

Development of a Global Change Monitoring Portal: Pilot Project for the Southeastern US

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Project Objective

- The project developed to address what emerged as a common issue among partners as the SE CSC has developed its science agenda, which is that there are a lot of climate-relevant data being collected, but much of it is not easily discoverable by interested scientists and managers.
- Goal is to pull together information about broad range of measurements made in a broad range of ecosystems in the Southeast, to create a centralized database that is as comprehensive as possible, of information about monitoring networks associated with aquatic and terrestrial ecosystems that can be used to assess the potential effects of climate change in the southeastern United States.
- Incorporate information about data collected in abiotic and biotic components of ecosystems, including coastal, and where measurements are made.
- Will not portal data, only metadata, but will provide information about data access.
- Connect users to data resources.
- Support Southeast Climate Science Center mission to characterize and understand the effects of climate change on land, water, and wildlife and to provide research-based information to support landscape-scale management decisions.

Approach / Design Elements

- A. Inventory and compile monitoring resources
 - Capitalize on other SE CSC efforts and those of partners
 - Define “monitoring” program or network somewhat broadly, so that have not developed specific criteria for length of record, for instance, or geographic extent, allowing for incorporation of smaller projects.
- B. Define region of interest
 - Encompasses all of 5 LCC regions, including Caribbean, and part of a 6th.
- C. Develop classification scheme for range of monitoring programs and sites
 - Measurements - Broad enough to describe types of observational data collected by disparate networks, but at a level of detail that will allow users from different disciplines to find programs and data relevant for their purpose.
 - Geographic - State – encompasses all of 11 states/territories, portions of 7 others; LCC; Level III Ecoregion (EPA); 8-digit Hydrologic Unit Codes (USGS).
 - These provide the basis for search criteria.
- D. Develop pilot database and user interface
 - Development team based at USGS Fort Collins Science Center, Fort Collins, CO
 - GCMP is hosted at USGS Core Science Application Hosting Center
- E. Review, revise
- F. Populate database, get user feedback
 - Site is now public-facing, production-phase.
 - Using evolving list of >300 monitoring programs to gather metadata and site information, and populate database.
 - Currently have 53 programs in database representing about 200,000 measurement sites.
 - At the same time, identifying other observational networks to add to the list.

Web-based GCMP Demonstration

Demonstration of general features and functionality of Global Change Monitoring Portal,

<http://my.usgs.gov/gcmp>

Next Steps

- Continue to expand and refine list of monitoring programs/observational networks to potentially include in Global Change Monitoring Portal.
- Use this evolving list to continue to populate database with information for additional programs and sites.

- Make revisions to information as necessary, and consider additional development of functionality, within project objectives and project budget.
- Use collection of information to contribute to assessment of monitoring resources in the Southeast, i.e., to put the inventory into context of the big picture of data needs for landscape-scale conservation and adaptation strategies.
- Finally, consider if this is a tool that could be expanded to other CSC regions.

Discussion

During discussion, the point was brought up that this fills a need for the LCC for centralizing metadata for the region. There was some discussion about the review process and evaluation tools used to guide that process, which in this case was a simple Excel spreadsheet sent to reviewers. Suggestions were made about other potential sources of monitoring data. In the current implementation of the portal, updates are done on an ad hoc basis, not through web services or any other dynamic system. All attendees were encouraged to spread the word about the GCMP and to encourage representatives from other organizations to contact Cari about appropriate data resources to include in the portal. Cari will work with Hilary to do some blog posts on the SALCC website.

There was also some discussion about the location of the Brown Bag. The current room is comfortable for a good group discussion, but does not easily allow for webinar or other remote presentation technology.