# Project Completion Report
# Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

**Project Title:** Southeast Coast Network Database Program

**Project Code:** P12AC10428 (CSU project 5-31637)

**Type of Project:** Research and Technical Assistance

**Funding Agency:** National Park Service

**Partner University:** Colorado State University

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**Start Date of Project:** June 1, 2012

**End Date of Project:** June 30, 2015

**Funding Amount:** $208,796

**Project Summary, including descriptions of products, work accomplished and/or major results. If the information is restricted (e.g. location of endangered species or cultural resources), indicate the title and location of the final report. Also add web sites where project-related information may be found.**

This project continues an earlier task agreement of the same title, providing research and technical support for the NPS Inventory and Monitoring Program, Southeast Coast Network (SECN) in the development and implementation of relational databases, 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. Two Colorado State University Research Associates contributed to the project as follows:

Database Programmer:

- Created InfoPath forms for Coastal Assessment data entry
- Modified Shorebird Monitoring database to improve data quality and address user requests
- Modified Salt Marsh InfoPath forms to allow Fish & Wildlife Data entry
- Modified Water Quality Station InfoPath forms to fix problems and migrated to new server
- Ran procedures to make the FOMA and CUIS Coastal Assessment data viewable in database
- Developed data export report for RSET data
- Fixed problems with Vegetation data upload routines and addressed user requests
- Made changed to the macroplot data in the Vegetation access database
- Updated the derivative climate measures report
- Updated config file for the metadata tool
- Cleaned up data problems with CALOshak and CALOshak2 certified fixed stations

Remote Sensing Specialist:

- Final vegetation maps and associated geospatial information completed for MOCR, FOSU, FOFR, FOPU, CALO, CAHA, KEMO, and CUIS (each map included several steps, including creation of draft maps, field visits to each park (usually two per park), accuracy assessment sampling design creation and calculations once complete, and map revisions)
- Final vegetation mapping reports completed and published for MOCR, FOSU, FOFR, FOPU, CALO, CAHA, and CUIS (KEMO pending publication)
- Completed and formatted all final vegetation mapping products for MOCR, FOSU, FOPU, and FOFR. Remaining parks (CALO, CAHA, KEMO, and CUIS) have final products ready and can be finalized in appropriate formatting by contractor that picks up remaining work
- Created Accuracy Assessment sampling designs for CHAT, OCMU, and HOBE. These parks will be completed the rest of the way by contractors through UGA
- Updated PLOTs databases for MOCR, FOSU, FOFR, FOPU, CALO, CAHA, KEMO, and CUIS

***Publicly Available Products:***

MOCR Vegetation Mapping Final Report: https://irma.nps.gov/App/Reference/Profile/2185180
FOSU Vegetation Mapping Final Report: https://irma.nps.gov/App/Reference/Profile/2185181

FOFR Vegetation Mapping Final Report: https://irma.nps.gov/App/Reference/Profile/2197288
FOPU Vegetation Mapping Final Report: https://irma.nps.gov/App/Reference/Profile/2203661
CALO Vegetation Mapping Final Report: pending publication, site not available yet
CAHA Vegetation Mapping Final Report: https://irma.nps.gov/App/Reference/Profile/2216475
CUIS Vegetation Mapping Final Report: pending publication, site not available yet
KEMO Vegetation Mapping Final Report: pending publication, site not available yet

**Number of students participating in this project: undergraduates, graduate students, degrees conferred.**

No students have participated in the project. Two CSU research associated participated in the project as described above.

**Lessons Learned from this project:**

Vegetation mapping of multiple parks in an inventory and monitoring network is a time consuming task, especially when undertaken by a single individual. Furthermore, it may take longer than anticipated when one is working individually rather than in a team. Extra time is needed for certain tasks. Collaborations and assistance may need to be sought in certain instances. However, the positive side of a single individual working on vegetation mapping is that pieces of projects remain cohesive and there is generally less confusion and possibly inefficiency because one person is responsible for everything that goes on. For the SECN network, one individual (remote sensing specialist) was able to complete 8 of the parks that required a vegetation map under this project. The remaining parks (6) will be completed by a group of people collaborating through separate project funding.

Resolving database issues is a constant on ongoing part of Inventory and Monitoring work and data tasks continue to evolve as the complexity and numbers of vital signs grows.

**Other RM-CESU agencies or research partners who participated in this project:** NA