

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Biological Resource Management in National Parks- Invasive Species Information Management and Delivery

Discipline: Natural

Type of Project: Technical Assistance

Funding Agency: National Park Service

Other Partners/Cooperators: Colorado State University

Effective Dates: 10/1/2005 - 9/30/2010

Funding Amount: \$389,984

Investigators and Agency Representative:

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Project Abstract:

The goal of this project is to design, develop, implement, and manage Invasive Species Inventory and Monitoring information management and operate Alien Plant Control and Management Database (APCAM) to assist Exotic Plant Management Teams, Parks, Regional Offices, Inventory and Monitoring Networks, Program Centers, Technical Divisions, and others (including non-NPS agencies and organizations) with the use of alien plant data and information to better manage park resources. This goal is intended to help the NPS Servicewide Biological Resource Management Division and Inventory and Monitoring Networks achieve their long-term goals particularly Decision Support, Integration, Technical Assistance, Database Management, and Partnerships.

The purpose of this project is to create the resource data management and information framework or infrastructure and the analytical tools intended to enable the NPS to assess and manage biological resources in parks.

The major objectives of this project are: (1) To design, develop, implement, and manage effective and efficient data management structures to accommodate terabytes of diverse and decentralized natural resources data; (2) To design, develop, and implement decision-support systems for Parks, Inventory and Monitoring Networks, and Program Offices to use the databases and information to respond to management issues at parks; (3) To produce park, regional, and national assessments of biological resources to characterize those resources status and trends in the National Park System; (4) To provide technical assistance on unique biological resource management issues; (5) Coordinator and Servicewide 'Point of Contact' for plant and animal invasive species; and (6) Coordinate information and data flow between the Invasive Species program and the Fire Science and Ecology group, including website upkeep and literature reviews.

Outcomes with Completion Dates: Due by September 30, 2010

1. Appropriate database management systems will be designed, developed, implemented, and managed to accommodate all biological resource management data and information collected throughout the NPS.
2. Decision-support systems responsive to the needs of the Servicewide Biological Resource Management Division, Parks, Support offices, and other Program Offices will be designed, developed, implemented and managed.
3. Conduct review of published and gray literature relevant to inventory and monitoring of invasive species. Conduct review of invasive species inventory and monitoring protocols. Prepare a summary of these protocols and recommendation for adoptions or development of standard data collection, storage, or analysis methods.
4. Assist parks and networks in developing objectives and justification statements for invasive species inventory and monitoring by developing lists of objectives and justification statements related to invasive species mapping, predictive modeling, early warning, detection, and monitoring the effectiveness of control and restoration efforts.
5. Develop and maintain a website and listserv to communicate technical information to networks and exotic plant management teams.
6. Remain up to date on national and international invasive species research as it applies to inventory and monitoring.
7. Establish and maintain relationships and communications with federal, state, university and private entities involved in invasive species inventory, monitoring, research, and management.
8. Provide technical assistance and conduct trainings on invasive species inventory and monitoring for networks and exotic plant management teams.
9. Maintain and update website for fire ecology and fuels, conduct literature reviews on invasive species and fire.

Keywords: Invasive Species, Inventory and Monitoring, Alien Plant Control and Management Database, Biological Resource Management Division, Colorado State University, data bases