

SCHEDULE

Friday, November 1, 2024

9:00-4:00 PM: University of Kentucky Insect Collection, Dimock Animal Pathology Building, building #76, 1081 Veterans Dr., Lexington, KY. A campus map can be found here: <https://maps.uky.edu/campusmap/>. The insect collection will be open for viewing. Members can bring specimens for identification or to share with others. This is a good time to interact with members and catch up on the collecting activities. Parking on campus is restricted on weekdays so make sure you don't park in a lot that requires a pass. Parking for a small fee is available in the UK Health Care Garage, 110 Transcript Ave.

6:00 PM: Our traditional "Gathering of Lepidopterists" in the Weldon Suite of the E.S. Good Barn, building 0097, 1451 University Drive. Food and drinks will be provided, but members are welcome to bring additional dishes to share.

Saturday, November 2, 2024

9:00-12:00 PM: UK Insect Collection, Dimock Animal Pathology Building. A continuation of activities from Friday. The insect collection will be open for viewing.

10:00 AM: SKL Board Meeting.

1:00-2:00 PM: SKL Business meeting, Room N-12 Agricultural Science Center North, 1100 South Limestone. The business meeting is open to all SKL members.

2:00-3:00 PM: Keynote Speaker, Dr. Ryan St. Laurent. "Sack-bearers and prominents"

3:00-5:00 PM: Contributed talks, award presentations, and door prize drawing.

James Adams "James' and Brian's excellent adventure"

Julian Dupuis "Rescuing rare rhopalocerans or reintroducing recessive rottenness to regionally adapted residents?"

ABSTRACTS

Sack-bearers and Prominents

Ryan St. Laurent, Curator of Entomology and Assistant Professor at University of Colorado Boulder

The age of phylogenomics has led to significant advancement in the classification of life, and Lepidoptera is no exception. For the entirety of my academic career, I have been fascinated with exploring the taxonomy and classification of (systematically) poorly studied and inadequately understood moths. To that end, I have sought to uncover the phylogenetic relationships of two vastly different and distantly related moth groups: the Mimallonoidea and the Notodontidae. The first was perhaps one of the most obscure superfamilies of Lepidoptera, exclusively found in the

Americas and with just over 300 species known. The superfamily as a whole contains a single family, Mimallonidae, and has proven an exciting study system that has not only been ideal for systematic study given the complete lack of prior phylogenetic work, but also has proven useful to understanding the evolution of the wing coupling mechanism, the frenulum, and host plant specialization and potential associated (lack of) diversity. On the other hand, the Notodontidae belong to the most diverse lepidopteran superfamily, the Noctuoidea, and have been an exceedingly difficult group to classify due to rampant homoplasy and stunning morphological diversity. Phylogenomics has now provided a relatively clear picture of their evolution, which has spanned all continents from the tundra to the deserts and all biomes in between.

James' and Brian's excellent adventure

James K. Adams (Dalton State College, presenting) and Brian Scholtens (College of Charleston)

As it typical for virtually every Lep Soc meeting, I (JKA) turned the 2023 Billings, MT meeting into a big mothing loop trip. Last summer was no different, but I asked good friend and colleague Brian Scholtens to join me, and he excitedly did so, as he had never collected the western plains before. He joined me in western Nebraska, and we motored from there through South and North Dakota, Montana (of course), Wyoming, Colorado, and Kansas. We collected excellent moths everywhere, including state records for virtually every state, undoubtedly true for Brian's "micros". Come and enjoy this photologue of our excellent adventure!

Rescuing rare rhopalocerans or reintroducing recessive rottenness to regionally adapted residents?

Julian Dupuis (University of Kentucky, presenting), Zachary MacDonald (University of California Los Angeles), James Glasier (Wilder Institute/Calgary Zoo), Robert Sissons (Parks Canada), Axel Moehrenschrager (IUCN SSC Conservation Translocation Specialist Group), Bradley Shaffer (University of California Los Angeles) Felix Sperling (University of Alberta)

Genetic rescue, or the translocation of individuals among populations to augment gene flow, can help combat genetic erosion, inbreeding depression, and loss of adaptive potential in small and isolated populations. However, such small and isolated populations can also experience “purging” of recessive deleterious alleles, and in these populations, genetic rescue can harm the population by introducing new inbreeding/genetic load (i.e., new deleterious alleles). Genetic rescue is currently being considered for an endangered butterfly in Canada, the half-moon hairstreak (*Satyrium semiluna*). A small, unique population persists in Waterton Lakes National Park, Alberta, isolated from other populations by >350km. However, whether genetic rescue would actually be helpful for this population has not been evaluated. Here, I will present on ongoing genomics work as part of an international research collaboration to inform this decision and future management of this isolated population.