Our annual meeting is rapidly advancing and registration is open on www.econbot.org. All details are on the site and in the Fall 2015 newsletter.

Please register today.

At right is a picture of the farmers from Harlan County, Kentucky, who came to an SEB planning event. The planning event was for planting a diversity of food crops for our event and other events at Pine Mountain. The Society for Economic Botany asked Pine Mountain to provide local (within a 50-mile radius) vegetables for the salads at the meeting. This community support builds on a precedent started in Frostburg that jumpstarted community-supported agriculture and a local food restaurant. Pine Mountain has now agreed for the entire year to obtain 30% of their food from local venders—not just for our meeting. We additionally will be supporting a local coffee brewer (Heine Brother’s) and we made connections to always have their coffee be served at Pine Mountain. SEB is also working with the Kentucky Land Trust for a fundraising event to help buy a portion of Pine Mountain that contains rare plants. We are the reason that these changes and connections are being made. The people of Harlan County are very proud that their unique plants and culture are drawing in ethnobotanists from around the world. We are helping promote the ecological and cultural values of the region. A student at Pine Mountain told me that the mother of Sunshine Brosi, the 2016 meeting coordinator, was the first person to make her feel proud of where she was from, proud of her skills in self-sufficiency, and proud of her connection and value with the land. The goal is to continue to have that same impact.

Plan to stay on the site as the greatest diversity and culture is right there along with the SEB members. There are many of dorm rooms to share and for the first time childcare on site as well. So this can be a family vacation.

Learn about Harlan County, watch videos, read books on Coal mining in the region, check out the Bourbon trail—kybourbontrail.com—and multiple music venues.

Check the driving directions on page 6.
Notes from the Field

I just watched a Harlan County video about the coal miners in Kentucky: how they struggle to exist! Watching this video is one suggestion for how to prepare for our upcoming meeting. I am very excited about the meeting in Kentucky, as it gives us a real chance to be within a rich culture where so much of the U.S. plant diversity is growing and the plant knowledge remains intact. Please register today at econbot.org and see all the details you need about the meeting. Since it is in a rural setting, I suggest looking at the driving instructions on page 6. In the meantime, we are working on getting transport from the major airports, so keep your eyes on the website….

Read the review of the Embrace of the Serpent film on page 10. We are trying to find a time to show it at the meeting, so don’t miss it—register today.

If you read the DEB interview on page 4, you will see that this year’s award is honoring Tony Cunningham. What a treat for us to have him as a 2016 DEB speaker. The interview gives you insight into a very broad applied career as an Ethnobotanist/Ethnecologist.

The Council just completed a Mid-Year Meeting in Atlanta. Many issues were resolved and are presented in various columns in this issue. One must read is the President’s letter and my summary on page 3.

At the meeting we heard several presentations about the next annual meetings. We now have your future planned around the world. See page 3.

Economic Botany name. During the 2015 meeting and in a recent survey we have been thinking about the name change as there is some concern about the interpretation of the term Economic Botany. Working in both economic botany and ethnobotany, I am vested in being sure there is a clear understanding of why our founders chose this name and that if we change a well-established brand, we know why. I am hoping to develop some history with the help of Lisa Offringa of the Archives Committee and some other comments from members to keep this discussion on point. Let me know if you can submit something.

Open-Source, Geotagged Mobile Data Collection Tools

Submitted by Gail E. Wagner, gail.wagner@sc.edu (thanks to Julie Velasquez Runk)

Those who work in epidemiology and humanitarian crises have developed a number of open-source, geo-tagged, mobile data collection tools that can prove very useful for researchers working on ethnobotanical projects.

EpiCollect.net

EpiCollect is an open-source generic data collection tool that allows you to collect and submit geo-tagged data forms (along with photos) to a central project website (hosted using Google’s AppEngine) from suitable mobile phones (Android or iPhone). However, it does not work on iPads. Create your own questionnaires or surveys. All data synchronized (i.e., a copy sent from the phone) from multiple phones can then be viewed/charted/filtered centrally at the project website using Google Maps/Earth or downloaded. Furthermore, data can be requested and viewed/filtered from the project website directly on your phone using Google Maps.

EpiCollect.net provides an intuitive web application for the generation of mobile data collection projects. You can set up your own project and design a form for data collection. The project can then be loaded into the EpiCollect mobile application on suitable phones. Data recorded on the phones (linked to photos and GPS) can then be synchronized with your project website and data viewed either at the website or on your phones. Data collected on the phones is stored on the phone’s internal database until

Continued on page 3
Letter from SEB’s President

February 2016

Dear Friends and Colleagues,

This has been an exciting and busy year for the Society! Working in concert with our dedicated team in the SEB council, the SEB business office, and committee chairs and members, we have set clear goals for the year. Our most urgent and pressing goal is to increase our membership numbers. We have experienced a decline in membership over the past several years (Figure 1).

One of the most meaningful rewards of being a member of SEB is connectivity with a strong network of scientists, students, and scholars who are paving the way forward for our field. We are clearly an international society, with roughly 50% U.S. and 50% non-U.S. based members each year during this period. Over the past several years, the council has brought forth new mechanisms, including $10 gift memberships, to be inclusive of students and members from lesser-developed nations who may not have the funds to cover a full member rate. There are many ways that each of you can help us to build our membership base:

- Invite colleagues to join! I often meet people with a clear research interest in the fields studied by SEB members—ranging from indigenous crops to medicinal plants and more. You would be surprised by how much interest there is in joining if you just take a moment to discuss your experiences with the Society. Direct them to our website to learn more: http://www.econbot.org/.
- Provide gift memberships to your students! A first-time gift membership is only $10. This provides new students with a unique opportunity to engage with the Society. We have an incredibly active student membership—you can also direct your students to read the SEB student blog: http://sebstudentblog.com/.
- Provide gift memberships to associates from developing nations! A gifted associate membership is only $10. It provides our colleagues from developing nations access to the online journal, newsletter, and access to other Society resources. Gifting one or two memberships to your international collaborators and colleagues can make a big difference towards increasing our international engagement!
- Engage with us on Social Media and retweet or share SEB posts! We have an active social media presence. I invite you to follow us on Twitter (https://twitter.com/SEBotany) and “Like” us on Facebook (https://www.facebook.com/SocietyEconomicBotany/) in order to receive regular updates on SEB activities and view content related to Ethnobotany and Economic Botany.
- Spread the news about our upcoming meetings! The SEB council has worked hard to ensure that we have plenty of time to plan the next few meetings in advance. We have some amazing sites lined up, located in the United States and abroad to ensure access to all of our international membership body. Start making plans to attend and spread the word with your colleagues and collaborators:
  - 2016: Pine Mountain Settlement School, Kentucky, USA
  - 2017: Polytechnic Institute of Braganca, Portugal
  - 2018: University of Wisconsin Madison, USA

Thank you for all that you do for the Society! I hope to see you this summer in beautiful Pine Mountain, Kentucky at our 57th annual meeting!

All my very best,

Cassandra L. Quave, Ph.D.
President, Society for Economic Botany

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2016 Mid-Year Council Meeting in Atlanta

The SEB Council met and worked on many pressing SEB issues that are developing, and shared mid-year reports at the meeting, I highlight some here.

Klinger Book Award

Dan Austin, lead of the Klinger Book Award committee, recently died. We now have a new committee. The past committee of Nancy Turner, John Rashford, Mary Theresa Bonhage-Freund, and Eric Boa is to be commended on the many years of service: Thank you! The new committee is led by Past-President Brad Bennett and includes past Klinger Award winners William Balee, Mark Merlin, Rick Stepp, and our Journal Editor, Bob Voeks. If you have a book to review or want to participate, please contact Brad at bennett@fiu.edu.

Future Meetings

In an effort to plan well and continue to be committed to our international engagement, we have the following plans for future meetings:
- 2017 Portugal
- 2018 University of Wisconsin, Madison: Food Security and Food Sovereignty
- 2019 Cincinnati
- and, later, Boulder, CO

Discussions were held on how to make these meetings accessible, meet with other Societies, and financially profitable. If you can volunteer to support meeting development, elicit sponsors, and coordination, please contact President Cassandra Quave at cassandra.leah.quave@emory.edu.

One of the most difficult conversations was the attrition we are seeing in our membership numbers. We need more members to cover all our annual costs. Please consider renewing now, offering memberships to your field collaborators, and encourage professors, colleagues, and media to join.

Open-Source Tools

EpiCollect, developed at Imperial College London, is funded by the Wellcome Trust. For information please see the following publication: Aanensen DM, DM Huntley, EJ Fell, F al-Own, and BG Spratt. 2009. EpiCollect: Linking Smartphones to Web Applications for Epidemiology, Ecology and Community Data Collection.
Interview with 2016 DEB Tony Cunningham
Submitted by Sandra Bogdanova, sandrabogdanova@yahoo.com

1. What led you to the world of ethnobotany? How did it all begin?
Good question. All SEB members have wonderful “origin stories” to tell. Enough for a book…which would be like a strong rope of woven threads, for many “how did it all begin” stories have common threads. In my case, three stimuli were a catalyst. First, my grandfather, a kind man and Zulu linguist, who worked in remote areas and had respect for all people, across all cultures. Second, my parents: a father, an artist and architect who loved African art and environment and a mother who love plants and gardening. Then thirdly, what brought these components together was a book on my grandfather’s shelf: Mairn Hulme’s 1954 Wild Flowers of Natal, which featured most of the plants in the area I grew up, giving their Zulu names and uses. So those “footprints” from other people were the start of a trail I have followed all my life, despite apartheid, no jobs for ethnobotanists, and, at the time, no detailed “how to do it” ethnobotany methods manuals.

2. Could you describe a typical day at work?
I am the worst person to ask that question, as I don’t have a “typical day at work.” Or a “typical day” depends where I am working. Which might be teaching in Papua New Guinea, doing fieldwork with Indonesian colleagues in eastern Indonesia (I go there in three days time), or in Africa, where I recently completed a study on illegal logging and ripple effects onto ivory poaching, or my home office in Fremantle, Australia, where I currently live, or from my home in South Africa. It is in southern Africa where I have my strongest “sense of place” and where I will return in three years time. Simply put, I haven’t had a “real job” since 1984, when I finished my PhD. All the rest of my life has been working on “soft grants.” Or none. But I get up really early, work long hours, with the common threads are that I don’t have TV at all (which saves a great deal of time), nor Facebook or Twitter. If the weather is bad and I am at home, I deal priority issues first (I make lists). If the weather is fine I go out fishing from a sea kayak as the sun rises, then have breakfast, make an espresso, and start my day….

3. You’ve encountered cultures around the world. How have you chosen where to settle and down the roots?
I haven’t settled yet. But I know where I want to be. At the moment, I think of myself as a migrant worker away from my African home, to which I will return. Yet I feel comfortable in many parts of the world, with which I have been privileged to build up close connections with wonderful people and places over many years of collaborative work:

India (particularly Tamil Nadu); China (especially Yunnan and Sichuan); Western Highlands, Papua New Guinea; and then, most of all, East and southern Africa. So as my art website indicates, I think of myself as “Gondwanan” (see: www.tonysartandnature.com)

4. What can you say about the role of local communities for ethnobotany?
This is a complex question, which needs more space to answer. But the close connections between place, plants, and culture are not only important in terms of “roots” and the past, but also “shoots” and the future. Local knowledge, which is eroding in many places, is so important at many levels, including adaptation to climate change.

5. Can you describe your academic and/or professional philosophy?
While I wear an “academic hat”, trying, as a person not on any salary, to keep publishing (which is an important responsibility for all of us), I am an “applied problem solver” by nature, who has seen the damage done by academia chopping up the integrated, multi-disciplinary real world into single disciplinary themes, has tried to do trans-disciplinary work as much as possible. Mainly applied to real world issues: conflicts between people and conservation areas, for example.

6. You’ve had a long and successful career—do you have any general life and/or professional advice for young and aspiring ethnobotanists?
If you love learning new things and intellectual challenges, then ethnobotany (or better still ethnoecology) are the fields for you. This is an incredibly exciting time for ethnobotanists and ethnoecologists. New techniques (such as genomics and accelerator mass spectrometry radiocarbon dating) offer amazing opportunities for linking with older methods and for research collaborations. Never be satisfied that you know enough. There is always more to learn. Try to save time by giving up time-wasting things, so you can “go down the rabbit hole” following information trails of credible, peer reviewed research that connects to what you do. Try to be the best at what you do. And expect hardship. Expect to be knocked back. But be determined, resilient, professional, and above all, passionate. For that is what will get you through thirsty, sweating places with biting flies or boring bureaucracity.

7. Is there a study or collaboration that you wish you could find time to work on (past or present)?
I wish I had opportunities to teach more, particularly if there was a field course component. I love teaching at all levels, from the village level in southern Africa to teaching well-established Papua New Guinean researchers and scholars. But I am

Continued on page 5
8. What do you do read or study in your free time?
I am currently reading two thoroughly enjoyable books. Sapiens: A Brief History of Humankind (by Yuval Noah Harari) and The Invention of Nature: The Adventures of Alexander von Humbolt, Lost Hero of Modern Science (by Andrea Wulf). But some days, I am tired of reading. So that is where fishing (good weather) or watching a movie (most recently “Brooklyn” about Ireland, choices, and sense of place) are something I do. One can only read so much…then I need a break!

9. We have noticed a decline in membership, especially with students in the past years. Do you have any advice for reversing this trend?
This is an unfortunate trend. And it can be reversed. SEB has been pro-active at asking established scientists to mentor younger SEB members on chosen themes. “Teaching Tuesday” and the workshop that I was part of at the previous SEB meeting in South Africa was great fun. Probably for me most of all, meeting such super-smart, keen young people who will go on to do great things. Perhaps a variety of short thematic fieldtrips that were low cost and affordable after or before SEB meetings are an option. Or universities and SEB trying to get endowments or grants for guest teachers within established courses. Enthusiasm is infectious. Particularly in a field situation, where people can experience plants through taste, touch, and through the stomach! That can reverse the trend.

10. While you are an inspiration in our field and a legend in your own right, you have also worked with and been friends with many legendary ethnobotanists across continents. Do you have any stories or wisdom from working in that environment that you could share with our members?
Always be open to new ideas. Grasp opportunities and take risks. Trust scientific methods and always think creatively. In some cases, what we thought was rock solid information turns out to crumble like sand. Be skeptical of “legends.” We are all human. And fallible. I have seen some “legends” behave very badly in local community situations. And there is no excuse for that.

11. What is the most recent direction you have taken in your career, and why?
I have recently renewed my work as a fine art print maker. I studied etching in the early 1980s, moved very heavy etching press around for years, within Africa and Australia. But the technique is slow and less versatile for me. So I have been using a different method of doing Giclée prints, with the designs now expanded to textiles. My most recent exhibition was 10 – 28 February 2016 at Kidogo gallery in Fremantle, Australia and went very well. I don’t have Facebook, but the gallery does: http://www.facebook.com/pages/Kidogo-Arthouse-Fremantle/80489903147.

12. What do you see as your legacy?
On the ethnoecological (and ethnobotanical) science side, my legacy is in two parts: publications and people. Publications (such as my book Applied Ethnobotany: People, Wild Plant Use and Conservation (2001, Earthscan), which is published in Chinese, Spanish, and English) have been useful, I think. But can be updated and improved. Ideally, “living documents” in the form of online, easily updated resources would be best. But most of all my (and I think as scientists, our) most powerful legacy is through the people we work with, inspire, and who also inspire us. Particularly young people. That is the SEB opportunity. And the challenge.
Education Column

Submitted by Past-President, Gail Wagner
gail.wagner@sc.edu

Using Phenophase Observations to Teach

What is phenology? Is it the timing of the seasonal activities of plants and animals (e.g., when do leaves bud out or when do they fall off?). You can involve your students in several citizen-science projects that record phenophases. Why would you want to do so? Involvement requires close observation of nature over time, a skill that many students have not before practiced. Additionally, comparing the timing of phenophases over the years (which you can do by recording phenophases from herbarium specimens) allows you and your students to track the local effects of climate change. In addition to data from herbaria, old photographs and historic nature journal entries can supply phenophase comparisons through time.

You have a choice of participating in and learning from several citizen-science projects. Project Budburst <http://budburst.org> is one of the easiest to use, plus it accepts observations of urban trees (that is, plants near concrete). Co-managed by the National Ecological Observatory Network (NEON) and the Chicago Botanic Garden, all data collected are freely shared for use. Season Spotter, their phenocam, is one of the Zooniverse projects asking for help from citizen scientists. The Education section on their website includes materials and ideas for informal education as well as grades K-12 and higher education. As instructor, you are able to keep track of submissions from your students.

The National Phenology Network (NPN) <https://www.usanpn.org/education> also features a large Education section featuring their Nature’s Notebook place-based curriculum. Observations may be recorded not only for plants, but also for animals and insects. Using Nature’s Notebook requires a steeper learning curve than does using Project Budburst, but again you can keep track of class responses. Under Nature Notebook’s curriculum, find PowerPoint shows that you can use or mine to present in your class.

The NPN webpage leads you to the California Phenology Project’s primer on how to conduct herbarium-based phenology research. Here is an excerpt from their webpage <https://www.usanpn.org/cpp/education/herbarium>: “Although herbarium collections have been used in scientific research for many decades, scientists have only recently turned to herbarium collections to study climate change. With over 600 herbaria in the United States containing over 260 million specimens, this field of research promises to grow rapidly. With this in mind, CPP scientists and educators created the resources on this page to inform other scientists, educators, and students about how phenology is being studied in herbaria to learn more about the historical context of ongoing climate change.”
A Primer on Herbarium-Based Phenological Research

This 19-page guide provides an overview on herbaria and how they’re used to study phenology and climate change. Photos, details, and suggestions are provided so that readers can initiate their own phenological research and education projects in nearby herbaria.

In fact, you may find that a consortium of herbaria in your area have already banded together to begin collecting these data: observations by you and your students may be heartily welcomed! That’s what I discovered about southeastern U.S. herbaria. Using the following instructions (also found on the CPP web page above) my students and I collected data from seven South Carolina plants and made scatter plots of peak flowering time through the years for each of the plants.

Skeletons in the Closet—An Herbarium-Based Phenology Data Activity

Step-by-step guide Data set

Using a data set derived from herbarium specimens collected in California from 1906-2009, you’ll be guided step-by-step through the processes of organizing, summarizing, visualizing, and analyzing the data using Microsoft Excel. An introduction in the guide provides background on herbaria, the motivations behind the research project, and the structure of the data set. Discussion questions and suggestions for continued learning are included for each section.

View my one-minute video summarizing the South Carolina herbarium-based phenophase observations the ethnobotany class made in the summer of 2015: https://www.youtube.com/watch?v=Lo652ruZsnM. Incidentally, at our 2KnowNature YouTube channel, you can view the other one-minute Videolicious movies under-graduate students made on various plants.

Let’s face it; herbarium specimens tend to focus on capturing flowers. The recent article by Richard B. Primack and Amanda S. Gallinar (2016, Spring Budburst in a Changing Climate, American Scientist 104(2):102-109) points out the importance also of recording the life cycle of leaves. My advice? Get out there and start observing nature!

If you are interested in learning/practicing more, sign up for Gail’s education workshop on this topic on Teaching Tuesday at the 2016 SEB conference!

Vision and Change Update

By Yolanda S. George and Shirley M. Malcom
AAAS Education & Human Resources Programs

We are writing to announce the availability of the AAAS publication, Vision and Change (V&C) in Undergraduate Biology Education: Chronicling Change, Inspiring the Future. This publication sought to take stock of what has been accomplished at both the course and faculty level since the start of the V&C initiative in 2006 and to consider how to accomplish the larger scale changes needed at the departmental and institutional levels. We were particularly interested in actions related to the V&C 2011 report.

Information compiled in this publication represents responses from over 500 faculty and staff at 292 colleges and universities, professional societies, and other institutions who submitted abstracts, responded to questions, and/or presented posters at the 2013 follow-up conference about the efforts they are making to change undergraduate biology education at their institutions. [SEB members Sunshine Brosi and Gail Wagner participated in the 2013 conference.] We hope this report, as well as the first report—Vision and Change in Undergraduate Biology Education: A Call to Action, will be useful in initiating or continuing campus and department discussions, as well as activities within professional society boards and committees to support this needed change. The 2013 Vision and Change Conference materials are online at http://visionandchange.org/2013-conference-materials/. Print copies of both Vision and Change publications can be ordered via http://visionandchange.org/contact-us/.

Student Representative Elect: Sandra Bogdanova, 2015-2017

I am a second-year MA degree student in Indigenous Studies, at the Centre for Sámi Studies, UiT the Arctic University of Norway, and also a member of the Society for Economic Botany (SEB), a member of the Association of Polar Early Career Scientists (APECS), and a free-lance writer for FDCIP (Forum for Development Cooperation with Indigenous Peoples). Recently I became a fellow researcher at the UIT project “Focal Point North” that combines education, research, and networking among institutions in the North. Currently I am conducting community-based research among the indigenous Sámi people, gathering the knowledge for recording the continuity and change of the ancient use of Pinus sylvestris L. (Scots pine) bark for food in northeastern Finland.

Continued on page 8
My interest in the field of (applied) ethnobotany is constantly growing through my passion—ancient and current cultural uses of various plant barks, bark management, and bark commerce. I have a BA in Archaeology from Vilnius University (Lithuania), with experience of working in the field, archives, and in the laboratory. Past years of work connected me to ethnobotany and, step-by-step, I begin to specialize in Alpine, Arctic and sub-Arctic vegetation. So far I have been working with traditional knowledge of native peoples in northern Scandinavia and southwestern China. All along the way, gained knowledge formed the solid and sustainable foundation of an accurate view of my individual scientific direction. I hope everything I do will contribute to informing the encounters between peoples in the North, reveal and heal the burdens of history, suggest new approaches to curation of indigenous peoples’ heritage, and encourage cooperation among local, indigenous and other institutions.

At-Large: Aurelie Jacquet, 2014-2016

I am a last-year PhD candidate at Purdue University, Indiana. After growing up in the South of France, I decided to move to the United States to pursue a career in ethnopharmacology. I have a broad range of professional interests and works with traditional communities in Nepal as well as with Native Americans to find next generation therapies for Parkinson’s disease. I also have a great interest in sharing my science with lay audiences and enjoy giving public talks and participating in K-12 outreach activities.

At-Large: Matthew Bond, 2015-2017

Aloha! My name is Matthew Bond, and I’m a Canadian/American botany PhD student at the University of Hawai‘i at Mānoa. As a Cornell University undergraduate, I studied Plant Sciences with a concentration in Plants and Human Health. Our lives depend on plants: for every five people in the world, three use medicinal plants as their primary source of medicine. I want to know how people choose these medicinal plants—why do people look at their environment and decide to use certain plants for medicine rather than others? To answer this question, I’m currently working in the Solomon Islands. During my ten-month research trip, I am exploring how plants, and humans, and their environments affect one another, and may also help us to develop new medicines. Feel free to follow my adventures on my blog!

At-Large: Cory Whitney 2015-2017

Student committee member Cory W. Whitney is a PhD Candidate at University of Kassel, Wittenhausen, and Faculty of Organic Agricultural Sciences and Scientific Staff at the Rhine-Weil University of Applied Sciences in Kleve, Germany. He is a human ecologist, ethnobotanist, and organic agronomist with more than ten years experience in nonprofits, environmental educational organizations, and research institutions. Cory is interested in supporting and strengthening sustainable practices through education, development, and participatory research. He is seeking solutions to the interconnected issues of loss of biodiversity, loss of traditional culture, and food insecurity.

At-Large: Betsabe D. Castro-Escobar 2015-2017

As a native Puerto Rican, I grew up in a tropical gem that is rich in biodiversity and natural wonders. My interest in plants and people began in my childhood when I used to help my grandparents prepare traditional herbal remedies whenever we got sick. My growing curiosity for plants and people motivated me to pursue a BS degree in Integrative Biology at the University of Puerto Rico, and later an MA degree in Cultural Anthropology at the University of Missouri.

Now, I am a first year PhD graduate student with Paul Fine and Thomas Carlson in the Department of Integrative Biology at the University of California, Berkeley. My general research interests lie in the intersection of the fields of tropical ecology and ethnobotany. I am especially interested in how humans can promote evolutionary responses to culturally significant plants. I attempt to compare the phenotypic variation and plasticity of ethnobotanical plants in different islands of the Caribbean Basin. I am also interested in establishing research sites in northern California and the Amazon.

Undergraduate: Ghita Heidt, 2015-2017

I am not the typical student: I am a single mother and after a long break from university I have returned to finish my degree. I have always been interested in plants since I was a young girl living in the North. Now I am an older “girl” living in the south and my love of plants and their uses has stayed with me these many years. As far as ethnobotany is concerned and my focus in my studies, I am still trying to figure that out. At Florida State I have not had any professors interested in ethnobotany that could give me guidance, and most everything I have learned of plants has been self-guided. I did some independent study on the medicinal uses of Hypericum spp. in Florida along with georeferencing, and have explored the biogeography of plants while at FSU.

I find myself interested in the evolution and biogeography of plants and how plants have affected the various cultures of the world, but also how culture has affected plants and their dissemination over the planet. At this point of time in the history of our world I also find incredibly important the protection of this knowledge of the many uses of plants and also the conservation of said plants and the ecosystems within which they reside.

Undergraduate: Brandon Dale, 2015-2017

As an amateur botanist researcher who studied the cultural and scientific aspects of traditional medicine, with a specific focus on the types of herbal therapies that are used to heal, I did not imagine any major could truly captivate all of what I wanted to learn as an undergraduate at Brown University. However, after taking a biology class called “The Botanical Roots of Modern Medicine” during my first semester, my eyes were opened to an entirely new world of academic pursuits—ethnobotany and pharma...
cognosy. After being equipped with knowledge of traditional healing systems, traditional botanical knowledge, and phytotherapy, I knew that this is what I wanted to study as an undergraduate and beyond into my doctoral degrees.

Wanting more experience within these fields, I began to conduct research involving medicinal plants and reaching out to those who had similar interests, which inevitably lead me to the SEB. Serving on the SEB’s Student Committee would allow me to share my passions for the field of ethnobotany, while creating opportunities for other students to access mentors, internships, and SEB resources. As an undergraduate, I feel especially inclined to serve on the SEB Student Committee so that I can reach out to the undergraduate population of ethnobotanists to build a community that promotes academic inquiry and conversations among undergraduates interested in ethnobotany.

Undergraduate: Anna Elise Stratton, 2015-2017
I am a Biology and Food Systems (Environmental Studies) undergraduate student at Tufts University in the Boston area. My real passion lies in ethnobotany, however, and I am thrilled to have discovered the SEB student page and committee this year.

Since my freshman year of college, when I began working with Dr. Selena Ahmed (now at Montana State University) on her tea agroecosystems project, I have been enthralled by the plants-and-people relationships that make up ethnobotanical research. Following that spark, I have conducted two independent field-based research projects, the first on seed-saving practices among the Mapuche in southern Chile and the second on plant biodiversity and agroecosystem vitality in eastern Guatemala. My methods in the more recent project involved interviews with (Guatemalan) Q’eqchi’ Maya farmers and maize grain collections for protein analyses. These dual methods illustrate my blossoming interest in finding ways to tell both plants’ and peoples’ stories about agroecosystem changes.

Opportunities, Summer Courses, and Internships

Mountain Lake Biological Station mlbs.org/summercourses
- Plant Diversity and Conservation
- Science Writing
- Field Biology of Fungi

Financial aid is available for undergraduate and graduate students. The deadline is a little late, but try and remember to apply for a Summer REU Internship for 2017: mlbs.org/reuprogram.

REU participants are recruited from around the country for a unique 10-week learning and living research experience in the southern Appalachian Mountains. Students conduct independent research in field ecology, evolution, behavior and physiology under the supervision of station scientists. REUs are paid internships that include room and board, travel, and a $5,250 stipend. Program dates: May 23 – July 29
Application deadline February 20.


Evolution Video Competition
[Information from AIBS Public Policy Report 17(2) of January 25, 2016]
Scientists and science educators are invited to enter the Sixth Annual Evolution Video Competition, sponsored by the Duke Initiative for Science & Society, Howard Hughes Medical Institute, Society for the Study of Evolution, and BEACON Center for the Study of Evolution in Action.

To enter, submit a video that explains a fun fact, key concept, compelling question, or exciting area of evolution research in three minutes or less. Entries may be related or unrelated to your own research, and should be suitable for use in a classroom. Videos should be both informative and entertaining.

The finalists will be screened at the Evolution 2016 meeting in Austin, Texas. (You do not need to attend the conference in order to enter a video.) The winner will receive a prize of $1,000; the runner-up will receive a prize of $500. The deadline to submit a video is 11:00 p.m. EST on 31 May 2016.

For further information and to view entries from previous years, visit http://evolutionfilmfestival.org/.

Zooniverse – Umbrella organization for citizen science projects
https://www.zooniverse.org/
As they say on their opening page, The Zooniverse provides opportunities for people around the world to contribute to real discoveries in fields ranging from astronomy to zoology. Welcome to the largest online platform for collaborative volunteer research. Check out the 43+ citizen-science projects gathered under the umbrella of Zooniverse! Volunteer to help, or assign working on a project as a classroom requirement. Once you are registered for any one of their projects, you will be invited to be a beta tester for new projects as they arise. Record phenology, look for early human fossils, record the rhythm of tropical trees, record animal occurrence and behavior on animal cams, or transcribe museum records—you are sure to find a citizen science project that interests you. Or consider submitting YOUR project for help from citizen scientists—anyone can build a zooniverse project!

The National Socio-Environmental Synthesis Center (SESYNC) is dedicated to accelerating scientific discovery at the interface of human and ecological systems. We support new interdisciplinary collaborations that pursue data-driven solutions to pressing socio-environmental problems. SESYNC features a range of services from project inception through results dissemination, including supporting the team science process, meeting planning and facilitation, travel and logistical support, and cyberinfrastructure resources. SESYNC is funded by an award to the University of Maryland from the National Science Foundation. Check out SESYNC funding and support possibilities at http://sesync.org/.
Cross-Pollination: Adventures in Botany
Submitted by Student Committee Member Cory Whitney, whitney.cory@gmail.com

Adansonia digitata L., the baobab, is a fascinating tree with a wide distribution area in sub-Saharan Africa. The botanical record shows that the baobab is absent in Uganda despite the fact that it is found in nearly all of her bordering nations. Why? As botanists, it has been our aim to either find a good answer to this question or to find this tree in Uganda. Our hope was for the latter.

This February, while traveling in the south of Uganda we heard reports of foresters who had seen two large specimens on the border to Kenya during a field survey east of Kidepo National Park. We wanted to believe them despite the fact that they had seen these baobabs years ago and had taken no photos or herbarium specimens. A baobab in the location they described did not seem unlikely. The Kenyan border region between Kidepo and Matheniko Game Reserve is very hot and dry. The vegetation, landscape, and soils fit with the baobab’s other areas of distribution. Moreover, these specimens would be precisely in the zone that has been noted as an empty place between Kenyan and Sudanese baobab populations (Wickens 1982). Could Uganda not only contain the tree but also an avenue for the historical dispersal to different areas of diversity? If these were indeed large trees, as the foresters had reported, then we could certainly make a case for that. We were also excited for an opportunity to go to far northeastern Karamoja. It would be a great chance to meet the Karamojong and the Ik indigenous peoples, and search with them for their elusive trees. Despite our enthusiasm, the foresters declined our invitation to search together: that should have been our first clue about what was to come.

Luckily, that part of Uganda has recently become a relatively safe place to travel. The Ugandan government has just finished a successful disarmament of the northern peoples on the Uganda side. In the northeast, however, the traditional rivalries with the Kenyan Turkana just across the border have not ended, and in the evenings it is still sometimes a dangerous place to be. We followed the Kampala foresters’ remembered path to the baobab onto the traditional lands of the Ik people. Once the Ik covered the lands that are now Kidepo, but were forced out and subsequent famine and conflict has reduced their numbers such that their entire population now fits in a few small villages. Despite hardships and struggles, the Ik were warm and welcoming and very eager to explore with us.

Sadly, we arrived at dusk on our first day with the Ik, still more than five hours on foot into the valley toward Orpoi Kenya before the reported location of the baobabs. The Ik chief and village leaders refused to allow us to go down to the dangerous Turkana borderlands in the evening. However, they arranged for two adventurous young men to go for an overnight hike to the trees to collect a leaf and flower or fruit for us.

The next morning we arrived in the village to find the two young men with several branches, with leaves and flowers bundled in the village square, like a fresh kill. The village members were gathered around. Amid much fanfare we got through the crowd, and we knew immediately that we had been led on a wild goose chase by the foresters in Kampala. This was not a baobab, but Adenium obesum the baobab’s little caudiciform cousin.

However, the story of our Ugandan baobab hunt did not end there. During this long travel, we learned of other possible locations in the dry north and followed through. Driving over 3,100 km in just a few short days, we twice circumscribed the country and found nothing in the arid north. Several times we followed convinced locals to a bombax, Ceiba pentandra (L.) Gaertn., the kapok tree. However, not all was lost. We describe in a forthcoming manuscript in Genetic Resources and Crop Evolution the luck we had in the western districts of Soroti and Iganga.

Cory W. Whitney is a student council member of the Society for Economic Botany (SEB). He is a PhD student at the University of Kassel in Witzenhausen, Germany, and a Scientific Staff Member at the Rhine-Waal University in Kleve, Germany.

Embrace of the Serpent—A Review

Directed by Ciro Guerra. 2015. 125 minutes. Spanish and Cubeo with English subtitles.
Submitted by John de la Parra delaparra.j@husky.neu.edu

“You devote your life to plants? That’s the most reasonable thing I’ve ever heard a white say.” Early in this beautiful and nuanced film, the indigenous Amazonian shaman Karamakate speaks these lines toward Orpoi Kenya before the reported location of the baobabs. The Ik chief and village leaders refused to allow us to go down to the dangerous Turkana borderlands in the evening. However, they arranged for two adventurous young men to go for an overnight hike to the trees to collect a leaf and flower or fruit for us.

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Literature Cited

In Memoriam: Professor Harold Conklin

Professor Harold Conklin Leaves a Legacy of Respect and Insight

Submitted by Jan Salick, jan.salick@mobot.org

Ethnobotanists in the National Academy of Sciences can be counted on one hand; the most preeminent was Harold Colyer Conklin (1926-2016). He was a pioneer of ethnecology with his careful and detailed observations on indigenous ways of understanding and knowing the world. He is particularly known for his research on indigenous agricultural, botanical, and linguistic knowledge in the Philippines, among both the Hanunóo and Ifugao, who he loved and by whom he was beloved. Clifford Geertz, himself an academic giant, said of Conklin, “It has long been established opinion that [Harold Conklin] is one of the very best fieldworkers, . . . [with research] as daunting as it is exemplary.” His “Ethnographic Atlas of Ifugao” is considered a model for ethnographic studies. We mourn his recent passing at the venerable age of 89, hailed by a native Ifugao ritual at the funeral in New Haven.

Harold Conklin was interested in Native Americans from an early age and was adopted into the Mohawk Nation during his elementary schooling. He studied Anthropology at University of California, Berkeley, starting in 1943 and received his degree in 1950, with interim service in World War II and research in the Philippines. He received his PhD from Yale University in 1955 with his dissertation on the Hanunóo in Mindoro. Conklin taught at Columbia University until he returned to Yale in 1962. He spent years in the field, published scores of influential academic papers, and mentored students and colleagues alike. His guidance and inspiration will be sadly missed.

Jan Salick is Senior Curator of Ethnobotany, Missouri Botanical Garden, and John Klock, Ethnobotanist and Natural Resources Specialist, California (and married to the daughter of Harold Conklin’s Ifugao field assistant).

Open-Source Tools

KoBoToolbox.org

Developed by the Harvard Humanitarian Initiative with help from partners, KoBoToolbox is a suite of tools for field data collection and analysis for use in challenging environments. Their software is free and open source. Most of the users are working in humanitarian crises, as well as aid professionals and researchers working in developing countries. Unlike EpiCollect, no downloading of an app—you simply register to use the product.

Easily create survey forms through their intuitive and powerful tool. Store recurring questions in your library or share them with colleagues. Quickly and reliably collect your survey data on Android, iOS, and many other devices, online or offline, in any language and with complex skip logic. Inspect your data moments after it was collected—or download it for advanced analysis in other software in Excel, CSV, KML, and other formats.

KoBoToolbox’s Android app, based on OpenDataKit, uses the power and experience of hundreds of thousands of interviews conducted all over the world. Their webforms integration, based on Enketo, also allows collecting data on iPhones, laptops, or any other device. Their tools were built for the most demanding contexts where Internet connectivity is the exception, not the rule. Surveys can be conducted entirely while being offline, regardless what kind of device is used during the collection process. Collected information is stored safely. Synchronization via SSL ensures that your data can’t be read by a third party. Strong safeguards exist also for avoiding data loss even during very long interviews. Uploading data is straightforward and can take place on demand or in the background whenever Internet connectivity is available.

You can create summary tables for all indicators without having to download the data, and you can summarize using simple frequencies or calculating averages (mean, median, and mode). You can immediately see collected points, and disaggregate data points by survey responses (such as gender or education level). You can download all GPS points as a KML file to integrate into other software. Additionally, you can download all your data into Excel, CSV, SPSS, and other formats, and download all collected media (images, videos, sound recordings) as a ZIP file. Data can also be accessed by other means through a robust API.
The Ethics Toolkit for SEB Needs YOU!
Submitted by Letitia M. McCune
SEB Ethics Committee Chair, letitiamccune@msn.com

Following the adoption of the ISE code of ethics in 2013, SEB’s ethics committee continues to work on its toolkit for members to use to help them with questions on methodology in relation to ethical research practices. We continue to request input from our members on their experiences with permits, informed consent, agreements, etc., to benefit future research.

• Do you have a particular experience(s) you’d like to share for the greater good of the SEB membership in regard to following the SEB Code of Ethics?
• Can you give examples of your permit experiences with your fieldwork?
• Can you give examples of your agreement processes?
• Can you give examples of troubleshooting you have managed in navigating requirements of countries and communities?
• Did you present or discuss questions at the IPR Workshop at Clanwilliam last year? Can you give us a statement of concerns or ideas on how to address concerns?
• Do you know of a great resource you think should be in the toolkit to help members?

This is all for the benefit of the Society and helping other members learn and conduct their own research. We hope you will send us your experiences to put on the society website toolkit.

Please contact us (ethics_chair@econbot.org or letitiamccune@msn.com)!