Minutes from the 566th Meeting of the Connecticut Entomology Society

November 19th, 2021

Zoom

Members: 16

Guests: 2

Social pre-meeting began at approximately 18:30.

**Business Meeting:**

-Meeting called to order at 19:32 by president Ray Simpson.

**Reports:**

-Only 18 people have paid their dues, so if you haven’t paid them already, please do.

**New Business:**

-Potential in-person meeting in April?

-BioBlitz confirmed for 2022! Focused on the central part of New London County.

-Student Symposium planned for March!

**Exhibits:**

-Lukas Keras showed some illustrations he made.

**Evening Presentation:**

-Dr. Mattheau S. Comerford from UMass Boston gave us an overview of how a hemipteran pollinates the seeds they consume. More specifically, the red-shouldered soapberry bug (*Jadera haematoloma*). This true bug is in a family that lacks scent glands, the Rhopalidae. It’s also arboreal. In the 1940s, it used to be limited to Texas and parts of some surrounding states, but today, they can be found all over the country, from California to Florida. This is because its invasive novel host has also expanded – it's at least the limiting factor for the range of this insect. This bug is also on its way north, being found as far north as Central Park in NYC, and its host can definitely be found in Connecticut.

-The bug’s host plants are limited, as the bug is a specialist. The raintree is an invasive host plant.

-In an example of coevolution, the bug has evolved longer and longer beaks to better-penetrate its host. However, with the introduction of the more accessible raintree, the evolution of the beak has halted, perhaps even reversed. This leads to multiple phenotypes in the bug that corresponds to the host plant. It’s said that this bug is the fastest example of ecological adaptation on record.

-The bugs are also candidates for having mutual relationships with their host plants, despite feeding on the plants’ seeds. This is because the benefits of the bug being a pollinator could outweigh the cost of the seed-eating antagonism.

-Dr. Comerford confirmed the bugs consume nectar, the nectar provides a benefit, they collect much more pollen from the invasive raintree, and that there’s no active coevolution for pollination. They’re also effective pollinators of the balloon-vine, one of their native host plants.

-It turns out the cost outweighs the benefit of pollinating the plants, making the relationship between the bug and the host plant species an antagonistic one. They also have a low level of specialization compared to other pollinating seed predators like the Yucca Moth.

Meeting adjourned at 20:43.

**Note: corrections and additions to the minutes are welcomed. Please email** **maxengel1@gmail.com****.**