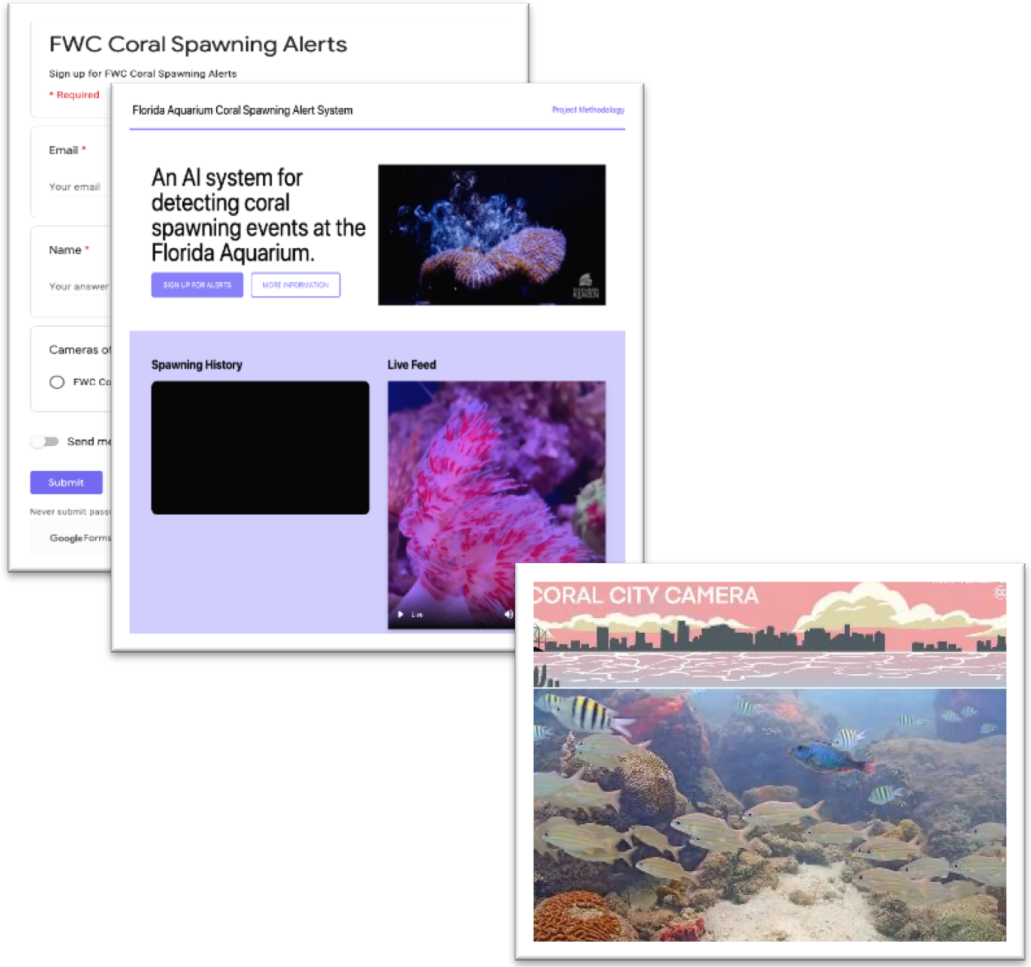


Accomplishments

- Progress on worked example use cases
  - Video, imagery, and acoustics
  - Promotes lessons learned and reproducible pipelines
  - Supports IOOS core variables

- Florida Aquarium spawning alerts
  - Volunteers monitored corals in aquaria
  - GitHub page; Resource document

- Leveraged funding to expand use case to oceanographic data buoy with cell signal
  - 16,000 annotated reef fish videos from Coral City Camera (Coral Morphologic)



Challenges and Looking Ahead

- AI Portal built with research community engagement
- Broader workshops
  - Fill gaps between available tools, technical needs, and community needs
- Work directly with complementary portals and projects
  - Resolve IT issues
  - Highlight video, benthic imagery (CoralNet), and acoustics (MOTE) use cases
  - Beta SECOORA AI Portal FY 23/24