

NATIVE PLANT SOCIETY OF NEW MEXICO

2016 Grants Program Final Report

A Native Plant Curriculum for New Mexico

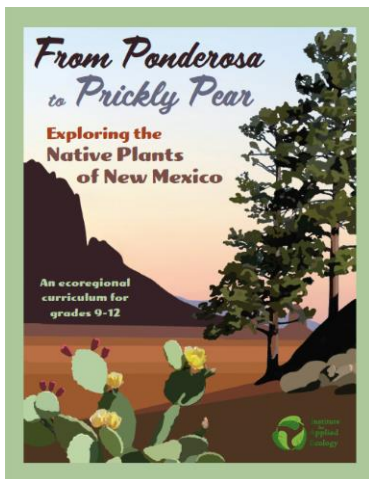
Institute for Applied Ecology

December 23, 2016

Project Overview

In 2016, the Native Plant Society of New Mexico (NPSNM) and the Bureau of Land Management awarded funding to the Southwest Program of the Institute for Applied Ecology (IAE) to produce an ecoregional curriculum that offers place-based learning for high school-level students, called "*From Ponderosa to Prickly Pear, Exploring the Native Plants of New Mexico*". The curriculum aligns with NPSNM's mission to promote the knowledge of plant identification and ecology and foster plant conservation and the preservation of natural habitats. By working with local native plant experts and by researching the botanical literature, IAE adapted their existing curriculum for Oregon to New Mexico's unique landscape and flora. The document was reviewed by local science teachers, ecologists, and native plant society volunteers for accuracy and relevance. Lessons within engage students with hands-on, interdisciplinary activities covering wide range of topics including: basic botany, plant identification, ecoregions of New Mexico, invasive species, ethnobotany, rare plants, restoration, and climate change.

Milestones and Accomplishments

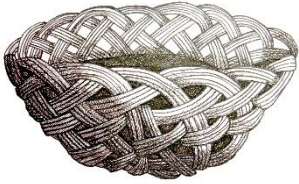


Research, Review, and Editing: Over the past year, the IAE has made major improvements to the native plant curriculum template and customized the content for the state of New Mexico. Several sections, including Ecoregions of New Mexico, Ethnobotany, Future of Native Plants, and Appendices required substantial changes and rewriting. The 306-page document also underwent a thorough review, critique, and technical editing process by IAE staff, resource experts, NPSNM volunteers, and local educators. Every effort was made to ensure concepts and lessons met national teaching and instruction standards.

Publishing: Staff from IAE's Ecological Education Program in the Corvallis, Oregon office converted the content to an InDesign Publisher format and worked with a professional printer in Corvallis to print 100 copies of the curriculum. A PDF of the curriculum can be found at:

<http://appliedeco.org/programs/education/about-project-botany/project-botany-new-mexico/> .

Artwork



Thirty additional drawings were developed for the New Mexico curriculum. The Santa Fe Chapter of NPSNM sponsored a student artist from the Institute of American Indian Arts to create fresh, New Mexico-appropriate drawings for the curriculum. Additional artwork was provided by volunteer artists and IAE staff.



Outreach

Poster Presentations

May 24, 2016, Santa Fe NM. IAE staff Ecologist, Yvonne Hickerson, showcased a poster for the curriculum during a well-attended **IAE Open House** event for the Southwest Program that reached a diverse audience of environmental professionals and other interested parties.



October 14-15, 2016, Socorro, NM. IAE staff (Yvonne Hickerson and Melanie Gisler) hosted a table and exhibited a poster for the native plant curriculum at the **New Mexico Environmental Educator's Conference Soar to Greater Heights STEM** that generated significant interest from teachers and educators from across the state. IAE provided a sign-up sheet for teachers to request a copy of the curriculum and more than 50 educators signed-up. These teachers will be among the first to receive and start integrating the curriculum into their natural science programs. Photo: Yvonne and educator at STEM 2016 conference, Socorro NM.

Oral Presentations

The following oral presentations by Melanie Gisler, IAE Southwest Program Director, included a 5-10 minute discussion of the native plant curriculum *From Ponderosa to Prickly Pear*.

August 11, 2016, Albuquerque, NM. **Albuquerque Wildlife Federation Meeting.**

September 17, 2016, Santa Fe, NM. **State Master Gardener Conference.**

October 19, 2016, Taos, NM. **Native Plant Society Meeting Taos Chapter.**

November 2, 2016, Albuquerque, NM. **Native Plant Society Meeting Albuquerque Chapter.**

Environmental Education Working Groups

Desert Oasis Teaching Gardens (DOT) Working Group. IAE is part of an on-going collaborative effort with DOT gardens, ABQ School Gardens, Holistic Management International, Bernalillo County Extension, and Farm to Table New Mexico to assess and develop environmental curricula as well as provide training throughout the state of New Mexico. IAE has kept the working group informed and up to date on the progress of the native plant curriculum. This working group has a wealth of connections

to environmental educators in NM, which should further facilitate getting the curriculum into the hands of educators.

Next steps

Distribution of the curriculum to NPSNM and New Mexico environmental educators and science teachers will begin in January 2017. Thanks to the funding provided by NPSNM, 100 copies of the curriculum will be available to educators around the state free of charge and to NPSNM for internal use and distribution. The next step is to work with volunteers and secure funding to provide training and support to teachers so that they can successfully implement the curriculum. Funding is currently available from the Bureau of Land Management to host a webinar that can be shared widely; however, delivering curriculum workshops and school visits would require volunteer labor from IAE and the community and/or additional funding. IAE is currently engaging with New Mexico Master Gardeners (NMMG) to explore the possibility of a curriculum certification program through NMMG and looking into potential funding sources to “teach the teachers”.

Grant Provisions

IAE is pleased that the curriculum project has created many opportunities to help promote and market the good work of the Native Plant Society of New Mexico. The NPSNM logo is displayed on the inside cover of *From Ponderosa to Prickly Pear, Exploring the Native Plants of New Mexico* and on IAE’s Project Botany webpage at <http://appliedeco.org/programs/education/about-project-botany/project-botany-new-mexico/>. In addition, NPSNM is acknowledged in all poster and oral presentations. A newsletter article has been provided to NPSNM that further acknowledges support of the curriculum.

Financial Disclosure

A \$1,000 grant from the 2016 NPSNM Grant Program funded the printing of 67 of the 100 copies of the curriculum (\$1,000 of NPSNM funding went entirely to the printing costs @ \$15.00 per copy). Note that we opted not to go with the printer that gave us an original lower estimate for this work since they have since been determined to be unreliable. The Santa Fe Chapter of the Native Plant Society sponsored a student artist for \$300 (10 of the 30 drawings). The Bureau of Land Management contributed more than \$12,000 for writing, review, editing, coordination, professional formatting, and conference fees. Volunteer reviewers and volunteer artists contributed hundreds of hours of In-Kind labor. Private donations covered travel costs for various outreach venues. IAE contributed more than \$3,000 to the project for travel, supplies, coordination, and outreach.

Acknowledgements

We would like to express our gratitude to the Native Plant Society of New Mexico for funding this valuable project. We are also truly grateful to NPSNM members that participated as reviewers and advisors, contributing time and effort to make the native plant curriculum for New Mexico possible. A complete list of contributors is provided on the inside cover in the acknowledgements section of the curriculum for New Mexico.