CoRIS the Evolution of a Data Management Program

Sarah O’Connor & Zack Mason
CRCP Mission and Focus

Mission: To support effective management and sound science to preserve, sustain, and restore valuable coral reef ecosystems for future generations

We focus on the three biggest global threats + restoration:

- CRCP Strategic Plan
- Grants and Cooperative Agreement Programs
Where We Work
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<th>NOS</th>
<th>NMFS</th>
<th>OAR</th>
<th>NESDIS</th>
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<td><strong>PIFSC</strong>&lt;br&gt;- Pacific Reef Monitoring&lt;br&gt;- Pacific Reef Climate&lt;br&gt;- Pacific Mapping&lt;br&gt;- Socioeconomic Studies</td>
<td><strong>AOML</strong>&lt;br&gt;- Atlantic Reef Climate&lt;br&gt;- Water Quality&lt;br&gt;- Coral Ecology and Fisheries Research</td>
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<td><strong>SEFSC</strong>&lt;br&gt;- Atlantic Reef Monitoring&lt;br&gt;- Coral Biology&lt;br&gt;- Fisheries Science&lt;br&gt;- Socioeconomic Studies</td>
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<td><strong>OER</strong>&lt;br&gt;- CRCP HQ Support</td>
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<td><strong>SERO</strong>&lt;br&gt;- Atlantic Fishery Liaisons&lt;br&gt;- ESA species recovery&lt;br&gt;- Education &amp; Outreach&lt;br&gt;- Local Capacity Building</td>
<td><strong>PMEL</strong>&lt;br&gt;- Ocean Monitoring</td>
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<td><strong>OHC</strong>&lt;br&gt;- Program Coordination&lt;br&gt;- Coral &amp; Watershed Restoration</td>
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Coral Reef Information System (CoRIS)

CoRIS: Coral Reef Information System

CoRIS is the Coral Reef Conservation Program’s (CRCP) information portal that provides access to NOAA coral reef information and data products with emphasis on the U.S. states, territories and remote island areas. NOAA Coral Reef activities include coral reef mapping, monitoring and assessment; natural and socioeconomic research and modeling; outreach and education; and management and stewardship.

Features:
- Highlights
- Featured Publications
- Featured Data

Glossary of Terminology Search
Acronyms and Abbreviation List

CISESS Science Seminar
CRCP Data & Publications

Data

- *In situ* observations and measurements
  - Biological, chemical, atmospheric, etc.
- Satellite data and products
- Ocean & Atmospheric models
- Aerial Imagery
- Bathymetry / Shoreline
- Surface Currents
- Digital Video Observations
- Paleoclimate (Coral Cores)
- Socioeconomic

Publications

- Journal Articles
- NOAA Technical Memoranda
- Unpublished Scientific Reports
- Educational & Outreach Materials
- Websites
- Conference Proceedings / Workshop Reports

CISESS Science Seminar
Federal Data Policy

• Public Access to Research Results (PARR)

The Obama Administration is committed to the proposition that citizens deserve easy access to the results of research their tax dollars have paid for. That’s why, in a policy memorandum released today, OSTP Director John Holdren has directed Federal agencies with more than $100M in R&D expenditures to develop plans to make the results of federally funded research freely available to the public—generally within one year of publication.
NOAA Procedural Directives

• **Data access**
  – All data must be made available one year after the time of collection and made accessible until deemed uselessful

• **Data documentation**
  – Metadata and associated documentation

• **Data management plan**
  – All data should be covered by a data management plan

• **Publication policy**
  – All federally funded research publication will be made publicly available one year after publication
What this all means

- Data must be archived and made accessible in a timely manner
- Proper metadata and documentation is needed to make the data understandable.
Coral Reef Information System

- Featuring new content on the homepage monthly
- Highlighting key publications including journal articles
- Featuring projects
- Building project based websites.
Featured Publication Pages

- Highlight key Program activities on a monthly basis
- Summarize findings for the general public increasing the potential audience for scientific results
- Advertised through social media increasing the reach of our scientific work
Featured Project Pages

- Highlight projects and thematic focus areas for the program.
- Related publications and data are packaged together to facilitate discovery & access.
- Incorporates canned searches of the catalog for related materials.

The Coral Program’s Climate Change & Reef Resilience Activities

Climate change is the greatest global threat to coral reef ecosystems. As temperatures rise, mass coral bleaching events and infectious disease outbreaks are becoming more frequent. Additionally, carbon dioxide absorbed into the ocean from the atmosphere has already begun to reduce calcification rates in reef-building and reef-associated organisms by altering seawater chemistry through decreases in pH. This process is called ocean acidification. Climate change will also affect coral reef ecosystems. Through sea level rise, changes to the frequency and intensity of tropical storms, and altered ocean circulation patterns. When combined, all of these impacts dramatically alter ecosystem function, as well as the goods and services coral reef ecosystems provide to people around the globe. You can view and download an infographic on how climate change dramatically affects coral reef ecosystems at this NOAA Oceans Service website.

The NOAA Coral Reef Conservation Program is actively working with its partners to address the impacts of climate change and ocean acidification on coral reef ecosystems. The Program promotes resilience-based management as the best strategy to achieve management goals in a changing climate. Resilience-based management involves using knowledge of current and future drivers of ecosystem condition and function to identify, prioritize, and adapt management actions that sustain ecosystem resilience and human wellbeing.

The CRCP supports research, management and capacity building projects and programs that increase the capacity of the coral reef jurisdictions to address the threat of climate change. This webpage catalogs and profiles these projects, providing access to tools and toolkits, maps, articles, reports, guides and educational outreach materials the Program has invested in over recent years and continues to support with our many partners.

Projects have been grouped into three areas of focus: understanding past, present and projected future impacts to coral reefs caused by coral bleaching, assessing and understanding likely social and ecological responses to climate change and, identifying and prioritizing management actions to support ecosystem resilience and human wellbeing.


Understanding past, present and projected future impacts to coral reefs

History of Thermal Stress on Reefs
CoRIS Mini Project Websites

- Project websites provide access options not available from home office.
- Summarize results and provide access to data and publications.
- Access to this service is only open to projects with open data.
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CRCP Project Explorer

- All current and past (back to FY15) project information
- Links to CoRIS to show all deliverables
- Shows current ongoing work
ERDDAP is a data server that gives you a simple, consistent way to download subsets of gridded and tabular scientific datasets in common file formats and make graphs and maps.
CoRIS Web Use Trends

Distinct Hosts

Gigabytes Downloaded

Month

- Distinct Hosts
- Gigabytes Downloaded

CISESS Science Seminar
Thank You