

**NPS
PROJECT SUMMARY**

**Cooperative Ecosystem Studies Unit
Cooperative Agreement Modification**

FUNDING AGENCY: **National Park Service, Grand Canyon – Parashant National Monument**

MODIFICATION NO.: [CESU info only]

COOPERATIVE AGREEMENT NO.:

FUNDING AMOUNT: \$ **9720.00**

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PROJECT TITLE: Identification And Characterization Of Relict And Unique Vegetation On The Grand Canyon-Parashant National Monument

EFFECTIVE DATES :intermittently **4/4/03 to 9/30/03**

PROJECT ABSTRACT: To develop methodology to identify likely relict sites from the office to maximize effectiveness of on-the-ground surveys. The Monument has few prior botanical surveys, and new species are still being discovered on or adjacent to Monument lands. These relict sites are important for determining vegetation communities and “desired future conditions” for adjacent managed areas, for potential seed and vegetative propagule collection sites for revegetation work, and as sites with a high potential to have undescribed or sensitive plant species present.

Objectives

1. Gather information on potential relict or unique sites through interviews with PARA and LAME personnel, examination of aerial photos, examination of existing maps or GIS layers depicting soil types, geology, elevation, slope, aspect, grazing history, and water features such as springs.
2. Develop methodology for selecting sites for field investigation
3. Survey sites during likely peak of flowering phenology using standard NPS methodology, collecting voucher specimens of all vascular taxa encountered, and taking digital photographs of each site
4. Develop GIS layer depicting all sites identified as potentially relict or unique, all sites visited, and all vegetation encountered
5. Prepare a summary report of full methodology and results for submission to NPS

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List of Key Words: Botanical surveys, relict, modeling, revegetation, undescribed plant species, sensitive plant species

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Annual Report Received:
 Final Report Received:
 Publications on File:

*This Modification is subject to all the provisions included in the Cooperative Agreement, **dated** .*

Attach any supporting material as necessary.