BSA Board Email Vote
January 22, 2025

The BSA Board considered all the Symposia and Colloquia submitted for the Botany 2025 conference. The Board voted in favor of providing $2500 each for the top six 6 Symposia (see attached Symposia document).

Symposia Accepted and Confirmed for 2025

Symposium 1
Title: Reproductive ecology and evolution of plants in stress-prone environments
Submitted By: Xavier Pico
Submitter's Email Address: xpico@ebd.csic.es

Abstract
Stress-prone environments due to high temperatures, scarcity of water, and strong seasonality, such as drylands from sub-humid to hyper-arid regions, constitute almost half of the global land area. Despite its massive presence all across the planet and the rich and specialized biodiversity they contain, stress-prone environments are often overlooked in broad conservation frameworks, as well as when allocating resources to study their biodiversity in comparison with other world biomes. Given the predicted increase of dryland surface and intensification of its stressful conditions in a warmer world, the study of the ecology and evolution of plants thriving in these environments becomes of paramount importance to foresee the ecological and genetic attributes of future plant communities. In this symposium, we will focus on reproductive plant traits (e.g. flowering phenology, floral and fruit characters, breeding systems, plant-animal interactions) because of their fitness implications for individuals and populations of plant species occurring in stress-prone environments. In particular, we aim at providing insightful examples of studies on the diversity of ecological abiotic and biotic drivers of variation in reproductive traits as well as their evolutionary implications to unravel how plants thrive in stress-prone environments. The intersection between phenotypic and genetic variation, and associated reproductive responses, is crucial to identify adaptive responses to the intensification of extreme temperatures. This knowledge may help evaluate conservation and management actions under forthcoming scenarios in

stress-prone environments and in neighboring areas that will probably see how stressful conditions increase in frequency and duration in coming years. In fact, this is already happening in several world regions, such as in Mediterranean-type environments, which are experiencing increasing droughts and subsequent natural and human-induced disturbances, such as floods and wildfires. This symposium is expected to gather a wide audience interested, not only on plant reproductive strategies, but also on conservation and management of stress-prone environments in a warmer planet.

Appropriateness

The goal of this symposium is to attract the attention of botanists interested in basic and applied topics dealing with plants thriving and evolving in stress-prone environments or in ecosystems that will encounter increasing levels of environmental stress in the near future. It is worth emphasizing that this symposium also represents the first scientific activity to establish bonds between the Spanish Botanical Society (SEBOT) and the Botanical Society of America (BSA), as agreed in a joint SEBOT-BSA meeting held in the former IBC2024 congress in Madrid, for the benefit of the members of both societies. Hence, this symposium is also meant to gather SEBOT and BSA members together with common interests on the reproductive ecology and evolution of plants in stress-prone environments.

Organizers

- Name: Rocío Pérez-Barrales
  Institution: Universidad de Granada, Spain
  Email address: rpbarrales@ugr.es
- Name: Antonio R. Castilla
  Institution: Oklahoma State University, OK, USA
  Email address: arcastilla@okstate.edu
- Name: Rosalía Piñeiro
  Institution: Universidade da Coruña, Spain
  Email address: rosalia.pineiro@udc.es; rosalia.pineiro@gmail.com
- Name: Xavier Picó
  Institution: Estación Biológica de Doñana (EBD-CSIC), Spain
  Email address: xpico@ebd.csic.es

Budget Estimate and Justification

We would like to allocate up to US$1500 to support travel expenses for speakers from Latin America. Two speakers from Chile and Argentina have already confirmed attendance, but they will probably need some financial support due to the economic situation in their countries.

Planned Speakers

Speaker #1
Name: Francisca P. Diaz
Institutional affiliation: Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile
Topic: Plant ecology and diversity in the Atacama Desert
Career stage: Associate professor (since 2022)
Gender: Female
Axes of diversity (as applicable): n/a

Committed to participate: Confirmed (September 27, 2024)

Speaker #2
Name: Marcelo A. Aizen
Institutional affiliation: Universidad de Buenos Aires, Buenos Aires, Argentina
Topic: Plant-animal interactions, pollination ecology, and plant reproductive ecology
Career stage: Full professor
Gender: Male
Axes of diversity (as applicable): n/a
Committed to participate: Confirmed (September 26, 2024)

Speaker #3
Name: Lluvia Flores-Rentería
Institutional affiliation: San Diego State University, San Diego, CA, USA
Topic: Evolution of reproductive systems
Career stage: Associate Professor (since 2022)
Gender: Female
Axes of diversity (as applicable): n/a
Committed to participate: Confirmed (September 27, 2024)

Speaker #4
Name: Seema Sheth
Institutional affiliation: North Carolina State University, Raleigh, NC, USA
Topic: Plant adaptation and evolutionary rescue in response to ongoing environmental change
Career stage: Associate Professor (since 2018)
Gender: Female
Axes of diversity (as applicable): n/a
Committed to participate: Not contacted yet

Speaker #5
Name: Matthew Kaproth
Institutional affiliation: University of Minnesota, St Paul, MN, USA
Topic: Plant functional trait adaptation and stress tolerance
Career stage: Associate Professor (since 2016)
Gender: Male
Axes of diversity (as applicable): n/a
Committed to participate: Not contacted yet

Speaker #6
Name: Yedra García
Institutional affiliation: Lund University, Lund, Sweden
Topic: Floral biology in fire-prone ecosystems
Career stage: Postdoctoral researcher (since 2019)
Gender: Female

Axes of diversity (as applicable): n/a
Committed to participate: Under consideration (September 26, 2024)

Alternate speaker #1
Name: April M. Randle
Institutional affiliation: University of San Francisco, CA, USA
Topic: Mating system evolution and plant-pollinator interactions
Career stage: Full-time professor
Gender: Female
Axes of diversity (as applicable): n/a
Committed to participate: Not contacted yet

Alternate speaker #2
Name: José M. Gómez-Reyes
Institutional affiliation: Estación Experimental de Zonas Áridas (EEZA-CSIC), Spain.
Topic: Phenotypic plasticity of plant reproductive traits in drylands
Career stage: Full professor
Gender: Male
Axes of diversity (as applicable): n/a
Committed to participate: Not contacted yet

Symposium 2
Title: Plant genome skimming: special uses and future potential
Submitted By: Quentin Cronk
Submitter's Email Address: quentin.cronk@ubc.ca

Abstract
Genome skimming is a method used to quickly obtain high-copy number genomic components, such as organellar genomes (mitochondrial and chloroplast DNA) and repetitive nuclear elements (like ribosomal RNA genes), as well as (depending on sequencing depth) single copy nuclear DNA, from a biological sample. Whereas genomic reduction techniques such as HybSeq, GBS and RadSeq have become workhorses for many applications, low-coverage whole genome sequencing (genome skimming) remains a powerful technique with numerous advantages. Combinational techniques (i.e. the combination of HybSeq with genome skimming) are also becoming popular. Library preparation for genome skimming is usually simpler, and there is no implicit bias imposed by genome reduction (although there may be some intrinsic bias specific to the sequencing technique). The WGS approach can give highly accurate assemblies of repeated regions, such as organelles, as well as copy-number estimates for repeated gene regions, including rDNA. Large-scale genome skimming projects have been carried out (for instance in Europe: PHYLOALPS and PHYLONORWAY), and large public genome skim databases can be mined for a variety of purposes. Improvements in sequencing technology mean that cost-effective sequencing can now be at greater depth, and large parts of the nuclear genome may be

assembled from genome skimming data. Because genome skimming is taxonomically agnostic and does not require specific probe design, it will also capture fungal endophytes and other "bycatch" which can be an advantage or disadvantage depending on use cases. Genome skimming has found uses in 1. Environmental DNA (eDNA) Surveys; 2. Rapid Biodiversity Assessment in Conservation; 3. Phylogenetics and Phylogeography; 4. Characterizing Ancient and Degraded DNA; 5. Tracking Crop Relatives and Wild Germplasm in Agricultural Systems; 6. Monitoring Genetic Variation in Seed Banks; 7. Barcoding for Food, Quarantine and Trade Compliance; 8. Metagenomics in Plant-Fungal Interactions; 9. Surveying Large Natural History Collections; 10. Plant Pathogen and Pest Diagnostics. This symposium will examine not only current uses and technologies of genome skimming but also future prospects and potential improvements in sequencing methods and bioinformatics, including simplified library preparation and bioinformatic pipelines to democratize the use of genome skim data.

Appropriateness

Genome skimming is widely applicable to many areas of botany, owing to its versatility and efficiency in targeting high-copy genomic regions (and, increasing, sampling the entire genome). It is not only applicable to phylogenetics and taxonomy but also to species identification and barcoding, conservation genetics and biodiversity and environmental DNA (eDNA) studies, so it would be of interest to many of the attendees. Its cost-effectiveness, relatively simple bioinformatics, and ability to work with degraded or ancient DNA make it highly versatile for botanical research. Indeed, its requirements are so simple that already published datasets can often be re-purposed for genome skimming approaches to develop resources for under-studied taxa. A symposium would bring together experts to discuss methodological advances, case studies, and future applications, thereby fostering collaboration and sharing knowledge on this accessible and impactful approach, helping to advance botany in the context of biodiversity exploration, metagenomics and conservation.

Organizers

- Quentin Cronk, University of British Columbia, quentin.cronk@ubc.ca;
- Nolan Kane, University of Colorado, Boulder, nolan.kane@colorado.edu

Budget Estimate and Justification

It is important that we get the European perspective on genome skimming (e.g. from the PHYLOALPS and PHYLONORWAY projects); therefore travel for one senior speaker from Europe is requested. Also, postdoc and early career participation is considered advantageous, and therefore travel and accommodation for invitees from Mexico and the USA are requested, as follows:
1 high-level speaker from Europe: $2000 USD (flight $1082 quoted; hotel (Doubletree) quoted: $749 6 nights)
1 Early career (Mexico): $1300 (typical flight from Mexico City $700 ~quote $665; accommodation quoted Doubletree: $600 quoted, 4 nights)
1 high-level postdoc (North America): $1000 (typical flight from E. N.Am. $500, quoted $489; accommodation quoted Doubletree: $600 quoted, 4 nights)
Total requested: $4300

Planned Speakers
Name Institutional Affiliation Career stage/ diversity
Carolina Granados Mendoza Instituto de Biología, UNAM Early career, global south
Charles Davis OEB, Harvard Senior
Kyle Keepers University of Colorado Postdoc
Morgan Gostel BRIT, Texas Early career
Pierre Taberlet Université Grenoble Alpes Senior
Sara Simmonds Computational Biologist, Chan Zuckerberg Initiative Early career
Alternates
Cristina Roquet Universitat Autònoma de Barcelona Postdoc
Inger Greve Alsos Arctic University of Norway Senior
Loren Rieseberg UBC, Canada Senior
Note: Invitations are pending confirmation that the symposium will go ahead (no confirmations at this time)

Symposium 3
Title: Trees, Traits, and Time
Submitted By: Christopher Krieg
Submitter's Email Address: christopher.p.krieg@gmail.com

Abstract
Plant function drives spatial patterns of biodiversity and understanding eco-evolutionary mechanisms that generate and maintain plant biodiversity is a fundamental pursuit in biology. This symposium will present cutting-edge research on the evolution of plant traits across a wide range of temporal scales, from changes in plant function that occur across seasons to those that unfold over millions of years. The traits under investigation will span from morphology and anatomy to functional and physiological traits. The symposium will provide a balanced exploration of different temporal scales and mechanisms of trait evolution.

Appropriateness
The theme of this symposium directly aligns with the growing interest in plant trait evolution and how traits influence biodiversity patterns through time. It also speaks to recent advances in large-scale phylogenetic studies, trait-based ecology, and ecophysiology. This symposium's unique contribution lies in its cross-disciplinary and cross-temporal approach, combining perspectives from microevolutionary changes to deep-time evolutionary trends and future predictions. By bringing together researchers from various fields, including evolutionary biology, physiology, and ecology, this symposium will appeal to a wide audience and foster cross-disciplinary dialogue on how to approach the evolution of plant traits through time.

Organizers
Christopher Krieg, University of Wisconsin-Madison, christopher.p.krieg@gmail.com

Budget Estimate and Justification
Funds are requested of approximately $2640. This would cover registration for the invited speakers ($270 * 2) + ($525 * 4).

Planned Speakers
Seongyeon Kang, seongyeonkang@arizona.edu (committed)
-Graduate students, U Arizona -Trait evolution of via polyploidy
Manoj Kumar, manojfri@gmail.com (committed)
-pre-tenure faculty, Indian Council of Forestry Research and Education - Quantifying trait evolution using machine learning
Karolina Heyduk, karolina.heyduk@uconn.edu (committed)
-pre-tenure faculty, UConn -CAM common garden
Marco Antonio Chiminazzo, marcochiminazzo@gmail.com (committed)
-grad student, São Paulo State University -Trait evolution via fire regimes across biomes
Rebekah Mohn (rmohn@mortonarb.org) or Andrew L Hipp (ahipp@mortonarb.org) (committed)
- Morton Arboretum - Evolution of oak leaf morphology via introgression
Jacob Suissa (interested, unconfirmed)
-pre-tenure faculty, UTK -Topic tbd

Alternates:
Monica Carvahlo, pre-tenure faculty at UMich, paleobotany (contacted)
Chris Krieg, scientist at UW-Madison, plant ecophysiology & evolution

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Symposium 4
Title: Disabled in Botany: Breaking Barriers in Plant Science Research
Submitted By: Bryan MacNeill
Submitter's Email Address: bnm35@cornell.edu

Abstract
Historically the field of botany has excluded individuals with disability via a lack of infrastructure to support work both in the field and in the lab. Lack of accessibility is just one of the many problems disabled botanists face while trying to conduct science. In this symposium, we highlight the research of disabled botanists who have overcome these barriers, as well as research of those who seek to address and dismantle these barriers within the field of botany. This symposium will include speakers presenting on a range of topics including phylogenetics and speciation, ecology, and broadening participation in botany, introducing potential solutions to barriers faced by disabled botanists. The symposium brings together speakers who have disabilities to share their work, inspire a new generation of scientists, and to promote intentional consideration of accessibility within the broader botanical community.

Appropriateness
As botanical researchers dedicated to broadening participation in science, we aim to provide a platform for those who have faced these challenges or have historically been excluded due to disability. Given

that this year's conference theme is "Botany without Barriers," our symposium aligns perfectly with the spirit of inclusion and accessibility. This symposium will not only highlight the obstacles encountered by disabled botanists but also showcase the innovative ways in which they overcome these barriers and promote ways that others can begin the work of increasing accessibility. We plan to feature a diverse group of speakers, ranging from disabled botanists with firsthand experience with these challenges to researchers working to address these obstacles in the field. The topics will span various aspects of botanical science, but the common thread will be breaking down barriers and paving the way for a more inclusive future in botany.

Organizers

- Bryan MacNeill - Cornell University - bnm35@cornell.edu
- Caroline Brose - University of Wyoming - cbrose1@uwyo.edu
- Karolina Heyduk - University of Connecticut - karolina.heyduk@uconn.edu

Budget Estimate and Justification

Symposium Budget
Food/Beverages: $500.00
Money per person to cover registration and travel: $580.00 x6
Total Requested $3,980

Planned Speakers

List of Speakers: The following people have tentatively agreed to speak:
1. Caroline Brose (committed)
Axis of Diversity: She is a cis-woman and evolutionary botanist who is invisibly disabled
Institutional Affiliation: University of Wyoming
Career Stage: PhD Student
Topics: Phylogenetics, Species delimitation, Disability and fieldwork

2. Ash Hamilton (committed)
Axis of Diversity: She is a queer and physically disabled botanist
Institutional Affiliation: University of Chicago
Career Stage: PhD Candidate
Topics: How her disability intersects with her science.

3. Jayne Lampley (committed)
Axis of Diversity: She is a cis-woman
Institutional Affiliation: The University of Alabama
Career Stage: Director of Arboretum/Faculty
Topics: Making botanical gardens/arboreta disability friendly

4. Mayra Concepcion (committed)
Axis of Diversity: She is a cis-woman
Institutional Affiliation: California Polytechnic State University San Luis Obispo
Career Stage: Master’s student

Topics: Landscape design and accessibility

5. Bryan MacNeill (committed)
Axis of Diversity: He is a queer and neurodivergent botanist
Institutional Affiliation: Cornell University
Career Stage: Post-Doc
Topics: 3D printing, plant molecular biology, and accessibility

6. Kate Parsley (tentative)
Axis of Diversity: She is an autistic, queer cis-woman DBER
Institutional Affiliation: Washington University in St. Louis
Career Stage: PhD
Topics: Ableism in botany, Plant Awareness Disparity

7. Alternate 1: Haley Branch (tentative)
Axis of Diversity: She is a queer, disabled, evolutionary ecologist
Institutional Affiliation: Yale
Career Stage: Post-Doc
Topics: Plant Ecology and Evolution

8. Alternate 2: Kelsey Byers (tentative)
Axis of Diversity: They are a queer, disabled evolutionary biologist
Institutional Affiliation: John Innes Centre
Career Stage: Faculty, Principal Investigator
Topics: Floral evolution, Chemical Ecology, Pollination

Symposium 5
Title: Cultivating Collaborative Futures: Botanical Research Across Borders
Submitted By: Michael Donoghue
Submitter's Email Address: michael.donoghue@yale.edu

Abstract
Given their shared biogeography and Mexico's unparalleled floristic richness, scientists from the United States have always needed, and will continue to need, to work in Mexico. This ongoing collaboration takes place against a backdrop of shifting legislation and cultural norms in Mexico, as well as a growing awareness of the legacies of colonialism and enduring power imbalances. We propose coming together as a botanical community, fostering an atmosphere of openness to assess the needs of botanists in both Mexico and the United States. By sharing experiences from projects we consider successful, as well as those that had elements we would like to avoid, we can better shape our future collaborations. Using a mix of traditional presentations and participatory dynamics, we aim to address key questions such as: What aspects of U.S.-Mexico collaborations can be considered successful, beneficial, and fair? What are examples of practices or situations that we, as a community, would definitely like to avoid? Is there a distinction between what is legal and what we collectively view as fair practice? In this way, the

symposium seeks to clarify the practices we, as a community, wish to avoid, and those we aim to adopt as we move forward together as a global botanical science community.

Participants will include botanists and social scientists specialized in the study of scientific colonialism from Mexico and the United States. Ideally, we would like to organize a diagnostic activity, such as an online survey, to which all conference participants can be encouraged to contribute. This will ideally lead to a publication that can serve as a nucleus for reflection and even the development of statements on best practices.

Appropriateness
This symposium provides a platform for researchers, practitioners, and students to learn from one another and engage in meaningful discussions. By approaching these critical questions with openness and inquiry, we can work towards a more just and equitable future for botanical research that respects both our shared heritage and the diversity of ecosystems.

Organizers
1. Mark Olson, UNAM
2. Julieta Rosell, UNAM
2. Paco Vergara, UNAM
3. Alfredo Saynes, Juchitán, Oaxaca, México

Budget Estimate and Justification
TBD

Planned Speakers
We would like to adjust the exact lineup to provide a balance between representatives from the United States and Mexico, as well as the appropriate contribution of experts in group dynamics and scientific colonialism. Examples of participants and the subjects they can address include:

Lakshmi Charli, Universidad Nacional Autónoma de México (implementation of group dynamics in diagnosing needs and perceptions of scientific communities)

Juliana Merçon, Universidad Veracruzana (local communities in biodiverse areas and scientific research, benefit sharing, and collective decision-making and action)

Mark E. Olson, Universidad Nacional Autónoma de México (examples of clearly colonial and clearly beneficial practices, and the difficult gray spaces in between)

Julieta A. Rosell, Universidad Nacional Autónoma de México (south-south and south-north collaboration, particularly in transdisciplinary collaboration involving useful plants)

Francis (Jack) Putz, University of Florida (“helicopter science”: practices to avoid and alternatives)

Michael Donoghue and Erika Edwards, Yale University (ongoing research on Viburnum in Mexico, from training Mexican graduate students to supporting local community endeavors)

Francisco Vergara-Silva, Universidad Nacional Autónoma de México (historical and present-day aspects of colonialism in botanical science in Mexico)

Symposium 6

Title: Evolutionary history of the Gnetales

Submitted By: Stefanie Ikert-Bond

Submitter's Email Address: smickertbond@alaska.edu

Abstract

The Gnetales are a gymnosperm clade (Ephedra (Gnetum, Welwitschia)) that is morphologically and genetically so disparate from the remaining seed plants (cycads, Ginkgo, angiosperms, and Coniferales) that its precise placement has remained unclear. The vegetative systems and ecologies of the three genera contrast sharply with each other. Ephedra (approx. 50 species) occur as arid-adapted shrubs to scandent shrubs with nearly leafless, broom-like photosynthetic stems. Welwitschia (one species) grows with only two leaves continuously from the base over the plant's lifetime in the Namib desert, and Gnetum (approx. 40 species of lianas and trees) has angiosperm-like leaves and is found in wet, lowland tropical rainforests. Unique aspects of its pollination biology have intrigued biologists for some time.

Looking at the morphoanatomy of ovulate reproductive structures in the Gnetales, we can highlight the striking differences in the ovulate reproductive structures of representatives of the three gnetalean genera. At maturity these structures function in seed dispersal, some become fleshy and brightly colored. Orthologs of floral MADS box genes are usual suspects in the development of fruit-like structures because they are involved in reproductive organ identity in both gymnosperms and angiosperms. Ephedra offers a fresh perspective on this topic, since its fleshy seed cones have a different developmental origin from the ones studied so far: from modified leaves (bracts), rather than from ovule-derived structures. Ephedra provides an opportunity to investigate whether orthologs of genes known to be involved in angiosperm fleshy fruits play a role in extant gymnosperms, and potentially had a gymnosperm precursor that was repurposed from analogous structures. Our understanding of the relationships and evolutionary history of the Gnetales has been hindered by the presence of “long branches” in their evolutionary tree, perhaps due to either long unsampled evolutionary histories, due to extensive extinction and/or a lack of an adequate fossil record; an increase in the rate of molecular or morphological change. Geologically, hot deserts are relatively recent with origins ranging from Oligocene to Miocene times, and tropical rainforests (home of most Gnetum species) originated around 100 Ma. Despite these general age estimates of the biomes, anatomical and morphological adaptations in deserts found in extant members of Gnetales may be of very different age in their origin, as evidenced from the complex history of their biomes. The majority of the Gnetales are adapted to dry conditions, a relevant attribute when considering their evolutionary, ecological, and economic potential in the face of global change.

Appropriateness
Speakers in this colloquium include those familiar to the community who will discuss their newest findings, as well as experts from the fields of phylogenetics, phylogenomics, spatial phylogenetics, anatomy, developmental biology and evolutionary morphology. We have selected speakers who have made, and continue to make, invaluable contributions to research on the Gnetales and who reflect gender, cultural, and ethnic diversity within our scientific community. Our colloquium has a novel format consisting of 11 talks followed by a later forum for questions and discussion among the speakers and early-career attendees, especially undergraduate and graduate students and postdocs. Our colloquium is timely for BSA 2025, which is taking place within a center of diversity of North American Ephedra. We have invited speakers who will detail how they use integrative methods to investigate aspects of the Gnetales, such as by combining classic techniques in field work, anatomy and morphology or examination of specimens with cutting-edge technologies such as evo/devo, modeling, or phylogenomics. Therefore, we expect our symposium to be of interest to local scientists and other stakeholders, who do not normally attend Botany meetings, as well as to regular attendees, who will naturally be curious about the geographic region in which the meeting is being held. The proximity of the topic for our symposium to the location of the meeting also allows us to balance our budget between local experts, who would not otherwise attend the meeting, and experts from further away, for whom the cost of attendance would be prohibitive.

Organizers
Organizer: Cecilia Zumajo-Cardona 1
Co-organizer: Stefanie M. Ickert-Bond 2, Dmitry D. Sokoloff 3

1 Postdoctoral Researcher, Università degli Studi di Padova Orto Botanic, Italy, cezumajo@gmail.com,
2 Professor of Botany, University of Alaska Fairbanks, 1962 Yukon Dr., Fairbanks, AK 997709, smickertbond@alaska.edu, +1-907-4746277
3 Senior Research Associate, School of Plant Sciences and Food Security, Tel Aviv University, Tel Aviv 6997801, Israel, dsokoloff@tauex.tau.ac.il, +972-53-557-4603

Budget Estimate and Justification
Our total estimated cost for the colloquium is $5,250. We will work on soliciting additional funds from other sources to support primarily some of the international speakers for their registration and perhaps help with costs for their airline tickets. We have budgeted $525 in registration costs for 7 participants for a total of $3,150 and would like to support three participants with $700 each for their airfare for a total of $2,100.

Planned Speakers
Our Proposed Speakers by Topic (Those committed are indicated with an *)

Modern diversity of the Gnetales (Ephedra, Gnetum, Welwitschia):
1) Speaker - Shu-Miaw Chaw
Affiliation - Biodiversity Research Center, Academia Sinica, Taipei, Taiwan
Talk Topic - Integration of large and diverse angiosperm DNA fragments into Asian Gnetum mitogenomes

Committed - Yes
15 min.

*2) Speaker - Stefanie Ickert-Bond
Affiliation - University of Alaska Fairbanks
Talk Topic - Pollination biology of the Gnetales
Committed - Yes
15 min.

Evo/devo
*3) Speaker - Cecilia Zumajo-Cardona, Postdoctoral researcher
Affiliation - New York Botanical Garden & University of Padua
Talk Topic - Developmental genomics of the unique reproductive structures in Gnetales
Committed - Yes
15 min.

*4) Speaker - Veronica DiStilio and Raul Pozner
Affiliation - University of Washington, U.S.A. and Instituto Darwinion, Argentina
Talk Topic - Evo-devo of Ephedra cone bracts
Committed - Yes
15 min.

Morphology and comparative anatomy
*5) Speaker - Dmitry Sokoloff
Affiliation - Tel Aviv University, Israel
Talk Topic - Developmental morphology and organ homologies in Gnetales
Committed - Yes
15 min.

*6) Speaker - Dennis W. Stevenson
Affiliation - New York Botanical Garden
Talk Topic - Seed plant shoot apical meristems, and the place of Gnetales
Committed - Yes
15 min.

Historical biogeography, floristic exchange and assembly in deserts
*7) Speaker - Rosita Scherson, Associate Professor
Affiliation - Universidad de Chile
Talk Topic - Ephedra in the driest desert of the world - phylogenetic diversity, vulnerability, and EDGE in the Atacama
Committed - Yes
15 min.

8) Speaker - Tao Wan, Yves van de Peer

Affiliation - Core Botanical Gardens/Wuhan Botanical Garden, Chinese Academy of Sciences
Talk Topic - The Welwitschia genome reveals a unique biology underpinning extreme longevity in deserts
Contacted - Yes
15 min.

Paleobotany
*9) Speaker - Gar Rothwell and Ruth Stockey
Affiliation - Ohio University
Talk Topic - Fossil record of the Gnetales, Bennettitales and Ertdmanithecales
Contacted - Yes
15 min.

10) Speaker - James Doyle
Affiliation - UC Davis
Talk Topic - Pollen diversity and seed plant phylogeny
Contacted - Yes
15 min.

11) Speaker - Dawn Frame & Gerhard Gottsberger
Affiliation - French National Centre for Scientific Research, France or University of Ulm, Germany
Talk Topic - Diverse sexual strategies in fossil gymnosperms: pollination in the Bennettitales revisited
Contacted - Yes
15 min.

Different axes of Diversity: 1) Career stages: Postdoctoral researchers (Cecilia Zumajo-Cardona), associate professor (Rosita Scherson, 2) International collaborators: Latinx (Veronica Di Stilio, Cecilia Zumajo-Cardona, Rosita Scherson), Asian (Tao Wan, Shu-Miaw Chaw), German (Gerhard Gottsberger, Steffi Ickert-Bond), Isreali (Dmitry Sokoloff), 3) Integrative nature of the colloquium spanning the fields of molecular biology, genomics, paleobotany, evo/devo, comparative developmental biology, and spatial phylogenetics.
