Minutes from the 572nd Meeting of the Connecticut Entomology Society

October 21st, 2022

Zoom

Members:

Guests:

Social pre-meeting began at approximately 18:30.

**Business Meeting:**

-Meeting called to order at 19:45.

**Reports:**

-There have been some donations going towards the Zoom hosting account. It is recommended that more members pay dues if they have not done so already. Otherwise, there’s not much change in the account balance since last month.

**New Business:**

-The CES now has a Zoom account, which will be used for future meetings. It has a limit of 100 guests.

-On November 18th, the speaker is TBD. On January 20, 2023, Jillian Cowles will be the speaker.

**Evening Presentation:**

-Richard Cowles gave a presentation on “the wolf’s in sheep’s clothing phenomenon.” For example, why do some insects have colored blood? When an insect has a red or orange-colored hemolymph, who do they often have these white, waxy “wool" covering? And why do the predators of these insects have similar sorts of coverings? To answer these questions, various evolutionary explanations need to be considered, such as pleiotropy.

Apparently, the Lac insect (*Kerria iacca*) has dyes that are being looked into as a possible cancer treatment! And in several eastern European languages such as Czech, Bulgarian and Ukrainian, two months of the year are named for when people could harvest cochineal bugs for dye. Indeed, cochineal scale was one of the most profitable products of the Spanish New World, along with gold and silver.

It turns out that cochineal is something that some insects generally avoid when feeding, due to the presence of carminic acid. But there’s also a predatory caterpillar that develops a poison by consuming scale insects, and ultimately sequesters the carminic acid for use in defense against ants. The cochineal could also provide a warning coloration.

Meanwhile, the wooly coating could provide a physical gill and a sunscreen of sorts. Plus, that coating could prevent desiccation. It also could be a signal to ants for a mutualistic relationship.

Tom Eisner ran experiments with wooly lacewing larvae, and ants seemed to ignore them.

Overall, it seems that the chemical dyes are highly correlated with the wooly coverings, with the latter likely acting as a sunscreen.

Meeting adjourned at 20:46.

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