

A. TITLE PAGE

FINAL REPORT- PROFESSIONAL DEVELOPMENT GRANT

RECIPIENT: George P. Johnson, Ph.D., Biological Sciences

PURPOSE OF GRANT: To attend the Association of Southeastern Biologists
Meeting in Charleston, West Virginia

DATES OF MEETING: 10-13 April 2013

LOCATION OF MEETING: Charleston, West Virginia

B. RESTATEMENT OF PROBLEM RESEARCHED, CREATIVE WORK, OR PROFESSIONAL ENHANCEMENT OPPORTUNITY

ABSTRACT:

I am requesting Faculty Development Grant funds to attend the annual meeting of the Association of Southeastern Biologists (ASB) [<http://www.sebiologists.org/meetings.html>] and associated Societies on 10-13 April 2013, hosted by Marshall University at the Charleston Civic Center in Charleston, West Virginia. While at the Conference: I will be presenting a paper on my research on *Yucca* in Arkansas, an outgrowth of the Flora Project (see attached abstract); I will meet with my SERNEC colleagues about preparation of another National Science Foundation (NSF) Herbarium Digitization Grant proposal [<http://symbiota1.acis.ufl.edu/sernec/portal/>]; I will attend an iDigBio Symposium [<https://www.idigbio.org/content/asb-2013-workflows-and-challenges-digitization-museum-specimens>]; and, if selected, I will participate in an iDigBio Workshop (participation is limited to 24 participants, to be chosen by iDigBio staff).

C & D. SUMMARY OF FINDINGS, OUTCOMES, OR EXPERIENCES HAD

- ABSTRACT OF PAPER PRESENTED AT MEETING:

***YUCCA* (ASPARAGACEAE) IN ARKANSAS**

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Yucca (Asparagaceae) is a genus of rosette shrubs and small trees of North America and the Caribbean. Although typically thought of as plants of the American and Mexican deserts, yuccas are widely distributed in the western, eastern and southeastern United States. While the genus is easily recognized by a suite of vegetative and reproductive characters, identification to species is often problematic, especially from herbarium specimens, both in Arkansas and beyond. Variability in species may be both from intrinsic (heteroblastic, ecophenic) and extrinsic (hybridization, introgression) sources that cloud species boundaries. Herbarium, field and common garden studies indicate that four species occur in the state outside of cultivation; two native (*Y. arkansana* Trel., *Y. louisianensis* Trel.) and two naturalized (*Y. filamentosa* L., *Y. flaccida* Haw.). *Yucca arkansana* is widely distributed in northern and western Arkansas, and is a plant of rock outcrops, dry hillsides and prairie remnants. *Yucca louisianensis* has a more restricted distribution in the state, and is mostly found in the sandhills region of southern and southwestern Arkansas. Of our two non-native taxa, *Y. flaccida* is the most commonly naturalized; both *Y. flaccida* and *Y. filamentosa* occur sporadically over the state and occur in areas where cultivation is not apparent. To increase the likelihood of successful identification, collections should be made from flowering and fruiting plants and digital photos of whole plants and flowers (including pistils), and fruits, should be included with traditional pressed specimens.

- MODERATED FLORISTICS OR SYSTEMATICS PAPER SESSION B, ROOM 202, THURSDAY AFTERNOON, 11 APRIL 2013
- PRESENTED A PAPER IN FLORISTICS OR SYSTEMATICS PAPER SESSION B (see Abstract above)

- ATTENDED SYMPOSIUM, PARLOR B, FRIDAY MORNING, 12 APRIL 2013: Workflows and Challenges in the Digitization of Biological Specimens
(https://www.idigbio.org/wiki/images/d/db/ASB_iDigBio_Symposium.pdf)
- ATTENDED iDigBio WORKSHOP, , WEST VIRGINIA 104, ALL DAY SATURDAY, 13 APRIL 2013: Workflows and Challenges in Digitization of Museum Specimens
(https://www.idigbio.org/wiki/index.php/ASB_Digitization_Workshop)
(https://www.idigbio.org/wiki/images/f/fa/ASB_iDigBio_Workshop.pdf)



- MET WITH COLLEAGUES REGARDING THE FORMATION OF A SMALL COLLECTIONS WORKING GROUP, SATURDAY, 13 APRIL 2013: Individuals from a number of small plant collections in the southeastern United States met and formed a Small Collections Interest Group

E. CONCLUSIONS AND RECOMMENDATIONS

- The experience of meeting with colleagues and presenting a paper on my research was great. The genus I have been working with occurs across the southeastern United States, and getting my colleagues feedback regarding the taxa I have been working with, and others, was very helpful.
- The Symposium and Workshop regarding herbarium digitization were extremely helpful, as the presenters are involved in the digitization process. And, many of the attendees and participants (myself included), are in the process of writing a TCN-grant proposal to NSF for digitization of herbaria in the southeast.
- The Small Collections Interest Group formed at the Workshop meets monthly (via AdobeConnect) to discuss problems common to small collections (<200k specimens)
 - We met with Alan Prather (Michigan State Herbarium) about having a Workshop/Symposium in connection with Collections Web, an NSF-supported RCN to build a community of natural history collections (<http://collectionsweb.org/>).
 - We are in the process of looking into writing a grant proposal to NSF to form a RCN for small collections. This Research Coordination Network would foster the development of a community of small collections in the United States, and would support workshops and symposia of value to small collections, regardless of the type of collection. This is similar to what was done with herbaria in the southeastern United States several years ago (<http://www.sernec.org/>).
 - I have been invited to an all-expenses-paid Small Herbarium Collections Workshop at Florida State University by iDigBio (<https://www.idigbio.org/>) in December 2013. This Workshop is a hands on experience with computers, software, cameras and equipment used in the digitization of herbarium specimens