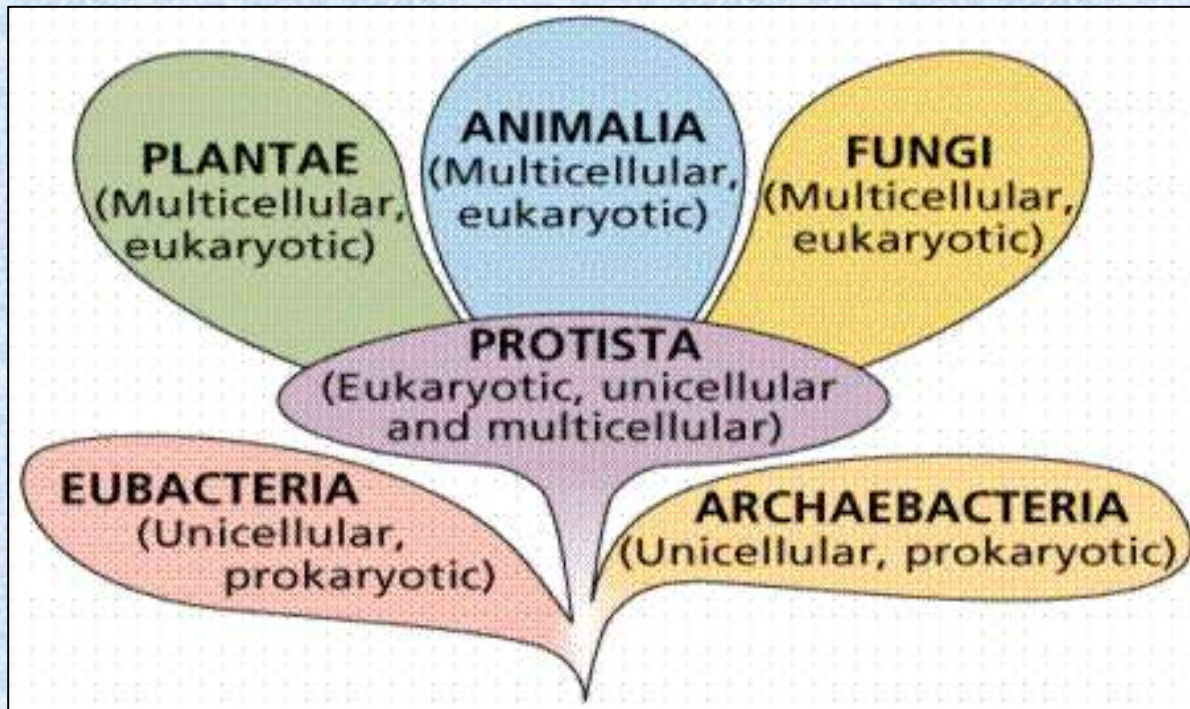


Biology Survey II
Biology 153
Harris-Stowe State University
Fall 2015

David Bogler, Ph.D.



CONTACT INFO:

Office Hours: Monday, Wednesday 2:30–4:00 p.m. and **also by appointment** at other times if needed.

Please let me know in advance if you want to meet.

Contact me by e-mail to ask questions or make arrangements.
boglerd@hssu.edu or david.bogler@mobot.org

Office telephone: at MBG, **314-577-0831**

Has answering machine where you can leave a message if I am not there when you call.

I am often working at my office at night.

Required Text: Mader, S. & M. Windelspecht.
2016. *Biology*, 12th ed. NY: McGraw-Hill.

Text Website:

<http://www.mhhe.com/maderbiology11>

>Choose "*Student Edition*," then a chapter.

Supplemental materials and resources as required by the instructor, including on MyHSSU.

MyHSSU/Resources: I will post PDFs of Lecture Slides, Handouts, and Assignments

GRADE ASSESSMENT:

Exam 1 100 pts

Exam 2 100

Exam 3 100

Total Exams ----→ **300** pts

Final Exam 100

Homework assignments 100

Quizzes, announced or not 100

Tentative Grade Base = **600** pts total

Attendance and participation are considered very important

POLICIES:

Hornets email and MyHSSU: You are expected to check both your HSSU Hornets email account and the class MyHSSU pages regularly, meaning at least several times per week, and always if you miss a class. All students are responsible for all material posted on these pages. I will communicate with you through your HSSU hornets email address.

You are responsible for having backup copies of all your work: students are expected to keep backup copies of all work. Loss of data or homework is not acceptable and will result in a zero grade for the assignment. You are encourage to use cloud computing through HSSU Hornets SkyDrive.

Attendance- Each class period there may be a quiz which is given in the beginning or end and may not be 'made up' if you are tardy or leave early. See "Missed Work" above. Note that by university policy you will be withdrawn with failure due to excessive absences if you miss two consecutive weeks (or are marked absent for 4 consecutive classes), regardless of reason.

Tardiness- Students arriving after the beginning of class are considered to be tardy - you may be marked tardy or absent according to the HSSU rules..

Cell phones - University policy states that student cell phones, texting devices, cameras, and similar electronics **must be turned off during class times**. Faculty may approve an exception for special circumstances. Use of any electronic devices during any tests is specifically prohibited and will result in a zero for that test.

Academic policies are all stated in the university bulletin and semester course schedule, including academic honesty, conduct, absences, incomplete grades, drop dates, etc.

Plagiarism is the presentation of someone else's words or ideas as your own and is considered cheating, is not allowed anywhere at HSSU and will not be tolerated = Zero first offense, failure second offense, withdrawal from HSSU with repeated offenses. Sometimes group assignments may share group data, but reports must be written individually in your own words.

Be Professional. Be a good colleague to your classmates and participate. Participation means *being there*, attention and effort during class, preparation and familiarity with that week's subject including evidence of studying, reading, or scanning the subject before coming to class, having a book, participating in class discussions, asking questions and sharing knowledge, arriving on time, not leaving early, not working on other classes or homework during this class, *no texting or email in class*, and no cell phones except if you are using an e-book class textbook. Quietly taking class notes with a laptop is permitted.

Who is this guy?

Ph.D dissertation on Agave Family and relatives



Dasyliirion



Mescal Agave

Plant Systematics



Floristic Treatments
Flora of Missouri
Flora North America
Interactive Keys



DNA Phylogeny
Agavaceae
Cycads
DNA Barcoding
Conservation
Genetics

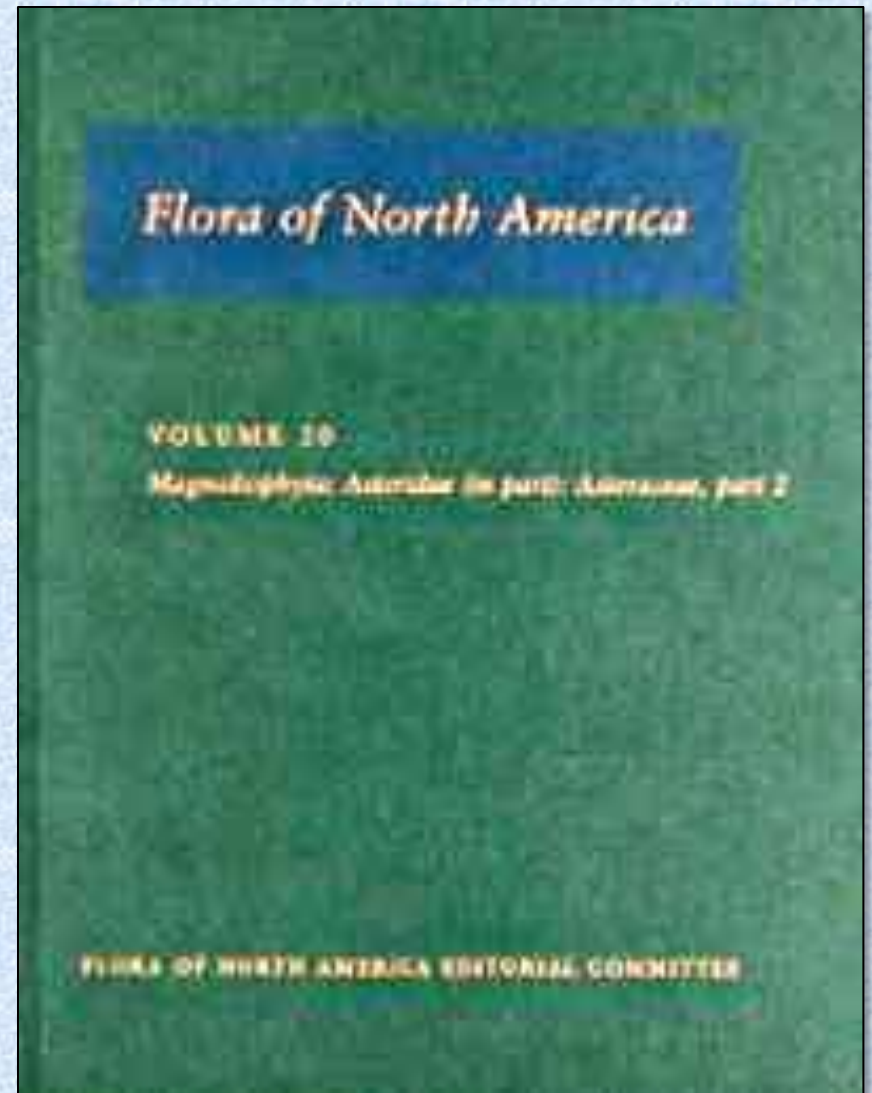
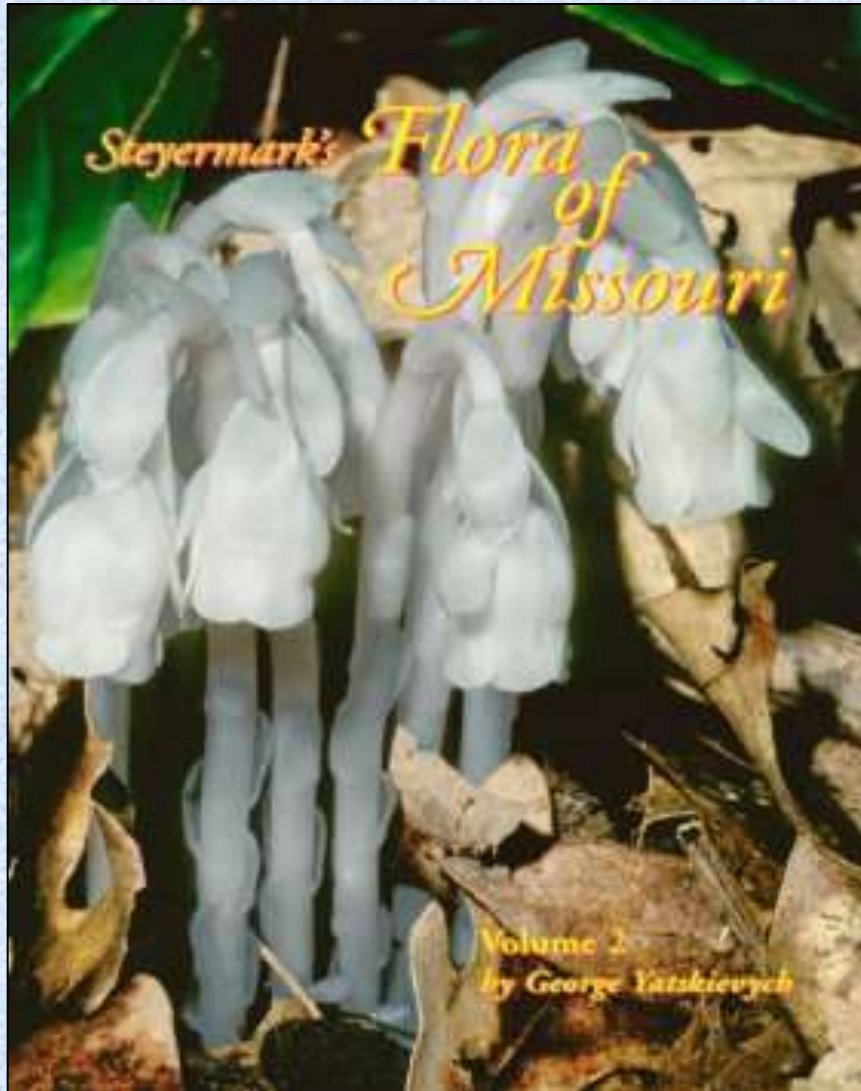


Plant Anatomy
Pollen Atlas
Pollination



Teaching
Grant Writing
REU Program
Writing

Floristic Treatments.....



Plant Systematics



Floristic Treatments
Flora of Missouri
Flora North America
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Agave Family and Relatives





Tequila Plantation, Jalisco, Mexico

Tequila, Jalisco, Cuervo Distillery





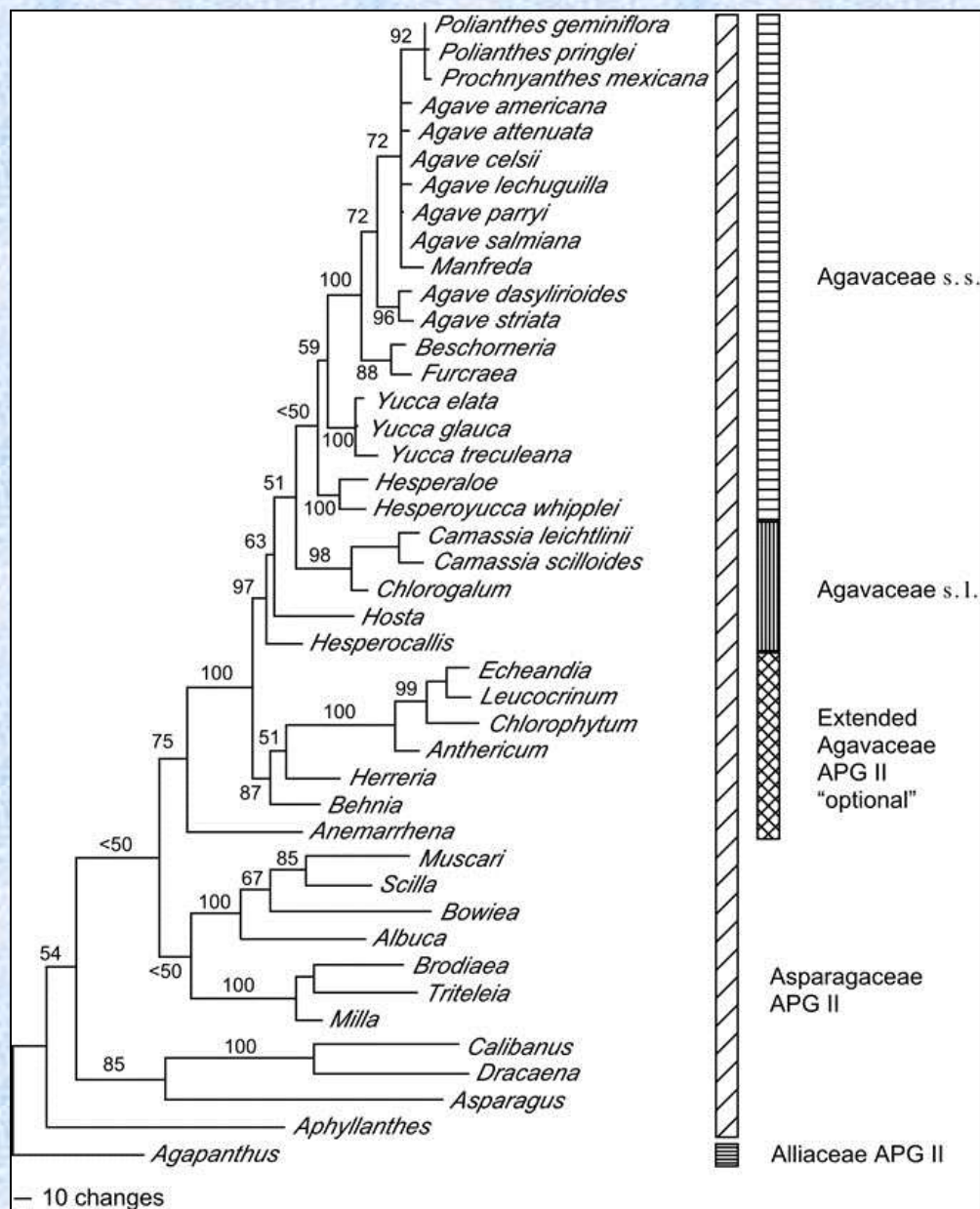
Dasylirion wheeleri



Nolina parviflora

Phylogeny of Agavaceae

Based on *rbcL*, *ndhF*, and ITS DNA sequences



Bogler et al. 2006
Aliso **22**: 313–328

Plant Systematics



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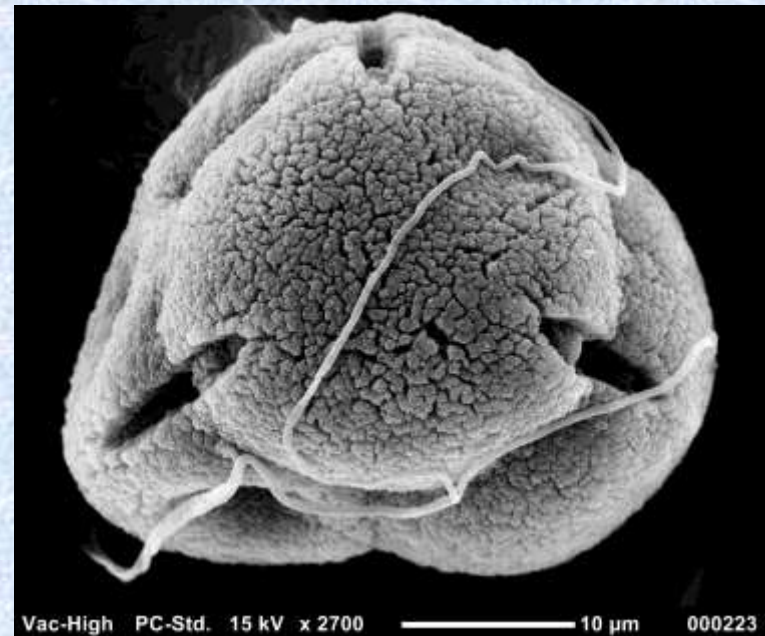
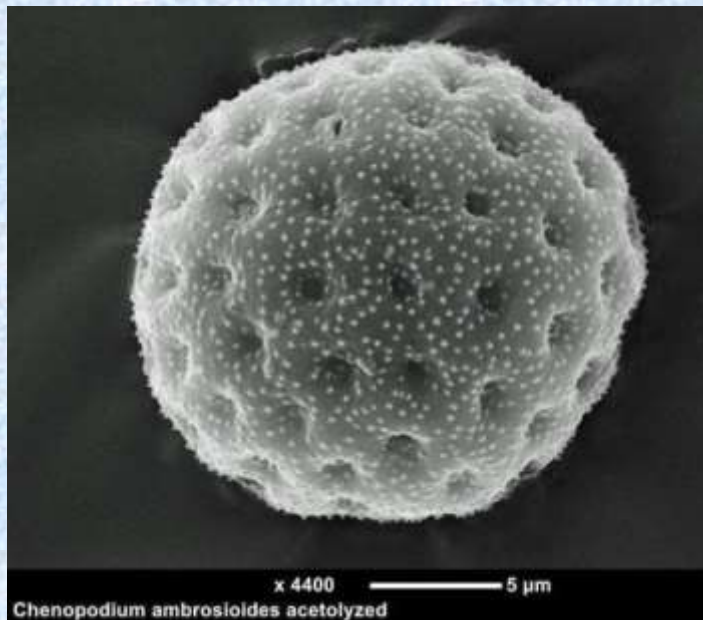
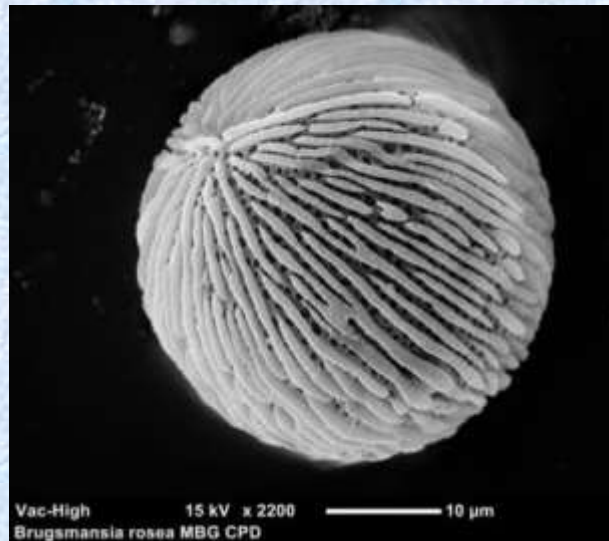
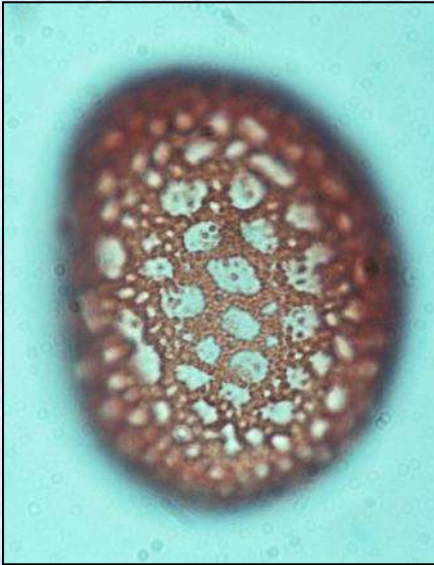


Plant Anatomy
Pollen Atlas
Pollination

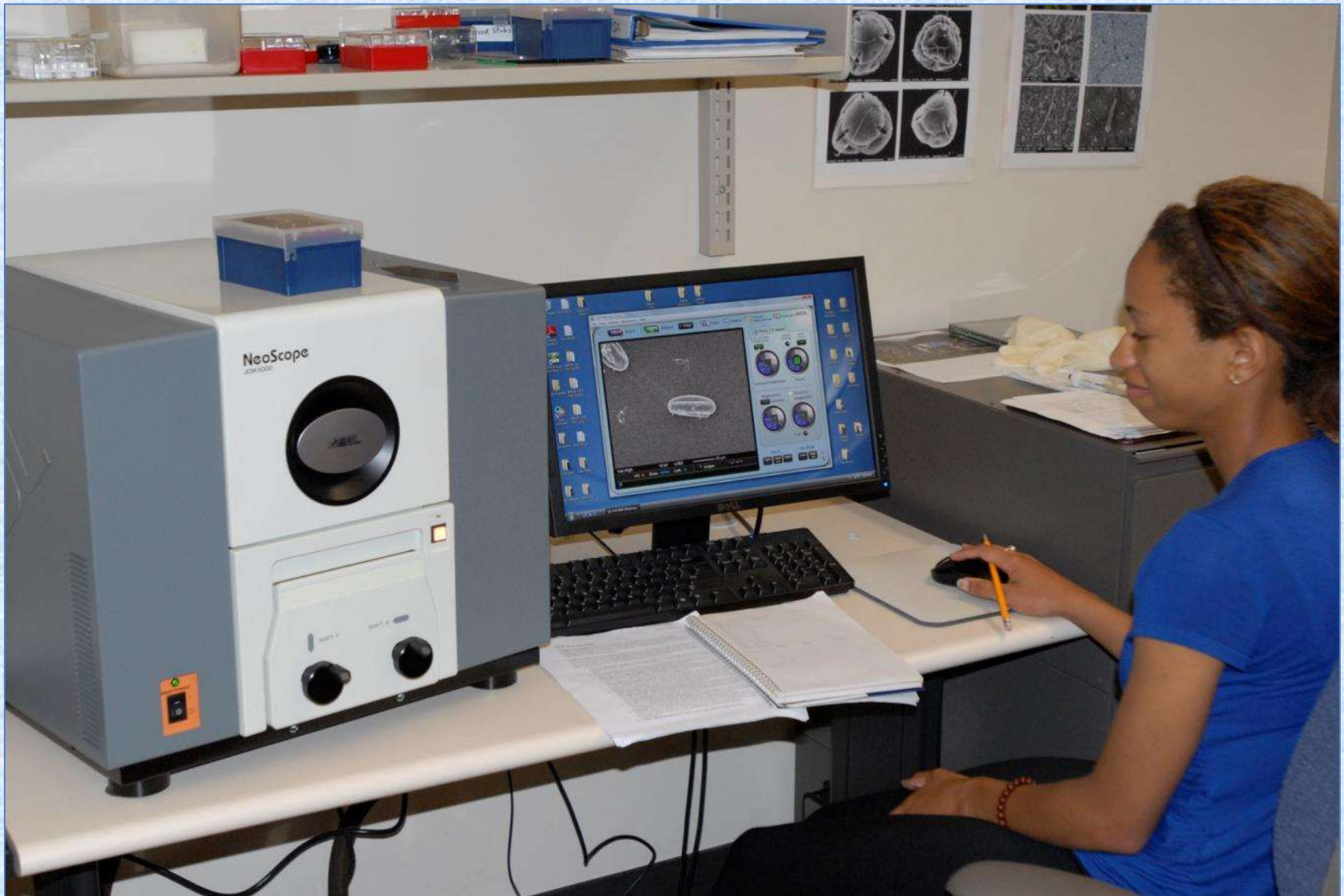


Teaching
Grant Writing
REU Program
Writing

Pollen Morphology



SEM – Scanning Electron Microscopy



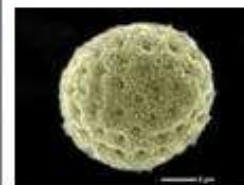
Missouri Pollen Project

[Interactive Pollen Key](#)[Pollen Glossary](#)[Pollen Resources](#)
[Contact](#)

Welcome to the Missouri Pollen Project (MPP). Here you will find illustrations, descriptions, and keys to identification of pollen grains from plants of Missouri and much of the Midwestern United States. The goal is to provide a means of identifying pollen, as well as summarizing what is known about pollination biology of Missouri plants. The MPP is part of a larger long-term project to develop baseline data on pollen and pollinators in natural and altered communities, information that may be useful in a changing world. The keys and images will also be useful to botanists, entomologists, archeologists, paleobotanists, allergists and many others.

Navigating the MPP pages is quite simple. Individual pages for each genus are accessed through the [Interactive Pollen Key](#). Here you will find a list of pollen characters on the left and a list of plant taxa on the right. You may scroll down the list of taxa to access the page for a particular genus. If you are trying to identify an unknown pollen grain you simply check the boxes of one or more characters and press the Matching Taxa button at the top. The list of possible taxa on the right is reduced to only those matching those characters. The list of potential characters is also revised to correspond to the remaining taxa. The Best button will show how many of the taxa share each character. A [Glossary of Pollen](#) terms is provided to refresh your memory about terminology. A brief collection of websites and references to [Pollen Resources](#) is provided to assist in finding additional information. A larger version of the images can be seen by clicking on them with the mouse.

New Arrivals



[Chenopodium](#)

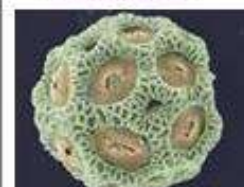


click 1

[Celastrus](#)

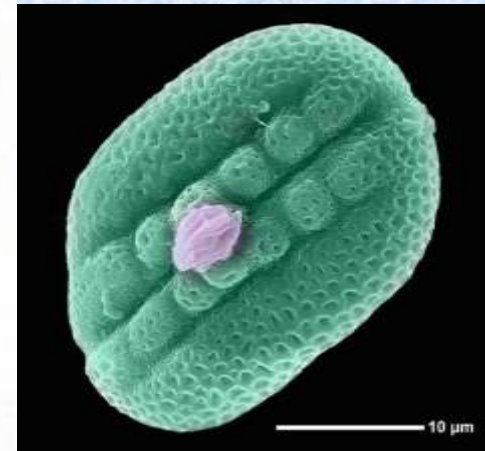
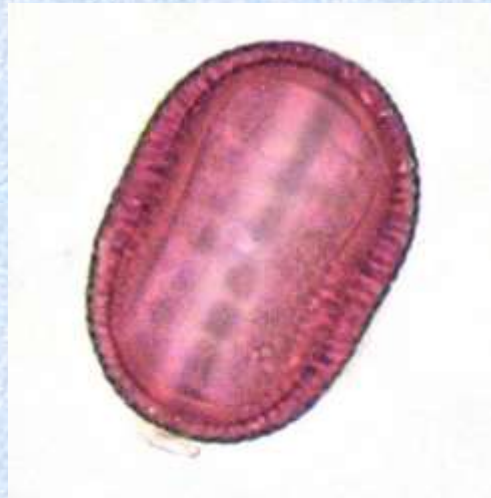


[Passiflora](#)

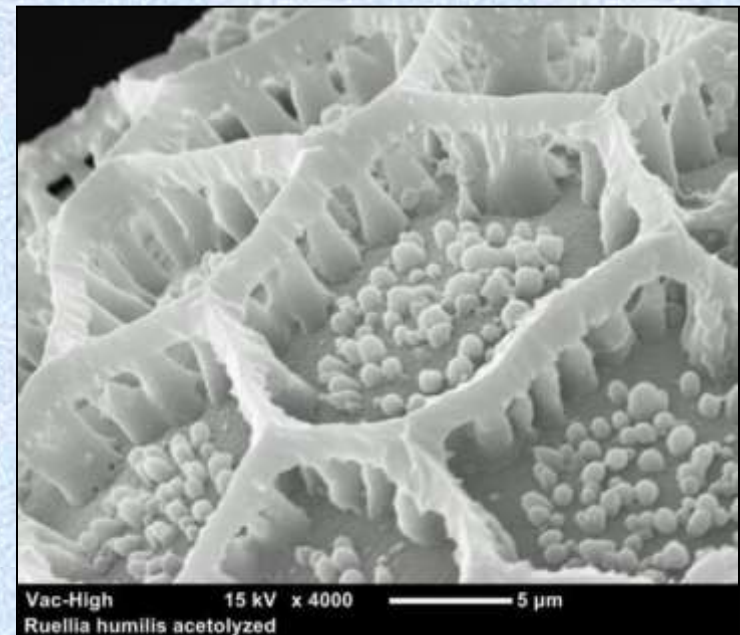
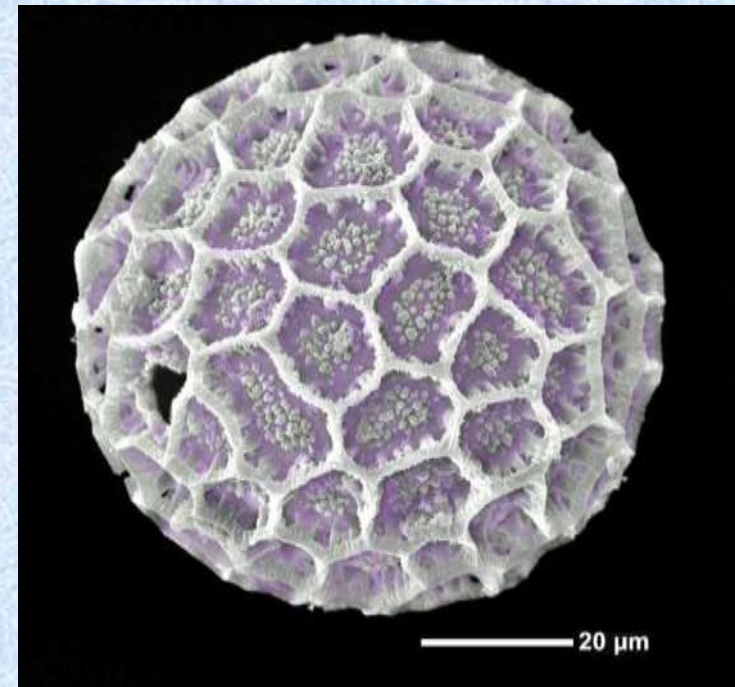


[Opuntia](#)

Water Willow - *Justicia americana*

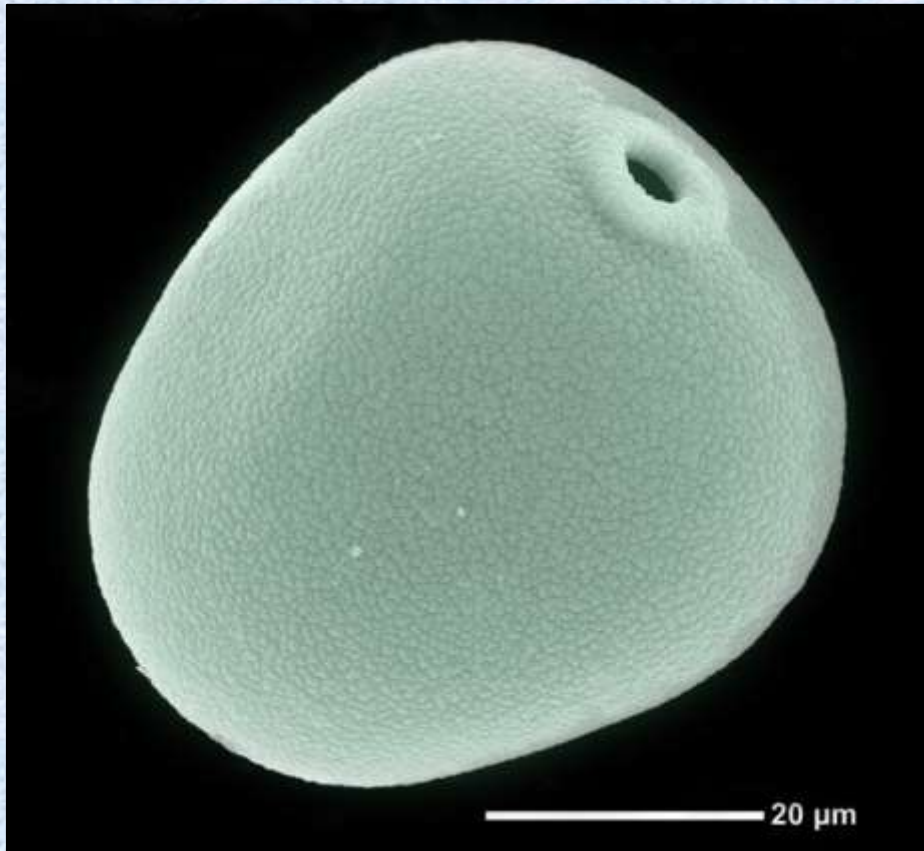


Ruellia humilis – Wild Petunia

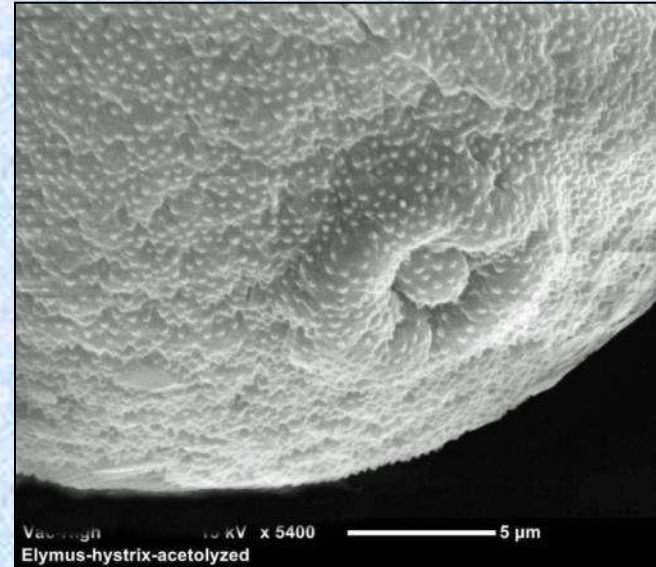


Grass Pollen

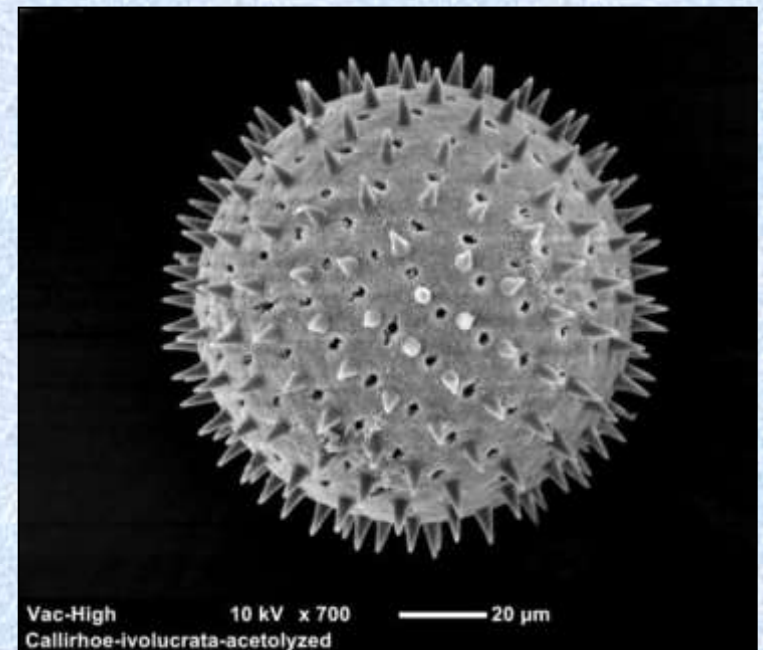
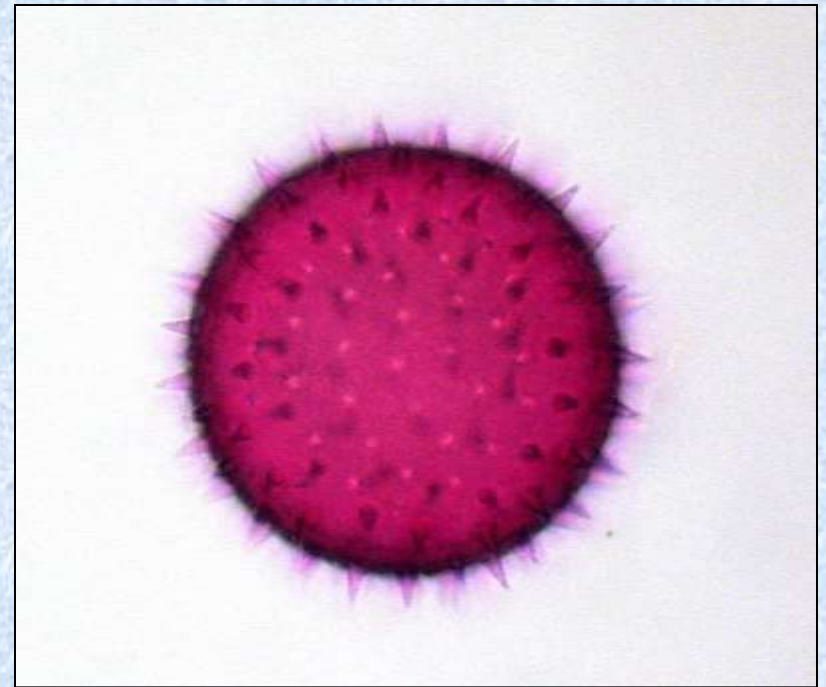
Phleum pratense

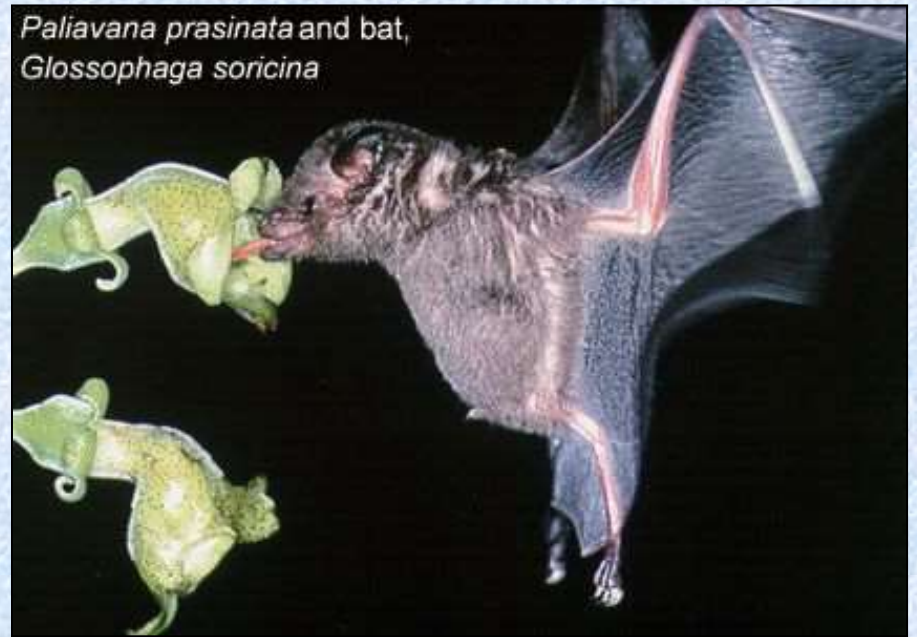


Elymus hystrix



Callirhoe involucrata





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Teaching
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REU - Mounting and Filing



Collecting Specimens

Pressing the Plant for Voucher

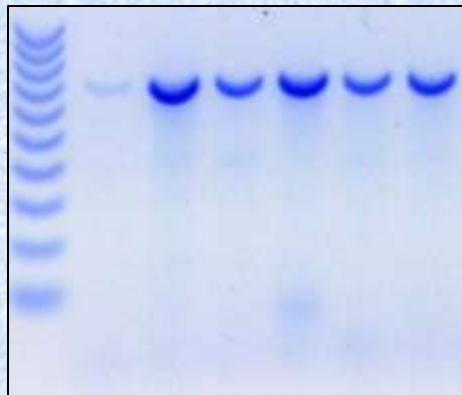


Livingstone Nganga, UMSL Undergraduate
2012 REU

DNA Barcode Amplification: PCR



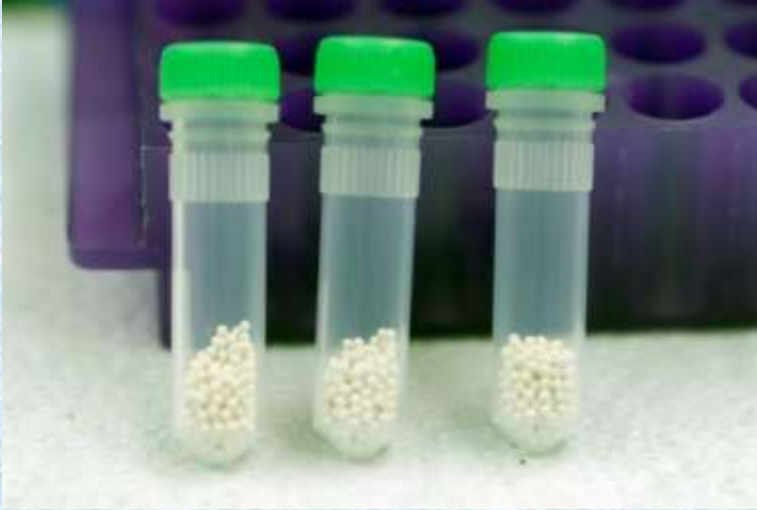
Kelsey Huisman, 2013 REU



**Sequencing
Facility**

PCR Product Gel Electrophoresis – check size

Extracting DNA from Leaf Samples



FastPrep DNA Extraction Kit



Livingstone Nganga

Missouri Botanical Garden



End