Lab Field Safety Policies

SCAN ME

Keep a copy of this guide in all field vehicles. Be familiar with the Campus inclement weather policy.

General Field Work Guidelines

- Consider all potential safety hazards and risks before starting any field work
- Always have an "out": all field workers must have access to transportation and communication devices
- Field work should not be completed alone, plan for work to be done in pairs or groups (whenever possible)
- Keep a contact list available for all lab members and the PI, including emergency contacts.
- It is the responsibility of the PI or Lab Manager to coordinate field work. Evaluate field work load to ensure there are no less than 2 people completing a task or going to a given location. Evaluate staff load to not repeatedly exceed work hour limits
- Ensure access to water, food, and restroom facilities. If there will not be access to these items, then it needs to be communicated to those traveling to the location 24 hours in advance and breaks must be provided to seek out such facilities and resources
- Do not work in inclement weather (extreme heat, thunderstorms, flooding, tornados, etc.) Campus inclement weather policy.

Common emergencies

See below for what to do in common emergencies you could have in the field. If you have a life-threatening emergency, **always call 911** or go to the nearest emergency room.

Contact with police

Anyone can get pulled over, and the more you drive the more likely you are to get pulled over. Your supervisor is not here to judge your driving, and the lab's primary concern is always your safety. If you need a witness during an interaction with police, you can call your supervisor. If you feel uncomfortable about the interaction, you can call your PI directly after to notify her of what happened and for help problem solving.

Your supervisor will support you in making a plan to help you feel safe after the interaction and in the future. This could include changes to field work planned for that day, in the future, or

changes in other travel plans. Your safety will always be prioritized over collecting data or getting field work done.

All drivers are personally responsible for citations, which do not have to be reported if there were no injuries or damage to vehicles or property.

Car problems or accidents

Fleet policies are required reading when requesting permission to drive a UW vehicle. **An information packet with reporting instructions and a Vehicle Incident Report are located in the vehicle glove box.**

If you have **car problems** (in a UW vehicle), call UW Fleet at **608-262-1307** or **888-777-7181.** Fleet will cover towing and repair but not extra travel expenses for you (such as hotel). They will also arrange to get you an alternative vehicle if possible. Contact your supervisor to inform them about the situation and for help problem solving if necessary.

If you get in a **car accident,** call 911 immediately if injuries are involved. Do not make any statements of fault or blame to third parties. After addressing any injuries, call your supervisor to inform them of the situation so they can help with reporting or interacting with police. **All accidents are required to be reported to UW-Madison Risk Management within 24 hours, reported to local law enforcement and a police report requested, and reported to UW Fleet (if in a Fleet vehicle). A Vehicle Accident Report must also be filled out.** Injuries are covered by worker's compensation if you are in a UW vehicle (via Risk Management) but are covered by your own health insurance if you are in a personal vehicle. If in a personal vehicle, you must report the accident to your personal car insurance company.

Heat exhaustion

Always carry water with you and drink regularly while in the field. Wash your hands before drinking and eating to avoid possible pesticide exposure. Wear cool, loose, light colored clothing if possible. If you can, try to work in cooler parts of the day.

Symptoms of heat exhaustion: cool skin, heavy sweating, faintness or dizziness, fatigue, weak or rapid pulse, muscle cramps, nausea, headache

If you experience symptoms of heat exhaustion, stop working, find a shady or cool spot, and drink water. Contact your supervisor or your site contact (grower, etc.) to notify them you feel unwell, especially if you are working alone. Rest until you feel better, and make sure someone checks on you frequently. If you do not feel better, you may need to stop working or go home early. Call your supervisor if you do not feel well enough to drive.

Biting or stinging arthropods

Since we encounter insects in the field, being stung or bitten is common. It is possible for anyone to develop a severe allergic reaction even if you have not had one before.

Symptoms of severe allergic reaction: hives, severe itching flushed or pale skin, swelling, airway constriction / trouble breathing, dizziness, nausea, vomiting

If you have a severe reaction to an insect sting/bite you may wish to seek medical attention. Contact your supervisor or your site contact (grower, etc.) to notify them you feel unwell, especially if you are working alone.

Tick bites

Multiple tick species are common in Wisconsin. Blacklegged / deer ticks (*Ixodes scapularis*) can spread Lyme disease, but other tick-borne diseases are also present in the region. Download the Tick App for help identifying ticks.

How to remove a tick: use clean tweezers to grab the tick as close to your skin as possible and pull straight up. If the mouthparts break off, remove them with tweezers. Clean the area with alcohol or soap and water. Monitor the area for symptoms of Lyme disease.

Symptoms of early Lyme disease: bulls-eye rash, fever, chills, headache, fatigue, muscle and joint aches, swollen lymph nodes

If you suspect you were bitten by a tick or have any of the symptoms of Lyme disease, contact your health care professional for treatment.

Contact with poisonous plants

There are multiple species of plants present in Wisconsin which can cause severe reactions by skin contact with the plant or contaminated objects. Species include poison ivy, poison sumac, and wild parsnip. Learn to identify these plants so you can avoid coming into contact with them.

If you contact poison ivy or poison sumac, wash the area with water and soap (such as dish soap), Technu (or equivalent product), or alcohol immediately to avoid spreading the irritating oil on your body, clothes, or other surfaces you contact. Wash any contaminated clothing, shoes, or gear with detergent multiple times. If you contact poison ivy or sumac without knowing, you may develop a severe rash within a few days or weeks.

If you contact wild parsnip, cover the area immediately as it causes phytophotodermatitis, which causes your skin to become extremely sensitive to sunlight. Wash the area thoroughly with soap and water and avoid sunlight.

Driving safety

Driving safely is a priority. If you feel unsafe or too tired to drive back from your field site, find the closest accommodation and discuss reimbursement with your supervisor. Your supervisors will *always* be supportive if you feel you cannot drive safely.

Field work housing

Supervisors should help researchers secure *safe* housing near their research site, if applicable. Safe housing includes being able to secure food, transportation to and from field sites, and supportive points of contact in the local community. If you feel unsafe at the designated lodging facility you are staying at, find alternate accommodations immediately and discuss reimbursement with your supervisor.

What to do before you leave for the field

Make sure you are in communication with your supervisor or another point of contact in the lab before you leave for the field.

- Check with the grower / site manager of your sites **the day before you go to the field** to make sure it's safe to enter the field (**and** that you are not entering a field recently sprayed with pesticides). Notify your contact to tell them when you're coming
- Let people in your lab know where and when you are in the field
    - Update your lab's calendar (if applicable) with when you are using the lab vehicles and which field sites you will visit each day
    - Supervisors should always know where their supervisees are and approximately when they should return
- Implement the buddy system
    - Always take someone to the field with you if possible, especially at remote field sites
    - If it is not possible to have a buddy, select someone to check in with you to make sure you are safe. Make a plan with your point of contact and be clear about when you will check in.
- Go over the Field Supplies Checklist (see list at end of document)

How to report unacceptable behavior

The University of Wisconsin Department of Agronomy does not tolerate discrimination, harassment, hostile and intimidating behavior, micro aggressions, sexual harassment, retaliation or academic / research misconduct. If you experience any of these behaviors, you can report them to your supervisor or PI. If you do not feel comfortable reporting to these people or they have not been receptive to your complaints, contact the department/program chair or the graduate program manager.

Uncomfortable conversations with stakeholders

If you find yourself in an uncomfortable conversation with growers or stakeholders (personal, political, etc.), you can always change the subject. You do not have to discuss anything you're not comfortable with or anything that makes you feel unsafe or uncomfortable. You can always defer to your supervisor / PI by saying something like "I am not at liberty to talk about this, but you can contact [supervisor]" or "It's not appropriate for me to discuss this in my professional role."

Talking about your research with stakeholders

Make a 1-page pamphlet explaining your research that you can hand out to stakeholders or others who ask what you are doing.

Responsibilities of supervisors

Self-education about field safety risks

It is the responsibility of supervisors (PI's; grad students and post-docs when applicable) to *self-educate on the risks that their team members may encounter in the field*, including politics, demographics, and culture of the areas surrounding field sites the lab uses. Use the resources available to you (see the Field safety education resources list), and refrain from asking team members to relive trauma surrounding their identity.

Starting and continuing dialog about field safety

Supervisors are responsible for starting and continuing a dialog about field safety with students/researchers. As students/researchers join the lab, it's the supervisor's responsibility to start a dialog about what their field work conditions might look like, including time spent in the field and what each students/researchers working limits might be. The supervisor should emphasize that they will work together with the student/researcher as they develop their project to make sure they are comfortable with the work they need to do. This should be an ongoing dialog.

During the field season, supervisors should *frequently* check in with students specifically about how comfortable they are with their field work. Please highlight and discuss potential risks that team members may encounter in the field, including politics, demographics, and culture of the areas surrounding field sites the lab uses. Supervisors may be unaware of all possible risks to researchers that don't share identities with the supervisor. If your student/researcher brings up an experience, *always validate their experience* and work with them to modify their project so they can do their research safely.

Introduce your supervisees to field sites

When possible and as appropriate, supervisors should make initial introductions of researchers to site managers, field station employees, cooperating landowners, growers, etc. when they start their project. Provide updated contact information for all personnel involved and landowners/hosts. Ideally, the supervisor will also introduce the student/researcher to established field sites to go over possible safety concerns and history specific to each site.

Yearly field season preparation checklist:
Before each field season, make sure everything on this list is updated.

- Update all contact information
- Re-stock and check expiration of first aid kits
- Update safety plans for continued field sites including record of incidents
- Update field work fact sheets / official letters
- Update field safety guide binders to put in lab vans
- Pre-season field safety meeting:
    - All lab members are required to read the full field safety guide before attending this meeting
    - All lab members that will drive a UW vehicle must review Fleet policies
    - All lab members must complete the following required trainings:
        - Worker Protection Standard (WPS; administered through UW, required every year)
        - Heat exhaustion video
    - Work with students to fund or facilitate additional training they feel will make them safer (self defense, first aid, wilderness first aid, etc.)
    - Open dialog about safety concerns, address ways to bring up concerns if not comfortable in this meeting
    - Be clear that certain demographics may be at higher risk in the field, and provide space for those people to bring up concerns with their supervisor
    - Ensure that researchers are comfortable doing their field work alone (if necessary) or establish buddy system
    - Lab vehicle sign up (lab calendar)
    - Vacation planning (plan ahead of time, communicate, and put it on the lab calendar)

Field supplies checklist

Items that stay in the lab vehicles:

- Safety/first aid kit
    - Pain killer
    - Technu or equivalent product for poison ivy and sumac
- Field safety guide binder
    - Printed version of field safety guide
    - Letter explaining research on UW letterhead
    - PI's business card
    - Lab emergency contact list
    - Field site emergency contact list
    - UW Fleet contact
- Van battery pack / air compressor
- Sunscreen
- Bug spray
- Flashlight
- Extra gallon of clean drinking water
- Wash station kit: another gallon of clean water, soap, hand sanitizer, paper towels
- Road Atlas or GPS navigation system

Personal items to bring with you:

- UW car magnets for personal vehicle (Ask your PI or HR about ordering)
- Safety vests
- Drinking water
- Cell phone and charger
- Debit or credit card
- Driver's license, UW identification, other ID if applicable
- Health insurance card
- Allergy or blood type information if applicable
- Any medication you need (such as Epi-Pen)
- Emergency contact info

Field safety education resources

Students and researchers face variable levels of risk while doing fieldwork. Additional risks can arise based on their identities and the fieldwork location. It is the responsibility of supervisors (PI's; grad students and post-docs when applicable) to self-educate on the risks that their team members may encounter in the field, including politics, demographics, and culture of the areas surrounding field sites the lab uses. Use the resources listed here. Refrain from asking team members to relive trauma surrounding their identity.

Publications & articles related to academia:

- This paper by Demery & Pipkin defines at-risk individuals, provides numerous example situations of experiences of at-risk individuals, and discusses safety strategies in-depth
    - See reference section VII for a list of useful resources.
- This article surveyed people who do fieldwork and reported high frequencies of harassment and assault, especially of trainees who identify as women
    - "Adopting principles of community, role-modeling, and embracing the collective action of support and respect can generate the culture change needed to prevent perpetrators from harassing and assaulting our most vulnerable colleagues – our trainees. **Supervisors are the primary determinants of workplace culture [56,57]. Therefore, principal investigators have the greatest power and responsibility to steward field sites that foster worker wellbeing and thus promote productivity and retention of junior scientists.**
- Scientists push against barriers to diversify in the field of sciences
- This paper outlines some of the NSF funded pilot programs that are working to improve inclusion in geoscience (shows that many fields struggle with challenging field situations)
- Ten Steps to Protect BIPOC Scholars in the Field
- Field Team Leadership: Strategies for Successful Field Work (very good tips for general field safety)
- This article discusses the need for the scientific community to acknowledge and address issues such as unconscious biases, stereotypes, intolerance, and unfair power structures prevalent in science, especially those experienced by ethnic minorities
- Case study of inclusive learning communities enabling active participation in geoscience field courses for students with physical disabilities

Researcher experiences:

- Twitter thread & video about a Black researcher's experience doing fieldwork in the Midwest

Here is a lengthy, well-written story of sexual harassment in isolated national parks

This document has been prepared from a version passed in Entomology that was created by Christelle Guedot and her lab: Nolan Amon, Hanna McIntosh, Bonnie Ohler, Mitchell Lannan, Matthew Hetherington