Safety Guidelines
for Field Researchers

Virginia Tech

Office of Research Compliance and
Environmental Health and Safety

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Thanks to University of California, Berkeley, Office of Environment, Health and Safety for their production of the original field safety guidelines and for allowing Virginia Tech to adapt them in this document.

1. General Field Safety Guidelines

Preparations and Paperwork

Fieldwork is an important and integral part of teaching and research at Virginia Tech. This document is intended to help you prepare for procedural, health and safety hazards you might encounter when your fieldwork is performed off campus. For more specific information on your fieldwork hazards and precautions, talk to your supervisor or contact the VT Environmental Health and Safety at 540-231-3600, Occupational Safety and Health at 540-231-5985 or the University Attending Veterinarian at 540-231-1767.

Before You Leave

One of the most important phases of your fieldwork experience is planning and preparations before you leave.

Here are some suggestions for a safe trip:

1. Prepare a written plan or your trip and leave it with a responsible party in your department. Include the following:
    - General nature of your activities
    - Your schedule/itinerary – Locations; arrival and departure dates; names, addresses, and phone numbers of all fieldwork participants
    - Local Contacts – Names of people at or near your fieldwork site who can reach you if necessary and who are familiar with your check-in and checkout arrangements. The local contact should also be informed of any allergies or other medical conditions of the field team members. If possible, each day field-workers should also inform a local contact about the daily fieldwork location and the approximate time of return. After each day's work, field-workers should notify the contact when they return. The local contact should be provided with the telephone numbers of people to call (local field personnel, emergency personnel and University contacts) if the workers do not return or report in within a predetermined interval of the scheduled return time.
    - Home Contacts – The office contact should also have the name and phone number of family to contact in case the researcher is injured or taken ill. Field-workers should check in with their group office regularly and should advise the group office of any changes in schedule or points of contact.
2. Learn about potentially hazardous plants, animals, terrain, and weather conditions in the areas where you plan to work and complete the "Fieldwork Safety Plan" (located in the back of this manual).
3. In addition to this manual and EHS, your supervisor/sponsor, other field workers, local residents, and authorities, such as state and national parks, game, or refuge personnel, may be able to provide you with invaluable information.
4. All research or instruction activities involving animals (including wild animals),

requires an approved protocol from the Institutional Animal Care and Use Committee (IACUC). Please contact the IACUC at 540-231-0931 or online at www.acc.vt.edu. Be prepared to complete all required IACUC training and submission of the protocol well in advance of the initiation of any activities.

5. All research and instruction involving pathogens, recombinant DNA, or human cell lines requires registration and approval from the Institutional Biosafety Committee (IBC). Please contact the IBC at 540-231-6614 or online at www.ibc.researchcompliance.vt.edu. Be prepared to complete all required IBC training and submission of the protocol well in advance of the initiation of any activities.
6. If your work involves travelling outside the country you should contact the Va. Dept. of Health – New River Valley District at 540-381-7108 or online at www.vdh.state.va.us/LHD/newriver.
7. Take a CPR and First Aid class. Contact the VT Environmental Health and Safety Office 540-231-3600, Virginia Tech Rescue Squad 540-231-7138, or the American Red Cross to enroll.
8. Assemble safety provisions and everything before you leave. Safety provisions may include:
    - First aid kit and aid manual *This should be taken on any trip
    - Medications you regularly take
    - Allergy treatments
    - Sunscreen and hat
    - Water purification tablets or filter devises
    - Vehicle emergency kit
    - Flashlight
    - Flares (and flare gun for remote locations)
    - Two-way radio (if you will be working alone in an isolated or dangerous area)
    - Personal protective equipment for fieldwork activities (safety glasses/goggles, gloves, hard hat, sturdy work boots, etc.) EHS can recommend protective equipment depending on your activities and locations)
9. Whenever possible, fieldwork activities should be performed in teams of at least two people. The “buddy” system is the safest way to work.
10. Carry photo identification with you at all times in case of accident or injury.
11. Contact the Controller’s Office at 540-231-3340 or online at www.co.vt.edu to obtain information about travel insurance and waivers.
12. Ask your health insurance provider how your coverage applies to medical treatment in the fieldwork locale, should that become necessary.

Medical Care and First Aid

Emergency Medical Care

The following guidelines apply to all off-campus activities that involve employees and students, including academic field trips, excursions, and field station operation.

1. A first aid kit must be maintained at all times during the activity or exercise (see information below).
2. At least one employee who is trained in first aid should be present during all fieldwork.
3. At permanent University field stations, written arrangements should be made in advance with local facilities for emergency medical treatment. If you are working from a field station, you should find out what the arrangements are for emergency care.

If a University employee suffers a job-related injury or illness, his or her supervisor must be notified immediately. The supervisor should provide guidance on physicians and file the necessary paperwork with the Human Resources Benefit's Office. Once an employee reports a job-related injury, the supervisor must immediately file the "Employer's Accident Report Form" found online at www.hr.vt.edu/benefits/workerscomp.

Those employees needing immediate medical treatment for serious injuries may visit the emergency room and will need to report the injury as Workers' Compensation at the time treatment is received. All follow-up treatment must be provided by a Workers' Compensation panel physician. (still need HR update on what out-of-state/country people need to do)

First Aid Kits

First aid kits are highly recommended for all off-campus activities. Departments are required to purchase and maintain first aid kits. EHS does not supply kits, however they do offer in-person MD consultations and personalized health and safety items for first-aid kits based on work location and possible health concerns. Contact EHS at 540-231-3600 well in advance to set-up an appointment.

2. Physical and Environmental

General Hazards:

Many general physical and environmental hazards exist in nearly every location worldwide. All field researchers, regardless of the work location, should read through Table 1 to learn more about some general physical and environmental hazards. If your research is in North America, please read Table 2. If your research will take you out of North America, please read Table 3.

Table 1. Physical and Environmental Hazards Found Worldwide

Hazard	Location	Cause	Symptoms	First Aid	Prevention
Travel-related accident	Worldwide	Fatigue Impaired operation Operator error Environmental factors Equipment factors	Physical injury and/or death.	Call Local Emergency Line Secure the scene Administer basic first-aid and CPR Seek Medical Attention as soon as possible	Be familiar and trained in the safe operation of the vehicle or craft you will operate. Use only licensed pilots or operators.
Hazardous terrain	Worldwide	Walking or hiking in steep or rocky areas	Physical injury (strains, fractures, bruises and contusions) or death	Call Local Emergency Line Perform first aid for minor injuries. Perform CPR and/or seek medical attention.	Wear appropriate shoes. Carry needed items in a well-balanced pack. Use rappelling equipment and hiking poles if needed.
Dehydration	Worldwide	Not enough water intake	Dry or Sticky Mouth Dark urine Lethargy Light-headedness Headache	Drink plenty of fluids, take frequent rest breaks, and minimize intake of beverages containing caffeine.	Drink plenty of water (at least 2 quarts of water per day). Drink more if working strenuously or in a warm climate.
Impure Water	Worldwide	Harmful organisms and pathogens living in water sources	Gastrointestinal illness Flu-like symptoms	Drink clear liquids. Slowly introduce mild foods, such as rice, toast, crackers, bananas, or applesauce. See a doctor if there is no improvement.	Carry your own water. Treat water before use with tablets, purifiers, or by boiling for more than 3 minutes. Wash hands with purified water.

Hazard	Location	Cause	Symptoms	First Aid	Prevention
Sunburn	Worldwide	Excessive exposure to the sun	Irritated skin, pink or red in color	Apply cool water, aloe, or other cooling lotion to affected area.	Wear long sleeved clothing and a hat. Apply SPF > 30 sunblock. Wear sunglasses
Heat Exhaustion	Worldwide: hot climates	Prolonged physical exertion in a hot environment	Fatigue Excessive thirst Heavy sweating Cool and clammy skin	Cool the victim, treat for shock, and slowly give water or electrolyte replacer.	Acclimate to heat gradually. Drink plenty of liquids. Take frequent rest breaks.
Heat Stroke	Worldwide: hot climates	Prolonged physical exertion in a hot environment	Exhaustion Light-headedness Bright red skin which is warm to the touch	Cool the victim at once, replenish fluids, and seek medical attention immediately.	Acclimate to heat gradually. Drink plenty of liquids. Take frequent rest breaks.
Frostbite	Worldwide: cold climates	Exposure to cold temperatures	Waxy, whitish numb skin Swelling, itching, burning, and deep pain as the skin warms	**Do not** rewarm affected area until you can **keep** it warm. Slowly warm the affected areas (do NOT rub) and seek medical attention as soon as possible.	Dress in layers. Cover your extremities with warm hats, facemask, gloves, socks, and shoes.
Hypothermia	Worldwide: cold climates	Prolonged exposure to cold temperatures	Shivering Numbness Slurred speech Excessive fatigue	Remove cold, wet clothes. Put on dry clothes or use a blanket or skin-to-skin contact to warm up. Drink warm liquids and seek medical attention as soon as possible.	Dress in layers. Wear appropriate clothing. Avoid getting damp from perspiration. Use working animals to keep you warm.
Carbon Monoxide	Worldwide	Running a vehicle or burning a fuel stove in an enclosed space	Severe headaches Disorientation Agitation Lethargy Stupor Coma	Remove the victim to fresh air immediately and perform CPR if needed. Seek medical attention	Keep areas adequately ventilated when burning fuel. Ensure snow or other debris does not cover vehicle tailpipe.

Hazard	Location	Cause	Symptoms	First Aid	Prevention
Extreme Weather	Worldwide	Snow squalls, blizzards, lightning, tornadoes, hurricanes, monsoon rains, floods	Severe weather can result in physical injury and/or death.	Seek shelter immediately.	Be aware of special weather concerns. Bring appropriate equipment to deal with severe weather.
High Altitude Illness	Worldwide: high altitudes	Decreased oxygen and increased breathing rate	Headache Nausea Weakness	Use supplemental oxygen and decrease altitude.	Allow your body to acclimatize by gaining elevation slowly.
Drowning	Worldwide	Inhalation of water leading to respiratory impairment	Apnea (suspension of breathing) Death	Take victim out of water. Turn head to side to allow water to drain out. Perform CPR if needed. Seek medical attention as soon as possible.	Know how to swim before performing field activities in water or on boats. Be aware of water safety recommendations for swimming in strong currents if necessary. Always have life preservers and rescue equipment available.
Electric shock	Worldwide	Damaged electric cords, Improper electrical wiring, Improper grounding	Cardiac arrest Muscle contraction/ shaking, Numbness, paralysis, or other neurological symptoms, Burns or other physical injuries.	Provide burn first aid as needed. Go to the nearest emergency room for physical injuries, severe burns, or cardiac arrest.	Inspect cord for damage and replace damaged cords or have them repaired by a qualified person.
Burns	Worldwide	Touching a hot surface (especially metal). Contact with flames.	Pain, redness, swelling, tissue damage, Blisters (2nd degree), Charring (3rd degree).	Cool the burn with cool (not ice) water, cover with sterile bandage, take pain reliever. For 2nd and 3rd degree burns seek medical treatment. Get a tetanus shot if your last shot was >5 years ago.	Use gloves when handling hot objects. Avoid open flames.
Assault	Worldwide	Criminal activity, Robbery may be the motivation	Physical injury	Remove victim to a safe location if possible. Seek medical attention if needed. Report assault immediately to local authorities.	Be aware of your surroundings. When possible, avoid being alone after dark, especially in high-crime areas. If assaulted, run away if possible, or make noise to attack help.

Table 2. Physical and Environmental Hazards Found in North America

Hazard	Location	Cause	Symptoms	First Aid	Prevention
Hunting Season	United States, Canada, and Mexico	Local hunting seasons and regulations vary.	A hunting accident may result in serious injury or death.	Seek medical attention for serious injuries or wounds.	Wear blaze orange safety vest. Avoid animal-like behavior (e.g. hiding in thickets).
Poison Plants	North America	Exposure to poison ivy, poison oak, or poison sumac plants	Itchy rash Red, swollen skin	Apply a wet compress with baking soda or vinegar or use a topical ointment. Avoid scratching the rash.	Avoid contact with poison plants. Wash clothes and skin with soap and water after exposure. If sensitive, use Tecnu or similar product to help remove rash-causing oil if exposure occurs.

Table 3. Physical and Environmental Hazards Found Internationally

Hazard	Location	Cause	Symptoms	First Aid	Prevention
Poison/Toxic Plants (i.e. Poison wood, Upas, Manchineel Tree, Neetles)	International	Exposure to a large variety of dangerous plants	Rash, burning sensation, inflammation, blisters, paralyzes, death	Wash affected area with soap and water. Apply Corticosteroid ointment, and cover blisters with sterile gauze. Seek medical attention for serious internal infections.	Do Not Touch these plants. Wear long protective clothing, and gloves. Wash hands with soap and water frequently (or with alcohol based sanitizer).
Large Scale Violence	International	Political Unrest, Military Conflict		Leave the area as soon as it is safe to do so.	Be aware of current travel advisories (see Section V).

3. Animals and Pests

General Hazards

Dangerous animals and other pests are present worldwide. General safety rules can help protect you from these hazards. All field researchers, regardless of the work location, should read through Table 4 for some general guidelines to avoid unwanted animals and pests. If your research is in North America, please also read Table 5. If your research will take you out of North America, please also read Table 6 about International animals.

A number of animals and pests may be encountered in fieldwork. Follow these general guidelines to prevent close encounters of the painful kind:

1. Wear insect repellent – mosquito-borne illnesses are responsible for more than a million deaths each year.
2. Use netting to keep pests away from food and people.
3. Keep garbage in rodent-proof containers and stored away from your campsite or work area. Food crumbs and debris may attract insects and animals.
4. Thoroughly shake all clothing and bedding before use.
5. Do not camp or sleep near obvious animal nests or burrows.
6. Carefully look for pests before placing your hands, feet, or body in areas where pests live or hide (e.g., woodpiles or crevices).
7. Avoid contact with sick or dead animals.
8. Wear clothes made of tightly woven materials and tuck pants into boots.
9. Minimize the amount of time you use lights after dark in your camp or work site because they may attract pests and animals.
10. Carry a first aid manual and kit with you on any excursion so you can treat bites or stings. If the pest is poisonous or if the bite does not appear to heal properly, seek medical attention immediately.
11. Be aware of the appearance and habitat of likely pests, such as those described in the following pages.
12. Perform good wound management (clean, treated and covered) for all bug bites, scratches, punctures, or other open wounds.

Rodent Hazards

Steps should be taken to reduce the risk of rodent-borne diseases. If possible make the area unattractive to rodent by covering or repairing holes into a building to prevent unwanted access, keep area clean of trash and food waste, and store food so as to prevent attracting rodents. Do not camp near rodent burrows. If rodent feces or dead rodents are discovered the following precautions will help reduce the risk of exposure to rodent-borne diseases;

1. If at all possible, avoid infested living areas unless they can be safely cleaned.
2. When cleaning in enclosed spaces DO NOT STIR UP DUST.
3. Ventilate the area by opening doors and windows for at least 30 minutes.
4. Spray rodent droppings with 1 part bleach to 9 parts water; let them soak for 5 minutes.
5. With the area cross-ventilated and ONLY while wearing gloves and a properly fitted respirator, wipe up the droppings, place them in a sealable plastic bag and discard. (Please contact EHS well before heading into the field in order to be fit-tested and obtain a respirator.)
6. To remove dead rodents: wear gloves and respirator, spray the rodent and nest material with the same bleach solution as above, let them soak for 5 minutes, place them in sealable plastic bags and discard.

Table 4. Animals and Pests found Worldwide

Type	Location	Most Dangerous Species	Defensive Action	First Aid	Prevention
Mosquitoes	Worldwide, especially wet areas conducive to breeding	Refer to Section IV: Diseases	Avoid contact with mosquitoes whenever possible	Use topical ointment to relieve itching.	Use insect repellent to deter mosquitoes. Don't leave standing pools of water.
Rodents	Worldwide	Refer to Section IV: Diseases	Do not touch a rodent, dead or alive.	Clean wounds thoroughly if bitten or scratched.	Keep areas clean to avoid attracting rodents. Keep food stored in sealed containers.
Triatomine ("Cone-nosed", "Kissing" or "Assassin") Bugs	North and South America	May cause allergies in some people. Refer to Section IV: Diseases	Avoid contact with Triatomine bugs when-ever possible.	Use topical ointments to sooth itching. Take victim to the hospital in case of anaphylactic shock.	Use caution when working near animal resting areas, rock structures, or substandard housing.
Sharks	Worldwide: Shores of oceans, including the U.S., Africa, Central and South America, Australia, and the Pacific Islands	Great White, Bull, Tiger, Oceanic Whitetip	Call for help; swim towards safety. Punch or kick the shark if necessary.	Seek medical attention for serious injuries or wounds.	Never swim alone. Don't wear sparkling jewelry. Don't enter the water when bleeding.
Crocodiles and Alligators	Worldwide: Tropics and sub- tropics of North America, Australia, eastern China, and Africa	American Alligator (North America), American Crocodile (South Florida), Estuarine Crocodile (Australia), Nile Crocodile (Africa)	Do not provoke an alligator or crocodile.	Seek medical attention for serious injuries or wounds.	Avoid waters known to be home to crocodiles or alligators. Keep at least 30 feet away from any crocodile or alligator.

Type	**Location**	**Most Dangerous Species**	**Defensive Action**	**First Aid**	**Prevention**
Water Dwellers - i.e. Octopus, Jellyfish, Stonefish, Stingrays.	Worldwide, especially Australia, also in other tropical and subtropical areas	Blue Ringed Octopus, Box Jellyfish, and Irukandji Jellyfish (Australia), Stonefish (worldwide), Stingrays (worldwide)	Never touch an unidentified octopus or jellyfish. Avoid stepping on any water dwelling species.	**ALL – Seek Emergency Medical Attention** Jellyfish sting: Use seawater to remove nematocysts. Pour vinegar on the wound. Stonefish sting: Rinse in hot water (45°C or 113°F). Blue-ringed octopus sting: Provide CPR and/or supportive care to the patient and seek medical attention IMMEDIATELY. Stingray sting: irrigate wound to remove spine fragments; apply pressure to stop bleeding; soak wound in hot water or apply heat packs; remove sting pieces, then clean wound.	Avoid going in waters known to be inhabited by jellyfish and octopus. Wear sandals in the water to avoid stepping on a stonefish. Shuffle in the water or throw stones in before wading to avoid stepping on stingrays. Wear a wet suit to protect from stings and hypothermia. Wear protective clothing (gloves, aprons, etc.) if you must handle one of these species.

Table 5. Animals and Pests found in North America

Type	Location	Most Dangerous Species	Defensive Action	First Aid	Prevention
Bears	North America	Black Bears (N.A), Grizzly (Brown) Bear (Alaska, Western Canada, Rocky Mountain West) Polar Bear (Artic)	**All – Never Run** **All – Use pepper spray if attacked.** Black Bears – Use loud voice and make yourself look larger, if attacked fight back. Grizzly Bears – Back slowly away, if attacked play dead in the fetal position and protect head.	Seek medical attention for serious injuries or wounds.	Keep food out of sleeping area and out of bears reach. Never approach a bear or bear cub. Wear a bell or other noisemaker or sing while walking. Stay away from a bears food supply.
Mountain Lions	Western Canada south throughout western United States and Texas South into Central America. Small population in South and Central Florida.	All	**DO NOT RUN** back away slowly. Make yourself look larger (arms overhead). Use loud voice. Throw sticks or rocks. If attacked – Fight back and protect your head and neck. Use pepper spray.	Seek medical attention for serious injuries or wounds.	Avoid activities alone when mountain lions are most active – dawn, dusk, night. Avoid dense growth areas, rock outcroppings, and ledges. Be aware of above and behind you. Do not attract deer.

Large Ungulates	North America	Moose, Elk, Bison	Keep a safe distance at all times.	Seek medical attention for serious injuries or wounds.	Keep a safe distance at all times especially from males during breeding season, Do not disturb or startle
Type	**Location**	**Most Dangerous Species**	**Defensive Action**	**First Aid**	**Prevention**
Snakes	North America	Rattlesnakes, Coral Snakes, Moccasins, and Copperheads	Do not pick up, disturb, or corner a snake. Move away from the snake.	Let the wound bleed freely for 30 seconds. Apply a cold pack. Keep area immobilized at heart level. Take victim to hospital (alert ahead if possible).	Walk in open areas. Wear heavy boots. Use a stick to disturb the brush in front of you.
Scorpions	North America, especially Mexico, Arizona, southeastern California, and Utah	All	Avoid contact with scorpions whenever possible.	Clean wound and put a cool pack on the area. Keep area immobilized at heart level. Use painkiller or antihistamine if desired. Take victim to hospital if he or she shows no signs of improvement.	Always shake out clothing and bedding before use. Avoid lumber piles and old tree stumps.
Spiders	North America	Black Widow and Brown Recluse	Do not pick up or disturb a spider.	Clean wound and put a cool pack on the area. Keep area immobilized at heart level. Take victim to hospital (alert ahead if possible)	Use care around rock piles, logs, bark, outdoor privies, and old buildings. Shake out clothing and bedding before use. Wear thick gloves.

Bees and Wasps	North America	Bees, wasps, hornets, and yellow jackets, Africanized Killer Bees (southeastern U.S.)	Avoid contact when possible. Avoid bright colors, flower prints or perfume. Move slowly – do not swat.	Remove the stinger quickly. Place an ice pack and elevate to heart level. Use an antihistamine if needed.	Bring medication if you have an allergy (the sting may be fatal). Keep scented foods and meats covered.
Type	**Location**	**Most Dangerous Species**	**Defensive Action**	**First Aid**	**Prevention**
Fleas and Ticks	North America	Refer to Section IV: Diseases	Avoid contact with animals or areas where fleas and ticks might be found when possible. Apply repellent to clothing.	Remove the flea or tick with tissue or tweezers and clean wound with antiseptic. Pay attention for signs of illness (see Section IV: Diseases) and seek medical attention if needed.	Wear long clothing of tightly woven material. Tuck pants into boots. Wear Repellent. Drag cloth across campsite to check for fleas or ticks.

Table 6. Animals and Pests found Internationally

Type	Location	Most Dangerous Species	Defensive Action	First Aid	Prevention

Bears	Worldwide: Artic, South America, Europe, Asia	Polar Bears – Greenland, and northern Russia Spectacled Bears – western South America Asiatic Black Bears – East and Southeast Asia into Afghanistan and Pakistan Brown Bears – northern and mountain regions of Europe, Mountain regions of Middle East, Russia, Asia, and northern Japan. Sloth Bears – India, Nepal, Bhutan, Bangladesh, Pakistan, and Sri Lanka	**All – Never Run** All – Use pepper spray Asiatic Black and Spectacled Bears – Use loud voice and make yourself look larger, if attacked fight back. Polar, Brown, and Sloth Bears – Back slowly away, if attacked play dead in the fetal position and protect head.	Seek medical attention for serious injuries or wounds.	Keep your camp area free of garbage and food waste. Never feed or approach a bear, especially a cub. Stay away from the bear's food. Make Noise while traveling in bear occupied areas.
Type	**Location**	**Most Dangerous Species**	**Defensive Action**	**First Aid**	**Prevention**
Big Cats	South America, Africa, Asia, and Russia	Jaguar – Central and South America Cougar – Central and South America Lion – Africa Leopard – Africa, Middle East, India, Asia, and Russia Tiger - Asia	**DO NOT RUN**. Do not startle or provoke. Don't look into eyes. Make yourself look large. If attacked – Fight back, protect your head and neck.	Seek medical attention for serious injuries or wounds.	If possible stay inside vehicle. Do not camp in Big Cat inhabited areas. Do not provoke. Be alert at all times.

Other Large Land Animals	Africa and Asia	Hippos, African Elephant, Rhinos, and Buffalo (Africa), Asian Elephants, Takin	Do not provoke. Do not startle.	Seek medical attention for serious injuries or wounds.	If possible stay in a vehicle. Do not camp near areas frequented by large animals. Stay alert and look out for the animals.
Snakes	Worldwide	Russel's Viper and Indian Cobra (India); Tiger, Black, Brown and Sea Snakes (Australia); Egyptian Cobra, Puff Adder, and Saw Scaled Viper (Africa); Ferdelance (Central and South America)	Do not pick up, disturb, or corner a snake. Move away from the snake.	Let the wound bleed freely for 30 seconds. Apply a cold pack sparingly. Do NOT tourniquet. Keep area immobilized at heart level. Take victim to hospital (alert ahead if possible).	Walk in open areas. Wear heavy boots. Use a stick to disturb the brush in front of you.
Type	**Location**	**Most Dangerous Species**	**Defensive Action**	**First Aid**	**Prevention**
Spiders	Worldwide	Funnel Web and Redback Spiders (Australia); Brazilian Wandering Spider, Brown Recluse, and Tarantula (South America)	Do not pick up or disturb a spider.	Clean wound and put a cool pack on the area. Keep area immobilized at heart level. Take victim to hospital (alert them first). Kill spider for positive ID (if possible).	Use care around rock piles, logs, bark, outdoor privies, and old buildings. Shake out clothing and bedding before use. Wear closed shoes. Wear gloves when working outside.

Scorpions	Worldwide, especially North Africa, the Middle East, South America, and India	All	Avoid contact with scorpions whenever possible. Do not pick up or disturb scorpions	Clean wound and put a cool pack on the area. Keep area immobilized at heart level. Use painkiller or antihistamine if desired. Seek medical attention if no signs of improvement.	Always shake out clothing and bedding before use. Avoid lumber piles and old tree stumps. Wear closed shoes. Wear gloves when working outside.

4. Diseases

General Hazards

There are diseases caused by viruses, bacteria, fungi, and parasites cause diseases in nearly every location worldwide. Some diseases, which are carried or transmitted by an animal, are known as “vector-borne” diseases. Where appropriate, the scientific name of the disease organism, or vector, is included in italics in tables 7 and 8.

This guide is not intended to cover every health risk in every location, but it provides information about some common diseases.

Always check with your health care provider, or the Schiffert Health Center Travel Clinic before travelling out of the country to learn about specific health risks for the region in which you will conduct your research.

All field researchers, regardless of the work location, should read through Table 7 to learn more about some general diseases that exist worldwide. If your research is in North America, please also read Table 8. If your research will take you out of North America, please also read Table 9.

Table 7. Diseases Found Worldwide

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
Food-borne: Campylobacter	Worldwide	Poultry Products, unpasteurized milk or water contaminated with *Campylobacter*	Diarrhea Gastrointestinal symptoms Fever	Drink plenty of fluids. Seek medical attention if symptoms persist for longer than 3 days.	Always cook food thoroughly. Never drink water from an impure source. Do not drink unpasteurized milk Wash hand with soap and water frequently.
Food-borne: Cholera	Africa, Asia, Latin America	Contaminated food and water contaminated with *Vibrio cholerae*	Diarrhea Gastrointestinal symptoms	Drink plenty of fluids. Seek medical attention if symptoms persist for longer than 3 days.	Always cook food thoroughly. Never drink water from an impure source. Wash hands with soap and water frequently.
Food-borne: *E. coli*	Worldwide	Beef, unpasteurized milk, unwashed raw vegetables, contaminated water	Diarrhea Gastrointestinal symptoms	Drink plenty of fluids. Seek medical attention if symptoms persist for longer than 3 days.	Always cook food thoroughly. Wash vegetables before consuming. Never drink water from an impure source. Wash hands with soap and water frequently
Food-borne: Hepatitis A - **Vaccine available**	Worldwide (under-developed countries)	Contaminated water, shellfish, unwashed raw vegetables	Diarrhea Gastrointestinal symptoms	Drink plenty of fluids. Seek medical attention if symptoms persist.	**Obtain a vaccine.** Consult with your doctor at least 1 month prior to departure. Always cook food thoroughly.

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
					Wash vegetables before consuming. Never drink water from an impure source. Wash hands with soap and water frequently.
Food-borne: Salmonella	Worldwide	Beef, poultry, milk, eggs, unwashed raw vegetables	Diarrhea Gastrointestinal symptoms	Drink plenty of fluids. Seek medical attention if symptoms persist.	Always cook food thoroughly. Wash vegetables before consuming. Wash hands with soap and water frequently.
Food-borne: Typhoid Fever - **Vaccine available**	Worldwide	Contaminated water, shellfish, and unwashed raw vegetables.	Diarrhea Gastrointestinal symptoms	Drink plenty of fluids. Seek medical attention if symptoms persist more than 3 days.	**Obtain a vaccine**. Consult with your doctor at least 1 month prior to departure. Always cook food thoroughly. Never drink water from an impure source. Wash hands with soap and water frequently.
Histoplasmosis	Worldwide (especially Miss. & Ohio River Valleys)	Inhalation of fungus *Histoplasma capsulatum* from soil contaminated with bat or bird droppings	Mild flu-like symptoms Occasionally can turn into acute pulmonary histoplasmosis	See a doctor if you suspect histoplasmosis. Typically clears up in 3 weeks.	Use caution when disturbing dry soils or working near bat or bird droppings. Keep surfaces wet to reduce dust. PPE may be needed (Consult EHS)
Leptospirosis	Worldwide	Ingestion, swimming, or other activities in water that is contaminated with the *Leptospira* bacteria. Contact with infected animal blood or body fluids.	Flu-like Occasionally more serious symptoms such as high fever, headache, meningitis, vomiting, jaundice, liver and kidney failure.	See a doctor if you suspect leptospirosis.	Use care when working in the water, especially after a flooding event. Avoid entering the water with open wounds. Handle potentially infected animals with gloves.
Bubonic or	Worldwide	Flea-borne (bites) -	Flu-like	See a doctor if you suspect	Use care when working in areas where

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
Sylvatic Plague		Fleas are infected by rodents with *Yersinia pestis.* Direct contact with infected tissues or fluids from sick or dead animals.	Nonspecific Swollen and painful lymph nodes (bubonic)	plague.	plague is found. Use caution and wear PPE when working with wild rodents. Wear gloves and wash hands frequently
Rabies - **Vaccine available**	Worldwide	Infection from bite of animal infected with *Lyssavirus* (Typical carriers are raccoons, skunks, bats, foxes, coyotes, dogs, and cats) Bat bites may be difficult to see and may not be felt. Exposure is also possible when a bat is found in living or sleeping quarters.	**FATAL** (within days of onset of symptoms) without immediate treatment. Early – fever, headache, malaise, spasms. Later – insomnia, anxiety, confusion, paralysis, hallucinations, difficult swallowing, fear of water	Disinfect and wash the wound and then see a doctor **IMMEDIATELY** if bitten by a rabies-carrying species (e.g. bats, carnivores). If possible collect the animal for testing. Seek medical attention immediately **EVEN** if you are vaccinated as you may still need a post-exposure booster.	**Obtain the vaccine** series if you will be working with bats or other carnivores. Use extreme caution handling these animals, wear thick gloves and other PPE. Vaccinate pets
Tetanus - **Vaccine available**	Worldwide	A wound becomes infected with *Clostridium tetani* and the toxin produced attacks the nervous system.	Early – lockjaw, stiffness in neck and abdomen, difficulty swallowing Later – painful muscle spams, seizures, nervous system disorders	See a doctor for any wounds (punctures, crushing, burns, frostbite) contaminated with dirt, feces, or saliva.	Obtain a tetanus shot every 10 years and immediately follow-up with any wound suspected to be contaminated.
Typhus Fever	Worldwide	Infection from bite of lice, fleas, ticks, or mites infected with	Headache Fever Rash	See a doctor if you suspect typhus fever. Treatable with antibiotics	Use insect repellents. Wear long sleeved shirts. Tuck pants into boots.

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
		Rickettsiae species			
Human Immuno-deficiency Virus / Acquired Immune Deficiency Syndrome (HIV/AIDS)	Worldwide	Exposure to blood or body fluids infected with HIV (or SIV – from non-human primates) Having sex or sharing needles with someone infected with HIV	Flu-like symptoms for 14-60 days post infection Attacks the immune system and may eventually result in opportunistic infections or cancers.	None Blood test needed for diagnosis Treatment with antiretroviral drugs for long term maintenance.	Strictly adhere to blood borne pathogen training when handling any unfixed human or non-human primate blood, body fluids or tissue. Do not engage in risky activities.
Influenza (seasonal)	Worldwide Pandemic strains have been reported in Africa, Asia, Europe, Near East, Mexico and occur primarily in in birds.	Inhalation of the virus from infected people OR Direct contact with birds infected with influenza.	Fever (usually high) Headache Extreme tiredness Dry cough Sore throat Runny or stuffy nose Muscle aches Stomach symptoms (nausea, vomiting, diarrhea) more common in children.	Flu antiviral drugs can treat or prevent infection but should be started within 48 hours of getting sick. Antiviral drugs can be 70-90% effective in preventing infection Seek medical attention.	**Annual flu vaccine** Cover your nose or mouth when you cough and sneeze. Wash hands with soap and water frequently or with alcohol based sanitizer. Stay away from people who are sick Avoid unprotected contact with birds, especially in areas of concern. If you get sick, stay home.
Norovirus "Norwalk-like viruses" (NLV) Gastroenteritis	Worldwide	Foodborne – food, water, surfaces or objects contaminated with *Norovirus.* Direct contact with another infected person	Nausea, Vomiting, Diarrhea, Stomach cramping Some people also have a low-grade fever, chills, headache, muscle aches, malaise	Stay hydrated	Wash hands with soap and water frequently. Wash fruits/vegetables & steam oysters. Clean and disinfect contaminated surfaces immediately after illness using bleach-based cleaner. Wash contaminated clothing or linens.

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
Anthrax – *Bacillus anthracis*	Worldwide - most commonly seen in ruminants, also occurs in horses and pigs and rarely in dogs and cats.	Anthrax spores found in soil. Infection can be transmitted by contact with infected animals or animal products. Can enter directly through cut/abrasions or by breathing in anthrax spores from infected animals products (wool, hides, etc.) Humans can also develop gastrointestinal infection by eating undercooked meat from infected animals.	Animals – Sudden death with little bloat, exhibit little rigor mortis, and bleed discharge that do not clot. Human - skin: most common, localized, painless ulceration w/ central black scab. Human – Pulmonary: flue like with subsequent development of respiratory distress and failure. Human – Intestinal/GI: Rare, fever, anorexia, vomiting, and bloody diarrhea.	Seek Medical Attention	Get the Vaccine (if at high risk) If suspected in animals then do not disturb the carcass and do not perform a necropsy. Wear gloves and closed shoes and long clothing. Wash hand with soap and water frequently. Avoid suspected infected animals or wear mask. Always cook meat thoroughly. Avoid any unfixed animal skin from endemic countries (i.e. natural drum skins, or artifacts).
Brucella – *Brucella spp.*	Worldwide - Occurs in cattle, buffalo, dogs, goats,	Ingestion of unpasteurized milk or chees. Direct contact of wounds or mucous	Animals – Abortion, testicular infection, arthritis. Humans – Flu-like,	Seek Medical Attention	Wash hands with soap and water, especially after handling animals. Do not drink raw unpasteurized milk. Wear gloves, mask, and overalls Apply ABSL-3 protocols when working

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
	and pigs. Rarely in rodents, horses and dogs.	membranes with placental tissues, vaginal secretions, blood, urine, etc. Inhalation of aerosolized organisms.	recurrent fevers, extreme fatigue, arthritis. Occassionally abortion and testicular inflammation.		with potentially infected animals.
Q Fever (Coxiellosis) – *Coxiella burnetii*	Worldwide – Primarily found in cattle, sheep and goats but also found in other wildlife, livestock and pets	Transmission usually occurs by inhalation of contaminated dried placental material, birth fluids, and excreta from infected animals. It can also be transmitted trough the consumption of unpasteurized milk or in rare cases through tick bites.	Animals – Normally none, rarely abortions in sheep and goats. Humans – Sudden onset of high fever lasting 1-2 weeks, severe headaches, weakness, muscle pain, nausea, vomiting, adominal or chest pain.	Seek Medical Attention People with cardiac valve issues are at increased susceptibility.	Always wear gloves and face mask when handling placenta, birth fluids, neonates, and when cleaning birthing areas. Use disposable coveralls and boot covers while working in and around birthing areas. Utilize boot sanitization stations and autoclave clothes from personnel involved in handling potentially infected individuals. Wash hands with soap and water after handling animals. Do not drink raw unpasteurized milk.
Giardia – *Giardia lamblia*	Worlwide – Found in soil, food, water, or surfaces contaminated by feces of infected humans or animals.	Most commonly ingested both directly and indirectly through objects contaminated with feces. Especially water sources.	Diarrhea, gas/flatulence, abdominal cramps, nausea, “greasy” appearing feces.	Treatment not always necessary as the infection usually resolves itself. If persistent or acute seek medical attention. Stay hydrated	Avoid drinking natural water sources or likely contaminated sources. Filter or boil all questionable water. Always wear gloves if in contact with fecal material.

Table 8. Diseases Found in North America

Type	Location	Exposure Route	Symptoms	First Aid	Prevention

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
Coccidiodo-mycosis – "Valley Fever"	North and South America: Arid Regions	Fungus is inhaled when soil is disturbed. Coccidioides	Flu-like symptoms Occasionally becomes severe lung disease	See a doctor if you suspect Valley Fever.	Use caution when in close contact with soil or dust and keep surfaces wet to reduce dust. African Americans, Filipinos, and immuno-compromised are at greater risk than others.
Encephalitis	North and South America (St. Louis Encephalitis) and the U.S. (West Nile Virus)	Infection from bite of an infected mosquito	Mild: Fever and headache Severe: Headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and, very occasionally, death	Seek medical attention immediately if you suspect encephalitis.	Use repellents. Wear long pants and long sleeved shirts. Avoid being bitten by mosquitoes. Avoid areas of standing water where mosquitoes breed.
Lyme Disease	United States, Europe, and Asia	Infection through the bite of an infected tick Borrelia burgdorferi	Spreading rash Early: Flu-like symptoms Later: Arthritis and neurologic problems	See a doctor if you suspect Lyme Disease.	Avoid tick-infested areas. Wear long pants and long sleeved shirts. Use a repellent. Check clothing and hair for ticks and remove any ticks.
Rocky Mountain Spotted Fever	United States, southern Canada, Mexico, and Central America	Infection through the bite of an infected tick Rickettsia rickettsii	Sudden onset of fever, headache, muscle pain, spotty rash	See a doctor if you suspect Rocky Mountain Spotted Fever.	Avoid tick-infested areas. Wear long pants and long sleeved shirts. Use a repellent. Check clothing and hair for ticks and remove any ticks.
Hantavirus Pulmonary Syndrome	North America	Inhalation of dusts or aerosols from the infected rodent's feces,	Early (1 to 5 weeks): Fatigue, fever, muscle aches, and sometimes	Seek medical attention IMMEDIATELY if you suspect HPS. The	Avoid contact with rodents, especially their feces. Wear Appropriate PPE if working around

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
(HPS)/ Sin Nombre Virus		urine, or saliva Vector: Deer mouse (Peromyscus maniculatus)	headaches, dizziness, chills, and abdominal problems Late (4 to 10 days after early symptoms): Coughing, shortness of breath.	likelihood of survival is greatly increased with early diagnosis and treatment.	or handling rodents. See page 10 for details on how to clean and dispose of a rodent infected area.
Arenavirus (White Water Arroyo—WWA)	North America	Inhalation of dusts or aerosols from infected rodent's feces, urine, or saliva; Carried by Woodrats (Neotoma fuscipes) and other Neotoma species.	Fever Headache Muscle aches Severe respiratory distress (occasionally)	Seek medical attention IMMEDIATELY if you suspect WWA. The likelihood of survival is greatly increased with early diagnosis and treatment.	Avoid contact with rodents, especially their feces. Wear Appropriate PPE if working around or handling rodents. See page 10 for details on how to clean and dispose of a rodent-infected area.

Table 9. Diseases Found Primarily Outside of North America

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
Dengue Fever	Africa, Southeast Asia and China, India, the Middle East, South and Central America, Australia and the Pacific Islands	Infection from the bite of an infected mosquito	Flu-like symptoms Rash Takes up to 1 month to recover.	See a doctor if you suspect Dengue Fever.	Wear long sleeved shirts and long pants. Use repellents. Use a mosquito net.
Malaria - **Effective Prevention with Proper Drug Regime**	Central and South America, Hispaniola, Africa, India, Southeast Asia, the Middle East, and Oceania	Infection from the bite of an infected mosquito	May take 10 to 30 days for symptoms to appear. Flu-like symptoms Anemia Jaundice Can be fatal.	See a doctor if you suspect Malaria	Visit doctor 4 to 6 weeks before travel for anti-malarial drugs. Wear long pants and long sleeved shirts. Use repellents. Use a mosquito net esp. at night.
Yellow Fever - **Vaccine Available**	South America and Africa	Infection from the bite of an infected mosquito	Flu-like symptoms Jaundice Can be fatal.	See a doctor if you suspect Yellow Fever.	Visit doctor at least 10 days before travel for vaccine. Wear long pants and long sleeved shirts. Use repellents Use a mosquito net.
Hantavirus and Arenavirus	Central and South America and Asia	Inhalation of dusts or aerosols from the infected rodent's feces, urine, or saliva	Fever Headache Muscle aches Severe respiratory distress	Seek medical attention IMMEDIATELY if you suspect hanta or arenavirus. Early	Avoid contact with rodents, especially with their feces. Wear appropriate PPE if working around or handling rodents.

Type	Location	Exposure Route	Symptoms	First Aid	Prevention
		Vector: Rodents; especially Neotoma and Peromyscus species	(occasionally)	treatment greatly increases the odds of survival.	See page 10 for details on how to clean and dispose of a rodent infected area.
Schistomiasis	Brazil, Egypt, sub-Saharan Africa, southern China, the Philippines, and Southeast Asia	Transmitted by swimming in contaminated fresh water	Can be asymptomatic. Acute: (2 to 3 weeks) Fever, lack of appetite, weight loss, abdominal pain, weakness, headaches, joint and muscle pain, diarrhea, nausea, and cough Chronic: Disease in the lungs, liver, intestines, or bladder	See a doctor if you suspect schistomiasis.	Avoid freshwater wading or swimming in endemic regions. Heat bath water over 50°C for at least 5 minutes before use.

Other Diseases (Vector-Borne)

Many other vector-borne diseases may pose a problem when travelling out of the country. Always check with the health department to learn the specific threats in your location of study. Some other vector-borne diseases include:

A. African Sleeping Sickness: carried by the tsetse fly in Africa

B. Chagas Disease: transmitted by the Triatomine (“Cone-nosed”, “Kissing” or “Assassin”) bug in Central and South America

C. Encephalitis: carried by mosquitoes in Asia and eastern Russia

D. Leishmaniasis: transmitted by sand flies in the tropics and subtropics

E. Filariasis: carried by mosquitoes in the tropics

F. Onchocerciasis causes “river blindness” and is carried by black flies in Africa, Arabia, and Central and South America.

Other Diseases (General)

There are other diseases to be aware of when travelling outside the United States. While risk of infection is generally low, it is important to be aware of them and take appropriate precautions to guard against diseases such as tuberculosis, HIV/AIDS, SARS, and viral hemorrhagic fevers. Always check with your health care provider to learn more about specific diseases that exist in the region where you will be conducting your research.

5. Resources

Many available resources may provide more in-depth information regarding your research environment. Please use the references in this section for further information on topics discussed in this manual.

On Campus

Environmental Health and Safety (EHS) actively promotes a positive, responsible, integrated safety culture at all levels of the university community, advocates providing a safe and healthy living, learning, and working environment for all, and assists departments with complying with regulations and mandates. They can be reached at 540-231-3600 or online at *www.ehss.vt.edu*.

Occupational Safety and Health (OSH) serves all university members by helping to create a safe and healthy work environment through the promotion of occupational safety, fire safety and occupational health programs. OSH staff also performs industrial hygiene monitoring and evaluations of potential health hazards, and assist with the development of controls to reduce or eliminate exposure to these hazards. They can be reached at 540-231-5985 or online at *www.ehss.vt.edu.*

Schiffert Student Health Center provides patients with a broad spectrum of care that is both preventative and curative. Services include care for acute illnesses and injuries, as well as more chronic conditions. The health center can be reached at 540-231-6444 or online at *http://www.healthcenter.vt.edu.*

The Office of Export and Secure Research Compliance (OESRC) can assist with export and sanction determinations related to your international travel. They can provide helpful information concerning international travel procedures and best practices to ensure compliance with federal regulations. OESRC can also provide assist with waivers and travel insurance. They can be reached at 540-231-6642 or online at *http://www.oesrc.researchcompliance.vt.edu*.

The Office of Research Compliance (ORC) provides professional administrative and support staff to oversee university community compliance with applicable laws, regulations, and guidelines associated with research and teaching at Virginia Tech. Compliance assurance in all of the affected areas is required to ensure continued permission by the Government to conduct research at our institution. Information is available online at *http://www.researchcompliance.vt.edu* or individual committee information is available

online at: Institutional Animal Care and Use Committee (IACUC) - *http://www.acc.vt.edu*, Institutional Review Board (IRB) - *http://www.irb.vt.edu*, Virginia Tech Institutional Biosafety Committee - *http://www.irb.researchcompliance.vt.edu.*

The Benefits and Wellness Office is available for questions about workers' compensation coverage and injury reports. They can be reached at (540) 231-9331 or online at *http://www.hr.vt.edu/benefits*.

First Aid/CPR Training is available on campus from the Virgnia Tech EHS 540-231-3600 and the Virginia Tech Rescue Squad 540-231-7138.

Off Campus

First Aid/CPR Training is available from the American Red Cross. They can be reached at 919-489-6541 or online at *www.redcross.org*.

General: The Centers for Disease Control and Prevention (CDC) offers a web site that describes many topics related to travel, both domestic and international: *http://www.cdc.gov/travel*.

Travel Warnings: are issued when long-term, protracted conditions that make a country dangerous or unstable lead the State Department to recommend that Americans avoid or consider the risk of travel to that country. More information can be found online at *http://www.travel.state.gov.*

International Travel Vaccinations: The Virginia Department of Health – New River Health District can provide International travel consultations and vaccinations. They can be reached at 540-381-7100 or online at *http://www.vdh.state.va.us/LHD/newriver*.

Medical Information about a variety of illnesses, including dehydration, carbon monoxide poisoning, sunburn, excessive heat, hypothermia, and high altitude sicknesses, can be found on-line at *http://www.webmd.com.*

Diseases: The CDC offers more detailed information about many diseases on their web site at *http://www.cdc.gov/travel/diseases.htm.*

Weather: More information on extreme weather and how to protect yourself can be found from the National Weather Service at *http://weather.gov/safety.html*.

Impure Water: For more information about water-borne diseases, the CDC provides information on-line at *http://www.cdc.gov/healthywater/disease/*.

Hantavirus: The CDC has detailed information about hantavirus available at h*ttp://www.cdc.gov/ncidod/diseases/hanta/hps/noframes/generalinfoindex.htm*.

Hunting Season: To get more information concerning hunting seasons and regulations, contact the U.S. Forest Service on-line at *http://www.fs.fed.us/*.

Lyme Disease: The American Lyme Disease Foundation provides information about the disease at *http://www.aldf.com/*.

Poisonous Plants: More information about poison plants, including photos, can be found at *http://poisonivy.aesir.com/*

Virginia Tech
Fieldwork Safety Plan

This form or some other established Safety Plan (i.e. Federal, State, lab specific) should be completed by the Principal Investigator (PI), lead instructor, clinical coordinator, or Field Team Leader prior to commencement of activities. **The completed Safety Plan must be shared with all the members of the fieldwork team and kept on file on campus.** A single Safety Plan can cover multiple trips to the same location. The Safety Plan must be revised whenever a significant change to the location or scope of fieldwork occurs. The VT Office of Research Compliance (540-231-7678 or http://www.acc.vt.edu) and the Environmental Health and Safety Office (540-231-3600 or http://www.ehss.vt.edu) are avail able to assist in completion or review of the Safety Plan.

Principal Investigator/Lead Instructor/Clinical Coordinator Contact Information:	
Name:	
Department:	
Phone Number:	
Email Address:	

Dates of Travel: *(List multiple dates if more than one trip is planned.)*

Location of Fieldwork:	
Country:	
Geographical Site:	
Nearest City: *(Name, distance from site)*	
Nearest Hospital: *(Name, distance from site, phone number)*	

Type of fieldwork: (Please include a brief description of the type of work to be performed and list any animals handled.)

University Contact:	
Name and Phone Number:	
Local (Field) Contact	
Name and Phone Number:	

Communication Plan: (Describe planned communication, including frequency of contact with university and local contacts.)

Emergency Procedures: Please include detailed plans for field location, including evacuation plans and emergency communication. (Emergency contact information must be included for each participant in the participant list of the following page.)

First Aid Training: (Please list any team members who are trained in first aid and the type of training received.)

Physical Demands: (Please list any physical demands required for this field research; e.g., diving, climbing, high altitude.)

Risk Assessment: Please list identified risks associated with the activity or the physical environment (e.g., extreme heat or cold, wild animals, endemic diseases (human and zoonotic), travel risks, rough terrain, firearms, explosives, violence). List appropriate measures to be taken to reduce the risks. *Add additional rows or include a separate sheet if necessary.*

Identified Risks	**Controls**
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Travel Immunizations: (Please list required/obtained immunizations and prophylaxis).

Field Team Membership: (Please list the names, VT PIDs, and emergency contact information for all members of the field team, and identify the Field Team Leader.)

Participant name	**VT PID**	**Emergency Contact Name**	**Emergency Contact Phone number**
Team Leader:			
Team Members:			

Training Certification:
By signing below the Principal Investigator, Lead Instructor, Clinical Coordinator, or Field Team Leader verifies that he or she has shared the contents of this safety plan with all team members and that they are familiar with the risks, prevention measures, and emergency plans.

Signature	**Printed Name**	**Date**