

**University of Ottawa**  
**Ontario Universities Program in Field Biology**

<b>Course Title:</b>	<b>Alpine Ecology</b> <a href="http://mysite.science.uottawa.ca/jforrest/Alpine_Ecology.html">http://mysite.science.uottawa.ca/jforrest/Alpine_Ecology.html</a> (to be updated)
<b>Instructor(s):</b>	Dr. Jessica Forrest Department of Biology University of Ottawa Ottawa, Ontario, K1N 6N5 Tel.: 613-562-5800 x 3948 <a href="mailto:jforrest@uottawa.ca">jforrest@uottawa.ca</a> <a href="http://forrestlab.wordpress.com">http://forrestlab.wordpress.com</a>
<b>Dates:</b>	Friday August 10 to Saturday August 25, 2018 (2 weeks of instruction plus two days of travel)
<b>Location:</b>	Rocky Mountain Biological Laboratory (RMBL), near Crested Butte, Colorado, USA: <a href="http://www.rmbll.org/">http://www.rmbll.org/</a>
<b>Cost:</b>	Approximately \$1950 (including \$350 deposit). This covers housing, meals, and user fees for 15 days at RMBL, as well as course supplies and travel around RMBL. It does not include travel to Colorado from Ontario (estimated at ~\$750 return) or linens (e.g., sleeping bag, towel). Exact cost will depend on enrollment and the exchange rate at time of payment (summer 2018).
<b>Prerequisites:</b>	First-year biology, and preferably additional courses in ecology or evolution. An introductory statistics course is strongly recommended. Students must be physically fit and prepared for spectacular but sometimes uncomfortable conditions (outhouses, near-freezing temperatures during the night and early morning, no phones, limited internet). Note that we will be hiking steep slopes at elevations > 3000 m, where oxygen levels are ~70% of those at sea level; even very healthy people find themselves short of breath at this altitude, and people with asthma may find it impossible. Students must have a passport valid until at least the end of August, no known barriers to entry to the United States, and proof of travel medical insurance covering a 16-day stay in the U.S. Non-Canadian students will need to determine visa requirements. Students will be required to sign a liability waiver to stay at RMBL (available at <a href="http://www.rmbll.org/staffforms">http://www.rmbll.org/staffforms</a> ), in addition to the course waiver.
<b>Enrollment:</b>	12 (3 reserved for University of Ottawa)
<b>Description:</b>	Students will spend two weeks in the awe-inspiring landscape of the Elk Mountains, learning about the unique challenges of life at high altitudes, how various plant and animal species have adapted to these challenges, and the threats posed to alpine habitats by current anthropogenic changes. Instruction will involve a mixture of guided walks, lectures, readings, and field data collection. During the first week of the course, we will explore different alpine and subalpine habitats, learning about their natural history and how to sample organisms and environmental variables along elevational gradients. We will give equal attention to plants and animals, including both vertebrates and invertebrates. Students will learn about some of the classic long-term studies taking place at RMBL, such as those on flowering phenology, climate change, marmot behaviour, and stream ecology. In the second week, students will conduct independent research projects, with guidance from the instructor, to test an ecological or evolutionary hypothesis of their choice. Students will gain experience with all aspects of experimental design, data analysis, and presentation of scientific findings.
<b>Evaluation:</b>	Field identification quiz (10%), participation (15%), project proposal and presentation (20%), field notebook with raw data (5%), final data spreadsheet (5%), final group presentation (15%), and final paper due September 22 (30%).

\*\*\*\$350 Deposit is due at time of registration.

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

Students who drop a field course should not expect a refund of any field course costs.

Students are encouraged to purchase cancellation insurance if airline tickets are required.

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