

## **DATA AGGREGATION, CITIZEN SCIENCE, AND AI - OH MY!**

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The Gulf of Mexico Coastal Ocean Observing System Regional Association's mission is to provide information about the Gulf's coastal and open waters on demand that is accurate, reliable, and benefits people ecosystems and the economy. GCOOS has used several strategies to push forward this mission. The first, is the aggregation of ocean data and making it openly accessible to all. Most people think of real time physical oceanography data (currents, temperature, and salinity) however, GCOOS has also aggregated a lot of historical or legacy data. To achieve the spatial and temporal coverage needed for informed decision making, GCOOS has empowered citizen scientists to assist in data collection/observations. Finally, the use of artificial intelligence, or AI, is being used to analyze large datasets in new novel ways. Specific examples of how GCOOS has used these three strategies will be discussed.

**PRESENTER BIO:** Dr. Barbara Kirkpatrick is the Senior Advisor for the Gulf of Mexico Coastal Ocean Observing System Regional Association and a Research Scientist at Texas A & M University. She has several decades of experience in Harmful Algal Bools and Human Health. She is a member of the Florida Governor's Harmful Algal Bloom Taskforce.