Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Southeast Coast Network Database Program

Discipline: Interdisciplinary
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: March 15, 2011 – December 31, 2014

Funding Amount: $469,766 [FY13: $72,816; FY12: $208,796; FY11: $188,154]

Investigators and Agency Representative:
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Project Abstract: <u>Database Programmer</u>
1. This task will provide research support for the NPS Inventory and Monitoring Program, Southeast Coast Network (SECN) in the development and implementation of relational databases. Database development will occur in MS access and/or SQL server, following the general design guidelines developed by the National Park Service Inventory and Monitoring program and working within the Network's conceptual object model framework. Database development includes:

- Designing tables, queries, forms and reports in MS Access and/or SQL Server
- Developing custom queries and applications using Visual Basic/VBA and/or SQL to assist in data querying, analysis and dissemination
- Developing "front-end" applications to facilitate the rapid entry and quality assurance / quality control of monitoring data and to facilitate data querying and reporting for different end-user groups
- Utilizing the Network's website and server (through a combination of SQL Server, SQL Server Reporting Services, and Windows SharePoint Services) provide an information portal that assembles and links existing and planned services that provide for most of the Network's data and information distribution requirements.

2. A separate component of this task is to provide technical support and training in the use of databases developed (please refer to 1 above). Assistance with this project will include database installation support, providing database updates to ensure compatibility with current software versions, the development of training materials in support of database deployment and the review of database upgrade requests to improve overall functionality (post-deployment). In addition, extensive help documentation will be incorporated within each database front-end to facilitate correct and accurate data entry by SECN and cooperating personnel. Close working relationships with and substantial involvement of Federal staff will be required to successfully complete this task.

<u>Photo Interpreter/Remote Sensing Specialist</u>
1. This task will provide research support for the NPS Inventory and Monitoring Program, Southeast Coast Network (SECN) in the development and full implementation of National Park Service Vegetation Mapping Program for Southeastern National Parks. Following the completion of efforts to characterize vegetative communities in the parks, SECN will complete the mapping effort. The mapping effort includes:

- Identifying and acquiring appropriate imagery to classify vegetative communities to the floristic and wetland classes.
- Developing the standards and methodology to effectively map the vegetation communities and wetland classes across the Southeastern parks.
- Classifying the vegetative communities and wetland systems utilizing the National Vegetation Classification System and Classification of Wetlands and Deepwater Habitats of the United States classification systems.
- Developing the standards and methodology to automate the remotely sensed data to GIS coverage.
- Developing the standards and methodology to conduct accuracy assessments of the classified data.
- Documenting the completed effort for reporting purposes.

This project will be coordinated by Network staff. This work will provide additional benefits and support to other programmatic initiatives and upon completion the products (databases, reports and maps) of this work will be shared throughout the NPS Inventory and Monitoring Program and externally through the NPS Nature and Science public web pages.

Outcomes with Completion Dates: Final Report and/or Other Products: September 30, 2014

Keywords:NPS Inventory and Monitoring Program, Southeast Coast Network (SECN), **Colorado State University,** Database Programmer, Photo Interpreter/Remote Sensing Specialist