

# Safety Planning Record – QUBS Field Trip Example

## Personal Details

First Name: Student A

Last Name: Student A

ID Number: 2222222

Address: Kingston

Kingston Address:

Queen's Email Address: Student A@queensu.ca

Telephone Number: 2222222222

Date of Birth: 1992-10-02

University Status: Student - Doctoral, Masters

## Activity Details

I am undertaking one of the following activities

Activity: Research Project

Department Overseeing Activity: School of Environmental Studies

Short Description of Activity: Field visits to collect samples from QUBS

Will you be travelling outside of Canada?: No

Will you be travelling remotely within Canada?: No

Aware of Contact Requirements: Yes

Geographical Site or Institution for Activity: Queen's University Biology Station

Setting for Activity: Rural

City or Nearest City to Activity Location: Kingston

Distance to Nearest City (km): 50

Activity Leaders:

## Pre-Departure Training

Not Complete

## Itinerary

Departure Date: 2017-08-03

Return Date: 2017-09-29

Itinerary

Dates	Type	Description
2017-08-03 - 2017-09-29	Car	Travel from Kingston to the Bonwell Tract property at QUBS.
2017-08-03 - 2017-09-30	Car	Travel from QUBS to Kingston.

## Hazards/Risks

Hazards and risks related to your activity

Hazard: Arduous hikes & a long working day

Risk: Field work will require long hikes to visit different habitats. Certainly fatigue is a possibility, compromising judgment. Blisters may result from poor-fitting footwear.

Plan: Appropriate footwear (e.g. hiking boots) will be worn at all times. Rest will be taken when needed. All participants will have clothing appropriate for the weather and sufficient water

Hazard: Cold & wet conditions

Risk: Even in summer conditions can be cold enough and wet enough to present a risk of hypothermia or other cold-related conditions

Plan: In very extreme weather it is best to avoid going out at all. Field workers will work in a pair so that should an issue arise help with evacuation is possible. Weather-appropriate clothing will be available (e.g. in layers and with rain jacket) rated appropriately for seasonal conditions. Weather forecasts will be checked to select appropriate field clothing

Hazard: Getting lost

Risk: The Biology Station is large (>3400 hectares) and embedded within an even larger matrix that is underpopulated. Even with adequate preparation there is a possibility of getting lost.

Plan: Personnel will travel in a group of 2 and stick to recognized pathways where possible. Topographic maps, a compass, a GPS unit with extra batteries (and a marked starting point) will be carried to assist in navigation. Staff at QUBS will be informed of our itinerary so they can respond if we do not return at the designated time.

Hazard: Anaphylactic reactions to insect stings & bites

Risk: During spring and summer there is a possibility of insect bites (mosquitoes and tabanid flies are common), or bee or wasp stings. Even personnel without history of allergic reaction may react because they have never before been exposed.

Plan: At any sign of anaphylaxis a medical facility will be contacted for immediate evacuation via cell phone if there is signal or land-line from the lodge. Benadryl will be carried as this may lessen the reaction. Participants are trained in first aid, and thus will be able to recognize and respond to the signs of an anaphylactic reaction.

Hazard: Intense sun & heat

Risk: Summer temperatures can exceed 30 degrees centigrade. Thus there is the possibility of dehydration, severe sunburn and heat stroke during some daily activities.

Plan: All personnel will carry a minimum of 1 litre of water (and more if they are to be out the entire day), wear brimmed hats, and use sun block with appropriately high SPF (> 15).

Hazard: Automobile travel

Risk: Travel to QUBS from Kingston, and within QUBS on gravel roads involves the risk of injury or death in an accident. On highway routes between Kingston and QUBS there is a risk of high speed collisions. Within QUBS roads are made with loose gravel and are narrow with many blind corners, so there is a risk of losing control of the vehicle, rolling the vehicle or a low speed collision.

Plan: Only licensed drivers will operate a vehicle, and only an insured vehicle will be operated. Defensive driving techniques will be employed by the driver and all rules of the road will be followed (including all passengers wearing seat belts and adjusting head supports properly). Special attention will be paid to environmental conditions that may require extra precautions (such as slowing down if rain makes road surfaces slippery).

Hazard: Lyme Disease

Risk: Ticks are becoming increasingly common at QUBS, including blacklegged ticks which carry the bacterium, *Borrelia burgdorferi*, which causes Lyme Disease. The first sign of infection is usually a circular rash. Other common symptoms include fatigue, chills and fever, headache, muscle and joint pain, and swollen lymph nodes. If untreated Lyme disease can cause nervous system disorders, additional skin rashes, arthritis, heart palpitations, and fatigue and general weakness. It is seldom fatal. Note that, as of 2012, about 2/3rd of the ticks in the QUBS area were Eastern Dog Ticks which do not carry Lyme Disease.

Plan: Personnel will wear long pants with the legs tucked, long-sleeved shirts that fit tightly at the wrist, and closed shoes. Light-coloured clothing makes ticks more visible. Insect repellents containing DEET may help repel ticks. A careful self-inspection for attached ticks will be performed immediately after leaving the field. Prompt removal of attached ticks reduces the transmission of the Lyme disease causing bacterium. Attached ticks can be removed using tweezers or special tick-removal forceps not standard tweezers (several pairs of these are available in the First Aid Kits at QUBS). The entire tick will be removed to reduce risk of infection. Removed ticks will be saved in 95% or absolute alcohol for identification. It is also now possible to do PCR to determine whether the ticks are infected (and by what) and preservation in ethanol permits this. Note that only about 2/3 of the cases of Lyme Disease develop the diagnostic bulls-eye rash. There are other disease-causing organisms to be aware of {*Ehrlichia* spp. (causes ehrlichiosis), *Anaplasma phagocytophilum* (causes human granulocytic

anaplasmosis), and Babesia microti (protozoan parasites that cause a hemolytic disease known as babesiosis.) - the last two are also primarily vectored by the black-legged tick, and white-footed deer mice are the reservoir host}. After removing ticks the site will be washed with soap and water or disinfect the area with alcohol or antiseptic. Should symptoms arise personnel will contact a doctor as soon as possible. For more information see the Public Agency of Canada Fact Sheet.

Hazard: Poison ivy

Risk: Poison ivy is a common plant at QUBS and can be found in forest understory, forest edges, fields, fence rows, and roadsides. All parts of poison ivy (leaves, stems, roots) contain a poisonous substance (urushiol) which typically causes inflammation, frequently with blisters and extreme itchiness.

Plan: People working in the field will be able to identify the plant to avoid it. Long pants and long-sleeved shirts can help minimize exposure, although cloths should be washed with detergent to completely remove urushiol. When possible participants will walk along cleared pathways to avoid contact with poison ivy. If in contact does occur with poison ivy one should gently wash the area with cool water and soap as soon as possible. Calamine lotion may help reduce itchiness.

Hazard: Bears

Risk: Black bears have been sighted at QUBS albeit very rarely. Black bears can cause injury or death but in the main are timid.

Plan: To reduce the probability of contact with bears participants will make noise when walking through wooded areas. This will alert bears to your presence. Participants will stay aware of their surroundings (and not wear music headphones in the field). Participants will watch for signs of bear activity, like tracks, claw marks on trees, flipped-over rocks, or fresh bear scat. Participants will not leave gear unattended (especially if there is food in it). If food is to be left behind, it will be left inside of a locked car. Participants will be informed of how to respond to a bear sighting before visiting the field. They should do as follows: if a bear is seen, back away slowly and change direction to avoid contact with the bear. Do not run. Do not linger around the bear or try to approach it.

Hazard: Lightning

Risk: If you see a thunder storm approaching and have time to react/move, avoid elevated locales, tall, isolated trees, metal fences, and water. If you can see lightning or hear thunder, and if delay between seeing the lightning and hearing the thunder is less than 30 seconds then you are in danger according to the US National Oceanic and Atmospheric Administration (NOAA). Enclosed vehicle generally provide good shelter from lightning. The majority if individuals struck by lightening survive, although some 10% may not so the risk is real.

Plan: Participants will remain aware of their surroundings, and will head to safe areas (a car, low ground, away from water, away from metal features) if there is a risk of a thunderstorm. If an individual has been struck by lightning, immediate first aid is imperative. Emergency services will be contacted immediately for evacuation (via cell phone or land line at the station). First aid will be performed if it is safe to do so (no hazard from fire, overhead fall hazards, etc.). If an individual is struck it is likely that they will suffer cardiac arrest, severe burns and injury to their nervous system. First aid will prioritize the maintenance of the airway, breathing and circulation (the ABC's) in order to preserve the life of the victim.

Hazard: Rough, sometimes steep terrain

Risk: QUBS has some rugged terrain including some ridges and rock faces. Thus there is the possibility falls causing injury

Plan: Participants will avoid risky terrain, wear appropriate footwear (hiking boots with good ankle support) and travel in a pair so that should accident occur notification and evacuation is possible.

Hazard: Swimming and cold water

Risk: Swimming, especially in cold water or cold weather, presents risk of drowning or cold-related conditions such as hypothermia. It is not expected that participants will be near water features. Furthermore, the field work will occur in summer when water temperatures are generally warmer so risks due to cold water are relatively lower than in other seasons.

Plan: Should a participant fall into the water measures will be taken to avoid hypothermia or other cold related conditions. They will be removed from the water, dried off and change into dry clothing. An emergency blanket will be in the first aid kit, and can be used to maintain the victim's body temperature should they show signs of a cold-related condition. Mike holds a National Lifeguard certification from the Lifesaving Society, and is trained in water rescues. He will be able to respond to emergencies in water should one occur.

## **Immunizations**

Aware of Immunization Requirements: Yes

## **Emergency Response**

Local Emergency Contact Information

- Agency: Queen's University Biology Station
- Tel. Number: 6133595629

How will we contact you in the event of an emergency?

- Agency: Queen's University Biology Station Landline
- Tel. Number: 6133595629
- Email Address:
- Comment: Sonia, the Senior Manager at QUBS, will likely be the main contact.

Program Overseeing Activity: School of Environmental Studies