# NPS

**PROJECT SUMMARY**

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| **Cooperative Ecosystem Studies Unit**  **Cooperative Agreement Modification** | | | | | |
| FUNDING AGENCY: **National Park Service** | | | | | |
| MODIFICATION NO.: **[CESU info only]** | | COOPERATIVE AGREEMENT NO.: H1200-04-0002 | | FUNDING AMOUNT: $ **40,000** | |
| INVESTIGATORS’ Contact Information: Neil S. Cobb (PI) and Kirsten Ironside (Co-PI)  Merriam-Powell Center for Environmental Research  Peterson Hall, Bldg 22, Rm 330  Northern Arizona University  Flagstaff, AZ 86011  [Neil.Cobb@nau.edu](mailto:Neil.Cobb@nau.edu) and Kirsten.Ironside@nau.edu | | | | | |
| PROJECT TITLE:Repeat 50 Year Old Forest Succession Research Study | | | | | |
| EFFECTIVE DATES**: Start Date: August 30, 2006**  End Date: May 15, 2008 | | | | | |
| PROJECT ABSTRACT: ARTICLE I – BACKGROUND AND OBJECTIVES This Task Agreement by and between the National Park Service (NPS) and Principal Investigator at Northern Arizona University is carried out through the Colorado Plateau Cooperative Ecosystem Studies Unit (CPCESU) Cooperative Agreement for the purpose of conducting a forest succession study to provide a quantitative description and a pictorial record of plant successional changes over the last 50 years.  Vegetation communities in Bryce Canyon have been significantly altered by human activities, particularly livestock grazing and fire suppression, although fire has been reintroduced into the ecosystem in the last 10 years. The park has a unique opportunity to study forest succession. A vegetation ecology project initiated in the late 1950’s (Buchanan, 1960) provides the park with baseline data and repeatable methodology. The sample plots used to collect the data were designed on a permanent basis with the intent to assess changing conditions and trends over time. Interim studies of the permanent plots were conducted in 1969-1970, in 1978-1980 (Buchanan and Harper 1981), and again in 1990-1992 (McKnight and Buchanan 1993, final report 1998). These studies showed significant changes in the park’s forests over the 35-year period. This project proposes to repeat this research a 5th time to provide a quantitative description and a pictorial record of plant successional changes over the last 50 years.  The primary objectives and end results for the project, as set by Bryce Canyon, shall be to:  1) Enter data from previous years of collection and checked for taxonomic synonymies. 2) Provide a quantitative description of plant successional changes over the last 50 years; 3) Provide a pictorial record showing changes in park landscape and plant communities over time; and 4) Obtain a GPS location of all study plots to facilitate future replications of this study. | | | | | |
| **Agency Representative:**  Ron Hiebert, NPS Research Coordinator  CPCESU  Northern Arizona University  P.O. Box 5765  Flagstaff, AZ 86011-5765  Tel: (928) 523-0877  Fax: (928) 523-8223  [Ron.Hiebert@nau.edu](mailto:Ron.Hiebert@nau.edu) | Agency Administration Representative Lynell Wright  Budget Analyst  Intermountain Region – Budget & Finance  P.O. Box 25287  12795 W. Alameda Parkway  Denver, CO 80225-0287  Tel: (303) 969-2654  Fax: (303) 969-2794  [Lynell\_Wright@nps.gov](mailto:Lynell_Wright@nps.gov) | | **Investigator:** Neil S. CobbDirector, Merriam-Powell Center for Environmental ResearchNorthern Arizona UniversityP.O. Box 6077 Flagstaff, AZ 86011 neil.cobb@nau.eduTel. 928-523-5528 [Neil.Cobb@nau.edu](mailto:Neil.Cobb@nau.edu) | | **Partner Admin. Contact:**  **Wilma Ennenga**  **Director, Office of Grant and Contract Services**  **Northern Arizona University**  **P.O. Box 4130**  **Flagstaff, AZ 86011**  Tel. (928) 523-8319  Fax (928) 523-1075  Winnie.Ennenga@nau.edu |
| ***List of Key Words: [Insert key words – list available under “Project Planning” at http://cpcesu.nau.edu]***  ***Forest succesion, forest, Bryce Canyon National Park, vegetation ecology*** | | | | | |
| ***Key Official from National Park - Include contact information @ Specific Park or NPS Office****:*  **Kristin Legg**  **Bryce Canyon National Park, Chief of Resource Management**  **PO Box 640201**  **Bryce Canyon, Utah 84764**  **(435)834-4900**  [**kristin\_legg@nps.gov**](mailto:kristin_legg@nps.gov) | | | | | |
| *Annual Report Received:*  *Final Report Received:*  *Publications on File:* | | | | | |
| *This Modification is subject to all the provisions included in the Cooperative Agreement,* ***dated 6/18/04.*** | | | | | |

*Attach any supporting material as necessary.*