



TROPICAL BUTTERFLY ECOLOGY

WHEN: 28 May – 10 June 2017

Latest arrival 27 May, earliest departure June 11.

WHERE: Costa Rica — La Selva, Las Alturas,
and Las Cruces Biological Stations.

Tropical Butterfly Ecology is an intensive, two-week field course welcoming graduate students, advanced undergraduate students, and instructors interested in conducting field work on tropical butterflies and looking to expand their knowledge on butterfly ecology and evolution. The course will focus on the Costa Rican butterfly fauna in both Caribbean lowland rainforest and premontane wet forest, at the La Selva, Las Alturas, and Las Cruces Biological Stations. All sites share a diverse assemblage of Neotropical butterflies, including many species that extend well into South America.

Students will take away skills in butterfly collection, sampling techniques, preservation techniques, photography, identification of butterfly adults and early stages, and experimental design for ecology and behavior-based studies. The course material will focus on behavior, diversity, ecological and evolutionary patterns, mimicry, host-plant associations, sensory ecology, and butterfly communication, while giving students the opportunity to enjoy the excitement of conducting research on tropical insects.

Curriculum:

This course will combine lectures with hands-on field exploration, and major efforts on the part of students to understand and apply quantitative observational and sampling procedures in the field. The course will stress developing rigorous natural history questions from field observations. We will spend the first week at La Selva Biological Station exploring the lepidopteran fauna and learning specific skills that will be used the following week during independent projects at Las Alturas and Las Cruces Biological Stations. Students will return home with improved command and understanding of butterfly biology in rich and diverse ecosystems, while having the confidence to conduct independent tropical field work in the future.

An emphasis will be placed on the following:

- Developing an understanding of issues and topics in tropical butterfly ecology, evolution, and patterns of diversity
- Studying adult and immature stages
- Gaining experience in proper data collection and sampling techniques



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Course Instructors:

Susan Finkbeiner, Ph. D. — Boston University.
Ryan Hill, Ph. D. — University of the Pacific.
Adrea González-Karlsson, Ph.D.— Volcani Research Center, Tel Aviv University.

Invited Faculty:

John Smiley, Ph.D., from the University of California, San Diego.
Ricardo Murillo-Hiller, Ph.D., from the University of Costa Rica.

- Making and properly documenting field observations
- Making a voucher collection: how to preserve insects in the tropics and taking vouchers linked to observations and data
- Learning data entry basics: setting up a database and collecting data in a standardized way to ease data entry
- Training in experimental design for butterfly-related field studies, including trapping, mark-recapture, predation studies, surveys, and behavioral observation
- Exercising the Scientific Method by developing a question followed by hypothesis, using appropriate methods with self-designed study, data analysis, and conclusions implemented into a written report
- Gaining practice with presentation skills and science communication
- Learning tips on butterfly photography in the field and lab
- Becoming familiarized with neotropical rainforest field work, travel, and safety

Participants

This course is relevant for all graduate students interested in butterflies and upper level undergraduates interested in being exposed to tropical research.

TUITION:
\$ 1400 OTS consortium applicants
\$ 2100 Non-consortium applicants

A limited number of partial need-based scholarships are available, with first priority to OTS consortium applicants and Latin Americans. Costa Rican residents are eligible for a full scholarship.

Tuition includes 3 academic credits awarded through the University of Costa Rica.

FURTHER INFORMATION:
 Guiselle Castro
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For course content:
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APPLICATION DEADLINE:
February 3, 2017 (for priority consideration, followed by open enrollment until filled; 20 participants)

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