



**PR Number:** 0020050170

**Award Number:** P14AC00797

**Project Number:** UNM-102

**CFDA #:** 15.945

**Park/NPS Unit:** Pecos NHP (PECO)

**Title of Project:** Survey of Exotic Plant Distribution and Abundance at Peco NHP

**Administered through the:** Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0005

**CESU Partner:** New Mexico Natural Heritage Program

**PROJECT CONTACTS:**

**Principal Investigator:** *Dr. Esteban Muldavin, Ecology Group Leader, Natural Heritage New Mexico, UNM Biology Dept., MSC03 2020, 1 University of New Mexico, Albuquerque NM 87131-0001, Ph #: (505) 277-3822, Fax #: (505) 277-3844, Email: nhnm@unm.edu*

**Researcher (if appropriate):** *Yvonne Chauvin, Senior Res. Technician, Natural Heritage New Mexico, UNM Biology Dept., MSC03 2020, 1 University of New Mexico, Albuquerque NM 87131-0001, Ph #: (505) 277-3822, Fax #: (505) 277-3844, Email: nhnm@unm.edu*

**Partner Administrative Contact:** *Lindsay Britt, Contract and Grant Administrator, Pre-Award Services, Main MSC01 1247, 1 Univ. of NM, 1700 Lomas Blvd. NE, Suite 2200, Albuquerque, NM 87131-0001, Ph#: (505) 277-0810 Fax#: (505) 277-4185, Email: lcampbe4@unm.edu*

**Park Contact:** *Cheri Dorshak, Park Ranger (Law Enforcement/Resource Mgt), Pecos National Historical Park, Phone: (505) 757-7237, Email: cheri\_dorshak@nps.gov*

**NPS Certified ATR:** *Robert Bennetts, Program Manager, Southern Plains Network, 23501 County Rd 111.3, Model, CO, 81059, Phone: 719 846-4663, Email: Robert\_bennetts@nps.gov.*

**FUNDING INFORMATION:**

**Amount Funded:** \$14,999

**NPS Account Numbers (amounts in parentheses):** PPIMIMRO3B PPMRSNR1Y.NI0000 PX.XIMREPP14.00.1 (\$11,999); PPIMPECOP0 PPMRLE1Z.Y00000 (\$3000)

**Fund Source (e.g., ONPS, FLREA, CRPP, CESU, etc.):** BRMD (SWEPMT), Peco NHP

NPS Funding

Is this funded using a reimbursable account number? If yes, IMR contracting needs a copy of the Interagency Agreement.

**PROJECT DATES:**

**Start Date:** June 15, 2014

**NOTE:** *This Task Agreement will become effective on the date of final signature or the effective date of the Award document, whichever is later.*

**End Date:** December 31, 2014

**NPS Administrative Contacts**

**Interim CESU Coordinator (May 18 – September 13, 2014):** Todd Chaudhry, National Park Service/CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011, 928-523-6638, Fax: 928-523-2014; [todd\\_chaudhry@nps.gov](mailto:todd_chaudhry@nps.gov)

**Intermountain Region Administrative Contact:** Kelly Adams, Grants and Agreements Specialist, National Park Service, 12795 West Alameda Pkwy, Lakewood, CO 80228. Phone: 303-969-2303 Fax: 303-969-2992 Email: Kelly\_adams@nps.gov

**FEDERAL FINANCIAL REPORTS:**

*Federal Financial Reports*

Quarterly                     Semi-annually                     Annually

Final (required)

**PROJECT SCHEDULE AND TECHNICAL REPORT DEADLINES:**

List all technical reports and products in sequential order as required in the scope (more lines and milestones can be added as needed):

*Project Start Date* – June 15, 2014

*Technical progress reports* –  Quarterly                     Semi-annually                     Annually

*Investigator’s Annual Report (IAR)* – September 30, 2014

*Database, Collections/Specimens, Archives, and Maps provided to the NPS ATR or Technical Expert* –

Field Data are to be collected electronically and uploaded and sent to SOPN Data Manager daily. A final completed data set should be received no later than August 31, 2014

Vouchers (only for species not on existing plant lists for the park) – September 30, 2014

*Draft Final Report* – September 30, 2014

*Final Report* – November 30, 2014

*Project End Date* – December 31, 2014

*Final SF425 FFR* must be submitted within 90 days of project end date

**PAYMENTS**

**2 CFR PART 215.22:** Cash advance (drawdown) to recipient organization shall be limited to the minimum amounts needed and be timed to be in accordance with the actual immediate cash requirements of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to the actual disbursements by the recipient organization for direct program or project costs and the proportionate share of any allowable indirect costs.

**2 CFR PART 215.25 (8)(e)(1):** Incur pre-award costs 90 calendar days prior to award or more than 90 calendar days with the prior approval of the Federal awarding agency. All pre-award costs are incurred at the recipient’s risk. (i.e. the Federal awarding agency is under no obligation to reimburse such costs if for any reason the recipient does not receive an award or if the award is less than anticipated and inadequate to cover such costs.)

**CESU REQUIRED PRODUCTS (may be different from those products required by the ATR – See Statement of Work for Products required by the NPS unit):**

The Principal Investigator will prepare a brief report abstract suitable for public distribution and two hard copies and an electronic version (in PDF file format) of the final report and mail all to Todd Chaudhry, National Park Service, CPCEUSU, NAU P.O. Box 5765, Flagstaff, AZ 86011. Please be sure to include the project number (e.g.; NAU-###, UMT-###, UAZDS-###) and the P number on the cover page of the final report.

**PROJECT ABSTRACT:**

Globalization of commerce, transportation, human migration, and recreation in recent history has introduced invasive exotic species to new areas at an unprecedented rate. For the National Park Service (NPS), the consequences of these invasions present a significant challenge to the management of the agency’s natural resources “unimpaired for the enjoyment of future generations.” Pecos NHP is in the process of developing an invasive management plan to address this issue. However, a basic requirement in order to develop such a plan is a basic understanding of the distribution and abundance of exotic plant species. This project provides that initial information as a first step toward strategic planning for managing exotic plants within the park.

**SCOPE OF WORK:**

**Background**

Invasive species have been directly linked to the replacement of dominant native species, the loss of rare species, changes in ecosystem structure, alteration of nutrient cycles and soil chemistry, shifts in community productivity, and changes in water availability. The damage caused by these species to natural resources is often irreparable, and our understanding of the consequences incomplete. Invasive species are second only to habitat destruction as a threat to wildland biodiversity. Consequently, the dynamic relationships among plants, animals, soil, and water established over many thousands of years are at risk of being destroyed in a relatively brief period. For the NPS, the consequences of these invasions present a significant challenge to the management of the agency’s natural resources “unimpaired for the enjoyment of future generations.” This agreement provides the background needed to develop an invasive species management plan for Pecos NHP.

**Methods**

The emphasis on this project is to provide a basic foundation on the distribution and abundance of exotic plants throughout Pecos NHP by surveying a predetermined and prioritized sample grid covering the entire park. The cooperators will be provided with maps and GPS coordinates for all point locations to be sampled. Areas to be sampled will also be prioritized to ensure that areas of greatest concern have been surveyed should there be insufficient time to survey all point locations.

The surveys will be conducted as follows: The investigator navigates to the designated point using the GPS feature of the electronic data collection unit (provided). Once at the point, the investigator searches within a 10-meter radius, 360 degrees around the point, to detect exotic plant species. Every species of exotic plant on the target list (either all species or a subset) detected in the area of interest is entered into the data collection unit and a density class is assigned to each species. Density classes are:

0 = Not present

- 1 = Few scattered plants present at site
- 2 = Scattered patches of plants present at site
- 3 = Scattered fairly evenly throughout site
- 4 = Forming a matrix throughout site

Data are collected electronically and should be downloaded from the electronic field recorders and sent via email to the Sothern Plains Network data manager daily if at all possible. Voucher specimens should be collected ONLY for species not currently on park species list (provided). Analyses or detailed interpretation of the data are not required for this task; however, a brief report should be prepared that summarizes any findings that the cooperator deems significant or noteworthy.

## **COOPERATIVE AGREEMENTS OR TASK AGREEMENTS INVOLVING COOPERATORS WORKING ON-SITE**

### **Background**

In cooperative agreements or task agreements with universities where the university utilizes interns, student employees, research associates (RAs) or cooperators on-site (hereafter called “cooperator personnel”), these cooperator personnel sometimes work on government sites in close proximity to federal employees. It is illegal (without specific statutory authority) for federal employees to directly supervise the cooperator personnel or any university employees or for the students or other university employees to supervise federal employees. When cooperator personnel are working on an NPS site, it is important that there is a clear distinction between students and federal employees.

### **Office Environment and Vehicles**

- The office space of the cooperator personnel and NPS personnel should be clearly labeled (Name and NPS or University affiliation on office or cubicle space).
- Cooperator personnel should be listed separately from NPS personnel in telephone lists, other identification or organizational rosters, and publication credits.
- Cooperator personnel should not receive “all-employee” e-mail or other communications intended for NPS personnel (unless it relates directly to the work the cooperator is doing for the NPS). When the e-mail does relate to the work being done, a copy of the same e-mail message should be sent to the University or cooperator’s supervisor.
- Cooperator personnel may use NPS e-mail systems when the communication relates directly to the work the cooperator is doing for the NPS. The e-mail addresses of the cooperator personnel must include a label associated with their NPS e-mail address that identifies the cooperator’s status (i.e., “Linda Webb, Cooperator” would be the label associated with the e-mail address, [linda\\_webb@contractor.nps.gov](mailto:linda_webb@contractor.nps.gov)). Doing so clearly identifies this individual each time they send an e-mail message using the NPS system, and it identifies their status as a research associate, student intern or student employee in the e-mail directory.
- Unless stipulated in the agreement, cooperator personnel should not drive government vehicles.
- Unless stipulated in the agreement, cooperator personnel should not ride as a passenger in a government vehicle. When this is planned as part of the agreement, an appropriate amount of liability insurance should be negotiated.
- Prior written approval by the Park Superintendent or Center Manager must be obtained in order for a task to allow cooperator personnel to drive or ride in government vehicles.

## **Supervision and Scheduling**

- Each task must specify the university's/cooperator's supervisor for the cooperator personnel.
- Unless stipulated in the agreement, NPS staff should not set hours for cooperator personnel, specify where the work should be done, or conduct performance appraisals. National Park Service staff may give performance feedback to the cooperator personnel supervisor.
- Cooperator personnel should report leave, scheduling, and other related issues to the university or cooperator's supervisor, not to NPS employees. The supervisor of the cooperator personnel should then communicate with the NPS. National Park Service employees cannot directly supervise cooperator personnel on a day-to-day basis. Work should be given to the cooperator personnel (via the cooperator's supervisor) on a "task basis." Cooperators should work without NPS supervision to accomplish each task, although technical consultations and cooperation is permissible.
- The Cooperator will be responsible for any disciplinary action needed to correct student employee conduct or performance problems. The NPS agreements technical representative will inform the university/cooperator's supervisor of any conduct or performance problems.
- The Cooperator will remove student employees from their positions if they fail to improve performance or address conduct issues.
- The NPS will review and provide feedback to students or interns regarding work assignments.
- The NPS will inform the cooperator of conduct or performance problems with cooperator personnel so that the university can counsel employees and correct the performance problems.
- The NPS will recommend to the cooperator dismissal of cooperator personnel based on conduct or performance issues.
- The Cooperator will hire students, interns or RAs to work on NPS tasks identified in the agreement. Hiring will be conducted in consultation with the NPS Agreements Technical Representative (ATR).
- The Cooperator will: pay students, interns or RAs for hours they have worked in support of the agreement.

## **Representation and Communication**

- Cooperator personnel cannot in any way represent themselves to the public as NPS employees.
- Cooperator personnel are required to wear visible identification at all times.

## **Other Issues**

- Cooperator personnel should not list an NPS affiliation on publications, but rather should list the cooperative agreement under which the work was performed.
- Cooperator personnel should not be invited to official NPS "social" events.
- Cooperator personnel will follow the local policy of the facility when federal facilities are closed due to early release for holidays, snow days, etc.

## **PRODUCTS:**

1. Data on exotic species and density class for points within a predetermined grid.
2. Voucher species ONLY for species that are not found on existing plants lists for the park.
3. Brief summary report of significant findings.

**BUDGET:**

**BUDGET:**  
(Survey of Exotic Plant Distribution and Abundance at Peco NHP)

<b>Salaries</b>				
	<b>Rate (Base Salary)</b>	<b>Unit</b>	<b>Number of Units</b>	<b>Line Item Totals</b>
Faculty (Muldavan)	\$83,118	FTE	0.0139	\$1,152
Staff (Chauvin)	\$30,786	FTE	0.1304	\$4,014
Crew Member (Varani)	\$24,825	FTE	0.0972	\$2,412
Admin (Keeshen)	\$48,433	FTE	0.0094	\$456
Student	\$15	Hourly	14	\$207
			<b>Subtotal Salaries</b>	<b>\$8,241</b>
<b>Fringe Benefits</b>				
	<b>% Compensation</b>			
Faculty (Muldavan)	30.20%			\$348
Staff (Chauvin)	36.50%			\$1,465
Crew Member (Varani)	36.50%			\$880
Admin (Keeshen)	36.50%			\$166
Student	1.00%			\$2
			<b>Subtotal Benefits</b>	<b>\$2,862</b>
<b>Supplies</b>				
		<b>Qty</b>	<b>Cost Per</b>	
Field Supplies				\$102
Photo Copies				\$60
			<b>Subtotal Supplies</b>	<b>\$162</b>
<b>Travel</b>				
	<b>Unit of Measure</b>	<b>Qty</b>	<b>Cost Per</b>	
Lodging (Park Housing)	days	18	\$20	\$360
Per Diem	days	18	\$30	\$540
Ground Transportation	miles	750	\$1	\$600
			<b>Subtotal Travel</b>	<b>\$1,500</b>

**Total Direct Costs** **\$12,765**

<b>Indirect Costs</b>	
17.50%	<b>\$2,234</b>

**TOTAL COSTS** **\$14,999**