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NPSNM Grants Program

Dear NPSNM,

As forecast in my original grant application, the full sum of \$1000 in the grant program was used as a stipend to support my work on the Bob Hutchins collection of Fabaceae currently housed at the Botanical Research Institute of Texas, in Fort Worth Texas. I am a Research Associate at BRIT, which is an unpaid and voluntary position. I estimate that I devoted in excess of 300 hours to the Hutchins Plant ID project in 2014. In addition, the funds provided by NPSNM were able to defray the costs associated with the 80-mile round-trip from my home in Dallas to the herbarium where the specimens are housed.

Sincerely yours,

Brian Witte

The Afterlife of a Legend

I hope that Charles “Bob” Hutchins would need no introduction to the Native Plant Society of New Mexico. As a long-time collaborator with the University of New Mexico Herbarium and a co-author, with William Martin, of the original Flora of New Mexico, Bob has already made a lasting contribution to the natural history of the Land of Enchantment.

I never knew Bob. When he passed in 2008, I was deep in the trenches of a Ph.D. at Ohio State University. New Mexico has always loomed large in my thoughts, though. I was born in Farmington, began school in Albuquerque and later visited with my brother during his graduate work at University of New Mexico. How my path crossed Bob’s is somewhat convoluted, and is recounted at some length here: <http://www.brit.org/node/586>.

The short version is that I found myself in the Dallas-Fort Worth area following graduate school and began volunteering in the herbarium at the Botanical Research Institute of Texas (BRIT). Like too many natural history collections, the BRIT herbarium has vastly more work than available staff, and I found a wealth of projects begging my attention. One day, while wandering the 1,000,000+ specimen collection (shameless brag, sorry), I spied a row of a dozen unmarked boxes atop the cabinets. Inside, I found a treasury of Fabaceae collected in New Mexico in the late 70s and early 80s - approximately the same time as I was coloring flowers in Albuquerque’s finest kindergarten classroom. All of the specimens were collections by Bob Hutchins.

After some diligent sleuth-work, all I can say is that the specimens were probably collected by Hutchins for use in improving his key to the Fabaceae in Flora of New Mexico. Sadly, he passed before completing his revisions and his specimens somehow found their way to BRIT. No one I have contacted at BRIT, UNM or elsewhere can recall receiving or sending the boxes, but there they were...

Over the past 18 months, I have adopted the 2000+ specimens left to BRIT. Most of the specimens are in the genera *Astragalus*, *Oxytropis*, *Melilotus* and *Lupinus*. Approximately 70% are unmounted (pressed and preserved, but requiring fixture to archival-quality paper for long-term storage), but all save the *Melilotus* specimens came with typed labels specifying collection date and an approximate location. None, however were identified to species.

Although the Fabaceae is not my specialty, I undertook to complete the identification of Bob’s collection. BRIT was able to provide space for work and storage, archival copies of Flora of New Mexico and Barneby’s Atlas of North American *Astragalus*, and a specially-purchased copy of Allred and Ivey’s Flora Neomexicana. The volunteers at BRIT have contributed hundreds of hours in mounting the specimens, as well as assisting in data entry for the specimens I have been able to identify.

When I wrote to NPSNM in December 2013, I had identified an estimated 400 specimens. Since NPSNM chose to fund my identification project, I was able to devote a significant stretch of time to identification. As of December 2014, I have completed the identification of just over 1200 specimens. Significantly, all the label information for those specimens has been entered into a database. Even better, approximate latitude and longitude for each of 800+ specimens have been generated based on Hutchins’ written descriptions of collection location. Within the next few months, all of this data should be available online through BRIT’s digital herbarium project (<http://atrium.brit.org/>).

I can’t say that anything revolutionary has come of this work...but then most of the work of natural history is directed to the slow accumulation of knowledge. Each of the million plus

specimens at BRIT had to be individually collected, pressed, dried, preserved and recorded. BRIT is but one herbarium in a constellation. Bob's contribution of 2000 specimens, although immense in terms of my own stretched resources, is figuratively just a brick in the monument we are building.

In concrete terms, the geolocation component of this project will enable us to expand and improve the maps of *Astragalus* and *Oxytropis* distribution in New Mexico. BRIT's status as a center of regional excellence has been modestly enhanced (I hope). I have learned a great deal about the characteristics that define and delineate species of *Astragalus*.

Ultimately, though, the real accomplishment may be simply that we have pushed the frontiers of knowledge a little further. In writing the history of science, we like to focus on the luminaries, the Einsteins, the Watson and Cricks, the Darwins that moved science ahead in great leaps of imagination. The footing, though, for those great leaps was laid by journeymen and amateur enthusiasts. I am proud to have made this small (and ongoing! 800 specimens to go!) contribution in partnership with BRIT and the Native Plant Society of New Mexico.

In conclusion, let me extend my sincere personal thanks to NPSNM for believing in my project.