

# Special Request for Botany2023 Session Data

Session Date

7/24/2023

Session Name **Biodiversity Informatics & Herbarium Digitization**

Room **420A**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Will	Weaver	University of Michigan	FieldPrism: tools to rapidly collect, curate, and process field images
8:15 AM	Timothy	Gallaher	Bishop Museum	Introducing www.plantsofhawaii.org: A species information and identification system for the Flora of Hawaii
8:30 AM	Lauren	Eserman-Campbell	Atlanta Botanical Garden	Database upgrade, digitization, and increasing accessibility of the Atlanta Botanical Garden Plant Collections
8:45 AM	Eli	Denzer	New York Botanical Garden	Best Practices and Guidelines for Digitized Lichen Herbarium Specimens
9:00 AM	Lauren	Gillett	University of Florida	Spatial phylogenetic patterns of the vascular flora of Florida
9:15 AM	Rachel	Meyer	University of California Sant	Announcing the eDNA Explorer web tool for managers and researchers to process and share eDNA qPCR and metabarcoding projects
9:30 AM	Sierra	Hubbard	Oklahoma State University	Spatial Phylogenetics of Vascular Plants in the South-Central U.S.

Session Name **Comparative Genomics/Transcriptomics I**

Room **400B**

Presenter	Start Time	Presenter Name		Abstract title
1:30 PM	Jen	Wisecaver	Purdue University	Hybridization, ploidy, and genome size variation in the toxic alga <i>Prymnesium parvum</i>
1:45 PM	Julia	Gerasimova	Senckenberg Research Insti	High diversity of Type I Polyketide genes in lichen-forming fungi as revealed by comparative analysis of 23 lichen genomes
2:00 PM	Melody	Sain	Bucknell University	Sex determination is complicated: Exploring the genomic architecture of sexual dimorphism in the meadow-rues ( <i>Thalictrum</i> , <i>Ranunculaceae</i> )
2:15 PM	Seungyeon	Lee	Sungshin Women's Universi	MADS-box genes in <i>Carex</i> ( <i>Cyperaceae</i> )
2:30 PM	Jim	Leebens-Mack	University of Georgia	The†Open Green Genomes Initiative†
2:45 PM	Edward	McAssey	University of Connecticut	Genomic comparison of freezer stored DNA to herbarium sheet DNA in diverse Hawaiian taxa
3:00 PM	Bibek	Adhikari	South Dakota State Universi	<i>Morus rubra</i> L ( <i>Moraceae</i> ) Chloroplast Genome Sequencing and Phylogenomic Analysis of the Genus <i>Morus</i> †[VIDEO]
3:15 PM				Coffee Break
3:45 PM	Nathaniel	Klimpert	University of British Columbi	A novel loss of photosynthesis in fully mycoheterotrophic <i>Afrothismia</i> ( <i>Dioscoreales</i> ), and its effect on plastid genome evolution
4:00 PM	Robert	Witkowski	The Pennsylvania State Univ	A gall-inducing herbivore influences transcriptome-wide changes in tall goldenrod ( <i>Solidago altissima</i> L.)
4:15 PM	Noorpreet	Kaur	University of Connecticut	RNA-seq study revealed difference in drought-tolerant mechanisms in various <i>Pelargonium</i> geophytes.
4:30 PM	Chloe	Drummond	Mount Holyoke College	Transcriptomics and metabolomics in the field: analysis of flavonoid biosynthesis across a latitudinal gradient
4:45 PM	Maria	Alcaraz	California State University, S	Comparative expression of genes involved in regulating nectar composition across species of <i>Aquilegia</i> with different animal pollinators

---

**Session Name Cookson & Moseley Awards****Room 110B**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Ellie	Frazier	Cal Poly Humboldt	A siphonostelic euphyllophyte of cladoxylopsid affinities from the Lower Devonian of Gasp� (Quebec, Canada)
8:15 AM	Emma	Casselman	Cal Poly Humboldt	Expanding the diversity of early woody euphyllophytes: new specimens from the Early Devonian of Gasp� (Quebec, Canada)
8:30 AM	Madison	Lalica	Cal Poly Humboldt	Probing the origin and evolution of periderm: what can extant plants and the fossil record tell us?
8:45 AM	P�n�lope	Claisse	Universit� de Lille	Revisiting early polysporangiophyte relationships with a focus on the zosterophylls
9:00 AM	Zane	Walker	Oregon State University	A fossil moss from the Late Cretaceous (Campanian) James Ross Island, Antarctica
9:15 AM	Meg	Nibbelink	University of Kansas	A rare anatomically-preserved lycopod macrofossil from the Triassic of Antarctica
9:30 AM	Kelly	Pfeiler	University of Kansas	Seed cones of Callitroideae (Cupressaceae) from the Late Cretaceous of Antarctica
9:45 AM				Coffee Break
10:15 AM	Eva	Silva Bandeira	Instituto de Investigaciones	Nothofagaceae fruits from the Campanian of Antarctica
10:30 AM	Austin	Nguyen	University of Kansas	Permineralized cornalean fossil fruits from the Late Cretaceous of North America
10:45 AM	Zack	Quirk	University of Michigan	Investigating relationships among leaf functional traits and paleoclimate variables: a case study using fossil ginger (Zingiberaceae) leaves from the Cretaceous and Paleogene of North America
11:00 AM	Jeronimo	Morales Toledo	University of Michigan	Reexamination of Arthmiocarpus hesperus from the Late Cretaceous of South Dakota: expanding the fossil record of bisexual climbers in Araceae
11:15 AM	Keana	Tang	University of Kansas	New floral diversity of Lauraceae in the Late Cretaceous
11:30 AM	Tanmayi	Patharkar	UC Berkeley	Reconstructing the paleoclimate and paleoecology of the Eocene Gulf Coastal Plain, U.S. using digital leaf physiognomy [VIDEO]

---

**Session Name Development & Structure: Contributed Papers****Room 410B**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Shane	Carey	University of Alberta	Genetics and development of nectaries in Cleomaceae
8:15 AM	Elizabeth	Kellogg	Donald Danforth Plant Scie	How teff (Eragrostis tef) lets go of its fruits
8:30 AM	Veronica	Di Stilio	University of Washington, S	Virus induced over expression (VOX) in the ranunculid Thalictrum thalictroides supports a novel role for a MIXTA-like ortholog in stigmatic papillae during the evolution of wind pollination
8:45 AM	Irene	Liao	University of California, Los	Candidate genes underlying nectary development in banana and asparagus
9:00 AM	Yaowu	Yuan		Development and evolution of self-organizing pigmentation patterns in monkeyflowers
9:15 AM	Jim	Seago	SUNY at Oswego	A New Anatomical Examination of the Fern Onoclea sensibilis
9:30 AM	Magdalene	Lo	California Academy of Scien	Micrometers of variation: Pollen morphology of a Castilleja species complex
9:45 AM				Coffee Break
10:15 AM	Hildah	Kithinji	Humboldt University	2D and 3D visualization of herbaceous plant-plant contact zones using High Resolution X-ray Computed Tomography (HRXCT) [VIDEO]

---

**Session Name Ecology 1: Plant Traits**Room **110C**

Presenter	Start Time	Presenter Name		Abstract title
10:15 AM	Yaoqi	Li	Xi'an Jiaotong-Liverpool Univ	Spatiotemporal patterns of leaf morphological traits are driven by climate and linked with ecosystem productivity [VIDEO]
10:30 AM	Constantin	Kopper	University of Vienna	Pollination syndromes and patterns of disparity in Melastomataceae [VIDEO]
10:45 AM	Megan	King	Rutgers University / Chryste	Latitude and Urbanization, Do They Matter? Investigating Morphological Plant Trait Change in Cities of Eastern North America
11:00 AM	Dylan	Schwilk	Texas Tech University	Fire response and flammability across 20 C4 grasses
11:15 AM	Maya	Shamsid-Deen	University of New Mexico	The Little Mustard That Could: Is Phenotypic Plasticity Associated with Colonization Success in Arabidopsis thaliana?
11:30 AM	Rosemary	Glos	University of Michigan	Natureís Velcro: Untangling Drivers of Complex Trichome Diversification in Mentzelia (Loasaceae)

---

**Session Name Ecology 2: Plant Response to the Environment**Room **110C**

Presenter	Start Time	Presenter Name		Abstract title
1:30 PM	Charlotte	Miranda	San Jose State University	Soil Generalist Erysimum capitatum Shows Differential Adaptation to Serpentine Soil of Origin Across a California Latitudinal Gradient
1:45 PM	Peter	Breslin	University of Arizona	Microsite influences on establishment of saguaro cacti on Tumamoc Hill, Tucson, Arizona
2:00 PM	David	Kunkel	Oklahoma State University	Characterizing the climatic and edaphic niches of the Temperate North American Clade of Asclepias
2:15 PM	Laura	Leventhal	Carnegie Institution for Scie	Four range limit hypotheses tested in climate-manipulated common garden using natural accessions of Arabidopsis thaliana
2:30 PM	Steven	Handel	Rutgers University	Urban forest gaps across scales from 0.6 ñ 5.18 hectares are dominated by invasive species in a New Jersey national park.

---

**Session Name Ecology 3: Community Assembly & Phenology**Room **110C**

Presenter	Start Time	Presenter Name		Abstract title
3:45 PM	Robert	Laport	The College of Idaho	Community analyses of remnant forests in Shelby Co., TN reveal potential eastern old-growth forest
4:00 PM	Bess	Bookout	Kansas State University	Bison wallows bolster plant diversity and semi-aquatic habitat in tallgrass prairie
4:15 PM	Kate	Weimer	Colorado State University	Forest type and burn severity affect understory response to historic wildfires
4:30 PM	Lilly	Osterday	Ohio University	Investigating the Turnover in Plant Species Biodiversity on Gypsum Soil Outcrops
4:45 PM	Jhon Alexander	CarreÒo	Universidad Industrial de Sa	Phenology Zamia encephalartoides D.W. Stev [VIDEO]
5:00 PM	Ai	Nagahama	National Museum of Nature	Leafing, flowering, and fruiting phenology of tropical montane forests in Central Highland of Vietnam [VIDEO]
5:15 PM	Scott	Nordstrom	University of Colorado, Boul	Canopy coverage delays flowering phenology but does not reduce seed set for an herbaceous perennial in a subalpine meadow

Session Name **Ethnobotany**

Room **420A**

Presenter	Start Time	Presenter Name		Abstract title	
	1:30 PM	Kiya	Rahn	Virginia Tech	An overview of plant poisoning trends in Virginia: domestic animal cases from 2001 - 2021
	1:45 PM	Anthony	Baniaga	UCLA	The role of historical ecology and redlining practices on patterns of plant community assembly in urban Los Angeles
	2:00 PM	Amy	Wroblewski	The Pennsylvania State Univ	The Cultural Importance of Mushrooms and Foraged Foods
	2:15 PM	Tabitha	Faber	University of Wisconsin – M	Chemical diversity of <i>Dysphania ambrosioides</i> (Amaranthaceae) ñ global and local scales
	2:30 PM	Alex	Crum	University of Minnesota - Tw	Testing the link between specialized metabolite profiles and medicinal use across Caryophyllales
	2:45 PM	Catherine	Philips	Tennessee Technological U	The importance of ethnobotany to Cherokee women
	3:00 PM	Olubunmi	Sharaibi	Lagos State University, Lago	Checklist of Medicinal Plants Used by Traditional Women for Maternal Health Care in Lagos State, Nigeria.
	3:15 PM				Coffee Break
	3:45 PM	Monisola	Fawibe	University of Lagos	Medicinal Plants Used for the Treatment of Fibroid in Lagos Metropolis
	4:00 PM	OLOLADE	Oyedapo	Obafemi Awolowo University	Bark Anatomy, Proximate, Elemental and In-vitro Anti-sickling Analysis of Bark Extracts of the Three Khaya Species found in Nigeria

Session Name **Hybrids and Hybridization**

Room **430A**

Presenter	Start Time	Presenter Name		Abstract title	
	8:00 AM	Gracy	Buckholtz	University of British Columbi	Breeding Battles: Reproductive Dynamics in Mixed Apomictic and Sexual Populations
	8:15 AM	Josh	Stevens		Predictive links between petal reflectance and pigment quantities in natural <i>Penstemon</i> hybrids
	8:30 AM	Zacc	Ramm	University of South Alabama	Understanding the generation and maintenance of biodiversity within the North American Coastal Plain through hybridization in pondweeds (Potamogetonaceae)
	8:45 AM	Justin	Scholten	Cornell University	Notes on the Genus <i>Chloraea</i> (Orchidaceae): Morphological Evidence of Triad Hybridization through a Conduit Species [VIDEO]
	9:00 AM	Juan	Penagos Zuluaga	Missouri Botanical Garden	Widespread hybridization among species of † <i>Weinmannia</i>
	9:15 AM	Kasey	Pham	University of Florida	Functional or Fluke? Genome-wide identification of introgressed genes in naturally occurring <i>Eucalyptus</i> hybrids
	9:30 AM	Victor	Andreev	Oklahoma State University	Genomic distribution of introgression in two hybridizing milkweeds
	9:45 AM				Break
	10:15 AM	johanne	brunet	USDA-ARS	Introgression of cultivar alleles into wild carrot populations in the United States
	10:30 AM	Lauren	Frankel	University of Wisconsin-Mad	Summary tests of introgression are highly sensitive to rate variation across lineages
	10:45 AM	Jill	Hamilton	Pennsylvania State Universi	Natural hybrid zones as model systems to examine the genomic basis for climate adaptation for forest trees
	11:00 AM	Trinity	Tobin	SUNY Cortland	Development of a ddPCR Protocol for Detecting Homeolog Expression in <i>Nicotiana</i> Allopolyploids of Different Ages
	11:15 AM	Talieh	Ostovar	SDSU/UCR	Differential gene expression and subgenome dominance in 4 million year old allopolyploids of <i>Nicotiana</i> section <i>Repandae</i>
	11:30 AM	Usama	Mukhtar	Massey University	Post-WGD changes in neoallopolyploids [VIDEO]

Session Name **One World Many Kingdoms: Conservation of Bryophyte and Lichen Biodiversity**

Room **400A**

Presenter	Start Time	Presenter Name		Abstract title
	1:30 PM	Jessica Allen	Eastern Washington Univers	Do bryophyte and lichen conservation rankings and efforts mirror each other in North America?
	2:00 PM	Rikke Reese N�sberg	Santa Barbara Botanic Gard	Unofficially rare lichens are rarely officially rare
	2:30 PM	Stephen Sharrett	Eastern Washington Univers	A comprehensive conservation assessment for the old-growth specklebelly lichen, <i>Pseudocyphellaria rainierensis</i>
	2:45 PM	Jesse Miller	Washington Natural Heritag	Sounding the alarm: Rare lichens may be rapidly declining in the Pacific Northwest
	3:00 PM	Steven Leavitt	Brigham Young University	Imperiled wanderlust lichens in steppe habitats of western North America
	3:15 PM			Break
	3:45 PM	Marta Nieto-Lugilde	Duke University	Exploring sympatric populations of <i>Sphagnum magellanicum</i> complex in North America and DNA barcoding evaluation for species identification
	4:15 PM	Hansika Herath	University of Kentucky	Intraspecific variability in heat stress tolerance across and within habitats in the tropical plant <i>Marchantia inflexa</i> [VIDEO]
	4:30 PM	G Karen Golinski	University of British Columbi	A New Era of Collections-based Bryology at the University of British Columbia Herbarium (UBC)
	4:45 PM	Heather Root	Weber State University	Biocrust responses to wildfires without livestock grazing

Session Name **Paleobotanical Session 1**

Room **410B**

Presenter	Start Time	Presenter Name		Abstract title
	1:30 PM	Isha Mahajan	University of California, Berk	Reconstructing the composition and diversity of the Eocene Gulf Coastal Plain, U.S. using leaf architecture analysis [VIDEO]
	1:45 PM	Gabriella Rossetto-Harris	Penn State University	The first Patagonian icehouse conifers: new fossil species of <i>Austrocedrus</i> (Cupressaceae) and <i>Araucaria</i> (Araucariaceae) from the earliest Oligocene of Argentina
	2:00 PM	Ashley Hamersma	University of Florida	Palm fruits from the Oligocene of west coastal Peru
	2:15 PM	Tengxiang Wang	Penn State	Fossil <i>Syzygium</i> leaves with in-situ cuticles from the Pliocene of central Vietnam
	2:30 PM	MIHAI Tomescu	Cal Poly Humboldt	Where are we in understanding leaf evolution?
	2:45 PM	Victoria Durazo	Cal Poly Humboldt	A new type of microscopic reproductive structures of unknown affinity from plant tissues in the Early Devonian (Emsian) Battery Point Formation (Gasp�, Quebec, Canada)
	3:00 PM	Riya Tandon	University of California, Berk	Vein density and leaf area: testing the vein-scaling method using <i>Quercus</i> and <i>Platanus</i> sp.
	3:15 PM			Break
	3:45 PM	Michael D'Antonio	Field Museum of Natural Hi	Reconstruction and systematics of the enigmatic Pennsylvanian strobilus <i>Tetraphyllostrobus</i> from the Mazon Creek lagerst�tte using computed tomography [VIDEO]
	4:00 PM	Rudolph Serbet	University of Kansas	An exclusive look at a diverse coal swamp flora from the Pennsylvanian of Lawrence, Kansas
	4:15 PM	Nathan Jud	William Jewell College	Update on the paleobotany of the Upper Pennsylvanian Dennis Formation in Missouri and Kansas, USA
	4:30 PM	Ana Andruchow-Colombo	University of Kansas	Tracing the fossil diversity of the conifer family Podocarpaceae through the ages
	4:45 PM	Kelly Matsunaga	University of Kansas	Ovuliferous complexes of <i>Wollemlia nobilis</i> and the dual bundle system of conifer seed cones
	5:00 PM	Ben Lloyd	University of Washington	The CuticleTrace workflow: An ImageJ toolset for capturing cell outlines of leaf cuticle � implications for paleoecology and paleoclimatology

---

**Session Name Phylogenomics I****Room 420B**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Natascha	Wagner	University of Goettingen	resolving the complex evolutionary history of North American shrub willows (Salix L.)
8:15 AM	Ethan	Baldwin	University of Georgia	Rampant chloroplast capture in Sarracenia revealed by plastome phylogeny
8:30 AM	Carlos	Maya-Lastra	Yale University	Caught in the Act: Incipient Speciation at the Southern limit of Viburnum in the Central Andes
8:45 AM	Keyi	Feng	University of Michigan	Disentangling the Relationships between Paleopolyploidy Events and Arctic-Alpine Adaptations in the Caryophyllaceae
9:00 AM	Liz	Hunter	US Food and Drug Administr	Eukaryotic metagenomic identification: òoff labelĒ bioinformatics for mixed botanical samples
9:15 AM	Karolis	Ramanauskas	University of Illinois, Chicag	Examining† points of phylogenetic conflict between organelles across the plant tree of life
9:30 AM	Erika	Moore-Pollard	University of Memphis	New Compositae specific probe set tackles paralog issues in the complex genus Packera (Senecioneae; Asteraceae)
9:45 AM				Coffee Break
10:15 AM	Phebian	Odufuwa	Boise State University	Hybphaser was effective in resolving phylogenetic relationships in the Perennial Endemic North American Clade of Apiaceae
10:30 AM	Yunjia	Liu	The Pennsylvania State Univ	Phylogenetic relationship and phenotypic evolution in the carnivorous plant Pinguicula L.
10:45 AM	Taikui	Zhang	Pennsylvania State Universi	Phylogenomic and Phylotranscriptomic Analyses of Whole Genome Duplications in Large Angiosperm Groups and Families with Implication on Functional Evolution
11:00 AM	Alexandre	Zuntini	Royal Botanic Gardens, Kew	Towards a complete angiosperm tree of life
11:15 AM	Alicia	Talavera	Smithsonian Institution // U	Integrated phylogenomic and ecological analyses of the Vitis cinerea species complex reveal geographic isolation, ecological differentiation and hybridization impacting species diversification in North America
11:30 AM	Kasuni	Daundasekara	Texas A&M University	Identifying serpentine adaptation genes by tracing evolutionary-genomic history [VIDEO]

---

**Session Name Phylogenomics II****Room 420B**

Presenter	Start Time	Presenter Name		Abstract title
1:30 PM	Annie	Taylor	Boise State University	Resolving taxonomic uncertainty and clarifying species boundaries in the Cymopterus terebinthinus species complex.
1:45 PM	Daniel	Spalink	Texas A&M University	Phylogenetic and biogeographic patterns in sequencing deficiency across vascular plants
2:00 PM	Eduardo	Aguirre-Mazzi	Missouri Botanical Garden	Phylogenomic insights into the evolution, biogeography, and taxonomy of Andean Weinmannia (Cunoniaceae)
2:15 PM	Malia	Santos	University of Wyoming	Clarifying the phylogenetic history of Castilleja (Orobanchaceae) using the Angiosperm-353 dataset
2:30 PM	Matt	Johnson	Texas Tech University	The next phase of Angiosperms353: improved targets, mixed DNA, and bioinformatics resources
2:45 PM	Riley	Rees	Ohio University	The evolution of petaloidy in Caryophyllaceae
3:00 PM	Ashley	Egan	Utah Valley University	Phylogenomics of the millettoid and phaseoloid legumes: a framework for evolution and diversification [VIDEO]
3:15 PM				Coffee Break
3:45 PM	Malu	Ore-Rengifo	University of Florida	Untangling relationships within Chaetogastra DC. (Melastomateae, Melastomataceae) and among closely related genera.
4:00 PM	Laura	Frost	University of South Alabama	Strong phylogenetic signal despite high phylogenomic complexity in an Andean plant radiation (Freziera, Pentaphragmataceae)
4:15 PM	Diego	Paredes-Burneo	Louisiana State University	Dealing with paralogs: what a phylogenomic dataset contains for the high-Andean Brachyotum
4:30 PM	Thomas	Givnish	University of Wisconsin-Mad	Phylogenomics, historical geography, adaptive radiation, and quantitative floral convergence in lilies (Lilium)
4:45 PM	Gonzalo	Nieto Feliner	Real JardĒn Bot-nico (RJB-CS	A phylogenomic analysis of the hyperdiverse tribe Anthemideae (Asteraceae)

Session Name **Physiology**

Room **110C**

Presenter	Start Time	Presenter Name	Abstract title
	8:00 AM	ANITRA thorhaug	Greater Caribbean Energy & Blue Carbon Sequestration from seagrass and mangroves in the Gulf of Mexico and Lower Caribbean basins: An Overview.
	8:15 AM	Arthur Schwarz	Southwestern Adventist Uni A plan for large scale restoration of damaged seagrass communities.
	8:30 AM	Nusrat Jahan	BUITEMS EFFICIENT METHOD FOR MASS PROPAGATION OF ORCHID (Vappodes phalaenopsis) USING POLYETHYLENE GLYCOL TO STUDY IMPACT OF INDUCED WATER STRESS ON THE RELATIVE GROWTH
	8:45 AM	Emmanuel Kalu	Abia State Polytechnic Aluminum toxicity in Solanum macrocarpon
	9:00 AM	Hari Meena	IARI New Delhi Mulberry genes as a promising tool for enhancing crop resilience to environmental stresses [VIDEO]

Session Name **Pteridology I**

Room **110A**

Presenter	Start Time	Presenter Name	Abstract title
	8:00 AM		Introduction - Pteridology Session
	8:15 AM	Lacey Benson	San Jose State University A morphometric analysis of western sword fern (Polystichum munitum) pinnae and pinnae scales across the coast redwood forest ecological gradient
	8:30 AM	Fernando Matos	CRIA (Centro de Referência e The ferns and lycophytes of Honey Island, Paraná, Brazil
	8:45 AM	You-Wun Hwang	National Tsing Hua Universit Frond dimorphism in Tectaria ferns: trends of their foliar characteristics and spore investment
	9:00 AM	Jessie Pelosi	University of Florida All Tangled Up: Unraveling reticulation and karyotype evolution in the vining ferns Lygodium
	9:15 AM	Forrest Freund	Great Basin Institute Finding the hidden quillwort: identifying cryptic species in Isoetes using an integrative systematic approach. [VIDEO]
	9:30 AM	christopher krieg	University of Wisconsin-Mad Multiscale drivers of polyploid plant ecology
	9:45 AM		Coffee Break
	10:15 AM	Katelin Burow	Purdue University Genetic Mechanisms of Sex Determination in Ceratopteris richardii
	10:30 AM	Melanie DeVore	Georgia College and State U Dispersal of ferns by mountain gorillas (Gorilla beringei beringei) [VIDEO]
	10:45 AM	Jonas Mendez-Reneau	University of Louisiana Lafa Evolution and hybridization in the endemic Hawaiian fern, Polypodium pellucidum
	11:00 AM	David Wickell	Cornell University Seed-free Synteny: A history of genomic stasis in homosporous ferns and lycophytes
	11:15 AM		Questions & Answers

---

**Session Name Pteridology II****Room 110A**

Presenter	Start Time	Presenter Name		Abstract title	
	3:45 PM	Bertrand	Black	University of Vermont	A systematic revision of the <i>Athyrium filix-femina</i> †species complex in the Americas
	4:00 PM	Julia	Hobbie	Utah State University	An updated phylogeny of athyrid ferns (Athyraceae: Polypodiales) focused on recalcitrant species
	4:15 PM	David	Adelhelm	Utah State University	Phased HybSeq Data Provides Further Support for Reticulate Allopolyploid Evolution within the Notholaenid Desert Fern clade (Pteridaceae).
	4:30 PM	Carrie	Tribble	University of Hawaii at Man	Is Hawaiian <i>Doryopteris</i> (Pteridaceae) an incipient adaptive radiation?
	4:45 PM	Weston	Testo	Field Museum of Natural Hi	A phylogenomic study of <i>Elaphoglossum</i> provide new insights and highlight persistent challenges in the study of diverse tropical fern groups
	5:00 PM				Questions & Answers

---

**Session Name Shifting baselines and altered landscapes: Botany in the Anthropocene****Room 400A**

Presenter	Start Time	Presenter Name		Abstract title	
	8:00 AM				Introduction
	8:15 AM	Nic	Kooyers	University of Louisiana, Lafa	Rapid adaptation following the worldwide introduction of cosmopolitan weed
	8:30 AM	Yingying	Xie	Northern Kentucky Universit	Variation in phenological responses of wind-pollinated dioecious plants [VIDEO]
	8:45 AM	Kathryn	Turner	Idaho State University	Phenological shifts across the invaded range of Blue Mustard ( <i>Chorispora tenella</i> , Brassicaceae)
	9:00 AM	Barbara	Ertter		Scientific and Societal Ramifications of Floristic Studies in the Boise Front
	9:15 AM	Matthew	Yamamoto	Connecticut College	Comparing long-term patterns of spread of co-occurring native and invasive plants in a regenerating forest
	9:30 AM				Coffee Break
	10:15 AM	Philippa	Stone	University of British Columbi	Alpine plant responses to human trampling disturbance in the Nch'kay Region (Garibaldi Provincial Park, British Columbia)
	10:30 AM	Natalie	Kashi	University of New Hampshir	Decline in Mycorrhizal Activity Decreases Foliar Micronutrients After Arctic Wildfire Recovery
	10:45 AM				Discussion session

---

**Session Name Standing your ground: Understanding plant defense from molecules to morphology****Room 400C**

Presenter	Start Time	Presenter Name		Abstract title	
	1:30 PM				Introduction
	1:45 PM	Daniel	Kliebenstein	University of California, Davi	Quantitative genomics of resistance and virulence in the interaction of <i>Botrytis cinerea</i> with eudicots
	2:15 PM	Ashish	Ranjan	University of Minnesota - Tw	Unraveling soybean defense mechanism to sclerotinia stem rot
	2:45 PM	Kira	Tiedge	University of Groningen	Discovery and ecological relevance of specialized metabolites for crop protection
	3:15 PM				Coffee break
	3:45 PM	Vivian	Irish	Yale University	A thorny question: defense through a novel mode of plant stem arrest
	4:15 PM	Annika	Nelson	University of California, Irvin	Changes in plant chemical traits across space and time mediate interactions with fruit consumers
	4:45 PM	Maggie	Wagner	University of Kansas	The complex ecology of glucosinolate variation in a wild perennial mustard



Session Name **Systematics I: Monocots to Eurosids**

Room **410C**

Presenter	Start Time	Presenter Name	Abstract title	
8:00 AM	Tatiana	Arias	Marie Selby Botanical Gard	Chloroplast phylogenomics of the Lepanthes (Orchidaceae) backbone: a Neotropical unsolved diversification history
8:15 AM	Pankaj	Kumar	Texas Tech University	Morphology and placement of perennating organs play an important role in generic delimitation in subtribe Malaxidinae
8:30 AM	Bryan	MacNeill	University of Alabama	Non-monophyletic origins of floral phenotypes, plastome structure variation, and phylogenetic relationships of Agave subgenus Manfreda
8:45 AM	Aaron	Floden	Missouri Botanical Garden	A phylogeny of Trillium subg. Trillium using nuclear capture data
9:00 AM	Ellie	Becklund	Ohio University	Phylogenomics Resolve Species Boundaries of the Pantropical Genus Neptunia (Fabaceae: Mimosoid Clade)
9:15 AM	Elizabeth	Collins	George Mason University	Preliminary species delimitation results of Neotropical Palo Santo trees ( <i>Bursera graveolens</i> ; Burseraceae)
9:30 AM	Ashley	Egan	Utah Valley University	Phylogenetic systematics of <i>Vigna sensu stricto</i> (Leguminosae, Fabaceae): the Old World <i>Vigna</i> [VIDEO]
9:45 AM				Coffee Break
10:15 AM	Maggie	Hanes	Eastern Michigan University	A new phylogeny of tribe Hibisceae (Malvaceae) reveals complex patterns of polyphyly in <i>Hibiscus</i> and <i>Pavonia</i>
10:30 AM	Alan	Franck	University of Florida	Revision of <i>Sapindus</i> sect. <i>Sapindus</i> (Sapindaceae)
10:45 AM	Temitope	Onuminya	University of Lagos	Foliar Morphology of Schleichereae
11:00 AM	Jordan	Nikkel	Iowa State University	Disentangling the evolutionary history of the tumbleweed crabgrasses
11:15 AM	Nantenaina	Rakotomalala	Royal Botanic Gardens Kew	<i>Digitaria</i> grasses of Madagascar [VIDEO]
11:30 AM	Supakan	Simachai	Mahidol University	The character evolution of the genus <i>Burmannia</i> (Burmanniaceae) [VIDEO]
11:45 AM	Temitope	Oyebola	University of Ibadan	Evaluation of genetic diversity in <i>Dacryodes edulis</i> (G.Hon)H.J Lam† in Nigeria using Inter Simple Sequence Repeats (ISSR) Markers† [VIDEO]

Session Name **Systematics II: Asterids, Caryophyllales to Ericales**

Room **410C**

Presenter	Start Time	Presenter Name	Abstract title	
1:30 PM	Eli	Allen	Cal Poly Humboldt	Understanding the divergence of a rare California sand verbena, <i>Abronia villosa</i> var. <i>aurita</i> (Abrams) Jeps.
1:45 PM	Michael	Mayer	University of San Diego	The Evolutionary History of the <i>Silene hookeri</i> Nutt. complex (Caryophyllaceae), Part I.
2:00 PM	Paige	Fabre	Ohio University	Resolving species relationships in the recent and rapidly evolving <i>Mentzelia</i> section <i>Bartonia</i> (Loasaceae) with Angiosperms-353 target capture
2:15 PM	Tito	Abbo	UC Riverside	A new hypothesis for the origin and species relationships of the scaly-bracted green leaf manzanitas (Arctostaphylos)
2:30 PM	John	Freudenstein	Ohio State University	Delving into the cryptic diversity of a holomycotroph ñ progress with dissecting <i>Hypopitys monotropa</i> (Ericaceae) across North America
2:45 PM	J. Travis	Columbus	California Botanic Garden	Phylogenomics of <i>Eriogonum</i> (Polygonaceae) with a Focus on Subgenus <i>Oligogonum</i> and Shifts to Serpentine Soils
3:00 PM				Coffee Break
3:45 PM	Daniel	Koenemann	Claflin University	Investigating leaf shape variation and taxonomy in the pan-Caribbean <i>Coccoloba diversifolia</i> Jacq. [VIDEO]
4:00 PM	Nora	Gavin-Smyth		Phylogenomics of African <i>Impatiens</i>
4:15 PM	Anna	Becker	University of Florida	The evolution of Hawaiian blueberries ( <i>Vaccinium</i> sp.): targeted SNP-based phylogenies reveal extraordinary diversity of a species-rich adaptive radiation

Session Name **Teaching Section: Diversity, International Education, & Outreach**

Room **410A**

Presenter	Start Time	Presenter Name	Abstract title	
8:00 AM	Tilottama	Roy	Missouri Western State Univ	The Leo A. Galloway Herbarium at Missouri Western State University- showcasing floral specimens from North West Missouri and adjacent areas to build an educational and research tool
8:15 AM	Marshall	Sundberg	Emporia State University	Using General Interest Science Books to Arouse Student Interest and to Substitute for an Introductory Textbook.
8:30 AM	Lena	Struwe	Rutgers University	Seeing and questioning plants - a botanical perspective on nature journaling at the college level
8:45 AM	Dianne	Anderson	Point Loma Nazarene Unive	Helping college students disentangle pollination, fertilization, and seed dispersal
9:00 AM	Bob	Noyd	U.S. Air Force Academy	Teaching botany students how to identify wildflowers and grass-like plants in the winter condition: A simple three-step process that uses a multiple access visual key
9:15 AM	Bob	Noyd	U.S. Air Force Academy	Teaching botany students the light reactions of photosynthesis: Applying the principles of cognitive load theory for more effective learning.
9:30 AM	Taylor	Vahey	Bryant University	An experiential learning approach to engage diverse student groups with climate change issues: Clarkia Miocene fossil flora as an example
9:45 AM				Coffee Break
10:15 AM	Tohmi	Barrett	The New York Botanical Gar	Inspiring Environmental Stewardship in an Urban Landscape by Increasing Science Accessibility, and Building Community
10:30 AM	Sevyn	Brothers	University of Tennessee at C	The 73rd Annual Spring Wildflower Pilgrimage in the Great Smoky Mountains National Park. Sevyn Brothers* and Joey Shaw, University of Tennessee at Chattanooga, Chattanooga, Tennessee.
10:45 AM	Emma	Oschrin	Chicago Botanic Garden	Budburst: Using community science in schools and with community organizations
11:00 AM	Amelia	Schmidt	Virginia Tech	Communicating the Effects of Toxic Plant Genera to Cat Owners
11:15 AM	Pete	Coppolillo	Working Dogs for Conservati	Outreach and Publicity: The Ancillary (and Often Overlooked) Benefits of Canine Detection for Plant Detection, Biosecurity, and Early Detection and Rapid Response (EDRR).
11:30 AM	Amanda	Chandler	New York Botanical Garden	The Hand Lens: Connecting Citizens with Cryptogamic Communities

Session Name **Tropical Biology Contributed Papers**

Room **110B**

Presenter	Start Time	Presenter Name	Abstract title	
1:30 PM	Kadeem	Gilbert	Michigan State University	A semi-detritivorous pitcher plant, <i>Nepenthes ampullaria</i> diverges in its regulation of pitcher fluid properties
1:45 PM	Natalia	Ruiz-Vargas	University of Illinois at Chica	Biogeography of the Caribbean endemic clade of <i>Wittmackia</i> (Bromeliaceae). Preliminary results
2:00 PM	Skylar	Graves	University of Colorado Bould	Comparing phenological shifts in tropical wet and dry habitats using herbarium specimens
2:15 PM	Viann Marie	Yomai	Virginia Tech	Plants on the remote, oceanic island of Pohnpei have shifted to more autogamous breeding systems than their self-compatible mainland relatives

---

Session Name **Whole genome duplications and impact on angiosperm character evolution**

Room **400C**

Presenter	Start Time	Presenter Name		Abstract title
	8:00 AM			Introduction
	8:15 AM	Stephen Smith	University of Michigan	The role of whole genome duplications in the evolution of major angiosperm lineages
	8:45 AM	Taikui Zhang	Pennsylvania State Universi	Phylogenomic and Phylotranscriptomic Analyses of Whole Genome Duplications in Large Angiosperm Groups and Families with Implication on Functional Evolution
	9:15 AM	Lin Zhang	Henan Agricultural Universit	Rosaceae phylogenomics/phylotranscriptomics provide insights into whole genome duplication and implication on character evolution [VIDEO]
	9:45 AM			Coffee Break
	10:15 AM	Jordan Brock	Michigan State University	Role of environment in establishment of subgenome dominance in allopolyploids
	10:45 AM	Elizabeth McCarthy	SUNY Cortland	From dark to light: the genetic basis of flower color evolution in <i>Nicotiana tabacum</i> allopolyploids
	11:15 AM	Sontosh Deb	The University of Alabama	Evolution of flooding tolerance in maize relatives
	11:45 AM			Discussion

Session Name **Annals of Botany Lecture: Plant fitness and local adaptation in a rapidly changing climate: Insights from an alpine wildflower, *Boechera stricta***

Room **400B**

Presenter Start Time	Presenter Name	Abstract title
Jill	Anderson	University of Georgia
		Plant fitness and local adaptation in a rapidly changing climate: Insights from an alpine wildflower, <i>Boechera stricta</i> .

Session Name **Attack of the (haploid) clones: the resurgence of gametophyte biology across land plants**

Room **400A**

Presenter Start Time	Presenter Name	Abstract title
1:30 PM		Introduction to "Attack of the (haploid) clones: the resurgence of gametophyte biology across land plants"
1:45 PM	James Watkins	Colgate University
		Alma Stokey's (1877-1968) Botanical Legacy: Digitizing and Analyzing her Fern Gametophyte Illustration Collection
2:00 PM	Emily Kim	University of Florida
		Exploring the fern life cycle: gene expression patterns between gametophytes and sporophytes and sex determination in ferns
2:15 PM	Jessica Budke	University of Tennessee
		The conflict between gametophyte parents and sporophyte offspring: examining morphological evolution across moss species with different sexual systems
2:30 PM	Nikisha Patel	Trinity College
		A target-capture approach to reconstruction of allopolyploid origins in the <i>Physcomitrium pyriforme</i> species complex
2:45 PM	Helen Holmlund	Pepperdine University
		Ecological strategies of fern gametophytes in the dry chaparral understory of southern California
3:00 PM	Emily Sessa	New York Botanical Garden
		How to survive a mass extinction: insights from fern gametophytes
3:15 PM		Coffee Break
3:45 PM	Sally Chambers	Eastern Kentucky University
		New Directions in Fern Gametophyte Biology
4:00 PM	christopher krieg	University of Wisconsin-Mad
		From tropics to temperate: Uncovering global trends in fern gametophyte ecophysiology
4:15 PM	Fay-Wei Li	Boyce Thompson Institute
		New frontiers in hornwort research
4:30 PM		Discussion

Session Name **Botanical History Matters**

Room **110D**

Presenter	Start Time	Presenter Name	Abstract title
Maura Flannery	8:00 AM	University of South Carolina,	Herbaria and Gardens: A Fertile Past, Present, and Future [VIDEO]
Jason Grant	8:15 AM	University of Neuchatel	The mycological discoveries of Swiss naturalist Jean-Frédéric Chaillet (1747-1839) in the works of Christian Hendrik Persoon (1761-1836) document the early understanding of European fungal diversity
Edouard Di Maio	8:30 AM	University of Neuchatel	Reconstitution and valorization of a regional scientific and historical heritage: The herbarium of flowering plants collected Jean-Frédéric Chaillet (1747-1839) in Switzerland
Jordan Teisher	8:45 AM	Missouri Botanical Garden	Microhistories of Botany 1: Where in the World Was Charles Wilkins Short?
Heather Sharkey	9:00 AM	University of Pennsylvania	Microhistories of Botany 2: The World of José Francisco Correia da Serra and the Herbarium of Charles Wilkins Short
Richard McCourt	9:15 AM	Academy of Natural Science	Microhistories of Botany 3: Going Meta with Metadata—Herbarium labels as digitized paper trails of history
Barbara Ertter	9:30 AM		Timothy E. Wilcox: Army Surgeon, Botanist, and Naturalist
	9:45 AM		coffee break
Lisa Delissio	10:15 AM	Salem State University	Uncovering women botanists in New England's Botanical History [VIDEO]
Marshall Sundberg	10:30 AM	Emporia State University	155 years of Botany at Emporia State University: a Case Study of College Botany in the U.S.
Ryan Schmidt	10:45 AM	Rutgers University	Hidden Cargo: Death, Survival, and Dispersion of Ballast-Associated Plant Species in the Northeastern USA
Bermet Nurlan Kyzy	11:00 AM	Maryville University Saint Lo	: Indicators of climate change: A comparison of the reproductive biology of <i>Castilleja coccinea</i> from 1833-2022 in glade and prairie habitats.
	11:15 AM		Business Meeting

Session Name **Bryology and Lichenology**

Room **410B**

Presenter	Start Time	Presenter Name		Abstract title
James	8:00 AM	Lendemer	The New York Botanical Gar	Internal and external biotic factors drive patterns of lichen species richness in the imperiled Southern Appalachian Biodiversity Hotspot
Carly	8:15 AM	Russell	Ludwig Maximilian Universit	Flying First Class: Lichen Dispersal By Icelandic Migratory Birds
Alan	8:30 AM	Franck	University of Florida	Digitizing the bryophyte and lichen collections of the University of Florida herbarium (FLAS)
John	8:45 AM	McLaughlin	San Jose State University	A Preliminary Bryophyte Flora of Henry W. Coe State Park
David Nicholas	9:00 AM	McLetchie	University of Kentucky	Asexual Offspring Germination is Dependent on Water Vapor and Source Habitat
Blair	9:15 AM	Young	Rutgers	A Potential Symbiosis of Nitrogen-Fixing Bacterial Endophytes and Their Bryophyte Hosts
Jacob	9:30 AM	Watts	University of Colorado at Bo	Microclimate and substrate shape lichen community composition and functional diversity in the foothills of the Southern Rocky Mountains
	9:45 AM			Coffee Break
W. Cuyler	10:15 AM	Bleecker	University of Alaska Fairban	Gymnomitrium as a treasure trove for bryophilous ascomycetes: new discoveries and a refined understanding of distributions across western North America [VIDEO]
Katie	10:30 AM	Sanbonmatsu	Texas A&M University	Bisexuality is not associated with increased diversification in mosses
Julia	10:45 AM	Butler	University of Tennessee Kno	Untangling Aquatic Transitions and Interspecific Relationships in the Moss Genus Fissidens
Jeremy	11:00 AM	Howland	New York Botanical Garden	Molecular and phenotypic study put eastern North American Cetrelia in a global context of biogeography and phylogeny
Sean	11:15 AM	Robinson	SUNY Oneonta	The Sphagnum cuspidatum complex: phylogeny, species delimitation, and morphology
Michael	11:30 AM	Kerr	Brigham Young University	Custom-made regional DNA barcode databases increase successful specimen identification of lichen-forming fungi

Session Name **Conservation Biology 1**

Room **410C**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Mwihaki	John(MJ)	University of Florida	The potential distributions of African Azolla species and their implications for African wetland ecosystems for the future
8:15 AM	Kaitlyn	Sampson	University of South Alabama	Using environmental niche modeling and next generation sequencing to understand the factors promoting endemism of the critically-imperiled, hybrid Florida Pondweed ( <i>Potamogeton floridanus</i> )
8:30 AM	Josh	Turner	Bryant University	Conservation and Paleoclimate Applications of the Endangered Dawn Redwood: New Directions Based Upon Enhanced Paleobotanical Techniques
8:45 AM	Natali	Ramirez-Bullon	U.S. Fish and Wildlife Service	Fire management after farming can recover phylogenetic structure of former longleaf grassland
9:00 AM	Ana Maria	Bedoya	Louisiana State University	Getting our feet wet to bypass collection bias in Neotropical rivers: research in riverweeds (Podostemaceae) and its implications on conservation of threatened ecosystems
9:15 AM	Sterling	Herron	Archbold Biological Station	Developments in the race to conserve critically endangered Florida ziziphus ( <i>Pseudoziziphus celata</i> ; Rhamnaceae)
9:30 AM	Santosh	Rana Magar	Pennsylvania State University	Grassland habitat suitability in North America for long-term restoration success
9:45 AM				Coffee break
10:15 AM	Francis	Kilkenny	USDA Forest Service	Developing a common garden array to test adaptive genetic variation in priority restoration forb species in the Great Basin of the United States
10:30 AM	Ian	Eggleston	Utah Valley University	Using Ecological Niche Modeling to better understand <i>Pediomelum taromaticum</i> a threatened Utah plant
10:45 AM	Gregory	Wahlert		Conservation and systematics of the critically endangered Nipomo Mesa lupine, <i>Lupinus nipomensis</i>
11:00 AM	Alexandra	Hoff	San Diego State University	Resilient Restoration: Drought Resilience Amongst Southern California <i>Quercus agrifolia</i> Populations on Tribal Lands
11:15 AM	Aaron	Liston	Oregon State University	DNA metabarcoding for accurately censusing natural populations of the endangered Gentner's Fritillary
11:30 AM	Kieran	Althaus	University of Chicago	Quantifying Research Effort for California's Flora: Evidence of bias against rare plants in literature and sequence data

Session Name **Cooley Award Talks**

Room **410A**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Senna	Robeson		Examining phylogenetic (dis)agreement with migration route hypotheses in tarflowers ( <i>Bejaria</i> , Ericaceae)
8:15 AM	Oluwatobi	Oso	Yale University	Origin and Distribution of Leaf Teeth in Temperate Woody Angiosperm Flora
8:30 AM	Nicholas	Engle-Wrye	Mississippi State University	Investigating conserved pollinator attractants as a driver of hybridization in <i>Heuchera</i> .
8:45 AM	Cara	Hastings	Boise State University	Evaluating the limits of <i>Piper amalago</i> L., a widespread Neotropical shrub
9:00 AM	Theresa	Saunders	Washington State University	Phylogenomics and seed morphology of Cleomaceae
9:15 AM	Kyle	Simpson	Texas A&M University	Niche overlap and differentiation in <i>Leavenworthia</i> , a genus of rare, glade-endemic plants
9:30 AM				Coffee Break
10:15 AM	Tito	Abbo	UC Riverside	Resolved at last? A genus-wide <i>Arctostaphylos</i> ddRADseq phylogeny
10:30 AM	Chinedum	Anajemba	Utah State University	Using the PURC II pipeline and homologizer to infer a multi-locus reticulate phylogeny of Cystopteridaceae (Polypodiales)
10:45 AM	Brock	Mashburn	Washington University in St. Louis	Biogeography and Evolution of the Iconic and Endangered Mascarene Hibiscus
11:00 AM	Lei	Zuo	The Ohio State University	Exploring the Impact of Last Glacial Maximum on the Demographic History of <i>Asarum caudigerum</i> [VIDEO]

---

**Session Name Crops and Wild Relatives**Room **410B**

Presenter	Start Time	Presenter Name		Abstract title
	1:30 PM	Paige Ellestad	Boise State University	The genomic origin of cultivated vanilla
	1:45 PM	Makenzie Mabry	University of Florida	Early leaf shape variation in Brassica oleracea morphotypes and their wild relatives
	2:00 PM	Romulo Segovia	University of British Columbi	Chromosome-level and phased diploid genome assembly of the Andean tuber crop Ullucus tuberosus (Basellaceae: Caryophyllales)
	2:15 PM	Luca Giupponi	University of Milan	Plant agro-biodiversity†for the sustainable development of mountain areas: the case of Italy [VIDEO]
	2:30 PM	Carla Saldaña	National Institute of Agricult	The complete chloroplast genome of "loche" squash (Cucurbita moschata) and its comparative analysis with other relative species [VIDEO]

---

**Session Name Development & Structure: Moseley and Esau Awards**Room **120C**

Presenter	Start Time	Presenter Name		Abstract title
	8:00 AM	Valentina Botero Castaño	Universidad de Antioquia	COMPARATIVE MORPHOANATOMY OF THE FLOWER-TO-FRUIT TRANSITION IN ANDEAN LORANTHACEAE JUSS. [VIDEO]
	8:15 AM	Yesenia Madrigal	Universidad de Antioquia	Assessment of the flowering genetic regulatory network in tropical orchids with different lifeforms
	8:30 AM	Heather Phillips	Cornell University	To Fuse or not to Fuse: Investigating the Evolution and Development of Floral Fusion in the Zingiberales
	8:45 AM	Deannah Neupert	Miami University	The alteration to vegetative growth and gene expression supports the use of a novel aerial bulbil in Mimulus gemmiparus for reproduction
	9:00 AM	Jesus Martinez-Gomez	University of California Berk	A Morphological and Phylogenetic Comparative approach to investigating Branching Architecture Evolution in Monocots
	9:15 AM	Israel Cunha Neto	Cornell University	Beyond lobed: molecular phylogeny and evolution of development of stem anatomies in the small genus Urvillea (Paullinieae, Sapindaceae)
	9:30 AM	Rafael Cruz	University of Edinburgh	Evolution of the phloem genetic toolkit in plants
	9:45 AM			Coffee Break
	10:15 AM	Kristel Schoonderwoerd	University of Connecticut	Interspecific variation in†the resting bud morphologies of Juglandoideaeóa winterís tale?
	10:30 AM	Lindsey Kollmer	University of Connecticut	Preformation: Could development be the missing piece to flowering phenology?
	10:45 AM	Stepfan Huntsman	Stanford	The ontogeny of disparity in Cupressaceae seed cones
	11:00 AM	Israel Cunha Neto	Cornell University	How ectopic cambia form: Insights from the convergent evolution of successive cambia



---

**Session Name Ecology 4: Rarity & Land Management**Room **420A**

Presenter	Start Time	Presenter Name	Abstract title
9:00 AM	Jennifer Boyd	University of Tennessee at C	Investigating the eco-evolutionary causes and consequences of plant species rarity with meta-analyses
9:15 AM	Anna Wyngaarden	University of Georgia	What limits rare endemics? Testing the Center-Periphery hypothesis for occurrence and fitness.
9:30 AM	Sarah Herzog	Kansas State University	Population impacts of rarity under native grazers and changing climate
9:45 AM			Coffee Break (9:45 to 10:15 OR 3:15 to 3:45)
10:15 AM	Shelby Krupar	University of Florida, Florida	Come Hell or High Water: the Fate of Guzmania monostachia in Florida Rests with Humans [VIDEO]
10:30 AM	Natalie Love	University of Illinois, Chicag	Using climatic niches to plan climate-resilient urban forests
10:45 AM	Francesco Martini	Trinity College Dublin	Creating ecosystem extent accounts to understand land use change in Irish forests
11:00 AM	Jessamine Finch	Native Plant Trust	Forestry bias in provenance literature limits guidance for restoration seed sourcing under climate change

---

**Session Name Ecology 5: Seeds & Invasions**Room **430A**

Presenter	Start Time	Presenter Name	Abstract title
1:30 PM	Madison Stessman	University of South Carolina	Seed mucilage as a defense against granivory is influenced by substrate characters
1:45 PM	Kate Madsen	Ohio University	Patterns of Dispersal Syndromes on Gypsum Outcrops
2:00 PM	Lauren Kosslow	West Virginia University	Investigating the function of the awn and its role in invasion success of Microstegium vimineum (stiltgrass)
2:15 PM	Cynthia Huebner	USDA Forest Service	Using Genetically Defined Traits to Predict Competitive Interactions between Microstegium vimineum Genotypes
2:30 PM	Linden Taylor	University of Wisconsin-Mad	Spatial, seasonal, and environmental phytochemical variation in a Great Lakes invasive aquatic plant
2:45 PM	Rima Lucardi	USDA Forest Service	Can detection dogs improve biosecurity by finding invasive plant hitchhikers vectored by global trade?

---

**Session Name Ecophysiology I**Room **430A**

Presenter	Start Time	Presenter Name	Abstract title
10:15 AM	Michael Thomas	University of Toledo	Warming plus elevated CO2-induced leaf hyponasty in tomato may share chemical signaling pathways with shade avoidance and thermomorphogenesis
10:30 AM	Nikhil Jaikumar	Illinois State University	Resilience to heat stress in natural accessions from contrasting climates,†as well as in†CRISPR-gene edited, high oleic acid lines, of the emerging oilseed plant pennycress (Thlaspi arvense: Brassicaceae).
10:45 AM	Derek Denney	University of Georgia	Examining the effects of elevated [CO2] and temperature on plant performance and physiology in a perennial forb
11:00 AM	Sam Pelletier	Connecticut College	Does expression of the auxin biosynthetic protein family YUCCA change during drought?
11:15 AM	Eleinis Jvila-Lovera	University of Utah	Role of stem photosynthesis and elevated CO2 on the drought response of a late-successional Neotropical tree species
11:30 AM	Shiran Ben-Zeev	Pennsylvania State Universi	The effects of competition ∅ drought interactions on above- and below-ground traits in sorghum
11:45 AM	Steven Augustine	University of Wisconsin Mad	Life at the extreme: understanding how hydraulics constrain some of the longest living pines to unique elevational positions

---

**Session Name Floristics & Taxonomy I****Room 110C**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Lydia	Paradiso	New York Botanical Garden	A Checklist of the Spontaneous Plants of New York City
8:15 AM	Stephen	Stern	Colorado Mesa University	Using a floristic inventory of McInnis Canyon National Conservation Area, Colorado to train undergraduates
8:30 AM	Peri Lee	Pipkin	California Botanic Garden	Black Holes, White Gold: A Flora of the Silver Peak Range, NV
8:45 AM	Kimberly	Schaefer	California Botanic Garden	A Vascular Flora of the Sacatar Trail Wilderness, Southeastern Sierra Nevada, California
9:00 AM	Jennifer	Ackerfield	Denver Botanic Gardens	Floristic Inventory of Axton Ranch Mountain Park
9:15 AM	Courtney	Matzke	California Botanic Garden	A Vascular Floristic Study of the Piute Mountains, Kern County, California.
9:30 AM	Mathew	Sharples	Adams State University	Vascular Flora of Nevada
9:45 AM				Coffee Break
10:15 AM	Jayani	Wathukarage	Rice Research and Develop	Genome-wide SSR markers for Echinochloa
10:30 AM	Sevyn	Brothers	University of Tennessee at C	Taxonomic, conservation, ecological, morphological, and reproductive analysis of 4500 plant species of the interior Southeast US. Sevyn Brothers* and Joey Shaw, University of Tennessee at Chattanooga, Chattanooga, Tennessee.
10:45 AM	Garrett	Billings	University of Tennessee at C	Modeling Niche Habitats of Expected Rare Species within the Vascular Flora of the Walls of Jericho, Alabama
11:00 AM	Harvey	Ballard	Ohio University	Taxonomic diversity in violets (Violaceae) of the Great Plains and eastern North America [VIDEO]
11:15 AM	Jared	Meek	Columbia University	Phylogeny of North American larkspurs (Delphinium; Ranunculaceae) [VIDEO]

---

**Session Name Floristics & Taxonomy II****Room 110C**

Presenter	Start Time	Presenter Name		Abstract title
1:30 PM	Nancy	Refulio Rodriguez	Iowa State University	A new species of Chusquea subg. Swallenochloa (Poaceae: Bambusoideae) from the high Andes of Peru
1:45 PM	Cassandra	Fink	Tennessee Tech University	Morphometric analysis and self-compatibility of species in Lilium L. sect. Leucolirion in the southeastern United States
2:00 PM	Nathan	Taylor	Oklahoma State University	Utilizing Leaf Asymmetry, Anisophylly, and Heteroblasty to Delineate a Euphorbia Species Complex
2:15 PM	Remington	Burwell	Ohio University	Insights into the taxonomic diversity of Viola subsection Borealiamericanae of the Eastern-North American Coastal Plain
2:30 PM	Mary	Barkworth	Utah State University	One world but many countries, languages, and histories
2:45 PM	Jackson	Kehoe	Harvard University	Merging the Malagasy†Sphedamnocarpus Planch. ex. Benth & Hook.f.†into the genus†Philgamia†Baill. to recognize an island lineage within the Malpighiaceae
3:00 PM	Elizabeth	McMurchie	Iowa State University	The postage stamp and beyond: The vascular flora of Marietta Sand Prairie Preserve

---

**Session Name Functional Genetics/Genomics****Room 110B**

Presenter	Start Time	Presenter Name		Abstract title	
	3:15 PM	Nicolette	Sipperly	Stonybrook University	Draba albertina illustrates adaptive responses to stress
	3:30 PM	Yanni	Chen	Texas Tech University	Functional Phylogenomic of KAI2 in Bouteloua gracilis
	3:45 PM	Ya	Yang	University of Minnesota, Twi	Using multi-omics and gene family phylogeny to investigate the evolution of betalain and associated metabolites in Caryophyllales
	4:00 PM	Ingrid	Jordon-Thaden	University of Wisconsin-Mad	Phenotypic trait variation in common garden comparisons between†synthetic and natural allopolyploids and their parents of†the North American Tragopogon (Asteraceae).
	4:15 PM	Bianca	Ferreira	University of Connecticut	Genetic basis of pistil length variation between monkeyflower species with different pollination syndromes
	4:30 PM	Brook	Moyers	University of Massachusetts	Salicornia depressa: genomics of a highly salt and metal tolerant plant
	4:45 PM	Vasu	Jayaveeran	Postgraduate Department o	Gene expression, Molecular Proliferation and Cellular signalling on photosynthetic activities of Piper nigrum L.

---

**Session Name Global Change and Plant Reproductive Failure: Beyond Climate Change Effects: An Annals of Botany Sponsored Symposium****Room 400C**

Presenter	Start Time	Presenter Name		Abstract title	
	8:00 AM			Introduction	
	8:03 AM	Rowan	Sage	University of Toronto, Annal	Global Change Wildcards and Plant Reproduction
	8:15 AM	Haldre	Rogers	Virginia Tech	Cascading impacts of defaunation on seed dispersal and pollination
	8:45 AM	David	Greene	cal poly humboldt	Increasing fire frequency and species compositional change in forests of the Western US
	9:15 AM	Megan	DeMarche	University of Georgia	Consequences of earlier flowering in a warming world
	9:45 AM			Coffee break	
	10:15 AM	Joy	Ward	Case Western Reserve Univ	Deciphering the Mechanisms that Drive Changes in Flowering Time in Response to Rising CO2†
	10:45 AM	Sara	Good	University of Winnipeg	Internal and external factors associated with plant family species richness: the importance of considering the impact of global change on self-incompatible taxa
	11:15 AM	Mauricio	Quesada	Universidad Nacional Auton	Effects of global land use change on female and male reproduction in angiosperms
	11:45 AM			Discussion	

---

**Session Name Kaplan Memorial Lecture - Plant morphology as a bellwether of subsequent evolutionary innovation****Room 400B**

Presenter	Start Time	Presenter Name		Abstract title	
		Erika	Edwards	Yale University	Kaplan Memorial Lecture - Plant morphology as a bellwether of subsequent evolutionary innovation

---

**Session Name Macroevolution I**Room **410A**

Presenter	Start Time	Presenter Name		Abstract title
1:30 PM	Ian	Gilman	Michigan State University	Evolution of CAM anatomy and predicting physiology from anatomy
1:45 PM	Stephen	Smith	University of Michigan	The Stripping of the Altars: Divergence time estimation and the stray from biological realism
2:00 PM	Jeremy	Beaulieu	University of Arkansas	A Hidden Markov framework for estimating substitute rate heterogeneity in flowering plant divergence time estimation
2:15 PM	Jianhua	Li	Hope College	Evolutionary constraint and ecological trade-off of the phenylpropanoid pathway determine the plant diversity in the past, present, and future
2:30 PM	James	Boyko	University of Michigan	The evolutionary responses of life-history strategies to climatic variability in flowering plants
2:45 PM	Carrie	Kiel	California Botanic Garden	Pattern, Timing and Biotic Context of Diversification in Justicia
3:00 PM	Sarah	Mathews	Louisiana State University	Do showy mistletoes (Loranthaceae) mimic their hosts? Field sampling and computer vision to quantify phenotypic similarity in Australian mistletoe-host pairs.
3:15 PM				Coffee Break
3:45 PM	Sukuan	Liu	University of Colorado Bould	Replicated radiations in the South American Marsh Pitcher genus <i>Heliamphora</i> (Sarraceniaceae) lead to convergent carnivorous trap morphologies
4:00 PM	Eric	Hagen	University of Arkansas	Directly testing for diversification lags after polyploidization
4:15 PM	Jacob	Suissa	Cornell University	The convergent evolution of ant-guarding nectaries in ferns is linked to the Cenozoic rise of insect herbivores [VIDEO]
4:30 PM	Andrea	Berardi	Harvard University	Allopolyploidy and pollinator-mediated diversification influence novel floral pigment patterns in North American <i>Silene</i> [VIDEO]

---

**Session Name Molecular Ecology**Room **420A**

Presenter	Start Time	Presenter Name		Abstract title
1:30 PM	Craig	Barrett	West Virginia University	Integrative analyses of variation in fully mycoheterotrophic, North American orchids
1:45 PM	taylor	paret	University of Toledo	To Hear Without an Ear: Mechanosensation in Plants
2:00 PM	Daniel	Turck	University of Idaho	A long strange trip: <i>Asarum caudatum</i> and its migration from the Coast to the Rocky Mountains
2:15 PM	Daniela	Varon Garcia	University of South Florida	Testing the Janzen-Connell hypothesis with seeds of tropical pioneer trees
2:30 PM	Craig	Barrett	West Virginia University	Incorporating natural history collections and low-coverage genome sequencing in evolutionary ecology of the invasive <i>Miscrostegium vimineum</i> .

---

**Session Name Neotropical Pteridology: A Dedication to Robbin Moran****Room 400A**

Presenter	Start Time	Presenter Name		Abstract title
	8:00 AM	James Watkins	Colgate University	Neotropical Pteridology: A Dedication to Robbin Moran
	8:30 AM	Blanca LeÛn	Museo de Historia Natural-U	Robbin C. Moran: Research and impact on ferns and people [VIDEO]
	8:45 AM	Alejandra Vasco	Botanical Research Institute	The Ferns of Colombia Project: Accelerating Lineage Discovery to Document Neotropical Fern Diversity
	9:00 AM	Ana Martinez	National Autonomous Unive	Taxonomic revision of the Petiolatum Clade (Elaphoglossum, Dryopteridaceae)
	9:15 AM	Fernando Matos	CRIA (Centro de Refer�ncia e	Phylogenetic relationships and character evolution of the subulate-scaled species of †Elaphoglossum†(Dryopteridaceae)
	9:30 AM	Sonia Molino	Universidad Complutense d	Discovering Parablechnum: a complex evolutionary history within the youngest fern family.
	9:45 AM			Coffee break
	10:15 AM	Sarah K. Morris	University of Vermont, Pringl	Ecological correlates and evolution of adaptive traits in the fern genus Pleopeltis (Polypodiaceae)
	10:30 AM	James Watkins	Colgate University	Ecophysiology and life-history of the primary hemiepiphytic fern Lomariopsis vestita (Lomariopsidaceae) in Costa Rica
	10:45 AM	Michael Sundue	Royal Botanic Garden Edinb	New records of hemiepiphytes in ferns and their implications for the evolution of epiphytism
	11:00 AM	Elissa Sorojsrisom	Columbia University	A TALE of Two Genes: Evolution of KNOX and BELL in Ferns and Lycophytes
	11:15 AM	Robbin Moran	New York Botanical Garden	Aerophores in ferns
	11:30 AM			Closing remarks/ Discussion

---

**Session Name Paleobotanical Session 2****Room 110A**

Presenter	Start Time	Presenter Name		Abstract title
	8:00 AM	Xiaoqing Zhang	Wesleyan University	Late Triassic floras from Guangdong, South China: biostratigraphical context and palaeoenvironmental implications
	8:15 AM	James Doyle	University of California Davi	Phylogenetic assessment of Cretaceous fossils compared to Magnoliales: problematic cases.
	8:30 AM	James Doyle	University of California Davi	Paleoecological implications of a new species of Pseudofrenelopsis (Cheirolepidiaceae) from the Hauterivian (Lower Cretaceous) of western Portugal.
	8:45 AM	Xiaoqing Zhang	Wesleyan University	Estimates of the late Early Cretaceous atmospheric CO2 based on stomatal and isotopic analysis of Pseudotorellia from Mongolia
	9:00 AM	Andres Elgorriaga	University of Kansas	A complex megasporophyll from the Late Cretaceous of North America reveals a novel type of seed enclosure in gymnosperms
	9:15 AM	Selena Smith	University of Michigan	Ovulate cone from the Late Cretaceous of Antarctica with close affinities to Wollemia
	9:30 AM	Brian Atkinson	University of Kansas	Early Diversification of Southern Cypresses: Permineralized Fitzroya from the Late Cretaceous of Antarctica.
	9:45 AM			Break
	10:15 AM	Kate Morrison	University of Michigan	A Nothofagus-like fruit from the Campanian of Western North America
	10:30 AM	Fabiany Herrera	Field Museum	Neotropical fossil grapes challenge biogeography of Vitaceae
	10:45 AM	Kathleen Pigg	Arizona State University	Cyclocarya brownii (Juglandaceae): an update on what we know about this plant.
	11:00 AM	Elena Stiles	University of Washington	Early South American grasses (Paleocene-Eocene) occupied forested ecosystems
	11:15 AM	Gar Rothwell	Ohio University; Oregon Stat	Paleogene evidence for anatomically preserved gleicheniaceous pinnules with sori in marine carbonate concretions from Vancouver Island, B.C., Canada
	11:30 AM	Ruth Stockey	Oregon Sate University	An anatomically preserved monocot from the Eocene Appian Way locality of Vancouver Island, British Columbia, Canada
	11:45 AM	Ana Andruchow-Colombo	University of Kansas	A new species of Acmpyle (Podocarpaceae) with preserved accessory transfusion tissue from the early Eocene of Argentinean Patagonia

---

**Session Name Paleobotanical Session 3****Room 110A**

Presenter	Start Time	Presenter Name		Abstract title
	1:30 PM	Melanie DeVore	Georgia College and State U	Grasses: Can we tell Bamboos in the Fossil Record? [VIDEO]
	1:45 PM	Sarah Allen	Penn State Altoona	Newly recognized fossils of Tetramelaceae: A biogeographically dispersed clade
	2:00 PM	Ari Iglesias	INIBIOMA (Comahue Univer	First Nothofagus fossil cupules and fruits from South America, earliest Oligocene of northern Patagonia
	2:15 PM	Steven Manchester	Florida Museum of Natural	Biogeographic affinities of fossil hickory nuts (Juglandaceae: Carya) from the Tertiary (Paleogene and Neogene) of Europe
	2:30 PM	Caroline Str̂mberg	University of Washington	Early Miocene evidence of abundant C4 grasses and habitat heterogeneity in eastern Africa
	2:45 PM	Hong Yang	Bryant University	The Middle Miocene Clarkia flora and associated biomolecules: 50 years of multi-disciplinary research
	3:00 PM	Dennis Stevenson	New York Botanical Garden	A new hypothesis about the relationships among cycads and other seed plants [VIDEO]

---

**Session Name Phytochemical****Room 410C**

Presenter	Start Time	Presenter Name		Abstract title
	1:30 PM	Hampus Petr̂n	Philipps-University Marburg	Quantifying chemodiversity as a way of understanding the ecological function of phytochemicals
	1:45 PM	Gaurav Moghe	Cornell University	Predicting enzyme functions: A case study using BAHD acyltransferases
	2:00 PM	Brandi Zenchyzen	University of Alberta	Chemical, genetic, and morphological characterization of the floral scent and scent releasing structures of Gynandropsis gynandra (Cleomaceae, Brassicales)
	2:15 PM	Elizabeth Mahood	Corteva Agriscience	Towards capturing global metabolic responses through -omics approaches
	2:30 PM	Jordan Dowell	Louisiana State University	Hyperspectral prediction of volatile organic compound mediated responses across the genus Helianthus
	2:45 PM	Evin Magner	University of Minnesota	Post-secretory synthesis of a natural analog of iron-gall ink in the black nectar of Melianthus spp.
	3:00 PM	Harleen Kaur	University of Alberta	Glucosinolate content in clubroot-resistant and susceptible rutabaga (Brassica napus) cultivars in response to clubroot disease [VIDEO]
	3:15 PM			Coffee Break
	3:45 PM	Olawole Aina		Phytochemicals Quatification, Trace Metal Accumulation Pattern And Contamination Risk Assessment Of Different Variety Of Tomatoes Cultivated On Municipal Waste Sludge Treated Soil.
	4:00 PM	Muhammad Rashid		degradation of rice bran during storage

Session Name **Population Genetics/Genomics I**

Room **110B**

Presenter	Start Time	Presenter Name		Abstract title
8:00 AM	Michael	Grillo	Loyola University of Chicago	Population genetics in <i>Astragalus lentiginosus</i>
8:15 AM	Dylan	Cohen	Chicago Botanic Garden	Evolutionary history and population genetics of an endangered plant species ( <i>Amsonia tharpii</i> ) across a fragmented landscape
8:30 AM	Madeline	Slimp	University of California	Ecological Bastion and Iconic Cultural Food: Conservation Genomics of the Argan Tree
8:45 AM	Susan	McEvoy	Santa Barbara Botanic Gard	Conservation genomics of an endangered Asteraceae ( <i>Deinandra increscens</i> subsp. <i>villosa</i> ) native to the Central Coast of California
9:00 AM	Andrew	Davies	Northwestern University and	Does size really matter? Implications of small population size for rare plants
9:15 AM	Robert	Comito	California Botanic Garden	Pitcher sages in peril? A conservation genomics study of <i>Lepechinia rossii</i> (Rossís pitcher sage)
9:30 AM	Cameron	Corbett	West Virginia University	Reconstructing the invasion history of <i>Microstegium vimineum</i> using plastid genome sequencing and herbariomics
9:45 AM				Coffee Break
10:15 AM	Madison	Bullock	Texas Tech University	It's A Small World After All: Applying library miniaturization and "microhaplotypes" to plant population genomic research
10:30 AM	Michael	McKain	The University of Alabama	Chloroplast diversity and relationships between Johnsongrass ( <i>Sorghum halepense</i> ) and sorghum ( <i>Sorghum bicolor</i> )
10:45 AM	Stephen	Novak	Boise State University	<i>Bromus tectorum</i> center of genetic diversity
11:00 AM	Sherese	Price	Texas Tech University	Possible cryptic species in widespread <i>Abronia fragrans</i> complex species
11:15 AM	Bianca	Ferreira	University of Connecticut	Capricious chromosomes: Influence of polyploidy on morphology, reproductive strategies and genetic differentiation amongst varieties of <i>Rhodohypoxis baurii</i> (Hypoxidaceae).
11:30 AM	Trevor	Faske	University of Nevada, Reno	2 does not equal 4: Variance dissimilarities in mixed-ploidy genomic data cause irregular patterns in PCA and other clustering analyses

Session Name **Population Genetics/Genomics II**

Room **110B**

Presenter	Start Time	Presenter Name		Abstract title
1:30 PM	Ayress	Grinage	Cornell University	Defining gene flow within <i>Sabal minor</i> to understand trunk diversity
1:45 PM	Anri	Chomentowska	Yale University	Mating system and life history: estimating selfing rates in annual and perennial species of † <i>Calyptridium</i> (Montiaceae) [VIDEO]
2:00 PM	Carlos	Arbizu	Toribio Rodríguez de Mendo	Assessment of the Genetic Diversity and Population Structure of the Peruvian Andean Legume, Tarwi ( <i>Lupinus mutabilis</i> ), with High Quality SNPs [VIDEO]
2:15 PM	Carla	Saldaña	National Institute of Agricult	Genetic Structure and Diversity of <i>jalgarroboi</i> ( <i>Neltuma pallida</i> ) from the Dry Forest of Northern Peru based on SNP markers [VIDEO]

---

**Session Name Seeing the network for the trees: Methodological and empirical advances in reticulate evolution****Room 400C**

Presenter	Start Time	Presenter Name		Abstract title
	1:30 PM			Introduction
	1:45 PM	Claudia Solis-Lemus	University of Wisconsin-Mad	Overview of phylogenetic networks
	2:15 PM	Huw Ogilvie	Rice University	Phylogenetic inference of whole-genome duplication from allo- and autopolyploidy, without complete sampling and with extinction
	2:45 PM	Diego Morales-Briones	Ludwig Maximilian Universit	Exploring the Possible Role of Hybridization in the Evolution of Photosynthetic Pathways in Flaveria (Asteraceae), the Prime Model of C4 Photosynthesis Evolution
	3:15 PM			Break
	3:45 PM	Kevin Liu	Michigan State University	FastNet: Fast and accurate statistical inference of phylogenetic networks using large-scale genomic sequence data
	4:15 PM	Sungsik Kong	University of Wisconsin-Mad	Pitfalls of popular computational methods to understand reticulate evolution
	4:45 PM	Jennifer Mandel	University of Memphis	Reticulate evolution across time scales in Asteraceae

---

**Session Name Symbioses: Plant, Animal, and Microbe Interaction****Room 420B**

Presenter	Start Time	Presenter Name		Abstract title
	8:00 AM	Joel Swift	University of Kansas	Legacy effects of precipitation and land use impact maize growth and microbiome assembly under drought stress
	8:15 AM	Andres Gutierrez	Loyola University of Chicago	The genetic basis of adaptive partner choice in the Medicago-Ensifer symbiosis
	8:30 AM	Dexcem Pantinople	Mississippi State University	Phylogenetic and spatial determinants of leaf endophyte microbiomes in the flowering plant Heuchera
	8:45 AM	Abigail Ferson-Mitchell	University of Idaho	Primary†bacterial symbionts†of creosote bush
	9:00 AM	Isabela Lima Borges	Michigan State University	The effects of plant inbreeding on mutualisms
	9:15 AM	Eli Hartung	Kansas State University	Do wet and dry ecotypes of a dominant grass grow better with their native soil microbes?
	9:30 AM	Nevin Cullen	University of Pittsburgh	Variation in synthetic floral microbiome composition is largely ignored by foraging bumblebees
	9:45 AM			Coffee Break
	10:15 AM	Elizabeth Waring	Northeastern State Universi	Impacts of temperature and fur texture on the adherence of mucilaginous seeds
	10:30 AM	Jenna Miladin	Capitol Reef National Park	The impacts of florivorous fruit flies on Asteraceae in Capitol Reef National Park and its implications for restoration efforts
	10:45 AM	Tajinder Singh	Mississippi State University	P-LDH/BC as a controlled-release fertilizer: Effects on plant growth and the soil microbiome
	11:00 AM	Gregory Pec	University of Nebraska at K	Response of maize seedlings and their root-associated fungal communities to water deficit stress and water recovery
	11:15 AM	Brandon Corder	University of Wisconsin-Mad	Partial mycoheterotrophy and fungal associations of Triphora trianthophoros, a rare North American orchid
	11:30 AM	Anna Scharnagl	UC Berkeley	Future directions for plant microbiome research
	11:45 AM	Evan Hilpman	Oberlin College	Distinct components of floral scent and display predict pollination and seed predation in Castilleja sessiliflora [VIDEO]

---

**Session Name Unlocking collections-based systematics in the new age of discovery and big data****Room 400B**

Presenter	Start Time	Presenter Name		Abstract title
	Jun	Wen	Smithsonian Institution	Unlocking collections-based systematics in the new age of discovery and big data



Session Name **Biogeography I**Room **110B**

Presenter Start Time	Presenter Name	Abstract title
8:00 AM Elizabeth White	University of Florida	Biogeography, phylogeography, and disjunctions in the Florida Panhandle: A center of diversity and endemism within a biodiversity hotspot.
8:15 AM Ana Maria Bedoya	Louisiana State University	Biogeographic history, †floral morphology, and realized climatic niche of the Neotropical genus †Palicourea
8:30 AM Janet Mansaray	Louisiana State University	The Phylogeny and Biogeography of Neotropical Bellflowers Centropogon subgenus Centropogon (Campanulaceae)
8:45 AM Klara Scharnagl	University of California Berk	Exploring patterns of lichen diversity across scales
9:00 AM Ryan Folk	Mississippi State University	Phylogenetic diversity and regionalization of the mimosoid clade: Drivers of diversity in dry tropical forest
9:15 AM Lucas Majure	University of Florida, Florida	Montane speciation in the Greater Antilles ñ Melastomataceae as a test case
9:30 AM Lydia Morley	Texas A&M	The spatial, historical, and evolutionary correlates of hybridization in vascular plants
9:45 AM		Coffee Break
10:15 AM Mike Moore	Oberlin College	Lessons on gypsophile gene flow from the Chihuahuan Desert
10:30 AM Bryan Drew	University of Nebraska Kear	East Asian-North American disjunctions and relationships in Nepetinae (Lamiaceae)
10:45 AM Jeff Rose	University of Wisconsin-Mad	Leaf Evolution in the Hawaiian Lobeliads
11:00 AM Joey Charboneau	University of Michigan	Climatic niche differentiation of African acacias (Senegalia, Vachellia; Fabaceae)

Session Name **Biogeography II**Room **110B**

Presenter Start Time	Presenter Name	Abstract title
1:30 PM Jeannette Whitton	University of British Columbi	Identifying the drivers of range limitation using transplant gardens within and beyond the range edge of sexual and apomictic Townsendia hookeri reveals signatures of dispersal and niche limitation
1:45 PM Laymon Ball	Louisiana State University	Morphological variation and geographic distribution in Hillia subg. Hillia (Rubiaceae): Dissecting a species complex
2:00 PM John Schenk	Ohio University	Modeling dispersal potential of American amphitropical distributed species [VIDEO]
2:15 PM Dylan Cohen	Chicago Botanic Garden	Biogeography and diversification of the Southern Andean Loasa (Loasaceae)
2:30 PM Anna Becker	University of Florida	The END of Vaccinium as we know it? A comprehensive phylogenomic and biogeographic investigation of the blueberry tribe (Vaccinieae)
2:45 PM Anna Saghatelian	McMurry University	Areas of endemism of plants in the U.S.A. [VIDEO]
3:00 PM Mariana Hernandez_Leal	Universidad Nacional Auton	Spectral phylogeography in live oaks across the tropical-temperate divide [VIDEO]
3:15 PM		Coffee Break
3:45 PM Glen Morrison	UC Riverside	Reconstructing the biogeographic history of three widespread manzanita (Arctostaphylos) species of western North America [VIDEO]

Session Name **Comparative Genomics/Transcriptomics II**

Room **410B**

Presenter	Start Time	Presenter Name		Abstract title
Jacob	8:00 AM	Landis	Cornell University	Differentially expressed genes and signatures of selection highlight the genetic underpinnings of floral syndromes in multiple species of Calochortus (Liliaceae)
R. Shawn	8:15 AM	Abrahams	Yale University	Gene co-expression networks across phylogeny in the study of C4 photosynthesis
UZEZI	8:30 AM	OKINEDO	University of Massachusetts	Pleiotropy and adaptation in the silverleaf sunflower, Helianthus argophyllus
Philip	8:45 AM	Shushkov	Indiana University	Genetic cascades driving developmental decisions from single-cell transcriptomics
Keith	9:00 AM	Adams	University of British Columbia	Subgenome-dominant expression and alternative splicing in response to Sclerotinia infection in polyploid Brassica napus and progenitors
Kate	9:15 AM	Eastman	Purdue University	Comparative analysis of grass defense responses to Poacea-adapted and generalist Lepidopteran herbivores
Susanne S.	9:30 AM	Renner	Washington University	Whole-genome-based paleogenomics reveals angiosperm karyotype evolution during their early history [VIDEO]

Session Name **Conservation Biology 2**

Room **120C**

Presenter	Start Time	Presenter Name		Abstract title
Selena	1:30 PM	Vengco		Conservation Genetics and the Maintenance of Flower Color Polymorphisms in Non-model system Erythranthe discolor (Phrymaceae)
Lauren	1:45 PM	Eserman-Campbell	Atlanta Botanical Garden	Conservation genomics and species delimitation in the threatened Magnolia pyramidata
Kristen	2:00 PM	Hasenstab-Lehman	Santa Barbara Botanic Gard	Population genomics of island mallow, Malva assurgentiflora (Malvaceae)
Carrie	2:15 PM	Kiel	California Botanic Garden	Population genomic study of Astragalus magdalenae var. peirsonii
Naomi	2:30 PM	Fraga	California Botanic Garden	Threats on the horizon: Conserving rare plant species in the American West using the Endangered Species Act and other advocacy tools for scientists
Amanda	2:45 PM	Carmichael	Atlanta Botanical Garden	Conservation genetics of the imperiled Mountain Purple Pitcherplant, Sarracenia purpurea var. montana [VIDEO]
Richard	3:00 PM	Moore	Miami Universtiy	High prevalence of clonal reproduction and low genetic diversity in Scutellaria floridana, a federally threatened Florida-endemic mint [VIDEO]
	3:15 PM			Coffee Break
Temitope	3:45 PM	Onuminya	University of Lagos	Conservation of Nigerian Trees
Ken	4:00 PM	Cameron	University of Wisconsin-Mad	Patterns of genetic diversity within the endangered worm-vine orchid Vanilla barbellata (Orchidaceae) in south Florida and the West Indies have implications for conservation
Linda	4:15 PM	Howard	Arizona State University	Where are they now? What Happened to the plants first proposed for listing under the Endangered Species Act?
Tatiana	4:30 PM	Arias	Marie Selby Botanical Gard	Orchids for peace: Reconciliation and sustainable development of communities of the Andean-Amazonian foothills
Namrata	4:45 PM	Pradhan	Xian Jiaotong Liverpool Univ	A comprehensive methodological guide for seed conservation of orchids [VIDEO]

Session Name **Ecological and Evolutionary Consequences of Genome Size Variation in Plants**

Room **400A**

Presenter	Start Time	Presenter Name		Abstract title	
	8:00 AM			Introduction	
	8:15 AM	Erika	Hersch-Green	Michigan Technological Univ	When is it based upon genome size per se?
	8:30 AM	Alyssa	Phillips	University of California, Davi	The role of mixed-ploidy in adaptation and maladaptation of <i>Andropogon gerardi</i> populations
	8:45 AM	Shelly	Gaynor	University of Florida	Unraveling theoretical expectations of mixed-cytotype autopolyploid populations
	9:00 AM	Hailee	Petosky	Michigan Technological Univ	Examining How Plant Genome Size Variation and Nutrient Additions Structure Insect Herbivory and Fungal Pathogen Damage Patterns Across an Environmental Gradient
	9:15 AM	Angela	Walczyk	Gustavus Adolphus College	From transcriptomes to traits: investigating the role of resource allocation tradeoffs in the invasion success of tetraploid <i>Solidago gigantea</i>
	9:30 AM	Spencer	Roop	Idaho State University	Quantifying genetic variation in physiology and functional traits in subspecies of big sagebrush ( <i>Artemisia tridentata</i> ) in a common garden setting.

Session Name **Ecology 6: Interactions**

Room **110A**

Presenter	Start Time	Presenter Name		Abstract title	
	9:00 AM	Ihsan	Muhammad	Guangxi University	Evaluating the Effect of Anthropogenic Nitrogen Fertilization on Litter Decomposition, Microbial Community abundance, activity and Nutrient Cycling in Forest Ecosystems
	9:15 AM	Xiaoyin	Wang	Guangxi University	Seasonal Dynamics of Endomycorrhizal Fungi in Two Congeneric Orchid Species from Southwest China
	9:30 AM	SHAN	WONG	Texas Tech University	Disjunct populations of a hemi-epiphytic orchid ( <i>Vanilla trigonocarpa</i> ) show segregation of mycorrhizal niches
	9:45 AM				Coffee Break (9:45 to 10:15 OR 3:15 to 3:45)
	10:15 AM	Stephanie	McFarlane	Unversity of Wisconsin-Madi	Pollen quality as a potential driver for bumble bee abundance and diversity in restored prairies
	10:30 AM	Sierra	Jaeger	University of South Carolina	Pollination and herbivory differ across <i>Abronia fragrans</i> (Nyctaginaceae) populations but not between floral morphs: a reciprocal transplant experiment
	10:45 AM	Niveditha	Ramadoss	San Diego State University	sexual dichromatism in cactus
	11:00 AM	David	Gorchov	Miami University	Individual and interactive effects of white-tailed deer and woody invasive plants on native tree seedlings in an early successional forest
	11:15 AM	Elizabeth	Victoriano-Romero	BenemÈrita Universidad Aut	Intra- and inter- specific effects of epiphyte ñ epiphyte associations in a cloud forest in central Mexico [VIDEO]
	11:30 AM	Janelle	Bohey	University of California, Irvin	Sniffing out the link between nitrogen and floral scent [VIDEO]
	11:45 AM	Ejeoghene	Ogbimi	Obafemi Awolowo University	Effect of†plant growth regulators on multiple shoot formation in <i>Azelia africana</i> Sm. Ex. Pers.

---

**Session Name Ecophysiology II****Room 120C**

Presenter	Start Time	Presenter Name		Abstract title	
	8:00 AM	Courtney	Campany	Shepherd University	Acclimation of functional traits drives biomass increases in leafy green species grown in aquaponics
	8:15 AM	Jessica	Savage	University of Minnesota	A shift in the dominance of the xylem in hydrating Forsythia flowers could explain changes in freezing tolerance during floral development
	8:30 AM	Adam	Roddy	Florida International Univers	Quantifying the physiological costs of flowers and their effects on whole-plant and ecosystem processes
	8:45 AM	Arthur	Leung	University of Toronto	Evaluating the early events in the evolution of C4 photosynthesis in Tribulus (Zygophyllaceae)
	9:00 AM	John	Butnor	USDA Forest Service, North	High-throughput phenotyping with laboratory cold tolerance assays
	9:15 AM	Katie	Stahlhut	Miami University	Variation in mycorrhizal response traits across plant species and fungal isolates
	9:30 AM	Mina	Momayyezi	University of California Davi	Juglans regia photosynthetic performance under natural heat waves [VIDEO]
	9:45 AM				Coffee Break
	10:15 AM	Angela	Buehlman	UC Riverside	Intraspecific Variation in Leaf Functional Traits in a Widespread Manzanita Species [VIDEO]
	10:30 AM	Mei	Yang	College of Forestry, Guangxi	Ecophysiological significance of photosynthetic nitrogen use efficiency and nitrogen allocation in an orchid community in karst limestone region [VIDEO]
	10:45 AM	Ogochukwu	Okanume	University of Jos, Nigeria	Morphological and anatomical responses of Capsicum annum L. as influenced by industrial effluents. [VIDEO]

---

**Session Name Finding the joyótall tales of a plant lover.****Room 400B**

Presenter	Start Time	Presenter Name		Abstract title	
		Brenda	Molano-Flores	University of Illinois	Finding the joyótall tales of a plant lover.

---

**Session Name From theory to practice: new innovations and their application in conservation biology****Room 400C**

Presenter	Start Time	Presenter Name		Abstract title	
	1:30 PM	christopher	krieg	University of Wisconsin-Mad	Towards a holistic view of conservation: A case study in cycads
	1:45 PM	Randy	Long	Lewis and Clark College	Conifer leaf traits across six living collections show plasticity in over 30 conifer species
	2:15 PM	Kaylee	Rosenberger	University of Colorado, Boul	Simulating pollen dispersal and field sampling constraints helps revise seed sampling recommendations for conserving genetic diversity
	2:45 PM	Maia	Jones	California Academy of Scien	Translating RADseq data into genetically informed conservation strategies for functionally extinct in the wild cycads [VIDEO]
	3:15 PM				coffee break
	3:45 PM	Jeannine	Cavender-Bares	University of Minnesota	How spectral biology and remote sensing can inform biodiversity management and conservation
	4:15 PM	Wesley	Knapp	NatureServe	One is the loneliest number: identifying and prioritizing plants of one known occurrence for conservation action
	4:45 PM				Discussion

---

**Session Name Macroevolution II**Room **110C**

Presenter Start Time	Presenter Name	Abstract title
1:30 PM Amanda Fisher	California State Univ Long B	Pollination Diversity in American Justicia (Acanthaceae)
1:45 PM Hercilia Cunha	Federal University of Rio Gr	The role of fruits and seeds in the diversification of Neotropical Myrtaceae
2:00 PM Wendy Clement	The College of New Jersey	The evolution of floral architecture and scent in the animal pollinated clade, Lonicera (Caprifoliaceae)
2:15 PM Eric LoPresti	University of South Carolina	A geometric model for floral investment and form makes evolutionarily informative predictions
2:30 PM Miranda Sinnott-Armstrong	University of Cambridge	Macroevolutionary patterns in flower and fruit colors

---

**Session Name Mycology and Phycology**Room **110C**

Presenter Start Time	Presenter Name	Abstract title
8:00 AM Hana Thixton-Nolan	West Virginia University	Fungal host diversity across the geographic range of the mycoheterotrophic <i>Corallorhiza maculata</i> species complex
8:15 AM Jordan Dowell	Louisiana State University	Phylogenomic investigation of <i>Botrytis</i> metabolic diversification
8:30 AM malka saba	Quaid-i-Azam University	Morphological and molecular evidences revealed new species of <i>Mallocybe</i> (Agaricales, Inocybaceae) from Himalayan forests of Pakistan.
8:45 AM Iyabode Kehinde	Federal University of Agricul	IN VITRO EVALUATION OF SOIL AMENDMENTS ON GROWTH OF <i>Fusarium oxysporum</i> of pepper.
9:00 AM Muhammad Hanif	GC University, Lahore, PAKI	Pharmacological intervention of <i>Russula</i> sp.

---

**Session Name Phylogenomics III**Room **110D**

Presenter Start Time	Presenter Name	Abstract title
8:00 AM David Gernandt	Universidad Nacional Auton	Phylogenetics and species delimitation of the <i>Pinus Oocarpae</i> clade using low copy nuclear genes
8:15 AM Ryan Fuller	University of Chicago	Patterns of morphological and molecular variation provide insights into the systematics and evolution of <i>Rhododendron</i> s ðHardy Mountaineersí
8:30 AM Robert Comito	California Botanic Garden	Evolution, Diversification, and Conservation Implications in the Pantropical Clade <i>Barlerieae</i> (Acanthaceae)
8:45 AM C. Matt Guilliams	Santa Barbara Botanic Gard	Preliminary phylogenomic and morphometric analyses fail to find support for the taxonomic circumscription of the Endangered Kern mallow ( <i>Eremalche parryi</i> subsp. <i>kernensis</i> ; Malvaceae)
9:00 AM Rebekah Mohn	University of Minnesota - Tw	The effect of mating system and polyploidy on discordance and reticulation in <i>Droseraceae</i>
9:15 AM Tae-Young Choi	Chosun University	Phylogenomic and species delimitation of a <i>Polygonatum odoratum</i> complex [VIDEO]

Session Name **Reproductive Processes**

Room **410A**

Presenter	Start Time	Presenter Name		Abstract title
	8:00 AM	Agnes Dellinger	University of Vienna	Pollination niche partitioning in buzz-pollinated Melastomataceae
	8:15 AM	Samuel Lockhart	Ohio University	Annual chasmogamous and cleistogamous reproductive contributions in four mixed-breeding violets
	8:30 AM	Trinity Depatie	University of South Carolina	The evolutionary history and morphological basis of Penstemonís personate flowers
	8:45 AM	Gabrielle Sandstedt	Utah State University	Developmental evidence for parental conflict in driving Mimulus species barriers
	9:00 AM	Jing-Yi Lu	University of Chicago	Pollinator shifts and geographic range evolution in the origin of Aeschynanthus acuminatus (Gesneriaceae)
	9:15 AM	Diamanda Zisis	Bucknell University	Heading for a breakdown: assessing evolution through the hybridization of two sexual systems
	9:30 AM	Shu-Mei Chang	University of Georgia	Combining citizen science and field survey approaches to†study floral color†variation across a species' geographic range
	9:45 AM			Coffee Break
	10:15 AM	Jennifer Blake-Mahmud	Hope College	Sex-based physiological differences in a native sex-changing tree species [VIDEO]
	10:30 AM	John Powers	University of California, Irvin	Pollen tube growth as a barrier to hybridization in Schiedea (Caryophyllaceae) [VIDEO]
	10:45 AM	Elissa Sorojsrisom	Columbia University	A War Within: Modeling gene conflict between life stages in land plants with†shadie
	11:00 AM	David Hainlen	University of Minnesota Dul	Reproductive effort and reproductive success in dwarf bilberry in the Superior National Forest
	11:15 AM	Evan Hilpman	Oberlin College	Floral scent differences within Nyctaginaceae correlate with shifts in mating system and pollination [VIDEO]
	11:30 AM	Scarlet Steele	San Diego State University	Pollinators' Flower Color Selection is Influenced by Sexual Dichromatism in Rare Cacti Species [VIDEO]

Session Name **Strategic uses of herbaria, specimens, and digital specimen data**

Room **400A**

Presenter	Start Time	Presenter Name		Abstract title
	1:30 PM			Introduction
	1:45 PM	Edward Gilbert	Arizona State University	New features in Symbiota-based herbarium portals for data discovery and use
	2:00 PM	James Mickley	Oregon State University	Extending Specimens: Integrating iNaturalist Observations into Symbiota
	2:15 PM	Nina House	University and Jepson Herb	Integrating herbarium specimen data and outreach to inform species distributions and botanical research at the Jepson Herbarium, UC Berkeley
	2:30 PM	L' a LÚpez	California State University, S	Two centuries of climate change in the genomes of Arabidopsis thaliana. [VIDEO]
	2:45 PM	Richie Hodel	Smithsonian Institution	Linking phenotype, genotype and environmental data from museum specimens in the Prunus serotina (black cherry) species complex
	3:00 PM	Joseph Walker	University of Illinois Chicago	Transcriptome data from six-month-old dried tissue highlights patterns of gene flow across the Dominican Republic
	3:15 PM			Coffee Break
	3:45 PM	Hugo Valdebenito	Universidad San Francisco	New objectives of the Herbarium of Economic Botany of Ecuador (QUSF)
	4:00 PM	Aaron Lee	University of Minnesota	Nondestructive estimation and evolution of arid-associated traits from herbarium specimens
	4:15 PM	Patrick Sweeney	Yale University	A practical, confidence-based method for obtaining research-ready, machine learning derived trait data from herbarium specimens
	4:30 PM	Will Weaver	University of Michigan	From leaves to labels: building modular machine learning networks for rapid herbarium specimen analysis with LeafMachine2
	4:45 PM	Robert Guralnick	University of Florida	Humans in the Loop: Citizen science and machine learning synergies for overcoming herbarium digitization bottlenecks [VIDEO]
	5:00 PM			Discussion

Session Name **Supporting inclusive and sustainable research infrastructure for systematics (SISRIS) by connecting scientists and their specimens**

Room **400B**

Presenter	Start Time	Presenter Name	Abstract title
	8:00 AM		Introductory remarks
David	8:15 AM	Shorthouse	Connecting historic and contemporary botanists†to their specimens through Bionomia
Deborah	8:30 AM	Paul	University of Illinois Urbana
			Discovering together "who dunnit?": building a borderless knowledge community
Erica	8:45 AM	Krimmel	People in the biodiversity knowledge graph and their roles in building the data connections we need [VIDEO]
Katie	9:00 AM	Pearson	Arizona State University
			Even more hidden figures in biodiversity specimen collections: Tracking agent contributions in Symbiota
Herrick	9:15 AM	Brown	University of South Carolina
			Strategies to enhance and sustain an established cyberinfrastructure
	9:30 AM		Discussion
	9:45 AM		Coffee Break
Jessica	10:15 AM	Budke	University of Tennessee
			The State of Herbarium Backlogs: Perspectives from Bryophyte Collections
Rebecca	10:30 AM	Dikow	Smithsonian Institution
			Let the records show: attribution of scientific credit in natural history collections
Andrea	10:45 AM	Weeks	George Mason University
			An exception proves the rule: Lena Artz (1891ñ1976) and her legacy of botanical specimens.
Janelle	11:00 AM	Burke	Howard University
			Prolific plant collectors and the HBCU legacy: Charles Parker as a case study
Shawn	11:15 AM	Krosnick	Tennessee Tech University
			Digital data sleuthing and storytelling as tools to engage students with the unsung heroes of natural history collections
	11:30 AM		Discussion

Session Name **Systematics III: Euasterids, Solanales to Dipsacales**

Room **110D**

Presenter	Start Time	Presenter Name	Abstract title
Claire	1:30 PM	Marino	Bucknell University
			Cleaning the variable mess: a population genomics approach to understanding the evolutionary history of a complicated plant group
James	1:45 PM	Cohen	Weber State University
			Plastid phylogenomics and plastome evolution of Lithospermeae (Boraginaceae)
richard	2:00 PM	olmstead	University of Washington
			Phylogenomics, systematics, and biogeography of the figwort family Scrophulariaceae
Adriana	2:15 PM	Hernandez	California Academy of Scien
			Code Red: Dissecting the evolutionary and ecological relationships of red, perennial paintbrushes, Castilleja (Orobanchaceae), along the California coast
Samuel	2:30 PM	Skibicki	West Virginia University
			Using Targeted Sequence Capture to infer the phylogeny of Zinniinae (Asteraceae: Heliantheae)
James	2:45 PM	Beck	Wichita State University
			Goldenrod herbariomics: Hybrid-sequence capture reveals the phylogeny of Solidago (Asteraceae)
Sushil	3:00 PM	Dahal	Mississippi State University
			Species delimitation in the Symphyotrichum subulatum group (Asteraceae) reveals a new species in central MÈxico
	3:15 PM		Coffee Break
Kathy	3:45 PM	Mathews	Western Carolina University
			Clarifying taxonomy and species delimitations within Diervilla (bush-honeysuckle, Caprifoliaceae) based on morphology and ddRAD sequence analysis
Michael	4:00 PM	Donoghue	Yale University
			Morphological Evolution in†Viburnum: Synthesis, Surprises, and Lessons Learned †
Ariana	4:15 PM	Padin	Instituto de Investigaciones
			Molecular phylogeny of the Eryngium (Apiaceae) ìPacifiçì clade [VIDEO]

---

Session Name **The ploid thickens: methodological developments, empirical advances, and remaining challenges in polyploid phylogenetics**

Room **400C**

Presenter	Start Time	Presenter Name		Abstract title
	8:00 AM			Introduction to "The ploid thickens: methodological developments, empirical advances, and remaining challenges in polyploid phylogenetics"
	8:15 AM	Jenna Ekwealor	Utah State University	The relationship between ploidy, sex chromosomes, and sexual condition in † <i>Syntrichia</i>
	8:45 AM	Sarah Jacobs	California Academy of Scien	Ploidy obscura: facing unknown levels of polyploidy in a <i>Castilleja</i> species complex
	9:15 AM	Jacob Landis	Cornell University	Overcoming phylogenomic challenges of nested polyploidy events in <i>Glycine</i> using genome-wide data
	9:45 AM			Coffee Break
	10:15 AM	Erin Sigel	University of New Hampshir	Using the SORTER pipeline to unravel reticulation complexes in ferns: Examples from <i>Polypodium</i> and <i>Salvinia</i>
	10:45 AM	George Tiley	Royal Botanic Gardens, Kew	Population Dynamics of Polyploids: Testing the Mechanisms of grassland expansion in Madagascar
	11:15 AM	Sylvia Kinosian	University of Arizona	How does fractionation occur in ferns following whole genome duplication?
	11:45 AM			Discussion & Wrap-up

---

Session Name **Up all night to understand the evolution of CAM photosynthesis**

Room **400B**

Presenter	Start Time	Presenter Name		Abstract title
		Karolina Heyduk	University of Connecticut	Up all night to understand the evolution of CAM photosynthesis