

BIOLOGY 307/317 – BIOLOGY 848

Course Title:	<i>Ecology of a Biodiversity Hotspot – the Brazilian Atlantic Coastal Forest.</i>
Instructor(s):	Dr. Stephen C. Lougheed, steve.lougheed@queensu.ca ; Dr. Rute Clemente-Carvalho, rbgc@queensu.ca
Dates:	Sunday, February 16 th – Saturday February 29 th 2020. (Dates may shift slightly to obtain best airfare prices)
Location:	Various sites in São Paulo state: Parque Estadual da Serra do Mar (Núcleo Santa Virgínia and Núcleo Picinguaba), Museu de Zoologia da Universidade de São Paulo, and the Campinas area with Brazilian savannah.
Cost:	Approximately \$3,200 (Deposit of \$350.00, balance due in month before departure to allow us to cover advance costs of travel and board). This price includes airfare, and all local transportation, and room and board in Brazil. We will seek a group rate on airfare to try to bring these costs down. Does not include home university tuition.
Prerequisites:	University course in general biology. Additional course(s) in ecology and biostatistics an asset.
Enrolment:	20
Course Description (brief):	<p>This course provides students with an introduction to field ecology, biodiversity and conservation issues in the diverse Atlantic Coastal Forest. Seminars, class discussions, guest lectures, and field exercises provide overviews of the scientific method and field research techniques, the geological and natural history of the area and its biota, and the diverse habitats and techniques for assessment of biological diversity. The course will include an assessment of traditional and emerging land uses and their impacts on ecosystems, and consideration of contemporary conservation issues, particularly those related to competing land uses, to the expansion of tourism, and to the development aspirations of community stakeholders. Groups of students will undertake field research focused on a major issue in conservation (e.g. poaching, conservation reserve design). We will visit at least 3 locations, potentially including Parque Estadual da Serra do Mar (two sites – one in the highlands, Núcleo Santa Virgínia, and other at sea level, Núcleo Picinguaba), the Museu de Zoologia da Universidade de São Paulo (where students will meet researchers and learn about scientific collections in Brazil), and the Campinas area (savannah). Each field site serves as a focus for group research projects designed in consultation with the instructor. Class fieldwork provides introductions to some of the typical, rare and endemic flora and fauna of the region. We will undertake many local excursions to see some of the fauna/flora characteristic of highlands and lowlands of Atlantic Forest, intertidal zones, mangrove, and cerrado (savannah). We will have opportunities to visit local communities engaged in biodiversity conservation, and to visit local universities to learn about local projects and academics in SE Brazil.</p>
Evaluation:	<ol style="list-style-type: none"> 1) Species account – students will prepare in advance a short presentation on a key endemic species of plant or animal (10%) 2) Review of journal article from the peer-reviewed literature (10%) 3) Field book including habitat, species descriptions, insights from visits to field sites and communities & all field data (20%) 4) Research paper based on data collected in the field to address hypotheses posed by students (40%) 5) Participation in class discussions & field activities (10%) 6) Blog entries (alternating groups of students write daily entries for a course blog describing field activities and observations (10%))