

Project Year-End Summary Report

Title of Project: Update to the Ferns and Fern Allies of New Mexico Checklist

Begin answering in the shaded box right beside or below each question and it will expand to accommodate as you type. Use up to a total of two and a half pages for questions 1-8. More detailed presentations, a final report, articles or posters are welcome separately(See final instructions at the end of this form.)*

1. Organization name or Individual who received the grant: Harpo Faust

2. Amount of Grant: \$1500

4. Was additional outside funding obtained? (check box that applies) Yes No

Other funding source(s) if you checked "yes."

5. Briefly, how was the grant money from the Carter Conservation Fund used?

The grant money was used towards gas funds for 13 fern collection focused trips between April to October 2023, covering over 5,627 miles in the state, and collecting around 500 specimens including roadside weeds.

6. Write an abstract or summary of the activities performed and the progress that was made this year on your project. (Save any conclusions, lessons learned, and benefits achieved for the final sections, 7&8.)

Between April to October of 2023, 13 collection expeditions occurred, targeting ferns and fern allies in the state of New Mexico. Travel was a huge piece of this, including driving to sites, but more importantly remote hiking access to sites with previous collections or no collections at all. Multiple new localities for multiple taxa were located and recorded, and insight into travel and land access with focus on this group was developed. Collections are currently still being processed and progress is ongoing and the full progress and impacts of the summers collection will be known in spring before a second year of field work.

7. How does your project further a Native Plant Society mission area, namely: *plant or ecological education; conservation/restoration of native plants and/or their habitats; adds to botanical research; promotes appropriate use of native plants to conserve water, land and/or wildlife.*

The impact of this work is huge, and has already intersected into informing rare plant conservation, direct education, and increasing our baseline understanding of state biodiversity. On the most basic level, increased collections of this group, has increased understanding of the distributions of many taxa in the region. These updated collections not only confirm prior presence of the species but also expand distribution knowledge. Multiple taxa distribution has been expanded and further honed in on. Additionally, multiple taxa not found, are on the radar to be added to the state rare plant list, with rare plant reports resulting from this work. As well, Faust has given one public talk on this work to the Taos Native Plant Society in October as well as a guest lecture to Hannah Marx's UNM Course, Flora of New Mexico in November 2023. Lastly, Faust models this work to the graduate and undergraduate students she mentors at the UNM Herbarium, and ongoing biodiversity research is an underrepresented realm of research that needs to be modeled and performed, especially in era of climate change.

8. Any other conclusions., lessons learned, benefits to you, the community or the environment hopefully result from your work as assisted by this grant.

Wear and tear on the vehicle was not accounted for in the grant request, which was a huge oversight on Fausts account. While almost exactly \$1500 was spent solely on gas funds, more than that was spent on 4WD maintenance. Considering the localities needed to be visited to locate this undercollected group, wear & tear on the field vehicle will need to be accounted for in ongoing work. Multiple localities visited made specific issues on struts and 4WD hardware that needed immediate attention and ongoing work needs to account for this so this isnt taken out of the researchers person funds. In addition to this project, Faust also put another 6,000 miles for associated botanical research on her personal field work vehicle, only partially reimbursed for wear and tear by the University and associate researchers. The impact of this work on individual researchers vehicles is huge, and more funds are needed next year to make this work sustainable. \$1700 was spent on wear and tear on Faust vehicle just from fern based field work alone and grants awarding travel funds should account for this crucial element of remote field work in New Mexico,

Final Instructions

Please send your completed form as pdfas an email attachment to cartergrantapps@gmail.com by December 1.

** To remain in good standing for any future funding from the Native Plant Society of New Mexico, we ask that you educate our membership more fully in some way. This could be an article (250 words minimum, at least 1 high resolution illustration or photo) for our newsletter, ora paper or electronic copy or link to a published article connected with the past year's work, orby making an educational and visual presentationto one of our chapters. Contact information for our 7 area chapters is found on our website at www.npsnm.org under the Chapters tab.*

What are your intentions in this regard? I am happy to supply an article if desired, but I have already given a talk on this work on October 4, 2023 to the Taos Chapter. I am planning on applying again for the same grant support next month and am happy to engage with the society more whether is now or later, just keep me updated with your needs.

This year end report is submitted by (Type your name) Harpo Faust

My typed name is equal to my handwritten signature in testifying to the accuracy and truth of this report to the best of my knowledge today.

eMail address harpofaust@unm.edu

Date November 27, 2023

Please contact us again at cartergrantapps@gmail.com if you have any questions or alternate suggestions.