



Global Water
Futures

2023

Equity Diversity Inclusion

Field Research Protocol



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Suggested Reference:

Rowe, A.M., Schuster-Wallace, C. Global Water Futures Equity, Diversity, and Inclusion Field Research Protocol. Global Water Futures. The University of Saskatchewan.(2023). <https://doi.org/10.23688/6yct-b503>

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Overview

The core objective of Equity, Diversity, and Inclusion (EDI) in field research is to ensure that all participants are safe and respected[1]. Fieldwork is an integral part of water research that takes on many forms, such as, multiple consecutive days, multiple site visits, regular or sporadic days, domestic and international travel, urban and community based or rural and remote settings. As such, interpretation is required to adapt wise practices from this protocol to your unique field circumstances. Using an EDI lens will catalyze critical conversations and help to facilitate positive experiences for students, faculty, staff, and communities. EDI requires both immediate short-term action and long-term commitment to ensure that field research is open to a diverse range of participants, is accessible, and advances inclusion in water research.

Purpose of the Protocol

The protocol aims to provide people leading and participating in field research activities with concrete steps and resources to incorporate EDI into field research at every stage. This protocol is not a substitute for adhering to institutional and legal requirements, including field safety protocols. The EDI protocol is an additional tool to help the principal investigator, or leader, and participants plan inclusive field research experiences.



How to Use this Protocol

This protocol supports the design, planning, implementation, and evaluation of individual and group field experiences. Outside field research events, the protocol can also be used as a learning tool and resource. This protocol is meant to complement existing institutional field research policies and procedures. Adapting the protocol to a specific project or institution is iterative. The EDI Field Research Protocol is organized into three parts 1. Know Before You Go 2. Actions in the Field, and 3. After the Field. Each section supports consistent EDI integration at every stage in the process. It is imperative to allocate sufficient time for training, budgeting, and logistics for individuals and groups to facilitate equitable, diverse, and inclusive experiences.

Indigenization, Truth, and Reconciliation

It is imperative to respect Indigenous sovereignty and land rights by working with Indigenous communities in water research. Equity, Diversity, and Inclusion (EDI) is not a substitute for Indigenization, decolonization, and work led by Indigenous people and communities. EDI can be an integral part of allyship that prioritizes Truth and Reconciliation while taking action to decolonize water. For further information, consult:

- [Towards reconciliation: 10 Calls to Action to natural scientists working in Canada](#)
- [Truth and Reconciliation Commission of Canada Calls to Action](#)
- [The University of Victoria National Centre for Indigenous Laws](#)
- [The First Nations Principles of Ownership, Control, Access, and Possession \(OCAP\)](#)
- [The University of Alberta Indigenous Canada](#)

Equity, Diversity, and Inclusion (EDI) Training

Everyone is responsible for creating a safe, equitable, and inclusive environment for field research participants. EDI training must be an ongoing part of the field training curriculum. The principal investigator or leader can set a list of required and recommended training for field research participants and timelines for completion. EDI training may include courses provided by institutions, third-party organizations, or community-based training. In Canada, EDI training examples include:

- [Global Water Futures EDI Training Events](#)
- [Equity, Diversity, and Inclusion in Water Research](#)
- [Government of Canada Gender-Based Analysis Plus \(GBA+\) Course](#)
- [TCPS2 CORE 2022 \(Course on Research Ethics\)](#)
- [The University of Saskatchewan Sexual Violence Prevention and Response Course](#)
- [Canadian Association for Mental Health \(CAMH\) Mental Health 101](#)



Equity
Diversity
Inclusion

Know Before you Go

Site Selection

Social and natural science researchers may have different requirements and criteria for selecting a research site. Understanding the historical[2], social, political, legal, and economic factors that may impact field research safety, ethics, and research outcomes in site selection is essential[3].

- **Environmental Scan and Intersectional Risk Assessment:** Conduct background research on the location, including political unrest, instability, and crime rates which may impact research timing and choice of site, this applies to both local and international research[4]. Understand International laws and customs related to gender equity and 2SLGBTQIA+ rights that may increase risk for participants[5]. Consider how to balance cultural norms at the research site, and the larger community with the standards of the research team, while prioritizing equity and protecting team members' safety[6]. Take preventative measures to mitigate risks or select an alternative field site if required.
- **Physical Site Accessibility:** Evaluate distance to access points, wheelchair access, and other physical requirements, such as transporting equipment that may pose physical barriers for team members. These must be made explicit for team members to appropriately assess their needs and determine if sufficient and reasonable accommodations exist for individuals to succeed in the field[7]. GPS technology, braille, in-text and audio formats, and local languages provide options to enable and enhance accessibility in the field[8]. If a reasonable accommodation is not possible, similar opportunities to engage in research should be identified.
- **Transportation:** Group travel is often an essential aspect of the field research experience. Providing opportunities for people to share responsibility for travel arrangements and create inclusive experiences (e.g., sharing the driving and planning routes that are accessible) is respectful of individual needs and supports group cohesion. Wheelchair-accessible transportation and safety, including adaptive vehicles, public transportation, flights, trains, and boats, should be prioritized where feasible[7].
- **Sufficient Resources:** It is important to ensure that there are enough funds to facilitate field research in a way that is safe and respectful of everyone. Funds must be sufficient for safety, engagement, data collection, and contingencies. Consult people about sharing accommodation in advance of travel (e.g., people should be given the choice to share with people they know, or not share). If sufficient resources are not available to complete all aspects of the field research safely, equitably, and inclusively consider an alternative field strategy. Note that additional resources (e.g., Institutional or Tri-Agency) may be available to offset expenses related to accessibility and childcare (e.g., single or chestfeeding parents). Expenses related to EDI should be included in grant applications.

Know Before you Go

Site Selection

- **Financial Accessibility:** Budget for the costs associated with accessing the research site, especially those not equitably distributed for all team members. Additional expenses may include dietary requirements, travel accommodations, support personnel, clothing, equipment not covered by project funding, health insurance for specific activities, childcare, and more[6]. Provide options to reduce or eliminate costs that affect team members differently, such as a used equipment exchange, travel in a shared vehicle, or expenses paid by the university in advance to avoid waiting for reimbursement where this is a hardship[9].
- **Mental Health:** Consider the mental health implications of the field site, including the impact of locations on or near a place of cultural or historical significance that may pose an undue mental and emotional burden on members of the field team, local community members, or research participants[10]. Field sites that require extended periods away from home, isolation, exposure to dangerous wildlife, conflict zones, culture shock, and more may require specific mental health strategies[10]. Ensure that participants can rest to avoid burning out. Provide information about accessing mental health support in the field, including counselling before, during, and after field research, and where appropriate, a trauma-informed approach[11].

Steps

- 1 Evaluate** trade-offs between research sites. Prioritize accessibility in selecting a field site, reduce barriers to access. Incorporate an EDI lens into the ethics application, field safety plan, and relevant university documentation.
- 2 Establish** connections with Indigenous and local communities, or property owners in new and existing research sites[12]. Obtain formal or informal permissions to enter Indigenous and non-Indigenous communities or private property in addition to those required to conduct research (e.g., ethics approval; research licenses). **Note that some approvals may need to be acquired in the home institution's jurisdiction and where field research is undertaken. Respect the steps necessary to comply with Indigenous and local laws and customs throughout the research process.
- 3 Develop** and deliver a pre-departure briefing to ensure that all team members know local laws and customs.

Know Before you Go

Behaviour and Conduct

Establishing expectations for behaviour and conduct specific to the research site and team composition. A code of conduct and rights should be adopted from an existing source or developed collaboratively between all team members, including the principal investigator or leader. Establishing clear expectations sets people up for success.

- **Code of Conduct:** A code of conduct is a list of rules and guidelines agreed upon by the team that outlines how people are required to behave during field research. The code of conduct should be clear, communicated, and well-defined, including adherence to health and safety protocols, behaviour standards for interactions with staff, local communities, and research participants, and zero tolerance for harassment, violence, and sexual assault consistent with university policies. Consequences, along with procedures for reporting and addressing violations by principal investigator, leader, or team members, should be made clear at the outset, and may include removal from the research project^[13].

*Note that local laws where field research is undertaken can be more or less restrictive than a university and the laws of the jurisdiction where the university is located, especially concerning sexual assault, same-sex relationships^[1], and drugs and alcohol. Any violation of the institutional code of conduct should be subject to investigation under university procedures and policies and may result in removal from the university^[14]. International Considerations: In some nation-states, an individual's behaviour may place the whole team at risk of punishment according to local law.

Know Before you Go

Behaviour and Conduct

- **Code of Rights:** A code of rights is a declaration of the basic rights individuals participating in the field research are entitled to. The code of conduct emphasizes behaviours directed toward others, and the code of rights focuses on the individual. Rights may include respect, rest, dignity, privacy, safety, communication, anonymity, data access, etc[5].
- **Three Rights of Workplace Safety:** In Canada, all workers have the right to know about health and safety matters in the workplace, the right to participate in decisions that could affect their health and safety, and the right to refuse work that could affect their health and safety and that of others. These rights also pertain to individuals in research environments and are enshrined in legislation[15].

Steps

- 1 Develop** a field research-specific code of conduct or adopt an existing code of conduct that reflects the team's priorities (e.g., University Code of Conduct, GWF Code of Conduct).
- 2 Agree** on a code of rights for everyone participating in the research and establish a time to check in and review that people's rights are being respected, and adjust when necessary.
- 3 Review** the code of conduct and code of rights. Ensure that it is comprehensive and that everyone understands expectations and consequences for non-compliance and can ask questions to avoid confusion.

Know Before you Go

Team and Community Building

Building a high-performance team requires a safe and inclusive work environment, where people trust each other and are psychologically safe to express concerns about EDI, safety, and accessibility and can work together to resolve challenges before, during, and after field research[16].

- **Pre-Field Research Meeting:** Plan an initial briefing meeting once all participants have been selected. Participants should introduce themselves (e.g., share their name, pronouns, and other identifiers), learn about each other's field research objectives, shared goals, and establish working rapport[7].
- **Field Research Simulation:** Digital technology has made various levels of field research simulation possible[17]. Using google maps, virtual reality, and mock interviews are a few examples of how research teams can identify barriers that could arise and be addressed in advance to remove obstacles to equitable participation and research processes[18].
- **Work Plan:** The work plan is a valuable document that outlines how the team will work together during the field research and is updated frequently based on need (e.g., daily/weekly/monthly)[19]. The work plan will include specifics such as required group meetings, communication routines, backup plans to fill roles in the event of illness, cross-training, camp rules etc[20]. Clear expectations, functions, and responsibilities can help to reduce conflict between participants and identify gaps in planning and coordination[21]. Creating a work plan is also an opportunity to include wise practices such as Universal Design for Learning (UDL), working in pairs for safety, and confirming procedures if someone is unsafe in their surroundings[17].
- **Individual and Group Accommodations:** Some participants may have concerns or needs for accommodation that require confidentiality and should not be shared with a group[5]. However, accessibility may also require teamwork (e.g., meeting dietary requirements, allergies, dividing chores and transporting equipment to research sites). Tasks can be shared based on ability and individual strengths. Hiring additional support may be necessary if accommodations are required beyond the group's capacity[7].

Know Before you Go

Team and Community Building

- **Emergency Checklist:** A checklist is a practical tool to prepare people for unexpected events during field research[22]. Create laminated cards with emergency contact information, institutional contact information, and preferences for each person engaging in field research. Stating intentions before an emergency can help avoid assumptions about appropriate medical interventions, safety contacting police and first responders, support networks (e.g., chosen family, biological relatives, guardians and more), creating the opportunity to act quickly in an informed way. This information should also be held in a secure location by a member of the team who stays behind at the institution in case of losses in the field.
- **Community Building:** Community-based research requires extensive planning and preparation before field research. Even if the study does not include human participants, it is vital to become familiar with the community where the field research will take place.

Steps

- 1 Schedule** a group meeting with all members of the research trip. Offer opportunities to work through individual and group accommodations. Consult institutional accessibility resources.
- 2 Run** a field research simulation using technology or plan a visit to the site to spot potential hazards, and plan for the field research experience.
- 3 Develop** a work plan that fits the scope and objectives of the field research (e.g. multiple consecutive days, multiple site visits, regular or sporadic days), establish means of communicating changes to the work plan, and ensure everyone has access to it (e.g., slack groups, google docs, group chats, regular conversations).
- 4 Complete** a document checklist. Include travel and safety permissions required by the university and emergency contact information.
- 5 Reach Out** and connect with community groups and members relevant to the research site and project by email, phone, or formal letter to establish rapport.



Conducting Field Research

Planning and preparation are critical to creating an inclusive environment for the duration of the field research experience. Once field research is in progress, follow procedures while being responsive and flexible. Managing daily challenges and unforeseen events requires clear communication between the principal investigator, or leader, team members, local and institutional support personnel, and people in the community, as appropriate.

- **Follow the Work Plan:** Using the work plan is integral to keeping work on schedule. Travel, changes in time zones, and unexpected circumstances can all impact workflows. Discuss differences in plans, goals, and expectations and update the work plan to reflect changing fieldwork conditions[19].
- **Daily Debriefs:** A daily debriefing practice facilitates checking on data collection and research progress, learning from field experiences and conditions, and adjusting if necessary[23]. Maintaining frequent dialogue can also contribute to wellness and mental health by creating the opportunity to address any difficulties that may arise (e.g., the emotional toll of remote field conditions or in communities experiencing poverty and social, political, and economic unrest).
- **Routine Check-ins:** Regularly checking in with the principal investigator, leader, and team members is essential to equitable and inclusive field research. Check-ins should include pre-scheduled communications with an individual at the home institution, particularly for those working in remote locations. Regular check-ins support productive work and provide the opportunity to identify any new challenges, including accessibility concerns and mental or physical health issues. Regular check-ins also contribute to psychological safety, a critical component of effective teamwork.

Conducting Field Research

- **Managing Conflict:** Creating a problem-solving process is fundamental to successful field research[24]. Team members should be encouraged to articulate sources of conflict and meet regularly to discuss differences (e.g., daily debriefing and routine check-ins), brainstorm solutions, and monitor progress. If a dispute arises with the local community, the principal investigator or leader must address the source of conflict and work collaboratively to resolve the issue promptly.

Steps:

1

Ensure everyone has access to the work plan in the field. Follow the work plan and adjust goals and expectations based on the field conditions.

2

Arrange times and modes of communication for daily debriefs and routine check-ins (e.g., satellite phone, text, online, in-person) and alternatives in the event of unexpected circumstances or failures in technology.

3

Mediate if a conflict arises, clearly communicate the challenge as soon as possible. Be prepared to generate alternative options and work collaboratively to resolve issues when they are minor to avoid unnecessarily escalating conflict.

Community and Culture

- **Make People Aware of Your Presence:** Depending on the nature of the research project and site selection, relationships with communities will be different and may vary between urban and rural settings[22]. Even if research is natural science focused and does not include people as participants, staying connected with the community throughout the research process is essential. Building relationships may consist of meeting with treaty offices, Indigenous leaders, local authorities and community leaders, water committees, women's groups, 2SLGBTQIA+ communities and more[18].
- **Keeping the Community Informed** of the research can be achieved through local networks and organizations (e.g., landowners, nature and environmental groups, and river shed organizations). However, it is essential to consider how the identity of the research team members and or community may impact how relationships are formed, particularly in community-based research. For example, some people may not be comfortable interacting with police or local authorities or may experience discrimination or resistance to their presence[18].
- **Religious and Cultural Inclusion in the Community** Religious and cultural inclusion may be a significant part of field research. Before travelling, consider religious and cultural festivals, holidays, and observances and avoid conflicts with significant celebrations. If travel cannot be avoided, create the opportunity to celebrate together and experience cultural and religious traditions[25]. Respect practices even if they differ from yours, recognizing that cultural and religious perceptions may be unique[10]. Be flexible and plan to participate in local activities if invited by hosts, subject to team safety, code of conduct, and EDI principles.

Community and Culture

- **Religious and Cultural Inclusion in the Team** Ask if people require space and time for prayer or religious observance (e.g., sabbath days, fasting, dietary requirements). Respect team members' cultural and religious traditions and the community where research is being conducted.

Steps:

- 1 Connect** with the local community and introduce team members to points of contact related to their work and stay.
- 2 Establish** relationships and take note of warnings or recommendations.
- 3 Seek** positive and supportive community relationships, and including local community members in research activities to support positive relationships.
- 4 Clearly** communicate what you need to practice your religion and culture in the field. Look up important events and festivals. Work together to celebrate occasions and take part in local traditions and events (e.g., community clean-up initiatives, memorials, school events and more).

Safety and Conduct

Safety is critical to successful field research, as underscored by institutional requirements for field safety plans. However, safety also includes the prevention of bullying, violence, harassment, and sexual assault that can happen to anyone at any time. Women, Indigenous people, racialized people, 2SLGBTQIA+ people, and people with disabilities are statistically more likely to experience all types of harm while participating in field research[1]. Statistics also indicate that harassment of all kinds is more likely to occur within teams, women trainees are more likely to be harassed or assaulted by men in leadership positions and men are more likely to be targeted for bullying by peers[26]. External threats may also pose a significant concern in many settings.

- **Be Aware and Look Out For Each Other:** There are often warning signs before an assault occurs. Be mindful of changes in behaviour and pay attention if team members become isolated or withdrawn. Notice changes in power dynamics between team members that may indicate an abuse of power. A climate of respect is the greatest deterrent against sexual harassment and climates permissive of disrespectful behaviour enable perpetrators[27]. Buddy systems where people are not alone can also mitigate opportunities for abuse.
- **Practice Bystander Intervention:** Speaking up, naming what is happening, and standing in support of those who are targets, can be a powerful act of allyship that stops and prevents abuse and contributes to a growth mindset towards better EDI practices[28].
- **Invoke Protocols for Code of Conduct Infractions:** Within the Research Team: The code of conduct should be invoked if a violation occurs, and appropriate consequences administered. A person who breaches the code of conduct may be required to leave the field site. Reporting violence to local authorities may also be necessary if a suspected crime has occurred. Violations that breach institutional policies must be reported through the appropriate channels, where disciplinary proceedings will be initiated.

Safety and Conduct

- **Report Harassment or Abuse Outside of the Team:** Given that the code of conduct is only applicable to research team members, harassment and abuse by others should be taken seriously and must be reported to the principal investigator or team leader. Actions range from minimizing engagement where possible, ensuring that people are not alone, or altering future research plans and engagement. Reports to local authorities may also be necessary if it is suspected that a crime has occurred.
- **Principal Investigator or Team Leader Violates Code of Conduct:** If the team leader or principal investigator violates the institutional code of conduct, this is a severe breach of trust. A team member(s) should contact a pre-appointed representative (multiple pathways to report, including the option to report to people of different gender identities, can increase the likelihood of reporting), such as a department head or the director of a research entity (e.g., network or centre), who will become responsible for leading the team and addressing the institutional code of conduct violation in real-time[27]. If necessary and available, in the event of severe offences, seek the support of trusted local allies or online resources (e.g., sexual assault centre, crisis centre, law enforcement, the Canadian embassy abroad, in the event a crime has occurred)[22]. Remote field research locations, safety concerns, and inherent power imbalances, may make it very difficult for team members to act in the field[4]. In this case it is imperative to report violations upon return.

Steps:

- 1 Stay Alert** and be aware of your surroundings, changing circumstances, and power dynamics that may threaten your safety and that of others. Practice bystander intervention if it is safe to do so.
- 2 Take Personal Responsibility** for following the institutional field safety plan and ethics protocol where applicable.
- 3 Act** if the code of conduct is violated by following the appropriate research team, institutional, or legal procedures. Always support those who are impacted. If the principal investigator or leader violates the institutional code of conduct or the law, contact the appropriate institutional advisor as soon as it is safe.

Back from the Field



Debrief and Continuous Learning: Debriefing is a critical aspect of EDI. Talking openly with team members about their experiences creates trust. With an open line of communication, people can be honest about what worked, what did not work, issues that need to be addressed, and opportunities for individual and team growth in the future.

- **Debriefing Meeting:** In addition to daily debriefs in the field and routine check-ins, debriefing in more detail when field research is complete is essential. Debriefing must involve in-depth reflection on multiple levels, for example, reviewing the utility and function of the work plan, choice of the field site, accessibility, group dynamics, and more. Avoid assumptions about experiences and use open-ended questions to prompt critical reflection[7].
- **External Support:** External Support: Field research can be challenging, and people may have experiences that are difficult, discriminatory or traumatic that require additional support. This may include the need for a neutral expert to conduct the debrief. In the case of a breach of the institutional code of conduct by the principal investigator or leader, an alternative person, such as a department chair, or leader of the research entity (e.g., institute, organization), must conduct a debriefing session. Always ask for help to address problems rather than leave them unresolved. Many institutions have social workers, psychologists, and other mental health professionals who can support the emotional aspects of processing difficult field experiences. It may also be necessary to connect with community-based resources[14].

Back from the Field

Debrief and Continuous Learning:

- **Continuous Improvement:** Learning from field research experiences may expose areas of weakness where institutions are not providing accessible and inclusive field research experiences to participants. Critically evaluate the type of investments required to upgrade field research experiences to be inclusive. Upgrades may include additional funding, better washroom facilities or protocols at research sites, adaptive equipment, enhanced training and more. Many field research sites include long-term community relationships and ongoing trips to the same locations. Growing together in understanding EDI creates opportunities for stronger connections and more inclusive field research experiences.

Steps:

- 1 Arrange** a debriefing session and prepare open-ended questions that provide opportunities for discussion and reflection. Established field research evaluation tools exist to guide the debriefing process[29].
- 2 Participate** in the debriefing process and ask for help if required to process field research experiences.
- 3 Be Proactive,** If there are gaps, contribute your knowledge and experience to improving the field research protocol, and share wise practices to advance equity, diversity, and inclusion in water research.

Resources



GLOBAL WATER FUTURES EDI RESOURCES

- [The Case for an Intersectional Approach to EDI in a Large Research Network](#)
- [#GWFEDI Strategy 2021-2023](#)
- [Women in the Field - Women Plus Water Lecture Series \(2021\)](#)
- [Global Water Futures Meeting Code of Conduct](#)

CODE OF CONDUCT RESOURCES

- [Indiana University of Bloomington Fieldwork Code of Conduct \(Bystander Intervention\)](#)
- [Global Code of Conduct for Research in Resource Poor Settings \(International Example\)](#)
- [American Geophysical Union Meeting Code of Conduct](#)

FIELD RESEARCH EVALUATION RESOURCES

- [Designing Effective Fieldwork for Natural and Environmental Sciences](#)
- [The Geological Society Confronting Barriers to inclusion - Opening the gate to accessible fieldwork](#)

MENTAL HEALTH RESOURCES

- [Talk Suicide Canada/ 1.833.456.4566](#)
- [Ending Violence Association of Canada](#)



REFERENCES

- 1** Olcott, A. N., Downen, M. R. The challenges of fieldwork for LGBTQ+ geoscientists. *Eos* 101, [doi:org/10.1029/2020EO148200](https://doi.org/10.1029/2020EO148200) (2020).
- 2** Koster, R., Baccar, K. & Lemelin, R. H. Moving from research ON, to research WITH and FOR Indigenous communities: A critical reflection on community-based participatory research. *The Canadian Geographer / Le Géographe canadien* 56, 195-210, [doi:10.1111/j.1541-0064.2012.00428.x](https://doi.org/10.1111/j.1541-0064.2012.00428.x) (2012).
- 3** Rangecroft, S. et al. Guiding principles for hydrologists conducting interdisciplinary research and fieldwork with participants. *Hydrological Sciences Journal* 66, 214-225, [doi:10.1080/02626667.2020.1852241](https://doi.org/10.1080/02626667.2020.1852241) (2021).
- 4** Nash, M. et al. "Antarctica just has this hero factor...": Gendered barriers to Australian Antarctic research and remote fieldwork. *PLOS ONE* 14, e0209983, [doi:10.1371/journal.pone.0209983](https://doi.org/10.1371/journal.pone.0209983) (2019).
- 5** Colaninno, C. E., Beahm, E. L., Drexler, C. G., Lambert, S. P. & Sturdevant, C. H. The Field School Syllabus. *Advances in Archaeological Practice* 9, 366-378, [doi:10.1017/aap.2021.32](https://doi.org/10.1017/aap.2021.32) (2021).
- 6** Cooperdock, E. H. G., Chen, C. Y., Guevara, V. E. & Metcalf, J. R. Counteracting Systemic Bias in the Lab, Field, and Classroom. *AGU Advances* 2, [doi:10.1029/2020av000353](https://doi.org/10.1029/2020av000353) (2021).
- 7** Stokes, A., Feig, A. D., Atchison, C. L. & Gilley, B. Making geoscience fieldwork inclusive and accessible for students with disabilities. *Geosphere* 15, 1809-1825, [doi:10.1130/ges02006.1](https://doi.org/10.1130/ges02006.1) (2019).
- 8** Gilley, B., Atchison, C., Feig, A. & Stokes, A. Impact of inclusive field trips. *Nature Geoscience* 8, 579-580, [doi:10.1038/ngeo2500](https://doi.org/10.1038/ngeo2500) (2015).
- 9** Chiarella, D. & Vurro, G. Fieldwork and disability: an overview for an inclusive experience. *Geological Magazine* 157, 1933-1938, [doi:10.1017/s0016756820000928](https://doi.org/10.1017/s0016756820000928) (2020).
- 10** Hughes, A. Exploring normative whiteness: ensuring inclusive pedagogic practice in undergraduate fieldwork teaching and learning. *Journal of Geography in Higher Education* 40, 460-477, [doi:10.1080/03098265.2016.1155206](https://doi.org/10.1080/03098265.2016.1155206) (2016).
- 11** Howe, K. Trauma to self and other: Reflections on field research and conflict. *Security Dialogue* 53, 363-381, [doi:10.1177/09670106221105710](https://doi.org/10.1177/09670106221105710) (2022).

- 12** Castleden, H., Morgan, V. S. & Lamb, C. "I spent the first year drinking tea": Exploring Canadian university researchers' perspectives on community-based participatory research involving Indigenous peoples. *The Canadian Geographer / Le Géographe canadien* 56, 160-179, [doi:10.1111/j.1541-0064.2012.00432.x](https://doi.org/10.1111/j.1541-0064.2012.00432.x) (2012).
- 13** Marín-Spiotta, E. Harassment should count as scientific misconduct. *Nature* 557, 141-141, [doi:10.1038/d41586-018-05076-2](https://doi.org/10.1038/d41586-018-05076-2) (2018).
- 14** McGill, B. M. et al. You are welcome here: A practical guide to diversity, equity, and inclusion for undergraduates embarking on an ecological research experience. *Ecology and Evolution* 11, 3636-3645, [doi:10.1002/ece3.7321](https://doi.org/10.1002/ece3.7321) (2021).
- 15** Lippel, K. & Walters, D. Regulating Health and Safety and Workers' Compensation in Canada for the Mobile Workforce: Now You See Them, Now You Don't. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy* 29, 317-348, [doi:10.1177/1048291119868805](https://doi.org/10.1177/1048291119868805) (2019).
- 16** Singh, B., Winkel, D. E. & Selvarajan, T. T. Managing diversity at work: Does psychological safety hold the key to racial differences in employee performance? *Journal of Occupational and Organizational Psychology* 86, 242-263, [doi:10.1111/joop.12015](https://doi.org/10.1111/joop.12015) (2013).
- 17** Healey, M., Roberts, C., Jenkins, A. & Leach, J. Disabled Students and Fieldwork: Towards Inclusivity? *Planet 5*, 9-10, [doi:10.11120/plan.2002.00050009](https://doi.org/10.11120/plan.2002.00050009) (2002).
- 18** Demery, A.-J. C. & Pipkin, M. A. Safe fieldwork strategies for at-risk individuals, their supervisors and institutions. *Nature Ecology & Evolution* 5, 5-9, [doi:10.1038/s41559-020-01328-5](https://doi.org/10.1038/s41559-020-01328-5) (2021).
- 19** Morten Rasch et.al, E. INTERACT International Network for Terrestrial Research and Monitoring in the Arctic Fieldwork Planning Handbook. (2019).
- 20** Hutchins, H. M. & Kovach, J. V. ADVANCING Women Academic Faculty in STEM Careers: The Role of Critical HRD in Supporting Diversity and Inclusion. *Advances in Developing Human Resources* 21, 72-91, [doi:10.1177/1523422318814547](https://doi.org/10.1177/1523422318814547) (2019).
- 21** Tamtik, M. G., M. Policy Analysis of equity, diversity and inclusion strategies in Canadian universities – how far have we come? , 41-56, [doi:https://doi.org/10.7202/1066634ar](https://doi.org/10.7202/1066634ar) (2020).
- 22** Ramírez-Castañeda, V. et al. A set of principles and practical suggestions for equitable fieldwork in biology. *PNAS*, 119 (34) e2122667119 [doi/10.1073/pnas.2122667119](https://doi.org/10.1073/pnas.2122667119) (2022).

- 23** Fuller, I., Edmondson, S., France, D., Higgitt, D. & Ratinen, I. International Perspectives on the Effectiveness of Geography Fieldwork for Learning. *Journal of Geography in Higher Education* 30, 89-101, [doi:10.1080/03098260500499667](https://doi.org/10.1080/03098260500499667) (2006).
- 24** Miranda-Wolff, A. This technique can help diverse teams deal with conflict effectively. *Fast Company* (2022).
- 25** Conners, B., Johnson, A., Duarte, J., Murriky, R. & Marks, K. Future Directions of Training and Fieldwork in Diversity Issues in Applied Behavior Analysis. *Behavior Analysis in Practice* 12, 767-776, [doi:10.1007/s40617-019-00349-2](https://doi.org/10.1007/s40617-019-00349-2) (2019).
- 26** Clancy, K. B. H., Cortina, L. M. & Kirkland, A. R. Opinion: Use science to stop sexual harassment in higher education. *PNAS* 117, 22614-22618, [doi:10.1073/pnas.2016164117](https://doi.org/10.1073/pnas.2016164117) (2020).
- 27** Paula A. Johnson, S. E. W., and Frazier F. Benya, Editors. Sexual Harassment of Women Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine. *The National Academies of Science Engineering and Medicine*. (2018).
- 28** Rattan, A., Kroeper, K., Arnett, R., Brown, X. & Murphy, M. Not such a complainer anymore: Confrontation that signals a growth mindset can attenuate backlash. *Journal of Personality and Social Psychology*, 124(2), 344–361, [doi:10.1037/pspi0000399](https://doi.org/10.1037/pspi0000399) (2022).
- 29** Pyle, E. J. The evaluation of fieldcourse experiences: A framework for development, improvement, and reporting. *The Geological Society of America*. 341-356 (2009).

Glossary of Key Terms



2SLGBTQIA+: 2SLGBTQIA+ is an acronym represents gender identity, gender expression, and sexual orientations. The letters represent, in order, Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer (or questioning), Intersex and Asexual. The plus sign represents any other identities, such as pansexual. This acronym is an evolving terminology used by communities in different ways to reflect inclusion.

Accessibility: Accessibility relates to the design of products, devices, services, or environments for people who experience disabilities. There is no one definition of accessibility, however the experience of accessibility by individuals is the most important measure of access and inclusion.

Anti-Racism: Anti-racism requires people make an active commitment to challenging racism and discrimination in all of its forms, in policy, practice, and interpersonal communications.

Decolonization: Decolonization is a process that requires the return of Indigenous lands and waters to Indigenous people and the abolition of slavery in all forms. Decolonization also requires dismantling colonial institutions and ways of thinking that are embedded in societies.

Disability /Dis(ability): Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. There is no single approach to disability, it can be temporary or permanent and occur at any time in life. A social approach to disability views disability as a natural part of society, where attitudes, stigma and prejudices present barriers to people with disabilities, and prevent or hinder their participation in mainstream society.

Diversity: Diversity is a relational concept; no one person can be diverse on their own. We are diverse in our identities, experiences, and relationships with each other.

Harassment: According to Part II of the Canada Labour Code harassment and violence means “any action, conduct or comment, including of a sexual nature, that can reasonably be expected to cause offence, humiliation or other physical or psychological injury or illness to an employee, including any prescribed action, conduct or comment.” This includes all types of harassment and violence, including sexual harassment, sexual violence and domestic violence.

Inclusion: Inclusion relates to the quality of the experience that people have in their environment. Whether in the hiring process, research teams, classrooms, field research or offices, creating an inclusive environment means anticipating that people experience the world differently and designing experiences to reflect these needs.

Indigenization: Indigenization is an iterative developmental approach to understanding Canada’s colonial history and the more contemporary issues impacting Indigenous people. Engaging in critical reflections from a professional and/or personal perspective about how to build safe and ethical spaces for Indigenous knowledges, worldviews, and practices. It is a strategic set of changes to policies, procedures and practices that increase inclusion, break down barriers and realign institutional, college and school outcomes without harm to previously established goals.

Intersectionality: Intersectionality is a concept coined by American scholar Kimberlé Crenshaw. Intersectionality is a prism or lens to understand how people's experiences of multiple and overlapping identities and systems of oppression impact their life experiences and opportunities.

Pronouns: Using someone’s pronouns is critical to creating an environment where everyone is respected. Do not assume pronouns, rather ask people how they would like to be referred to. Common pronouns include they/them/he/him/she/her. A complete guide to using pronouns is available for further information.

Truth and Reconciliation: Truth and Reconciliation is a movement to bear witness to the impacts of residential schools in Canada and to facilitate reconciliation among families, communities, governments, and all Canadians.

Acknowledgements & Contacts



We want to acknowledge the generous contribution of those who have shared their knowledge and expertise to make this resource possible.

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The Global Water Futures Equity, Diversity, and Inclusion in Field Research Protocol is a living document. The protocol will be updated and amended based on the learning, knowledge, and experience of people in the network.

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