Field and lab work are valuable and enriching parts of the STEM curriculum. However, these experiences can also be exclusionary and explicitly unsafe for BIPOC and other researchers of marginalized identities. This checklist was adapted by the UMass Geosciences URGE group from work done by members of the Northeast Climate Adaptation Science Center (Nigel Golden, Ayodele O'Uhuru, Liam Zarri, and Kate Abott). In conjunction with the guidelines set forth by the UMass Geosciences Code of Conduct, this document is intended to be reviewed and implemented by all groups in the UMass Geosciences department each time they embark on a new field excursion.

Fieldwork Inclusivity Checklist

Before Leaving for the Field

1) Define Expectations

Before embarking on fieldwork it is the responsibility of the trip leader to define the expectations of all participants and inform participants of resources available to them should they have to deal with an incident of bias, harassment, discrimination, or assault.

- **Code of Conduct -** Make it clear that physical and verbal harassment will not be tolerated by having all participants sign a field specific code of conduct. In this code of conduct provide examples of microaggressions, put downs, and other subtle forms of hostile behavior, discrimination, and harassment, and then include them in the list of behaviors that will not be tolerated.
- **Reporting -** Make all participants aware of the avenues for reporting incidents of harassment in the field through the institution.

2) Identify Risks

Who has higher risk? Field leaders should be aware that marginalized identities are at higher risk for violence and harassment in the field, and researchers with at-risk identities may feel uncomfortable in certain field situations. Remember that not all places are safe for BIPOC, women, LGBTQ folks, and other groups of people. Just because you are not afraid to go somewhere does not mean your students or other lab group members feel the same.

- **Review Cultural History -** Look into the culture, history, and current mindset of the location you are going to and discuss the potential for uneven distribution of risk with field participants. Research LGBTQ rights and laws in foreign countries, and if queer identity is deemed illegal in the country where fieldwork will take place, inform all members of the research party. Based on your findings, identify situations that may cause high risk for marginalized people, such as airports,

asking for permission from landowners, and potential interactions with law enforcement.
- **Review Accessibility of Site Locations -** Assess the accessibility of your field sites and adjust your field plan to ensure that participants of all abilities may be able to access the site and participate in the planned field activities. This includes thinking about bathroom and personal needs for all participants.

3) Mitigate Risk and Exclusionary Practices

After identifying groups who are at higher risks, if you know you will be in situations that place these groups at risk, do everything you can ahead of time to mitigate these risks before arriving in the field.

- **Permits-** Get permits and permissions ahead of time. Make sure all participants have copies of them and other official documents stating the purpose of your presence. Provide emergency contact information as well as local contact information to participants.
- **Introductions-** Field leaders should reach out to communities before arrival. Introduce yourself and explain your activities to eliminate the fear of the unknown.
- **Plan Field Groups-** If you are in remote, rural, or unwelcoming locations for marginalized groups, do not ask targeted identities to work alone or in groups made up entirely of targeted identities. Make a plan to ensure that all at risk individuals are not left alone in dangerous situations.
- **Eliminate Financial Burden -** Provide all students the necessary gear they will need for fieldwork, including personal and safety gear. If there is a communal stash of gear, make sure there are sizes to accomodate all bodies. Use a university credit card to pay for expenses and do not expect students to front cash.
- **Equipment Testing -** Train all participants on equipment usage before getting into the field. Ensure everyone has equal knowledge of the equipment to ensure equal opportunities for participation in the field.
- **Itinerary -** Create and widely distribute a detailed itinerary and packing list so everyone knows what to expect. This should include hard copies of contact information of all participants.
- **First Aid/Wilderness First Aid Training -** Prior to leaving for the field, at least two members of the field group should be properly trained in first aid or wilderness first aid, depending on the remote nature of the field area. The university should pay for these expenses.

During Fieldwork

A clear communication plan between field crew members and supervisors should be established, with emergency contingency plans discussed in advance of fieldwork to minimize harmful situations during fieldwork. Additionally, a clear incident reporting plan should be established and made known prior to fieldwork. Efforts to secure field safety with regard to public interactions should be made by the supervisor in advance, as people with marginalized identities are subject to increased risks in the field, and should not also be made responsible for managing interactions in the field.

1) Communication

- **Work in groups** - do not leave people alone in the field. If left alone, multiple forms of communication should be left with the solo individual (i.e. radio and cell phone, or cell phone and walkie-talkie). Share contact information of all group members.
- **Reporting-** Have a chain of command to identify individuals responsible for resolving both formal and informal conflicts that arise during fieldwork.
- **Member Input -** While decisions will ultimately be left up to the field leader, ask team input on all major decisions to foster agency and ownership of the field experience, as well as shared responsibilities for communal tasks.
- **Safety-** Each team member should be aware and feel comfortable halting work at any time for reasons of personal safety, without repercussions. Regularly check in with people on their safety comfort level.

2) Division of Labor

- **Clear Schedule-** Field leaders should offer a timeline every day of how they expect fieldwork to go, with the clear expectation that plans and schedules may change. Field leaders should also be aware of participants' time constraints due to personal or professional reasons, (e.g. child-care, religious constraints on activities) and schedule around these things.
- **Task Rotation -** Roles should be clearly defined and rotated to ensure all team members are participating equally and understand their daily responsibilities. Housekeeping activities around camp should be included in this task rotation. This rotation should also include packing for and unpacking from trips.

3) Accommodations

- **Sleeping and eating arrangements-** Field leaders should assist to the best of their ability in securing individual housing/lodging options when requested for safety/comfort reasons during travel for fieldwork. Field leaders should also inquire about dietary restrictions prior to embarking on the trip and account for

these restrictions, including bringing food from home if appropriate foods will not be available in the field location.

- **Transportation-** Transportation will be provided for all participants to and from the field site. This includes covering transportation to and from the airport, and to and from the university if departing and unusual hours.
- **Work Hours -** Set reasonable work hours. This is different in every situation, but ensure people have enough time to recover from one day before moving into the next.
- **Medical -** First aid/medical kits should be provided by the university and should include basic trauma supplies (gauze, tape, epipen, etc.) and emergency gear (flares, water filtration, fire starter, etc.) as well as toilet paper/hand sanitizer and pads/tampons.

4) Interactions with the Public

Field leaders have a responsibility to respect the communities they are working in and act within the department code of conduct while conducting fieldwork. This includes heeding “no trespassing” signs, avoiding private property, clearly identifying yourself to community members, and engaging in informational discourse with the community about the nature of your actions in that space before, during, and after the fieldwork.

However, BIPOC, LGBTQIA, and other identities are at higher risk of negative interactions with both the public and authorities during fieldwork. Following recommendations by Dyson et al. (2019)[1], consider mentally framing interactions with the public on a 4-point scale: 1) Curious interest; 2) Suspicious interest; 3) Police response; and 4) Direct threats. This may help guide appropriate responses, though if interactions escalate at any point, leaving is the best option.

- Level 1 interactions are useful for informing the public and can be beneficial to the community and research by broadening the impact and outreach of the project.
- Level 2 interactions are usually mitigated by informing the public of the research and demonstrating appropriate access permissions were granted, though the specific response may depend on the person’s prejudices.
- Level 3 interactions--involving police and security guards-- have in many cases been resolved with proof of permissions (e.g. signed letters, emails), though police shootings remain a real and valid concern in the U.S. Here, keeping hands visible at all times and having ready access to identification cards and university/agency clothing may also help with mitigating situations.
- Level 4 interactions require that crew members move to safety as soon as possible, and crew leaders may consider calling 911 or other support. The

[1] Karen Dyson, Carly Ziter, Tracy L Fuentes, M S Patterson, Conducting urban ecology research on private property: advice for new urban ecologists, *Journal of Urban Ecology*, Volume 5, Issue 1, 2019, juz001, https://doi.org/10.1093/jue/juz001

field site where this type of interaction takes place should be re-evaluated for inclusion in the research project.

- **Identifying Gear -** Field participants should be given and wearing identifying gear such as hard hats and safety vests in addition to university swag to look as official as possible Professional bright color vests, ID card (include name, affiliation, potential medical history risks, contact information and emergency contact person), and field permissions should always be readily available.

After Fieldwork

The small groups and intimate nature of fieldwork make it difficult to provide a safe space for participants to share negative incidents of harrassment, bias, or discrimination that may have occured during fieldwork without identifying themselves and invoking the fear of retaliation. These are guidelines, but be aware that asking participants to share negative experiences after fieldwork may not provide a clear picture of how the fieldwork experience differed between participants.

- **Check In--** Field leaders should check in individually with participants after fieldwork. Try to create a safe space where people feel comfortable sharing, but know that people may not necessarily share everything. Departments should include fieldwork experiences in department climate surveys and exit-interviews to gain a more accurate picture of the fieldwork experience.
- **Survey-** For large trips, consider offering an anonymous post-fieldwork survey that asks specific questions about safety, explicit harassment, and acts of marginalization and bias in the field experience. For example, “At any time during fieldwork did you feel as though you were not an equal participant in the research”

Lab Inclusivity Checklist

1) Code of Conduct

Individual lab groups should develop rigorous codes of conduct that define expectations in order to minimize incidents of bias and marginalizing within the lab. A further discussion of these codes of conduct is available in the UMass Geosciences Code of Conduct. These expectations include, but are not limited to, the following topics:

- Working hours
- Meetings
- Communication
- Expectations for workload and authorship
- Holidays
- Checklist Lab/Field Safety
- Outputs, publication expectations and standards, and open science philosophy

2) Safety Training

All lab members are expected to receive training on all lab equipment they will be using. Bias, marginalization, harassment, and assault in academia are also issues of safety and these things should be addressed as rigorously as other lab safety trainings (e.g. fire safety or radiation safety). This includes requiring diversity training, implicit bias training, and mentor training where applicable. Avenues for reporting incidents of bias should be posted publicly and as readily accessible as other safety equipment like fire extinguishers and safety showers.

3) Accessibility

Lab environments should be set up with Universal Design principles in mind, including offering multiple means of representation, expression, and engagement. Lab supervisors should identify areas of the lab that may not be universally accessible and modify them before a group member needing an accommodation has to ask for it. This includes but is not limited to ensuring there is enough space to move through the lab, offering captioning in meetings, and providing multiple sets of various equipment when possible.