

2020 Economic Botany Section Report to the BSA Council  
Submitted by Laura Klein (LeafWorks Inc, laura@leafworks.com)  
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***Current Section Governance:***

*Laura Klein – Chair*

*Emily Warchefsky – Secretary/Treasurer*

*Alex McAlvay – Public relations co-officer*

*Doressa Williams – Public relations co-officer*

2019-2020 Activities:

**1. BOTANY 2020 Activities and aftermath**

- a. Contributed Papers: 4 presented (4 cancellations) in the Ethnobotany session, with 100 registered attendees and approximately 89 people in attendance for the session. 2 presented in the Crops and Wild Relatives session, with 66 registered attendees and approximately 33 people in attendance for the session.
- b. Contributed Posters: 3 posters were submitted to the Crops and Wild Relatives and 6 posters were submitted to the Ethnobotany subsections of the Economic Botany section.
- c. The Economic Botany business meeting was held Monday, July 27, 2020 at 4:30pm EST. Discussion included:
  - i. Silent Auction fundraising event
  - ii. Mixer/event for members
  - iii. Fieldtrip interests
    1. Proposed idea of virtual fieldtrips
    2. Virtual sessions during future meetings for those members that are international?
      - a. Working with BSA social media to have “virtual fieldtrips” or posts about their research. Elliot Gardner is willing to submit a post!
      - b. Increasing connections to the tropics
      - c. The conservation of medicinal plants; awareness of diversity
      - d. Openherbarium.org – University of Balochistan
    3. BOTANY 2021: Good museum – Mosca Pulminaria; Poluse wheat, orchards; Louiston
- d. Teaching support? Create a post or email to members to request educational resources / tools. Encourage people to suggest materials that are in different languages as well. Take advantage of virtual meetings and educational tools that would connect students to people doing ethnobotanical research
- e. Mixer: interest was warm; concerns about attendance. Food and drink (alcohol) may be motivating

**2. BOTANY 2021**

- a. The section is supporting 1 colloquium financially:

- i. Darwins' reversals: What we now know about Feralization and Crop Wild Relatives
- b. The section is supporting 4 symposia in name:
  - i. The Hills are Alive: Ecology and Evolution of the Intermountain West Flora
  - ii. Applications of CRISPR technology across the plant tree of life
  - iii. Black Botanical Legacy: Past, Present, Future
  - iv. The impact of climate change on plants and their interactions with pollinators
- c. The section is supporting 5 colloquia in name:
  - i. Research and Funding Opportunities: Partnering with Federal Agencies to Conserve Rare Plants
  - ii. Collections-based systematics and biogeography in the 21st Century - A tribute to Dr. Vicki Funk
  - iii. The Contribution of Regional Flora Projects to the Global Strategy for Plant Conservation
  - iv. Enhancing Quality and Use of Herbarium Collection Data through Community Data Curation
  - v. Phytochemistry: From atoms to organisms
- d. The section received 35 abstracts:
  - i. Ethnobotany Posters (10):

275	Prevalence of Southern Appalachian medical plants as gynecological aids over generations	*Mundt, Gillian [2]; Metzgar, Jordan [3]
285	Collection analysis and predictions on availability for two Southern Appalachian wildflowers <em>(Sanguinaria canadensis </em>and<em> Trillium erectum)</em>	Metzgar, Jordan [3]; *Bradford, Caroline [2]
313	Alkamide and Caffeic Acid Derivative Levels in Alcohol Extracts from Fresh <em>vs</em>. Dried <em>Echinacea laevigata</em> (Asteraceae) Flower, Leaf, Stem, and Root	*Senchina , David S [2]; Perera, M Ann [3]
703	Sceletium Secrets - Exploring the phytochemical and metabolomic diversity in the <em>Sceletium</em> genus	*Reddy, Kaylan [2]; Stafford, Gary Ivan [3]; Makunga, Nokwanda [4]
922	ACARICIDAL ACTIVITY OF <em>Mangifera indica</em> L. LEAF EXTRACT AGAINST <em>Amblyomma variegatum</em> Fabricius	*Odeyemi, Oluwasanmi Babatunde [2]
930	Sex expression and floral variability in the &rsquo;food of the gods&rsquo;, Diospyros virginiana (Ebenaceae)	Stevens, Martin [5]; *Ross, Nanci [6]; Smith, Emily [2]; McGinnis, Ryan [4]; Flowers, Margaret [3]

1069	An ethnobotanical study of a recipe to treat Pleurisy "Bad Breast" from 17th century Medici records	Krakos, Kyra [2]; *Vago, Emily [2]; Buchanan, Ashley [3]
1095	Does ecological niche modeling look good on paper? Applying methods in global change biology to an ethnobotanical system	*Lucas, James [2]
1128	The draft genome of <i>Spodiopogon formosanus</i> , a Taiwanese indigenous crop	*Liu, Shih-Hui [2]; Ou, Chia-Ying [2]; Lin, Chih-Chung [2]; Chou, Fu-Shan [3]; Chang, Chia-Hao [4]; Chao, Yi-Shan [5]; Chang, Hsun-Shuo [6]
1151	Natural Dyes from Plants that Grow in the Mississippi Delta	Baghai-Riding, Nina [2]; Koehler, Catherine [2]; *Pinter, Hannah [2]; McClure, Jonathan [2]

ii. Ethnobotany Papers (5):

843	Phylogenetic and Metabolomic Analyses of <i>Lygodesmia</i> Species (Asteraceae) Used by Native Americans to Treat Diabetes Mellitus	*Nelson, Dillon [2]; Pradhan, Bijaya [2]; Nepal, Madhav [3]
826	Using population genomics methods to understand how Indigenous peoples have influenced diversity and distribution of <i>Solanum diversiflorum</i> across Australia's Western Desert	*Williams, Tanisha [2]; Martine, Christopher [2]; Heim, Jeff [2]; McGuire, Chloe [3]; Wroblewski, Amy [3]; Bird, Rebecca Bliege [3]
45	Traditional knowledge on wild edible plants among Messiya people, Morocco	*GHANIMI, Ridwane [2]; Ouhammou, Ahmed [3]; Cherkaoui, Mohamed [2]
437	Identification of Medicinal Plants Sold in Gashua Market, Yobe State, Nigeria	*IJAI AYUBA, THLIZA [2]
1112	Plant Solutions for the COVID-19, Phytochemistry and Biodiversity Climate -Link	*Pandey, Vashist [2]; Pandey, Vaibhav [2]

iii. Crop Wild Relatives Posters (10):

302	Does drought influence glucosinolate production in agricultural and floricultural mustard species?	*Sagi, Tyler Joseph [2]; Reicholf, Rebecca [3]; Drenovsky, Rebecca [4]
398	Genome-wide association analysis of freezing tolerance in soft red winter wheat	*Rojas-Gutierrez, Juan Diego [2]; Lee, Gwonjin [2]; Oakley, Christopher [3]

558	<em>Solanum malmeanum</em>, a wild relative for potato breeding	Heiden, Gustavo [4]; *Nicolao, Rodrigo [2]; Castro Marques, Caroline [3]
615	Breeding system of <em>Solanum malmeanum</em>: pathways to unlock the barriers of a wild relative to broaden the potato crop genetic basis	Heiden, Gustavo [4]; *Nicolao, Rodrigo [2]; Castro Marques, Caroline [3]
698	Characterizing patterns of variation and covariation in leaf spectral traits in two perennial grass species	Miller, Allison [5]; Rubin, Matthew [3]; *Keaggy, Liam [2]; DeHaan, Lee [4]
708	Studying the evolution of functional genes in <em>Centrapalus pauciflorus</em> (Asteraceae) and its wild relatives	Mandel, Jennifer [3]; *Murin, Paige [2]
799	Overlooked genetic diversity of vanilla cultivars in their origin offers hope for sustainability&nbsp;	*Ellestad, Paige [2]; Perez-Farrera, Miguel Angel [3]; Forest, Felix [4]; Buerki, Sven [2]
846	From Cotyledon to Clone; Tissue Culture Optimization for <em>Brassica</em> Transformation	Yang, Bing [4]; Pires, Chris [5]; Piasias, Michael [3]; *Gafford, Danielle [2]
891	Diversity in Leaf hyperspectral Reflectance across Cultivated Sunflower Germplasm	Mason, Chase [6]; Goolsby, Eric [5]; Dowell, Jordan [4]; Majumder, Sambadi [3]; *Coelho, Daniel [2]
968	Multivariate analyses reveal the classification of <em>Lepidium</em> spp. in Peru	Arbizu, Carlos [3]; *Ponce-Aguirre, David [2]; Saravia-Navarro, David [3]

iv. Crop Wild Relatives Papers (10):

841	Overlooked genetic diversity of vanilla cultivars in their origin offers hope for sustainability	Forest, Felix [4]; *Ellestad, Paige [2]; Perez-Farrera, Miguel Angel [3]; Buerki, Sven [2]
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688	Gene flow patterns and population genomics of the highland cucurbits, the chilacayote (<em>Cucurbita ficifolia</em>) and its wild relatives	Gasca-Pineda, Jaime [3]; Vázquez-Lobo, Alejandra [5]; *Aguirre-Dugua, Xitlali [2]; Barrera-Redondo, Josué [4]; Sánchez-de la Vega, Guillermo [4]; Monterrubio, Brenda [4]; Castellanos-Morales, Gabriela [6]; Scheinvar, Enrique [4]; Aguirre-Planter, Erika [4]; Montes-Hernández, Salvador [7]; Lira-Saade, Rafael [8]; Eguiarte, Luis [9]
555	Fleshy fruit trait integration and drivers of divergence in the wild tomato clade	Caicedo, Ana [3]; *Barnett, Jacob [2]
628	Understanding the genetic base of shattering in pearl millet.	*Shrestha, Nikee [2]; Doust, Andrew [3]; Hu , Hao [2]; Hodge, John [2]
1139	Predicting Thermal Adaptation in Crop-Wild Complexes by Looking Into Populations' Genomic History	*Cortés, Andrés J. [2]; López-Hernández, Felipe [2]; Osorio-Rodriguez, Daniela [3]
691	Predicting plant performance in the field based on seed and seedling traits measured under controlled conditions	Miller, Allison [9]; Frawley, Emma [6]; *Rubin, Matthew [2]; Bhakta, Niyati [3]; Cassetta, Eric [4]; Corya, Ellen [5]; Cyr, Maxwell [3]; Pinkner, Leah [3]; Turner, Kathryn [7]; Van Tassel, David [8]
661	How can we breed better weed? Implementing artificial neural networks for predicting yield in <em>Cannabis sativa</em> L	*Wizenberg , Sydney Barrett [2]; Suhanic, West [2]; Campbell, Lesley Geills [3]
621	Grapevine rootstocks affect growth-related scion phenotypes	*Migicovsky, Zoe [2]; Cousins, Peter [3]; Jordan, Lindsay [3]; Striegler, Richard Keith [3]; Verdegaal, Paul [4]; Chitwood, Daniel H. [5]; Myles, Sean [2]

1000	Characterizing patterns of variation and covariation across life stages of herbaceous perennials	Miller, Allison [2]; Frawley, Emma [4]; Rubin, Matthew [3]; Bhakta, Niyati [3]; Corya, Ellen [2]; Cyr, Maxwell [3]; Pinkner, Leah [3]; Van Tassel, David [5]; Keaggy, Liam [3]; Herron, Sterling A [2]; Schlautman, Brandon [5]; *Piotter, Emelyn [2]; Cason, Miranda [2]; Hilz, Matthew [2]; Kadiyala, Tanvi [2]; Korein, Katherine [2]; Tran, Vivian [2]
685	Quantifying variation across 1000 diverse apples	Migicovsky, Zoe [3]; *Watts, Sophie [2]; Myles, Sean [4]

- e. The Economic Botany section business meeting will take place on Wednesday, July 21, at 10am. At the business meeting, we plan to discuss:
- i. Teaching support updates (BSA slack)
  - ii. Current section standing
  - iii. Fundraising/event requests
  - iv. Section elections/new governance