



Connecticut Entomological Society Minutes from the 589th Meeting 21 February 2025

Hybrid Zoom held at Connecticut Agricultural Experiment station, Jones Auditorium.

Members met for a pre-meeting social at the Experiment Station approx. 6:30pm. Refreshments were served.

Business meeting:

President Richard Cowles called the meeting to order at 7:30pm.

Old Business:

- CES merchandise available: T-shirts \$15, caps \$10, Connecticut Butterfly Atlas \$25

New Business:

- Treasurer's report:
 - Fees, including those for Zoom, Wix, and our state non-profit registration, have increased significantly.
- President Richard Cowles noted a reduction in meeting participation numbers.

Announcements:

- Victor DeMasi will be presenting at the Redding Grange tomorrow, February 22nd, on pollinators in Redding and the impact of pesticides
- The Connecticut Pesticide Reform coalition will be lobbying at Hartford for reduction of neonicotinoid pesticides on February 26th. Contact Victor DeMasi if interested.

Exhibits:

- Victor DeMasi brought a poster made by 3rd grader Izzy Van Steinburgh for "changing town mowing patterns to establish a metric with I-naturalist on a restored meadow" in Redding, CT

Attendance:

- Guests: 3
- Members: 11

The evening presentation started at 7:50 pm.

Evening Presentation:

Diverse microbiota discovered in the venom of two scorpion species - *Anuroctonus phaiodactylus* and *Paruroctonus becki*.

Dr. Barbara Murdoch, B.Sc., M.Sc., Ph.D

Although microbes have been found in the venom of a variety of organisms, including snakes, spiders, insects, fish, *etc.*, there have been no reports of bacteria in scorpion venom. In fact, the prevailing thought is that scorpion venom is sterile - devoid of bacteria. Finding preliminary evidence of bacteria in scorpion venom, Dr. Barbara Murdoch conducted a larger study using Next Generation sequencing and bioinformatic analyses to determine the diversity of bacteria in two scorpion species, *Anuroctonus phaiodactylus* and *Paruroctonus becki*. In both species' venom, *Ramibacter*, a genus specializing on extremely toxic environments, were the most common bacteria found. Although *A. phaiodactylus* and *P. becki* are not closely related, when individuals from similar habitats were selected, the bacterial fauna of both species' venom was very similar, although the venom of *A. phaiodactylus* had a higher diversity of bacteria than that of *P. becki*. Within a species, the assemblage of bacteria species differs by region, and it is possible to cluster the microbiome both according to species and according to region. In conclusion, both geography and host species drive differences in the bacterial microbiome of *Anuroctonus phaiodactylus* and *Paruroctonus becki*, and *A. phaiodactylus* has a more diverse bacterial microbiome overall than *P. becki*. Dr. Barbara Murdoch ended with acknowledgements.

The presentation ended at **8:30**.

**Respectfully Submitted,
Secretary Lukas Keras**