

USU Extension Grant – Final Report

Project Leader: Mark Larese-Casanova

Project Title: Assessing Academic, Stewardship, and Behavioral Benefits of Nature-Based STEM Education

Beginning Date and End Date: 6/1/15-5/30/16

Total Requested: \$10,000

Project Objectives:

The original grant project objectives were focused on purchasing natural resources field equipment and other resources to incorporate into the Utah Nature Explorers Program. Approval was received from Brian Higginbotham to use 2014 Extension funds to fulfill this objective, and to adjust the 2015 objectives to include the following:

1. Hire personnel to assist in developing the Utah Nature Explorers Program, specifically focusing on curriculum development and website design and implementation;
2. Continue revision of the Utah Master Naturalist Program to better complement the Utah Nature Explorers Program

Project Results:

Development of the Utah Nature Explorers program was initiated in response to the need for additional educational resources shared by the teachers. The resources at the core of UNE are the curriculum aligned lesson plans developed by the participating K-12 teachers as the Utah Master Naturalist capstone project. We have revised 20 lesson plans, and a suite of field equipment and books is available for teachers to borrow at no cost to supplement their instructional needs.

The last major component of the Utah Nature Explorers Program that needed to be developed was an interactive website that will serve as the hub of the program, connecting educators to the Utah Master Naturalist Program, where they can receive professional development, as well as to the lesson plans, equipment, and resources available for their use. We hired Jennifer Perkins, an undergraduate marketing/scientific writing student with a natural resources background to take the lead in developing the new website. Jennifer did an exemplary job learning how to use OU Campus to build the Utah Nature Explorers website, which can be viewed at: <https://nature-explorers-usu.ou.usu.edu/>

We have recently hired a part-time curriculum specialist to continue developing lesson plans for Utah Nature Explorers, as well as to connect existing lesson plans to the common core and Next Generation Science Standards Practices, which correlate well with Utah's new Core Curriculum Science Standards. My 2016 Extension grant, which was awarded pending receipt of my 2015 grant report, will complete the final piece of the Utah Nature Explorers website- the online shopping cart system for reserving equipment and materials. USU IT is scheduled to begin working on the project using Service Now, and will seamlessly integrate the system into the Utah Nature Explorers website. We plan to have the site and program completed in time for launch in August 2016, at the start of the new school year.

During the course of the grant, I have had the opportunity to collaborate with Dr. Karin Kettenring in developing an Extension guide entitled *Great Salt Lake Wetland Plants: A Guide to Identification, Communities, and Bird Habitat*. The guide will be an invaluable resource to wetland managers across the Great Salt Lake Ecosystem, where 75% of Utah's wetlands occur. Some of Jennifer's time funded by this grant was devoted to this project, which is now in the final proof stage.

I also dedicated a portion of the grant funds to hiring Nathan Duncan, a recent natural resources graduate who assisted in revising the three Utah Master Naturalist textbooks in preparation for their

submission to the Extension peer review process. Nathan was interested in gaining experience in Extension, and his background proved to be invaluable to revising the textbooks. After working for me part time, he was hired as a 4-H Program Coordinator with Wasatch County Extension, where he promoted 4-H nature clubs.

Signatures:



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Extension Assistant Professor



Peter Wilcock
Dept. Chair, Watershed Sciences