

BROCK UNIVERSITY

Ontario Universities Program in Field Biology

Course Title:	Aquatic Insect Behaviour
Instructor(s):	Dr. Fiona F. Hunter, fhunter@brocku.ca and TBA
Dates:	August 11-23 2024
Location:	Wildlife Research Station on Lake Sasajewun, Algonquin Park, Ontario http://www.algonquinwrs.ca
Cost:	Total cost: \$1860 includes room and board . \$350 payable to your home University with your application. \$1510 balance (payable to Brock University) due in full by April 15, 2024. This course fee covers all equipment and consumables required for student projects and food and accommodation for 13 days. Students are responsible for their own transportation to and from the field station. In the past, students have been able to arrange car pools with students from other Universities.
Prerequisites:	Second-year general ecology course or animal behaviour course. Experience in experimental design is recommended.
Enrolment:	20 (6 reserved for Brock University)
Course Description (brief):	Course topics will include aquatic insect collection techniques, identification of aquatic insects in the laboratory, the habitat associations of different groups of insects, and ecological interactions of common species encountered. Students will work in groups of two and carry out an independent research project on the behavioural ecology of an aquatic insect of their choice and write up a report to be handed in after completing the course. Students will also keep notes on their field observations in a field book, which will also be submitted after the field course for grading. It is expected that students will gain an appreciation of the diversity of aquatic insects in Ontario and understand the ecological roles of each of the major insect groups that have aquatic life stages.
Evaluation:	Participation in fieldwork: 10% Participation in class discussions: 10% Insect Identification quiz after Week 1: 10% Individual presentation of assigned readings: 15% Field book – notes and observations: 25% Final report on Research Project (due September 9 th 2024): 30%

An Average Day – What to Expect

(a) Daily timeline	Breakfast starts at 7am and by 8am we'll be in the lecture room, laboratory, or out in the field! Lunch is at 12 noon and we start up again at 1pm and work through until dinner at 5:30pm. After dinner, we take turns (in groups) cleaning the cookhouse and by 7pm we are generally back in the lecture room for student presentations.
(b) Work habitat & Physical exertion	All of the field work can be done on the Wildlife Research Station property and there are several aquatic habitats that we use: Lake Sasajewun, Bat Lake, Kathlyn Lake, small unnamed creeks and the North Madawaska River – all of them are within 30-60 minutes from the cookhouse. Most can be accessed on well-groomed hiking trails, or by canoe. We take plenty of breaks along the way. There is one trail that has proven challenging for some students in the past – because we need to cross a fast-running creek - but we can modify the hike for those students who are not comfortable crossing the creek.
(c) Common activities	There is a lot of walking on some days and, depending on the research projects that students choose, they may have to carry collecting gear (aquatic D-nets, buckets, etc.) to and from the study sites each day. In your free time, you can swim in the lake at the research station provided it is during daylight hours and you use a buddy system. Canoeing on the lake is also possible. When visiting field sites in smaller groups or when going for a leisurely paddle or swim, students are required to “sign out” and “sign back in” at the cookhouse.
(d) Weather, dehydration, & biting insects	Average August temperatures at the Wildlife Research Station are between 10C and 23C, with hot sunny days also bringing horseflies and deerflies out! Black flies should not be too bothersome at this time of year, but mosquitoes and no-see-ums can still bother you. We recommend bringing insect repellent with you, just in case. On those days when it rains, we will still go outside, so rain gear is also recommended. Please carry drinking water with you at all times to avoid dehydration.
(e) Toxic/poisonous, wildlife/ plants	The research station is in a wilderness area of the Park. Thus, encountering black bears is a potential – albeit rare - risk, but on the first day of the class you will be given a talk by the Station Manager on Bear Awareness. Other potential risks include poison ivy. Fortunately, there are no poisonous snakes in Algonquin.
(f) Sleeping, washroom & laundry facilities	Accommodations are primitive. We will be sleeping in single-gender cabins with up to 10 bunk beds in them. You will need to bring a sheet to put on the mattress plus your own bedding (e.g., sleeping bag), pillow and pillow case. You must also provide your own towels. The cabins do have electric heaters in them, but no WiFi. There is a separate building with showers and flush toilets; there are also outhouses scattered throughout the station. Although there is coin laundry, it is only for emergencies. Please plan to bring enough clothing with you for the two weeks. We ask that students not bring stashes of food or snacks into the cabins because that just encourages the local mice to move in.
(g) Meal plans & food allergies	All meals are provided by the WRS. On days when we will be out all day, we can make packed lunches to take with us. Staff are really good at accommodating food allergies and dietary restrictions. Advance notice is required to ensure that the kitchen is adequately provisioned.
(h) Non-academic responsibilities	After evening meals small groups take turns cleaning the kitchen, sweeping out the dining room and sweeping out the washrooms. Students are also required to clean their own cabins and leave them as they found them.
(i) Degree of isolation	Many students find the WRS to be isolated. There is no WiFi and cell service is extremely “spotty”. There is a landline that can receive incoming calls. If parents or partners need to contact you, they should call the landline at meal times. Alternatively, they can call and leave a message for you to call them back. The closest reliable cell reception is at Hwy 60 (~30 minute walk from the cookhouse down the station road). There is also WiFi at the Visitor’s Center which is about 5 km down Hwy 60. There is electricity for recharging laptops, etc., but you will not be connected to the outside world using your computer (unless you go to Hwy 60 and tether to your phone ... which I have done in the past). There is a medical clinic in Whitney, ON (~33km to the East) and a hospital in Huntsville, ON (~75km to the West).
(j) Alcohol & drugs	Alcohol use will follow policies set by the Algonquin field station.
(k) Vaccinations/ Insurances	No special vaccinations or insurances are required to participate in the course (apart from OHIP coverage).
(l) Social Situations	You need to be aware that you will be with the same people 24/7 for two weeks. We must be respectful of others while on the course.
(m) Final comments	Being cut off from social media, etc., is one of the best things about taking a field course at the WRS! You are able to immerse yourself in nature. Students are often uncomfortable at first, but by the end of the course, they are happy to have had such an experience.