

SEACAR Subject Matter Expert Workshop Notes Summary

St. Petersburg, Florida. January 22–23, 2020

Overview

More than 40 coastal and aquatic Subject Matter Experts from across the state of Florida convened in St. Petersburg for a two-day, immersive workshop for the Statewide Ecosystem Assessment of Coastal and Aquatic Resources (SEACAR) program. The goals of this meeting were to: (1) review datasets for inclusion in the Data Discovery Interface (DDI); (2) identify protocols, methods, and measures that can be synthesized for analysis; (3) establish necessary data standardization and transformation methods; (4) recommend units of measure for analyses; (5) establish spatial and temporal scales for individual indicators; and (6) determine status and trends to be assessed as a locally relevant scale. Experts divided into teams based on habitat expertise to make progress toward these goals. Moving forward, habitat teams will consult with the University of Maryland Center for Environmental Science to run preliminary analyses on selected indicators before the next meeting in April.

Attendees:

Caroline Donovan, *University of Maryland Center for Environmental Science*
Katie May Laumann, *University of Maryland Center for Environmental Science*
Cheryl Clark, *Florida Department of Environmental Protection*
Jerald Ault, *University of Miami*
Chris Anastasiou, *Southwest Florida Water Management District*
Katy Cummings, *Florida Department of Environmental Protection*
Nick Parr, *Florida Department of Environmental Protection*
Brian Walker, *Nova Southeastern University*
Scott Eastman, *Florida Department of Environmental Protection*
Steve Durham, *Florida Department of Environmental Protection*
Anthony Gillis, *Florida Fish and Wildlife Research Institute*
Nia Wellendorf, *Florida Department of Environmental Protection*
Kris Kaufman, *National Oceanic and Atmospheric Administration*
Eric Milbrandt, *Sanibel-Captiva Conservation Foundation*
Brendan Biggs, *Florida Department of Environmental Protection*
Quinton White, *Jacksonville University*
Kathryn Petrinec, *Florida Department of Environmental Protection*
Linda Walters, *University of Central Florida*
Nikki Dix, *Florida Department of Environmental Protection*
Melynda Brown, *Florida Department of Environmental Protection*
Stephanie Erickson, *Florida Department of Environmental Protection*
Jeremy Conrad, *US Fish and Wildlife Service*
Candy Feller, *Smithsonian Institution*
Susan Bell, *University of South Florida*
Penny Hall, *Florida Fish and Wildlife Conservation Commission*

Jenny Hinton, *Florida Department of Environmental Protection*
Matthew Johnson, *National Oceanic and Atmospheric Administration*
Tim MacDonald, *Florida Fish and Wildlife Conservation Commission*
Heather Stafford, *Florida Department of Environmental Protection*
Maria Merrill, *Florida Fish and Wildlife Conservation Commission*
Meagan Schrandt, *Florida Fish and Wildlife Research Institute*
Brita Jessen, *Florida Department of Environmental Protection*
Keith Laakkonen, *Florida Department of Environmental Protection*
Kara Radabaugh, *Florida Fish and Wildlife Conservation Commission*
Paul Julian, *Florida Department of Environmental Protection*
Tim Jones, *Florida Department of Environmental Protection*
Jason Garwood, *Florida Department of Environmental Protection*
Stephanie Schopmeyer, *Florida Fish and Wildlife Conservation Commission*
Jeff Beal, *Florida Fish and Wildlife Conservation Commission*
Amanda Kahn, *South Florida Water Management District*
Caitlin Lusic, *The Nature Conservancy*
Dave Gilliam, *Nova Southeastern University*
Caroline Gorga, *Florida Fish and Wildlife Conservation Commission*
Laura Geselbracht, *The Nature Conservancy*
Alex Reed, *Florida Department of Environmental Protection*
Holly Edmond, *Florida Department of Environmental Protection*
Shawn Landry, *University of South Florida*
Claude Kershaw, *University of South Florida*
Emily Nastase, *University of Maryland Center for Environmental Science*
Ryan Moyer, *Florida Fish and Wildlife Conservation Commission*



Figure 1: SEACAR Subject Matter Experts

Wednesday January 22, 2020—Day 1

Welcome and Introductions

Alex Reed, *Florida Department of Environmental Protection*

- Governor and agency heads in Florida are supporting projects like SEACAR
- How do we make DEP a state, national, and global leader? How do we go big with SEACAR?

SEACAR Overview

Cheryl Clark, *Florida Department of Environmental Protection*

- Focus of SEACAR on RCP managed areas in four geographic regions (NE, NW, SE, SW)
- Indicators fall under five habitat categories: Submerged aquatic vegetation, Coral and coral reef, Water column and Nekton, Oyster and oyster reef, Coastal wetlands
- Product formats:
 1. Technical report and database—most information
 2. Assessment report and interactive website—moderate level of synthesis
 3. Assessment summary—high level summary, least amount of detail
- Timeline:
 - Draft technical report by the end of June
 - Draft interactive website by sometime in April
 - Final reports by end of September

SEACAR Database Discover Interface Orientation

Shawn Landry, *University of South Florida*

- <https://dev.seacar.waterinstitute.usf.edu>
- All data included in database must have a location, associated programs and managed areas, contact information for the data, etc.
 - How do we edit or update current programs in the database?
 - Request login from Cheryl to access the program and you can make edits as needed
- Database standardizes data uploaded
- Questions about the database? Contact Shawn Landry and Claude Kershaw
- READ ONLY Login credentials:
 - Email: seacar.sme@gmail.com
 - Password: Seacar@meeting1

SEACAR Data Discovery R Script Example Walk Through

Katie May Laumann, *University of Maryland Center for Environmental Science*

- Query example: data loaded into R from five projects in the DDI
 - Run code for species diversity, species richness, number of observations
 - Eventually we want to be able to run long term trends analyses
- Questions?
 - You can't always add together the surveys from different years and coverages.

- Break out groups will attempt to address this concern. Confidence level rankings will be useful to indicate how well we addressed this issue.
- How does the confidence level ranking work?
 - Not trying to do confidence level rankings for individual data sets, but rather in the overall analysis provided (methods, sampling coverage, etc.).

Break Out Session 1 Report Back—Questions and Comments

- Habitat teams should meet about overlaps between their indicators
- If something is missing in database send info to Cheryl and Shawn
- If you have any questions about the DDI, ask Claude and Shawn
 - How to update existing datasets?
 - Flag them on the website
 - Some inconsistencies in the website
- Groups need to make an effort to identify points of contact for each indicator

Thursday January 23, 2020—Day 2

Plenary and Q&A—SEACAR Objectives

Cheryl Clark, *Florida Department of Environmental Protection*

- Not going to establish thresholds/criteria for SEACAR project, but we can use existing thresholds to run preliminary analyses
- How do the habitats overlap? Need to talk about this at the April meeting.
- Decision support tool—Interactive website meets this standard, however we can expand this with modeling tools and other options
- Why are we looking at these specific indicators?
 - We chose indicators based on what was representative, but also had the best data available.
 - Main goal is to make sure these indicators are going to be useful to resource managers.
- Statewide trends—are we going to take all the data across the state and do trends analyses?
 - If possible, yes. We can only do what the data allows. If a statewide assessment isn't possible, we won't do it.
 - SEACAR will allow for site specific assessment of regions/conditions, but should be comparable statewide. We will assess what we can, and identify the data gaps.
 - We will analyze different regions/preserves/pieces of preserves in their own contexts.
- Combining datasets—there are ways to combine data that make sense
 - We're not trying to talk about causation or implication.

- Cannot say “an average across the state...” because we would not be able to roll up data like this.
- Indicators are not set in stone. There are other indicators in the database.
- Data authors should provide preferred citations through the website.
- Important to mark out which datasets we cannot use and why. Need justification for inclusion/exclusion of data.
- Share any publications that exist on status and trends with Cheryl
- Even though all these datasets were created with their own research question in mind, we can still bring them together—or attempt to—to answer some big picture questions.

Report/Product Design

Emily Nastase, *University of Maryland Center for Environmental Science*

- Three levels of information/reports: technical, assessment, and assessment summary
- Review draft assessment report structure and design
 - Report will be clean with lots of graphics
 - Estimated 100–300 pages
 - Includes habitat icons/branding for each habitat team
- Questions?
 - Need to be clear in report text that we are not trying to set targets for indicators to “assess” the habitats
 - Can the report be divided by habitat types, rather than geographic regions?
 - SEACAR planners/managers want the reports presented by geographic region
 - Do we want to identify the different trends in each area individually, and then do “statewide” using the common indicators across each region?
 - Yes. Need to be clear about “statewide” expectations

Break Out 3 Report Back—Questions and Comments

- Lots of peer review published literature in these databases
 - Use this first for the SEACAR report

Action Items and Wrap Up

- Data Discovery Interface
 - Need to finalize parameters list ASAP
 - If a parameter is not identified and tagged, it will not be recognized in the DDI and thus not searchable
 - Upload missing datasets
- Analysis
 - Follow up calls with habitat teams
 - Prioritize analyses within each habitat
- April in-person meeting
 - Wednesday–Thursday April 29–30, 2020
 - Guana Tolomato Matanzas National Estuarine Research Reserve

- 505 Guana River Rd #6527, Ponte Vedra Beach, FL 32082
- Hampton Inn and Suites hotel block
 - 95 Vilano Rd, St. Augustine, FL 32084
- Google invite to come soon
- Agenda TBD