

**The XL Annual Meeting of the Willi Hennig Society
Cornell University, Ithaca, NY
July 9th -13th, 2023**

Program



Organizing committee:

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Sponsored/supported by



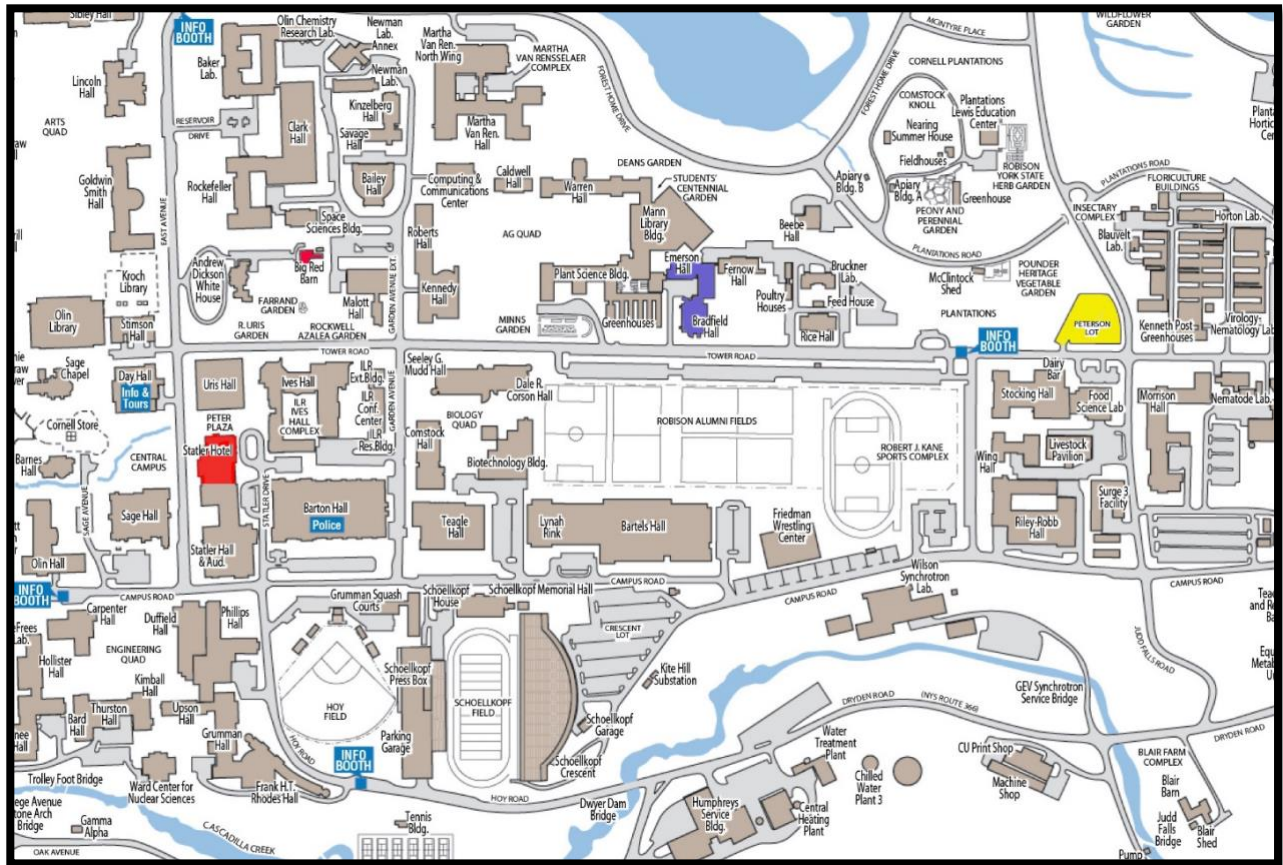
L.H. Bailey Hortorium



Cornell University

Cornell University is located on the traditional homelands of the Gayoghó:nq' (the Cayuga Nation). The Gayoghó:nq' are members of the Haudenosaunee Confederacy, an alliance of six sovereign Nations with a historic and contemporary presence on this land. The Confederacy precedes the establishment of Cornell University, New York state, and the United States of America. We acknowledge the painful history of Gayoghó:nq' dispossession, and honor the ongoing connection of Gayoghó:nq' people, past and present, to these lands and waters.

The XL Hennig Society Meeting is committed to creating a safe and harassment-free space of all the participants, regardless of race/ethnicity, gender identity and expression, sexual orientation, age, disability, and religion (or lack thereof). We are adopting a Presential and Virtual Code of Conduct based on the [Paleontological Society's](https://www.paleosoc.org/non-discrimination-and-code-of-conduct) Policy of Non-Discrimination and Code of Conduct (<https://www.paleosoc.org/non-discrimination-and-code-of-conduct>), which all participants are asked to agree to in order to register.



The meeting/lunches will take place in Emerson and Bradfield Halls on Cornell Campus. The banquet will be held in The Terrace Restaurant, in Statler Hall, Cornell University. If driving from your hotel to Cornell Campus, the best parking for the meeting is in the Peterson Lot on Tower Road.

Hennig Meeting zoom link:

<https://cornell.zoom.us/j/92215325434?pwd=UVNZVU9zdmZjaVdiWU9kVzYyYzNzZz09>

Jul 10, 2023 08:00 AM-7:00 PM

Jul 11, 2023 08:00 AM-7:00 PM

Jul 12, 2023 08:00 AM-7:00 PM

Jul 13, 2023 08:00 AM- 7:00 PM

Dear Participants

Due to the fact that the annual Hennig meeting has no concurrent talks and issues with participants attending limitations, we have made a considerable effort to accommodate everyone's schedules.

However, it is possible that we still have some scheduling issues; these will be addressed at the beginning of the meeting on Monday, July 10th. We will accommodate your talk one way or another.

Sunday, July 9

4-6 PM **Registration** at 135 Emerson Hall

6-8 PM **Reception** at 135 Emerson Hall

TALKS WILL BE HELD AT 101 BRADFIELD

COFFEE BREAKS AND LUNCH WILL BE HELD AT 135 EMERSON HALL

Monday, July 10

8:15-8:30- Stefan Richter-President of the Willi Hennig Society

Symposium: History of Cladistics

Organizers and moderators: Kevin Nixon and James Carpenter

8:30–9:30: **Morrone**: “History of phylogenetic/cladistic biogeography”- INVITED SPEAKER:

9:30–10:00: **Richter**: “Phylogenetic Systematics vs. Cladistics- a German perspective”

10:00-10:30: **Carpenter**: “Cladistics at the American Museum of Natural History”

10:30– 11 Coffee Break

11-11:30: **Stevenson**: “A Short History of Cladistics in Botany”

11:30–12: **Nixon**: “The evolution of phylogenetic methodology in relation to modern concepts of homology”

12-1:30 Lunch Break

1:30-2: Specht and **O’Grady**: “Vicki Funk: The Complete Botanist” (CANCELLED)

2-2:30: **Brower**: “30 years a cladist”

Student Contributions

Moderator: Caroline Siegert

2:30-3: **Grams** and Richter: “Malacostracan phylogeny and the importance of morphological character conceptualization”

3-3:30: **Höpel**, Schwentner, and Richter: “Speciation in correlation with cave immigration in Tasmanian mountain shrimps (Anaspides, Malacostraca, Crustacea)”

3:30-4 Coffee Break

4-4:30: **Silviria**, Barrón-Ortiz, and Wilson Mantilla: “Specimen-level cladistic analyses of geometric morphometric configurations from mammalian postcanine dentition: Getting the state of the art into shape”

4:30-5: **Torres**, Goloboff, and Catalano: “Parsimony analysis in phylogenomics”

6:30 PM: Student Gathering With Caroline Siegert and Ryan Thummel

Tuesday, July 11

General talks

Moderator: Claudia Szumik

8:30-9: Wheeler: “Multi-Armed Bandits, Thompson Sampling, and Machine Learning in Phylogenetic Graph Search”

9: 9:30: **Garzón-Orduña**, Torres, and Brower: “Patterns of missing data and completeness in UCE datasets”

9:30-10: **Czech**, Spence, Peng, Bellagio, Wu, Lin, and Exposito-Alonso: “Population genetic statistics for the next generation of pool sequencing”

10-10:30 Coffee Break

10:30-11: **Srivathsan**, Feng, Hartop, Lee, and Meier: “Rapid, large-scale species discovery and descriptions using a reverse workflow through MinION barcoding with user-friendly software”

11-11:30: **Hartop**: “The how and why of tackling a genus of flies that has 100,000 undescribed species”

11:30-12: **Torres**, Srivathsan, and Meier: “Molecular diagnoses for high-throughput taxonomy”

12-12:30: **Lee**, Brown, Meier, Yuchen, and Hartop: “Experimental Taxonomy for Dark Taxa: Addressing taxonomic impediments with “divide and conquer” and prudent disregard”

12:30-1:30 Lunch Break

Symposium: Phylogenetics as Applied to Infectious Diseases

Organizers and moderators: Daniel Janies and Denis Machado

1:30-2:10: **Janies**: “Phylogenetics as applied to infectious diseases”-INVITED SPEAKER

2:10- 3: **Czech** and Stamatakis: “Leveraging phylogenetic placement to understand the environmental drivers of microbial community composition”

3-3:40: **Dornburg**, Hassler, and Townsend: “An evolving future for pandemic preparedness: evolutionary medicine and phylogenetic comparative methods inform the durability of SARS-CoV-2 immunity”

3:40- 4:10 Coffee Break

4:10-4:50: **Ocaña**, Silva, Coelho, Terra, and Osthoff: “Phylogenetic and evolutionary analysis of dengue virus serotypes in Brazil: User-steering in large-scale phylogenomic workflows”

4:50-5:30: **Machado**: “Combining phylogenetic and artificial intelligence to unravel viral recombination

7 PM Hennig Council Meeting and Dinner Taverna Banfi, The Statler Hotel, Cornell University

Wednesday, July 12

Symposium: Methods Using Palaeontological and Morphological Datasets

Organizer and moderator: Michael Pittman

8:30–9:00: **Asher**: “Fossilization and phylogenetic bias” (ZOOM)

9:00–9:30: **Černý**: “Addressing heterotachy in morphological clock analyses using reversible-jump Markov chain Monte Carlo” (STUDENT TALK)

9:30-10:30: **Goloboff** and De Laet: “Farewell to the need for character independence: phylogenetic methods to incorporate different types of dependence between characters”-INVITED SPEAKER

10:00–10:30 Coffee Break

10:30-11: **Laurin** and Didier: “How did Ophiacodontidae, Edaphosauridae and Sphenacodontidae become extinct? New insights provided by a FBD model with variable rates” (ZOOM)

11:30-12: **Lloyd** and Hoyal Cuthill: “Limits and proofs under parsimony across the full empirical and theoretical range of discrete cladistic characters” (ZOOM)

12:30-2 Lunch

2-2:30: **Hoyal Cuthill** and Guttenberg: “New machine learning methods for inferring phylogenies from embeddings of phenotypic photographs” (ZOOM)

2:30-3: **Ezcurra**: “Exploring different weightings against homoplasy in genealogies of paleontological phylogenetic matrices” (ZOOM)

3-3:30: **Pol**, Turner, and Wilberg: “Taxon instability in the phylogeny of Crocodyliformes: evaluating causes and impact on low support” (ZOOM)

4- 4:30 Coffee Break

4:30-5:30: **Pittman**: “The origin of flight in theropod dinosaurs: new insights from methods using palaeontological & morphological datasets.” INVITED SPEAKER

7 PM: Banquet: The Terrace Restaurant The Statler Hotel, Cornell University

Thursday, July 13

General Contributions

Moderator: Alejandra Gandolfo

8:30-9:30: **Szumik** and Juárez: “Thirty years of embiid phylogeny: stability in the light of inapplicable characters” (INVITED SPEAKER)

9:30-10: **Dikow**: “New discoveries and phylogenetic placement of assassin flies (Insecta: Diptera: Asilidae) in Cretaceous and Paleogene ambers

10-10:30: **Will**, Maddison, Moore, Kanda, Wild, Gomez, Pflug, Boyd, Miller, and Schmidt: “A fossil-calibrated phylogeny of the beetle suborder Adephaga with an emphasis on Carabidae (Coleoptera)”

10-10:30 Coffee Break

10:30-11: **Almeida**, da Silva, Lopes, and Noll: “Evolution of neotropical swarm-founding wasps (Hymenoptera: Vespidae: Epiponini)”

11-11:30: **Noll**, Almeida, Chavarria-Pizarro and da Silva: “Untangling concepts for social wasps: how phylogenies help us understand the evolution of sociality in Neotropical swarm founding wasps”

11:30-12: **St Laurent** and Goldstein: “Phylogenomics challenge the current classification of Prominent Moths (Lepidoptera, Notodontidae)”

Closing remarks

Lunch

Forum

Hennig Fellows Meeting