

Course Title:	Turtles: Ecology, Behaviour, and Conservation Website: https://turtlecourse.weebly.com/
Instructor(s):	Grégory Bulté
Dates:	May 3 – May 16, 2020
Location:	Queen’s University Biological Station
Cost:	\$1200 includes all accommodations, meals, wi-fi, equipment, and transportation during the course. Payable as \$350 non-refundable deposit to your home university; and \$850 balance by cheque (deadline March 22 nd , 2020) to: Carleton University 814308-166-228000 Mail to: Haiyun Bo, Dept. Biology Nesbitt Bldg., Carleton University 1125 Colonel By Dr, Ottawa, ON K1S 5B6. Excluded: Students are responsible for travel costs to and from QUBS.
Prerequisites:	<ul style="list-style-type: none"> • Second year coursework in ecology, conservation biology, or animal behaviour. • Be comfortable with working near, on, and in the water.
Enrolment*:	12 (5)
Course Description (brief):	This course applies concepts and tools commonly used in wildlife ecology, animal behaviour, and conservation biology to the study of freshwater turtles in the field. You will apply different sampling and observational techniques to gather data on the abundance, demography, and behaviour of selected species of turtles. You will use this data as the basis for your final report due one month after the end of the course. You will also have to write a short essay (blog post) on the biology or conservation of freshwater turtles due at the end of the course. Although this field course focuses on turtles, the skills and concepts covered are directly transferable to other groups of animals and field situations. See full details on course website: https://turtlecourse.weebly.com/
Evaluation:	Final report (due one month after the end of the course): 40% Protocol quiz: 10% Final team-based quiz: 10% Outreach project (due one week after the end of the course): 20% Field notebook: 10% Participation: 10%

An Average Day – What to Expect

(a) Daily timeline	<p>The schedule will vary based on weather conditions and the availability of shared equipment and space such as boats and classrooms, but a typical workday will follow this schedule.</p> <ul style="list-style-type: none"> • 7h30 to 8h30: Breakfast • 9h00 to 10h00: Lecture, workshop, or demonstration • 10h00 - 12h00: Fieldwork, turtle processing, or data entry • 12h00 to 13h00: Lunch • 13h00 to 17h30: Fieldwork • 19h00 to 21h00: Briefing and planning / Independent work <p>Be prepared to work from 9AM to 9PM most days.</p>
(b) Work habitat & Physical exertion	<p>Turtles in Ontario live in lakes and wetlands. Most of the fieldwork will be conducted in chest waders and in canoes or motorboats. Short hikes (< 3Km) with field gear and canoeing may be necessary to reach certain sites. Wading and canoeing are wonderful ways to get close and personal with the aquatic realm but wading in ponds with soft mucky bottoms is strenuous so as paddling in windy conditions. You will have to demonstrate common sense with regards to sun protection, hydration and physical exertion.</p>
(c) Common activities	<p>Common activities will include:</p> <ul style="list-style-type: none"> • Canoeing to sampling sites • Actively searching for turtles • Setting and checking nets from a boat or in waders • Installing and retrieving data collection devices • Measuring turtles and recording data • Entering and summarizing data • Performing behavioural observations in the field or from videos recorded during the course • Briefings and discussions • Cleaning and organizing field gear • Short lectures and analysis workshops • Independent work • Taking selfies with cute turtles
(d) Weather, dehydration, & biting insects	<p>Weather conditions in early spring are quite variable but the highs are generally around 12 to 20°C and the lows between 3 and 10°C. Be prepared to work in cold and rainy conditions (at least there is no bugs when it is cold and rainy!). The lake temperature is usually around 10 to 15°C so you may get a chill from wading in the lake. Pack clothing for rain, warm, and cold weather as well as sunscreen, and a water bottle.</p> <p>Wetlands are breeding grounds for a number of biting insects and blood donations to the six-legged kind is inevitable. If you strongly react to insects' bites, use insect repellent but care should be exercise with these strong chemicals when handling wildlife.</p>
(e) Toxic/poisonous, wildlife/ plants	<p>While doing fieldwork you may be exposed to poison ivy, wild parsnip, or diseases carrying ticks. Toxic plants are easy to avoid once you know to recognize them. To limit exposure to disease carrying ticks, I strongly recommend to always wear longs pants in the field, and to tuck your pants inside your socks. You should also perform a daily tick check.</p>

(f) Sleeping, washroom & laundry facilities	<p>Your accommodations at QUBS will be one the following two option:</p> <ul style="list-style-type: none"> • a single or double unheated cabin without a washroom (shared washroom with individual showers stalls are available in the main building); • a shared bedroom in a cottage or dorm house with a washroom. Up to 4 students may share a bedroom. • Sleeping accommodations are not co-ed. <p>You will only find out about your accommodations upon arrival at QUBS so pack as if you will sleep in an unheated cabin (i.e. a warm sleeping bag). Pack earplugs if you are a light sleeper. All showers have hot water.</p> <p>QUBS does not provide bedding. Bring your own sleeping bag and pillow.</p> <p>Coin operated laundry is available on site.</p>
(g) Meal plans & food allergies	<p>QUBS provides 3 meals per day plus snacks (e.g. fruits, bread, cereals) around the clock. The default diet includes meat and dairy but vegetarian and vegan meals are available. The cooking staff can accommodate special dietary requirements such as allergies and intolerances. Any special dietary arrangements (i.e. everything that is not the default diet) must be made in advance and for the duration of the course (not a meal per meal basis). I will provide information regarding dietary accommodations shortly before the beginning of the course.</p>
(h) Non-academic responsibilities	<p>QUBS does not have full time cleaning staff and students and researchers are expected to clean after themselves in both the living and working spaces.</p>
(i) Degree of isolation	<p>QUBS is 45 minutes north of Kingston and has WIFI. Bandwidth is sufficient to check emails and browse but cannot sustain high streaming and downloading demands, so we ask students to refrain from using streaming and downloading platforms. Cell phone reception can be patchy.</p>
(j) Alcohol & drugs	<p>Queen's University and Ministry of Labour regulations prohibit alcoholic beverages in workspaces (Operations Centre, workshop, aquarium or labs). However, alcoholic beverages are permitted in individual residences. Keep bottles and cans out of plain sight. Even a few empties in plain view give the wrong impression to visitors to QUBS.</p> <p>There is zero tolerance for illegal drugs at QUBS or on QUBS properties. Smoking or vaping of cannabis is prohibited unless approved for medical use.</p> <p>It is expected that QUBS users will behave in a sensible and decorous manner at all times.</p>
(k) Vaccinations/ Insurances	<p>General health insurance for Canadian Resident. International students should have travel insurance.</p>
(l) Social Situations	<p>For safety reasons, fieldwork will always be performed at least in pairs. Moreover, you will have to share accommodations (including a bedroom) with other participants in the course. You must therefore be comfortable with teamwork and communal living arrangements. This course is a great opportunity to meet new people and to expand your networks of friends and professional contacts. If you think you may find the social environment of the course challenging, please contact the instructor before signing up.</p>
(m) Final comments	<p>Collecting data on wildlife is essential for monitoring and protecting populations. However, catching and handling wild animals causes stress to the animals. We thus want to make our sampling as meaningful and relevant as possible. I will expect students to maintain high standards when handling and processing turtles as well as when recording and entering data.</p> <p>QUBS is located in one of Canada's biodiversity hotspots and it is an amazing place to meet students and researchers from other institutions.</p>