

Western University Ontario Universities Program in Field Biology

Course Title:	Tropical Biodiversity
Instructor(s):	Dr. Nina M. Zitani Phone: 519-661-2111 x 85356 Email: nzitani@uwo.ca Dr. Greg Thorn Phone: 519-661-2111 x 88647 E-mail: rgthorn@uwo.ca
Dates:	Monday, 13 August to Friday, 31 August 2018, 19 days; 0.5 credit
Location:	Ecuador, South America: Cabañas San Isidro (2,100 m; 8 nights); Yanayacu Biological Station & Center for Creative Studies (2,100 m; 2 nights); town of Coca (300 m, 2 nights); Shiripuno Research Center and Shiripuno Lodge (220 m; 3 nights); the Capital City of Quito (2,800 m, 3 nights), and travel days.
Cost:	Estimated \$3,300 plus roundtrip airfare Canada-Quito. Includes: all in-country transportation, all accommodation, 3 meals/day at San Isidro, Yanayacu and Shiripuno, and buffet breakfast at Quito and Coca hotels. You must also bring ~\$200.00 U.S. cash for miscellaneous expenses (e.g., taxis, tips, souvenirs) & food in Coca and Quito. Students must have travel medical insurance, a valid passport (and visa, if required), required immunizations (yellow fever, Hepatitis A&B and MMR), and required field and safety gear. You must arrange your own flights to and from Quito (airport code UIO). Once the course is full in ~ mid-February the professors will contact all students, and it is recommended that flights are purchased at that time to ensure a seat. \$350 deposit to home university on registration; ~ \$2,950 balance due by 1 March. Note: exact dates, number of days at locations, and cost (depending on exchange rate with currency of Ecuador [US dollar]) may vary.
Prerequisites:	Completion of second year Biology or Environmental Science Program, and at least one course in introductory ecology and evolution. <i>Students must be able to hike for several hours at a time in hard rain, on muddy slopes at high elevation, in high heat and humidity at low elevation, handle remote tropical field station conditions, be interested in learning about and at least tolerate living with a variety of arachnids and other fauna.</i>
Enrolment:	14 (6 reserved for University of Western Ontario)
Description:	This is an introductory course on neotropical biodiversity, ecology, and forest conservation issues. We will spend time in Amazonian cloud forest and lowland forest, two of the most biodiverse ecosystems on Earth. Emphasis will be on the most diverse taxa: the arthropods, plants, and fungi. Students will learn fundamental aspects of tropical forest ecology, and field identification skills including how to identify a wide variety of taxa. Students will learn about and experience first-hand spectacular insects (e.g. Lepidoptera, Coleoptera, Hymenoptera); a rich arachnid fauna (learning about these animals is required; handling them is not), Onychophora, terrestrial Gastropoda, caecilians, an incredible diversity of birds (e.g., hummingbirds, hoatzins), primates; the macroscopic fruiting bodies of many fungi (Basidiomycota and Ascomycota); extraordinary plant diversity including tree ferns, flowering Gesneriaceae, enormous <i>Anthurium</i> spp., orchids, bromeliads, and palms. The course includes ~ ten days in the cloud forest (eastern slope of the upper Amazon basin, 2100 m, Cabañas San Isidro and Yanayacu Biological Station). The first several days are spent on group hikes, in-the-field learning experiences, night hikes, light-trapping for nocturnal insects and an identification quiz. During this time, students will finalize their field research project proposals. The remaining days are spent data-gathering in the field, analysing data, writing the paper, and preparing oral presentations which are presented to the group on the last day at Yanayacu. We will then bus to the lowlands and the town of Coca (officially: Puerto Francisco de Orellana ; ~6 hrs), stay overnight, then continue by bus to the Shiripuno River (~2.5 hrs), where we will board motorized canoes for a trip downstream (~4 hrs) to the Shiripuno Research Centre and Lodge (Amazon lowlands, 220 m). This remote field station has no electricity and is part of the Waorani Anthropological Reserve within Yasuni Biosphere Reserve. Here we will have an unparalleled opportunity to observe the biodiversity of lowland Amazonia and interact with the Waorani indigenous tribe. We will then travel back to Coca via the same route (canoe, road), spend a night in Coca, and next day bus to Quito with a brief stop in the Paramo ecosystem of the high Andes (~4200 m). In Quito we focus on

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Tuition at your home institution is *in addition* to any field module costs.

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Students are responsible for all fees incurred by the home or host university due to any bounced cheque.

	the culture of Ecuador with visits to museums and the “Centro Histórico,” a UNESCO World Heritage Site.
Evaluation:	<ul style="list-style-type: none"> a) 15%: Enthusiastic participation in all components of the course. b) 15%: Identification Quiz: Sight identification of field specimens of Plants, Fungi, Arthropods, and possibly other taxa. c) 20%: Independent Research Project. You will design and carry out a hypothesis-driven research project, and prepare a hand-written journal-style paper, which must include an Introduction with hypothesis, Methods, Results, and Discussion. Due prior to oral presentations. d) 10%: Oral Presentation. You will make a 10-minute oral presentation about your research project and your findings. e) 20%: Field notebook, with daily entries. Guidance on what constitutes a good notebook will be provided. f) 10% Journal, with daily entries. Guidance on what constitutes a good journal will be provided. g) 10%: Reflection essay (750-1000 words) connecting your observations and experiences during the course, submitted by 5 pm Sept 10.

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