



474TH MEETING
Minutes of the
Connecticut Entomological
Society
16 October, 2009



Environmental Science Center (Rm 110), Yale University, New Haven
Pre-meeting pizza and beverages were enjoyed by the attendees, 6:30-7:25 p.m.

Business Meeting

Meeting was called to order by President Roberta Engel at 7:29 p.m.; 16 members and 4 guests were present.

Reports: The minutes of the 473th meeting were unavailable due to the absence of Secretary Munstermann. Treasurer Richard Cowles gave the treasurer's report.

Old Business: none

New Business:

–President Engel discussed meeting postings and minutes on a web site kept by Larry Gall, www.insectsingers.com/CES/CES.html
She asked for ideas, suggestions, and contributions to this CES web site.

Exhibits:

(1) Bill Krinsky - case of insects from Belize (Orange Walk District, May 2009) that included an unusual emesine reduviid twig mimic (*Ghilianella bulbifera*) and small mantid (Mantoidae) as well as a large roach (*Blaberus* sp.), a mantispid, and a lichen-mimicking katydid (*Dysonia fuscifrons*)

--He also provided photos from the CES summer collecting trip on the Munstermann Property in East Killingly on 16 August, 2009.

(2) Chris Maier – displayed Syrphidae flies showing Batesian mimicry of aculeate hymenoptera. Among them were *Eristalis flavipes* (a bee mimic with several color forms), *Spilomyia fusca* (bald-faced hornet mimic), *Spilomyia longicornis* (yellowjacket mimic), *Spilomyia sayi*, *Chrysotoxum* sp., *Sericomyia chrysotoxoides* and *S. militaris*.

(3) Raul Ferreira – a Schmitt box of carabids collected in Connecticut and Rhode Island (identified by W.L. Krinsky); 29 species were from the 2009 CT Bioblitz in Hartford, and the 2009 RI Bioblitz.

(4) Mike Montgomery – two books by Guo-Yue Yu, one on lady beetles, one on butterflies; the beetle book has reproductions of stamps from around the world that portray lady beetles.

(5) Kathy Hill and Dave Marshall – Their work on acoustic mimicry of cicadas in a predatory Australian katydid was featured in a New Scientist magazine article, Sept. 29, 2009. The article contains photographs of the katydid feasting on a cicada. Photos and cicada specimen shown. They noted that this katydid is the only known aural mimic of a cicada.

Evening Presentation: President Engel introduced Dr. Andrew Stoer, currently a postdoctoral fellow at Yale University in the laboratory of Dr. Antonia Monteiro in the Department of Ecology and Evolutionary Biology.

Dr. Stoehr described his research in the presentation “Variation in Melanism in Pierid Butterflies.” He started with a description of Shapiro’s Ground Plan, which describes how color patterns can arise in the wings. Some butterflies can be characterized as having black wings with

white spots, or alternatively, as white butterflies with black bands.

Considerable intraspecific variation occurs in the number of spots in *Pieris rapae* wings. This variation is found in the patterns in other pierid wings as well and is under genetic control genetically, but can also be due to environmental conditions--a phenomenon called adaptive environmental phenism. Other famous examples of environmental phenism were discussed, including *Daphnia*, Arizona caterpillars, and carp. For pierids, the variation probably has adaptive significance related to optimizing heat gain from basking--more black color helps in cool springtime conditions or at higher elevations or latitudes, less black prevents overheating in warmer conditions. These hypotheses can be tested by looking at color pattern variation in large collections. This research demonstrates the value of preserving "common" species in collections. Studying color patterns in pierids has been useful for investigating the proximate cues responsible for triggering changes in color development, for evaluating the mechanisms of color development (*e.g.*, the involvement of the *spalt* gene), and can even be manipulated (with a Sharpie pen) to test the relationships between color patterns and thermoregulation or courtship behaviors.

The meeting was adjourned following Dr. Stoehr's presentation.

Respectfully submitted,

Richard S. Cowles (Acting as Secretary)
with emendations by W.L.Krinsky and L.E.Munstermann