

Natural History of Sri Lanka (BIOL 250/250L and 453/453L) Maymester 2016

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Primary Guest Lecturer:

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Guide: Pradeep Samarawickrama (Field Expert, Natural Historian)

Additional Guest Lecturer:

Chaminda Wijesundara (Ornithologist, University of Peradeniya)

Course Description: The course *Natural History of Sri Lanka* will familiarize students with the key ecosystems found in Sri Lanka as well as the flora and fauna characteristic of these sites. Through lectures, readings, visits to museums and botanical gardens, as well as excursions in the field, students will learn more about the geophysical origins of Sri Lanka, features that contribute to the high biodiversity of this country, how taxa have evolved in response to the environment, current conservation efforts, and how cultural beliefs and historical events have impacted approaches to wildlife management. The course is based in the central highlands at the University of Peradeniya and, with the assistance of local biologists, students will explore numerous sites including the ancient city of Sigiriya in the central lowlands, Horton Plains (upper montane), Wilpattu National Park (lowland dry zone), Passikudah (east coast), Minneriya National Park (central lowlands), Knuckles Forest Range (central highlands), and the Elephant Orphanage at Pinnawala (central highlands). We will also visit additional sites of historic and cultural significance such as the Temple of the Cave (Dambulla) and the Temple of the Tooth (Kandy). Participants should expect frequent travel by bus or van, hiking long distances, snorkeling/swimming, high heat and humidity, long distance travel by airplane, and spicy foods. Proficiency in snorkeling must be demonstrated before departure.

Course Objectives: The primary objectives of this course include the following:

- Become familiar with major fauna and flora of Sri Lanka as well as factors that have influenced the evolution of certain species.

- Describe the primary ecosystems of Sri Lanka and discuss characteristic features of each.
- Identify factors that led to increased biodiversity in Sri Lanka.
- Explore conservation approaches used in this country and discuss factors that complicate conservation efforts.
- Discuss historical and cultural factors that have influenced wildlife management in Sri Lanka. (e.g. ancient history, religion, Portuguese/Dutch/British colonization, Sri Lankan Civil War, and the 2004 tsunami)

Prerequisites for BIOL 250/250L: BIOL 101 and 102 (or 111 and 112)

Prerequisites for BIOL 453/453L: Biology 211/211D

Class Size: Class size is limited to 12 students.

Assignments:

Writing Assignment/Discussion.....30%

Students will each be assigned a topic to investigate when they register for the class. They will receive several papers to read about this topic and will be expected to submit a 4-5 page paper about this topic prior to departure. In addition, they will be expected to contribute significantly in a discussion session focusing on their topic during the time in Sri Lanka. 15% of the final grade will be based on their written work and 10% on the discussion, and 5% on participation in discussions about other topics. Papers will focus on conservation efforts, wildlife management, and cultural/historical influences.

Quizzes/Field Practicals.....20%

Field Journal.....30%

Final Exam.....20%

Grading Scale:

93 and above: A	73-76.9: C
90-92.9: A-	70-72.9: C-
87-89.9: B+	67-69.9: D+
83-86.9: B	63-66.9: D
80-82.9: B-	60-62.9: D-
77-79.9: C+	below 60: F

Course Policies:

Attendance: Students are expected to attend all class activities and to stay with the group for the duration. In the case of sickness or other unanticipated situations that prevent class attendance, the student should be sure to get notes from a classmate and inform the instructor immediately.

Recommended Clothing/Equipment: Weather conditions will vary depending on which area of the country we are in. In general, the weather will be hot and humid. It's important to be culturally appropriate and to respect those that we are visiting. Shorts are not acceptable clothing, nor are low-cut shirts, tank tops, jog bras, short skirts, bikinis, or sleeveless shirts. If you wear capri pants, they need to come below the knee. Jeans are great and highly recommended. When visiting the Temple of the Tooth, you must wear a white shirt. Light colored or white pants/skirts are preferred and shoes will be removed before entering the temple. Other recommended clothing? Bring a polar-fleece or sweater for the airplane and our excursion to the high montane regions. Also, a lightweight windbreaker/rain jacket is very handy. For hikes, we recommend a pair of lightweight hiking boots. Be sure to also bring sunblock and mosquito repellent (in your checked luggage, not in the carry-on).

Immunizations: Be sure to visit the health center well ahead of the trip and get immunized against tetanus, typhoid, and hepatitis A. Immunization against hepatitis B is also recommended, but not required. Do not pet dogs or cats (or other animals) during your visit. Incidence of rabies is high in Sri Lanka and if you are bitten or scratched by any animal, let the instructors know immediately!

Other Travel Preparations: Both a passport and a visa will be needed to enter Sri Lanka. Be sure to apply for the passport at least 2 months in advance. A visa is also required to enter Sri Lanka. Be sure to apply online for a visa 3 weeks in advance.

Laws: Be aware that the laws in Sri Lanka differ from those in the US. **DO NOT BRING OR CONSUME RECREATIONAL DRUGS IN SRI LANKA.** There is a sign in the airport that says that **INDIVIDUALS CAUGHT WITH DRUGS COULD RECEIVE THE DEATH PENALTY.** Any student attempting to violate this law will be sent back to the US immediately!

Course Schedule

Date	Time	Activity
May 14		Pre-Departure Lecture
May 16, 17		Fly to Colombo, Sri Lanka
May 18 – W	Morning:	Travel to Peradeniya
	Afternoon:	Lecture 1- Origins of Diversity (Byrum) (1h) Lab: Exploring Diversity Near Campus (2h)
	Evening:	Lecture 2- Major Ecosystems (Byrum) (1h)
May 19 – Th	Morning:	Lab: Visit Pine Forest- Birding (2h) Lecture 3- Plants in Sri Lanka (Byrum) (1.5h)
	Afternoon:	Lab: Royal Botanical Gardens of Peradeniya (3h)
	Evening:	Lecture 4- Primates (Byrum) (1.5h)

May 20 – F	Morning:	Travel to Dambulla Lab: Observing primates at the Temple of the Cave (2h)
	Afternoon:	Field Observations: Climb Sigiriya (4h) Field Observations: Minneriya National Park (3h) (Elephant behavior)
	Evening:	Stay overnight in Polonaruwa
May 21 – Sa	Morning:	Lecture 5- Invertebrate Marine Life (Byrum) (1.5h) Travel to Passikudah
	Afternoon:	Lab: Examining Marine Life in Sri Lanka (3h)
	Evening:	Group Discussion of Assigned Paper (1.5h)
May 22 – S	Morning/Afternoon:	Lecture 6- Vertebrate Marine Life (Byrum) (1.5h) Lab: Coral Reef Restoration in Passikudah (3h)
	Evening:	Travel to Peradeniya
May 23 – M	Morning:	Lecture 7- Snakes of Sri Lanka (Kumburegama) (1.5h) Journaling session (2h)
	Afternoon:	Visit Kandy, Temple of the Tooth
	Evening:	Group Discussion of Assigned Paper (1.5h)
May 24 – T	Morning/Afternoon:	Travel to Horton Plains Field Observations: Hike to World’s End (3h) Lab: Set up night cameras (1.5h)
	Evening:	Lecture 8- Herpetology: Lizards/Amphibians (Byrum) (1h)
May 25 – W	Morning:	Lab: Check night cameras (1.5h) Field Observations: Exploring Diversity, Horton Plains (3h)
	Afternoon:	Travel back to Peradeniya
	Evening:	Lecture 9- Terrestrial Invertebrates (Kumburegama) (1.5h)
May 26 – Th	Morning:	Lecture 10- Cultivated Plant Species (Byrum) (1h) Lab: Gannoruwa Forest (Spice Garden and Terrestrial Snail Ecology) (3h)
	Afternoon:	Lecture 11- Mammalian diversity (Byrum) (1h) Journaling session (2h)
	Evening:	Group Discussion of Assigned Paper (1.5h)
May 27 – F	Morning/Afternoon:	Travel to Knuckles Forest Lab: Knuckles Forest (3h)
	Evening:	Group Discussion of Assigned Paper (1.5h)

May 28 – Sa	Morning/Afternoon:	Travel to Deanston Lab: Mini World’s End (3h) Visit Meemure (Village) (2h)
	Evening:	Travel to Peradeniya
May 29 – S	Morning:	Lecture 12- Freshwater Fishes (Kumburegama) (1h)
	Afternoon/Evening:	Journaling session (2h) Group Discussion of Assigned Paper (1.5h) Field Observations: Kandy Lake (2h)
May 30 - M	Morning:	Drive to Wilpattu National Park
	Afternoon:	Lab: Birding with Dr. Wijesundara (3h) Lecture 13- Birds of Sri Lanka (Dr. Wijesundara) (1h)
	Evening:	Drive to Peradeniya Group Discussion of Assigned Paper (1.5h)
May 31 – T	Morning/Afternoon:	Drive to Pinnawala Visit Elephant Orphanage (3h) Drive to Peradeniya
	Evening:	Study time
June 1 – W	Morning:	Final Exam
	Afternoon:	Prepare to leave Travel to Colombo
	Evening:	Fly to Charleston
June 2 – Th		Return to Charleston

** Schedule may vary subject to scheduling changes and other modifications as needed.*