

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Science Education Technology Equipment for the NPS Upper Columbia Basin Network
Type of Project: Education
Funding Agency: National Park Service
Other Partners/Cooperators: RM-CESU, NPS-Upper Columbia Basin I&M Network, Oregon Museum of Science and Industry
Effective Dates: November 1, 2004 - December 31, 2006
Funding Amount: \$10,941
Investigators and Agency Representative: NPS Key Official: Lisa Garrett, NPS, Upper Columbia Basin I & M Network, University of Idaho, Department of Fish and Wildlife, Moscow, ID 83844-1136, (208) 885-3684, lisa_garrett@nps.gov UNIVERSITY CONTACT: Tom Rodhouse, Upper Columbia Basin I & M Network, University of Idaho, Department of Fish and Wildlife, Moscow, ID 83844, (541- 312-8101), thomasr@uidaho.edu
Project Abstract: The NPS Upper Columbia Basin Network (UCBN) will work with the RMCESU to purchase handheld computers (PDAs) and other digital technology equipment for its education and citizen science programs. The UCBN has taken an active role in developing opportunities for students and volunteers to work on network inventory and monitoring projects. A partnership with the Oregon Museum of Science and Industry (OMSI) has allowed for students to work directly with network staff and contracted scientists on butterfly and vertebrate inventory activities in the John Day Fossil Beds National Monument. In 2004, a 15 day “tent-and-van”-based program brought 8 high school students to three UCBN parks to study bats. The team, organized through OMSI’s camps program and directed by UCBN staff, conducted bat inventories and pilot bat monitoring activities and produced a professional summary of findings for the parks and network (see http://www1.nature.nps.gov/im/units/ucbn/Outreach_ed.htm). A similar 15-day “tent-and-van”-based botany program is being planned for the summer of 2005, in which students will travel to three UCBN parks and work with park resource managers to locate and map rare plant communities using PDAs and ArcPad mapping software. Planning is also underway to introduce the new NPS <i>Aliens in Your Neighborhood</i> school curriculum (see http://www.nps.gov/invspcurr/alienhome.htm) to the teachers that use OMSI’s Hancock Field Station for annual week-long “outdoor school” programs. Hancock Field Station, located within the John Day Fossil Beds NM, works with approximately 1800 elementary and middle school students a year from 40 schools. The <i>Aliens</i> curriculum will provide classroom training to students, who will then be able to work in the field with OMSI science teachers and NPS managers to populate a growing spatial database of invasive weeds and rare plant communities in the monument. Through this effort, students will help the UCBN monitor the status and trends of invasive weeds, identify new and emerging invasive weed threats, and determine the effectiveness of park weed control efforts. The funded equipment will be used during the spring and summer of 2005 in teacher trainings for the <i>Aliens</i> curriculum and the botany high school research team. Beginning in the spring of 2006 it will then be used by visiting schools to participate in weed monitoring in the John Day

Fossil Beds NM. The equipment will continue to be used during summers by future high school research teams operating in UCBN parks and additional *Aliens* curriculum training sessions in other portions of the UCBN.

Outcomes with completion dates: Equipment purchased through this project will be used to support an *Aliens in Your Neighborhood* curriculum teacher training scheduled for March 11-13, 2005 in the John Day Fossil Beds NM. Equipment will also be used by the OMSI Botany High School Research Team, scheduled to work in 3 UCBN parks June 19-July 1, 2005. Vegetation mapping data collected by the team will be provided to the parks and the UCBN data manager. A brief interim report describing the outcomes of both the curriculum training and the research team will be provided to the RMCESU by December 2005. The report will include photographs of the digital equipment in use by participants and will outline future educational and outreach efforts in which the equipment will be used. We anticipate this equipment will be used for weed mapping and monitoring in the John Day Fossil Beds NM by students beginning in spring 2006, additional curriculum trainings in other parts of the UCBN area during the spring of 2006, and future high school research teams during summer 2006. A brief final report describing the outcomes of all 2006 programs in which the equipment was used will be provided to the RMCESU by December 2006.

Keywords: Exotic plant species, rare plant mapping, teacher training, citizen science, Upper Columbia Basin network, inventory and monitoring, John Day Fossil Beds NM

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Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: