

Best Practices in Field Safety and Accessibility

National Association of Marine Laboratories

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There are many things to consider when planning a field excursion or doing research in the field. This document gathers information from a variety of sources to assist laboratories and programs in developing protocols and plans to ensure that trips into the field are as safe and inclusive as possible for all parties and that those planning and participating in field excursions are aware of the different safety and individual needs of all members of the community.

Trips into the field may be as simple as an afternoon trip to an intertidal zone to make observations or collect samples. A trip may be more complex, involving travel to a remote location and a stay of several days. Some trips may involve a vessel on the water. The purpose of this document is to provide a structure for the best practices that can be used to carry out a field excursion that is safe and achieves its goals. The successful field activity will take planning and research to adapt to the particular needs of those involved. This is not everything that may need to be addressed but efforts should be made to accommodate individuals with specific needs, visible and invisible.

This document was developed by the NAML [Diversity, Equity, and Inclusion Committee](#) with input from the NAML [Education Committee](#) of the National Association of Marine Laboratories.

Background and Reading

A selection of important works have been published on the topic of field excursion safety and provide good background material to consider. Below are some recommended readings.

[NAML.org - DEI Resources](#)

ADVANCEGeo Partnership.

https://serc.carleton.edu/advancegeo/resources/field_work.html

An excellent resource that defines what field work is as a part of educational training, research environments, or professional employment. It explores the unique challenges of different field environments, and discusses harassment, bullying, and discrimination in the field. Inclusivity, accessibility, and safety are discussed and a code of conduct is provided.

A thoughtful and practical article. “We propose four general principles to guide equitable, inclusive, ethical, and safe practices in field biology: be collaborative, be respectful, be legal, and be safe.” Ramírez-Castañeda *et al.* (2022). A set of principles and practical suggestions for equitable fieldwork in biology. Proceedings of the National Academy of Sciences 119, <https://www.pnas.org/doi/full/10.1073/pnas.2122667119>.

A set of principles and practical suggestions for equitable fieldwork in biology
<https://doi.org/10.1073/pnas.2122667119>

A guide for developing a field research safety manual.

Rudzki *et al.* (2022). A guide for developing a field research safety manual that explicitly considers risks for marginalized identities in the sciences. *Methods in Ecology and Evolution*, 13, 2318–2330. <https://doi.org/10.1111/2041-210X.13970>

Report of the Workshop to Promote Safety in Field Sciences.

Kelly, A. and K. Yarincik (2021). This is a report of the Workshop to Promote Safety in Field Sciences that was organized by CSU Desert Studies and the Consortium for Ocean Leadership on 24-26 March 2021. The workshop resulted in 52 recommendations targeted at improving field science culture change, as well as misconduct accountability, policy, and reporting. Diversity, equity, inclusion, and justice (DEIJ) and training were additional cross-cutting topics. The recommendations focus on improving experiences for field participants of all backgrounds and identities. Appendix D: Pre-Expedition Checklist is particularly useful. <https://zenodo.org/records/5841983#.Ypvvh-zMJDM>

Best Practices in Field Safety and Accessibility

Summary of things to consider:

1. **Purpose.** Identify the purpose(s) of the field excursions and the audience/group.
2. **Planning.** There are numerous steps in the planning of effective and successful field excursions.
3. **Code of Conduct.** A code of conduct should be established. All participants should be aware of, understand and sign the Code of Conduct.
4. **Training.** Individuals identified as leaders in charge of the field excursions should have appropriate training in areas including, but not limited to field safety.
5. **Waivers of Liability and Insurance.** Your institution should have policies in place that deal with liability and insurance. Make sure you understand and are acting in accordance with your institution's liability and insurance policies.
6. **Incident Response and Reporting.** Establish clear mechanisms for the reporting of incidents.

Checklist for Safe and Effective Field Excursions

Many of the steps outlined below should be documented in writing.

1. **Purpose.** The purpose of the field excursions may be a standard part of a course or designed to collect information or samples from the field as a part of a research program or project. In any event, a written statement of the purpose(s) of the field excursion is important. Consider the makeup and the needs of the participants.
2. **Planning.** There are many parts to planning field excursions. Documenting these plans is important.
 - a. **Institutional Authorization and Approval.** Make sure that your field excursion is fully authorized and approved by your institution and that you have the appropriate documentation to establish this. If the field excursion is a part of a course, it should be approved by an authorized supervisor (e.g., a department chair) and it should be listed clearly in a course syllabus. If a field excursion is being executed as a part of a funded project, make sure all necessary documentation is in place.
 - b. **Identify Responsible Individual(s).** Establish who are the responsible persons (team leaders) on location in the field. Identify other team members and list their specific roles and duties.
 - c. **Obtain Necessary Permits.** Be sure to understand and follow the laws of the location in which the field activity will take place. Obtain necessary permits and documentation for visiting the field site. See Ramírez-Castañeda *et al.* (2022) for more details.
 - i. **Credibility of the Group.** The credibility of the group is especially important for research groups, for example groups conducting surveys. Anadu *et al.* (2020) recommend that investigators “provide materials to clearly identify researchers and their purpose (for example, signs for vehicles and field sites, safety vests and so on).” Demery and Pipkin (2021) recommend that researchers carry “an official letter of support for researchers doing fieldwork with contact information. This provides additional credibility to the researcher, if and when they are approached and challenged.”
 - d. **Safety and Diversity, Equity, Inclusion and Accessibility (DEIA) Plan.**
 - i. **Field Risk Management Plan.** Create a field risk management plan that discusses risks at the established field site(s); include risks associated with transportation to and from the field site. This plan should detail potential risks and identify mitigation(s) for that risk. All team members should have a conversation about the risks and preparations to minimize risk. There should be a campus or off-site phone contact for reporting purposes that is made available to all participants.
 - e. **Allow individuals to make informed safety decisions.** Provide pre-trip training and orientation to reduce and address anxiety, address invisible disabilities, neurodiverse individuals, mental and physical abilities. Different people may have different acceptable levels of risk with regard to potentially dangerous tasks like animal interactions (e.g., risk of zoonosis), water activities, etc. It can be difficult for less-experienced participants to “say no” in-the-moment. Therefore, ensure that all participants have enough awareness of all site-specific safety issues to make informed decisions about their own ability and desire to participate. Offering

- participants the option to communicate their anxieties to leaders privately before engaging in challenging tasks can foster a respectful and inclusive environment. This approach allows for flexibility in participation, enabling individuals to observe or take part as they feel comfortable, thereby enhancing the learning experience through personal challenge and alternative contributions, e.g., photo documenting the group from a safe vantage point. There should be a campus or off-site phone contact for reporting purposes that is made available to all participants, in case of problems or emergency situations.
- f. **Living Arrangements.** Discuss and understand potential sleeping, living, hygiene, and eating/drinking options with the goal of ensuring each individual feels safe with the accommodations. Examples/case studies: K-12 gender identified housing and the need to address shared housing preferences in housing applications.
 - g. **Access to Communication.**
 - i. Ensure that all team members have private access to communication devices. This may include a satellite phone. Include important contact information for emergency services (e.g., local hospital, emergency officers, supervisor contact information).
 - h. **Medical Emergencies.**
 - i. Establish what specific medical training for field emergencies the team members have. Also establish whether or not specific training is required.
 - ii. Establish what medical supplies are required.
 - iii. Ensure that team members have access to medical supplies.
 - iv. Establish if any participants have specific medical issues or needs.
 - i. **Gear, Supplies, and Shelter.** Make sure participants know what personal gear is necessary.
 - j. **Unwritten Rules.** Be sure that participants have awareness of local customs and are sensitive to the norms. These “Unwritten Rules” could be written and shared among the participants.

Example: There are “Unwritten Rules” in the angler community in south Texas that could create tensions with researchers if not followed. For example, don’t go full speed in your research boat within X meters of a wade fishermen or anglers that are parked in their boat at a spot, or don’t clog up the boat ramp by having to load up your gear... have it loaded beforehand.
3. **Code of Conduct.** Provide a Code of Conduct for all participants. Make sure all participants are aware of and understand the code. Allow for and encourage open discussions of rules and codes of conduct. Check with your institution on a code of conduct for your activity. If your institution does not have a code of conduct specifically for field activities, you should consider establishing one or revising/adapting the code that is already available. In this case, have the code approved by someone at your institution authorized to do so. Clearly defined and communicated rules and expectations for behavior are associated with safer and more productive field experiences (Nelson *et al.* 2017). Individuals should be encouraged to speak up if there are incidents that create an unsafe or noninclusive environment.

A Code of Conduct for field activities should address harassment (and especially sexual harassment), alcohol, and drug use.

Examples of Codes of Conduct for Field Work

- <https://liberalarts.tamu.edu/anthropology/resources/fieldwork-code-of-conduct/>
- <https://www.apecs.is/diversity-equity-inclusion/field-code-of-conduct.html>
- <https://earth.yale.edu/field-code-conduct>
- <https://researchsupport.admin.ox.ac.uk/files/ethicalfieldworkcodeofconductpdf-0>
- https://ssed.gsfc.nasa.gov/MajorRandAThemes/GIFT/docs/RISE2_GIFT_GEOD_ES_JointCodeOfConductTEMPLATE.pdf
- <https://www.asor.org/about-asor/policies/code-of-conduct-for-fieldwork-projects>
- https://www.southampton.ac.uk/quality/off_campus_learning/fieldwork-coc.page
- https://www.uts.edu.au/sites/default/files/codeofconduct_0.pdf
- <https://www.unols.org/committee/maintaining-environment-respect-aboard-ships-meras>

- 4. Training.** An individual or individuals are identified as being in charge of the field excursions. These individuals should have appropriate training in a number of areas including, but not limited to field safety. Things to consider include, but are not limited to the following.
 - a. Leaders should complete required institutional first aid training.
 - b. Leaders should complete required institutional harassment training.
 - c. Leaders should work through potential emergency scenarios before traveling to the field. They should identify individual obligations, including reporting and resources for witnesses of misconduct or emergency incidents.
 - d. Leaders should determine who is responsible for responding to a safety incident.
 - e. Leaders should model appropriate behavior.
- 5. Waivers of Liability and Insurance.** Your institution should have policies in place that deal with liability and insurance. Make sure you understand and follow these policies.
- 6. Incident Response and Reporting.** Ensure that all participants know how to respond to and report incidents that occur in the field. There are perhaps two different kinds of incidents that require response and reporting. One kind of incident may result from an accident that causes harm to a person or property. The other kind of incident may result from behavior that violates the Code of Conduct. These two types may overlap. Individuals should be encouraged to speak up if there are incidents that create an unsafe or noninclusive environment.

An incident that occurs in the field may require immediate and emergency action.

Acting on an emergency situation can require specialized training. Communicating an emergency situation requires unrestricted and private access to communication devices and access to transportation. Access to communication devices is mentioned above in the planning segment.

- a. *Reporting on an incident that causes harm to a person or property.* This kind of reporting should comply with your institutional rules and regulations. Knowledge of this information should be obtained in the planning process.

- b. *Reporting on violations of the Code of Conduct.* This kind of reporting is extensively addressed in the *Report of the Workshop to Promote Safety in Field Sciences* that is referenced at the beginning of this document.

EQUITY ISSUE CONSIDERATIONS AS THEY APPLY ABOVE

Assess risk at fieldwork localities:

Rationale: An inclusive risk assessment considers how local laws and attitudes, such as those related to race, gender, and sexual orientation, may impact the safety of individuals in the field (Prior-Jones *et al.* 2020). Conducting inclusive risk assessments helps supervisors and their team to consider the experiences of higher risk identities and to identify and react to incidents faster and more effectively (Anadu *et al.* 2020).

Example 1 - There are US states and countries where it is not safe to be doing fieldwork if LGBTQ+. <https://www.them.us/story/14-countries-illegal-to-be-transgender>

Example 2 - If someone was pregnant on the field trip - there are 14 states where medical care might be an issue - <https://www.hrw.org/legacy/women/abortion/us.html>

❑ *Action Item:* Conduct an inclusive risk assessment.

Example: [An inclusive risk assessment tool for travel and fieldwork](#) (Prior-Jones *et al.* 2020)

Interactions with the local community:

❑ *Action Item:* “Before field excursions, team leaders should reach out to local authorities, businesses, and community leaders, especially in white communities, to provide early notice of the diverse nature of their teams.” (Anadu *et al.* 2020).

❑ *Action Item:* Team members should practice and use the 5D strategy for bystander interventions: direct, distract, delegate, delay, document. The team should have a plan to exit dangerous scenes or to relocate the field party to a place of safety if other strategies fail.

More details at <https://righttobe.org/guides/bystander-intervention-training/>

Identification:

Safety response to name. List of everyone’s commonly used name and pronunciation in the event of an emergency. An understanding of the nuances of pronouns and other identifications to support communication of safety and a safe environment. The public use of birth given name (“dead name”) versus preferred name. Housing and camping roommate lists with a given name versus preferred name. Dead names are required for administrative use and should remain private.

Unrestricted Access to Communication and Reporting:

Rationale: All participants should have access to more than one emergency communication avenue and device. Diffusing the power that gatekeepers hold can reduce challenges associated with isolation (Woodgate *et al.* 2018).

Unrestricted Access to Emergency Medical Supplies in the Field:

When working in remote, isolated areas, Woodgate *et al.* (2018) recommend that “field trips be equipped with medical supplies to deal with assault (sexual or non-sexual) in the field (e.g., emergency medicines, including emergency contraception).” Woodgate *et al.* (2018) recommend that “...these supplies need to be made freely available to the science party (i.e., not via a leader or other gatekeeper), without the necessity of someone making a formal complaint of assault.”

Living Arrangements:

Examples and case studies: gender identified housing and the need to address shared housing preferences in housing applications.

Example 1 - A student is in the process of transitioning from their gender at birth to a different gender and they want to stay with a group of students that share their new gender. Housing applications can ask “Gender preferred to share housing?”. Permission may need to be asked of parents for K-12 housing.

Example 2 - A student with religious beliefs that do not allow the other gender to see their hair, but the dorms are such that they are mixed housing. It might be necessary to give the student a single room.

Example 3 - In a group tent camping arrangement, provide additional tents for students to self select tent mates or if possible individual tents.

Model policy from University of Massachusetts Amherst: “When an activity makes a gender designation, an individual who has transitioned to a different gender can participate in the division of the individual’s current gender. If an individual is in the process of transitioning to a different gender, participation in a particular gender designated activity will be handled on a case-by-case basis.”

<https://legacy.lambdalegal.org/know-your-rights/article/trans-supporting-students>

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