

Course for Biology Students at LUH and TiHo Tropical Wildlife Biology – Costa Rica

Model Region Neotropics – Hitoy Cerere Biological Reserve

AG Pröhl & AG Schmidt, Institute for Zoology, TiHo



Oophaga pumilio

11
102
1004
Leibniz
Universität
Hannover



Basic Information

Name des Moduls	Tropische Wildtierbiologie: Modell Region Neotropen - Costa Rica	2109
Schwerpunkt	1	
Semesterlage	2	
Dozenten	Heike Pröhl, Sabine Schmidt	
Art der LV/SWS	Vorlesung (1SWS), Seminar (2 SWS), Übung (3 SWS)	
Studienleistung	Regelmäßige Teilnahme, Durchführung eines eng umrissenen Forschungsprojekts, drei mündliche Präsentationen, Abschlussbericht	
Prüfungsleistung	Protokoll und Mitarbeit (50 %), 3 Kurzvorträge (10%, 20%, 20 %)	
ECTS-CP	6	

- Two weeks of research in Hitoy Cerere, Costa Rica
- One week of writing a report
- Available for Master students (TiHo) and Bachelor students (LUH)

- In cooperation with the „Universidad National de Costa Rica“ (UNA) and their biology students
- Research projects are focused on frogs, mammals and birds or reptiles
- Next courses: 2023, 2024, 2026... in April
- If interested to participate send application to heike.proehl@tiho-hannover.de
- For more infos or questions about the project, contact: luca.falco.kehrt@tiho-hannover.de

Timeline in Costa Rica:

- Arrival at Hotel in Heredia & Meeting with the “Ticos”
- Taking the bus to Hitoy Cerere (ca. 5–6h)
- Choosing 1 of 3 research group projects
- Small presentation about the goals of your research
- Working on the projects (Fieldwork & Data analysis)
- Presenting the results
- Writing a preliminary report
- Taking the bus back to the Hotel in Heredia

Preparation needed for German students:

- Flights & connections (in 2022: 400 - 700€, HAJ - SJO)
- Course expenses (about 300€, leftover money will be refunded)
- Vaccinations (Tetanus, Diphtherie, Hepatitis A/B, Rabies, Covid-19, optional: Typhus,)
- Mandatory consultation with a doctor about travel medicine
- (Travel-)health insurance
- Small seminar about the History, Culture and Fauna in Costa Rica
- Picking up course material from the TiHo

Biological Station Hitoy Cerere:

- Tropical rainforest
- UNESCO world heritage site
- Ca. 25°C with very high humidity
- Ca. 90 km² in size
- Home to: more than 300 bird species



more than 30 amphibian species
more than 30 reptile species
more than 40 mammal species
more than 380 plant species
...



Field & Research Station

Research Projects:

Course objectives:

- Conducting research in an international team, obligatory language is English
- Catching and handling of wildlife in a non-invasive manner to collect data for bioacoustic, behavioural, genetic, parasitological or endocrinological research projects
- Reflecting about your own values and responsibilities in an intercultural context

- Learning how to propose scientific hypothesis and how to work on them independently
- Learning how to conduct ecological and ethological experiments in the field and lab
- Learning how to conduct graphical and statistical analysis

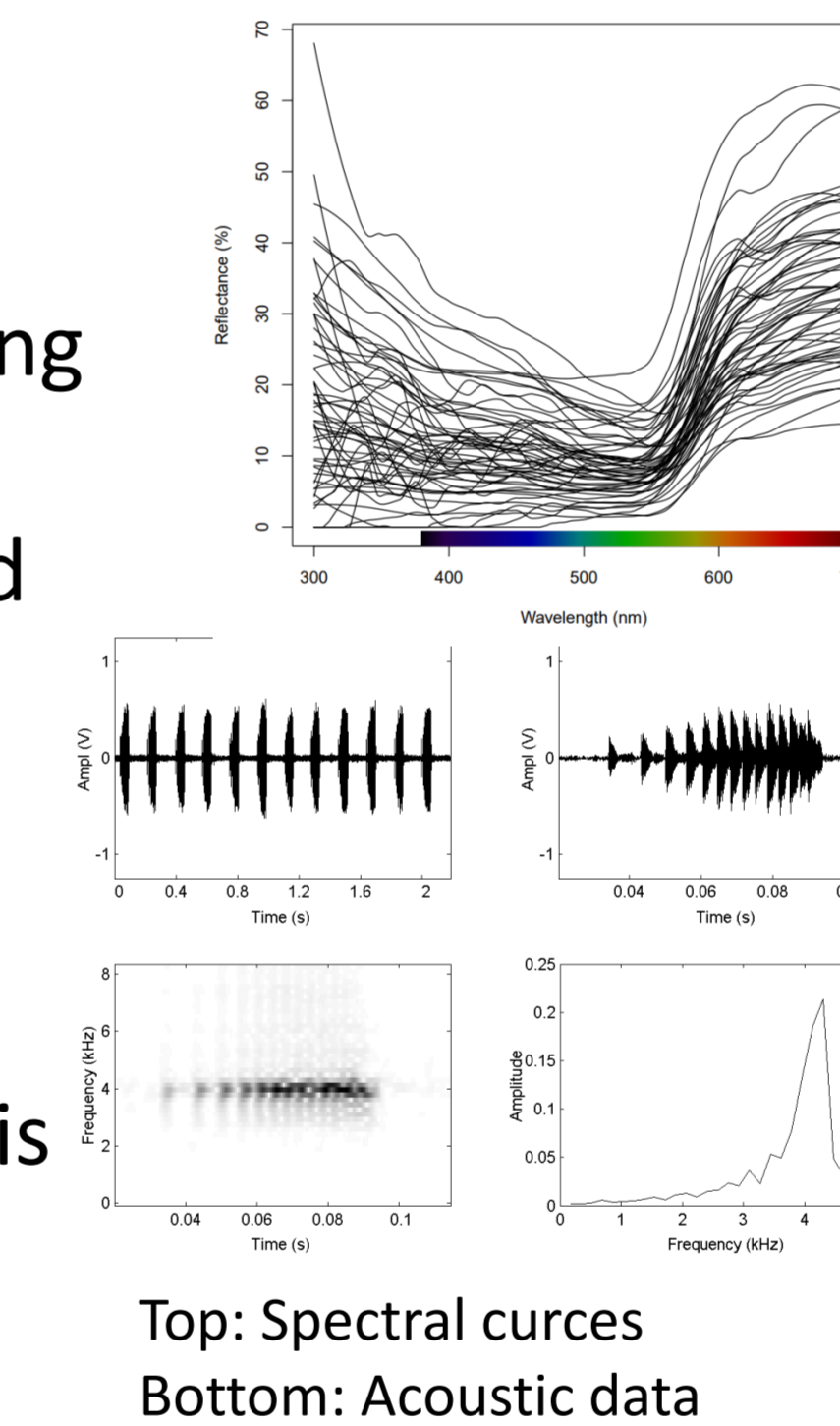
Model system: frog

Fieldwork, e.g.:

- Recording calls from *Oophaga pumilio* & catching the frogs
- Taking skin reflectance and physical measurements
- Releasing them back into their territory

Data Analysis:

- Acoustic & spectral analysis using audio-software & visual modelling in R



Model system: bat

Fieldwork, e.g.:

- Making recordings and catching bats at night
- Handling & measuring of the animals
- Recording bat behaviour in flight cage before releasing bats back to the wild

Data Analysis:

- Diversity measures, sound and behavioural analyses, statistical data evaluation



Top: Bat handling and measurement
Bottom: *Saccopteryx bilineata*

Your opportunity to:

- Do real research and learn a lot in a short time period
- Improve teamwork and interpersonal skills
- Have an absolutely unique experience in the tropics
- Make connections to the other side of the world
- **Experience personal growth and independence**

Possible in combination with:

- An ISAP scholarship (studying tropical biology for 8 months at the UNA)
- A semester/ year abroad at the UNA or UCR
- A 7-week master module (3. Semester TiHo Master) or the master thesis
- A DAAD/ PROMOS supported internship

Tropical Animals to see in Hitoy Cerere:

