Title

The Queer & Trans Field Safety Assessment: a tool for protecting minoritized field scientists

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Keywords

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Abstract

Ecological fieldwork poses heightened risks for LGBTQIA+ scientists due to inadequate safety protocols and identity-based vulnerabilities. Best practices to improve safety for queer field researchers exist, yet over 50% of LGBTQIA+ field scientists report feeling unsupported, with structural and cultural barriers unaddressed. Our team of 15 researchers from the University of California developed the Queer and Trans Field Safety Assessment: an example-based tool designed to support inclusive field environments. Drawing from best practices in field safety literature, the assessment offers a structured checklist that addresses safety needs before, during, and after fieldwork across four key categories: climate, protocols, training, and accessibility. This paper outlines the assessment's development and intended applications for field teams, field courses, field stations, and research labs. By offering a concrete tool, we hope to bridge the gap between recommendations and implementation in field safety and promote the inclusion and well-being of queer and trans field researchers.

In a nutshell

Although significant progress has been made towards the inclusion of LGBTQIA+ scientists in recent decades, ecological fieldwork in particular continues to pose a unique dilemma for researchers. Research has shown that feelings of safety, inclusion, and belonging are up to 50% lower for queer and trans researchers compared to their cisgender and heterosexual counterparts. We drew on existing literature to compile best practices in scientific field safety, ultimately creating an accessible, comprehensive Queer and Trans Field Safety Assessment. This tool aims to ensure best practices are not only acknowledged and communicated, but made a reality for all field researchers.

Introduction

Fieldwork is a vital aspect of science professions and offers valuable opportunities for early-career researchers, often motivating them to pursue long-term engagement in science (Morales et al., 2020; Beltran et al., 2020). However, while fieldwork is an essential part of daily work for many scientists, it presents heightened identity-based risks (Clancy et al., 2014; Ragen, 2017). These risks, stemming from power imbalances and systemic oppression, disproportionately affect individuals from marginalized racial, sexual, and gender identities (Demery & Pipkin, 2021). Identity prejudice in field settings negatively impacts researchers' physical and mental health, with potentially far-reaching effects on career trajectories and professional development

(Atchison, 2021; Ragen, 2017; Demery & Pipkin, 2021). Consequently, while experiences in the field are positively transformative for some, they can be disproportionately detrimental for others (Morales et al., 2020; Clancy et al., 2014). LGBTQIA+ scientists are 17-21% less represented than expected in scientific fields, and feelings of safety, inclusion, and belonging are up to 50% lower for queer and trans researchers compared to their cisgender and heterosexual colleagues (Collins et al., 2024; Freeman, 2018; Cech & Pham, 2017). Research leaders often attribute the inability to address these heightened risks to institutional constraints; without institutional oversight or support, the responsibility for managing risks and advocating for safer conditions falls on the marginalized researchers themselves (Zebracki & Greatrick, 2022).

In ecology, fieldwork is often conducted in remote locations over long field seasons, often involves resource constraints, and has the potential to overlap with outside groups, such as members of the public (Coon et al., 2022). Fieldwork is typically off-campus and can also be out of state or country, effectively eliminating the relative protection offered by safety entities that exist on college campuses. At field sites, LGBTQIA+ ecologists face risks stemming from socio-cultural barriers, such as the risk of violence and harassment and the inaccessibility of necessary facilities and resources (Zebracki & Greatrick, 2022; Ragen, 2017; Atchison, 2021; Coon et al., 2022; Demery & Pipkin, 2021). Fieldwork is often associated with the image of “rugged, cisgender, able-bodied, white men,” which discourages others who do not fit this description from participating in fieldwork (Hall et al., 2002; Zebracki & Greatrick, 2022). Additionally, many field sites feature only rudimentary facilities for bathrooms, housing, and medical care, eroding the privacy of LGBTQIA+ researchers and placing them at greater risk of physical violence (Demery & Pipkin, 2021). Laws and policies that refuse to provide appropriate medical, housing, or bathroom access exacerbate these challenges (Olcott & Downen, 2020; Rinkus et al, 2017; Coon et al., 2023; Kamran & Jennings, 2023). Beyond these pressures, some field sites are situated in domestic or international regions with anti-LGBTQIA+ laws, where homosexuality is punishable by severe penalties, including death (Ragen 2017, Coon et al., 2023, Green et al., 2019). LGBTQIA+ researchers who feel compelled to hide their identities while in the field may suffer from significant mental health impacts, including feelings of demoralization, fear, and shame (Atchison, 2017; Zebracki & Greatrick, 2022; Green et al., 2019), and are at high risk of violence and punishment in cases of being ‘outed’.

As scientists have become increasingly aware of these issues, field ecologists have recommended many best practices to mitigate the risks and hazards associated with ecological

fieldwork, especially for minoritized and underrepresented identities (Matsuda, 2023; Demery & Pipkin, 2021; Nordseth et al., 2023; Toone et al., 2023; Cronin et al., 2024; Coon et al., 2023). However, implementing these practices can be challenging due to limited financial support, unclear accountability for leadership and enforcement, and ineffective evaluation of the success of these initiatives (Flowers et al., 2021; Wilkins et al., 2023; Kottler et al., 2023; Primack, 2023). Fears around addressing the gap in inclusion often stem from limited knowledge about issues relevant to LGBTQIA+ scientists, such as up-to-date terminology regarding sex and gender or specialized medical needs (e.g., hormone replacement therapy) (for a detailed glossary of LGBTQIA+ vocabulary, see Collins et al, 2023). The greatest form of support for LGBTQIA+ scientists still predominantly comes from their peers, indicating that there are opportunities for increasing support from PIs, institutions, and other leaders (Collins et al., 2023).

What stands between best practices for LGBTQIA+ fieldwork safety and their successful implementation? We tackled this question by quantifying best practices, responsible parties, and evidence of effective application in the field safety literature. Based on the literature, we created a novel, practical tool to help field teams move from recommendations to real-world, actionable change. Titled the "**Queer and Trans Field Safety Assessment (QTFSA)"**, this tool helps ensure queer and trans safety by providing research teams with guidance before, during, and after fieldwork. We piloted a first draft of the QTFSA at the University of California and gathered feedback based on three scenarios: a typical research lab, an undergraduate field course, and an independently staffed field station.

While our group reflects a range of voices, we want to acknowledge that we do not represent or speak for every individual within the communities we belong to, nor do we cover all possible dimensions of diversity and intersectionality. Our team — composed of graduate students, postdocs, and faculty from various University of California (UC) institutions (UC Los Angeles, UC Berkeley, UC Santa Barbara, and UC Santa Cruz) recognize that our positionality comes with privilege and that our institutional environment may limit our engagement with perspectives outside our immediate circle. Our goal is to use our positions to inspire others, especially those in leadership roles, to adopt best practices and advocate for the inclusion and well-being of all field scientists. Throughout this paper, we use 'queer and trans' to specifically highlight identities heavily impacted by cisnormative and heteronormative systems, while acknowledging that these groups are part of the broader LGBTQIA+ community and that those with intersectional identities face compounded challenges. We also want to address that while identities within

LGBTQIA+ are grouped together in this acronym, they do not necessarily have the same experiences. While several recommendations in our tool may be more relevant to certain identities, they are intended to promote field safety for everyone.

Methods

Preliminary Literature Search and Category Development

Our team began by analyzing the 14 most highly cited (10+ citations) papers on LGBTQIA+ field safety to distill common themes. Four key thematic categories were identified from this preliminary search: climate, protocols, training, and accessibility (hereafter, *recommendation categories*; see Table 1 for specific examples). *Climate* evaluates the safety and inclusivity of field environments, considering allyship, local context, and intersectionality. *Protocols* establish clear safety guidelines and reporting mechanisms, including specific requirements for gender-affirming care. *Training* ensures education on queer and trans inclusivity and cultural competency, focusing on preventing harassment and hostile work environments. *Accessibility* promotes inclusive field environments, ensuring physical access, inclusive facilities, and opportunities for feedback. These themes guided the construction of the QTFSA. See supplemental materials for full category descriptions and a list of relevant papers.

Scoping Literature Search

Building on the recommendation categories established by the preliminary literature search, we used citation tracing to identify additional studies, reviews, opinion/perspective pieces, and conference summaries with recommendations for improving queer and trans field safety. We considered three questions for each paper: (1) What specific recommendations did the paper make? (2) Who holds the responsibility for implementing those practices (hereafter, *recommendation scales*; individuals, labs, institutions, or parties outside the institution, such as local or federal government)? and (3) Were the recommendations implemented (i.e., did they apply their best practice in a real-life scenario?). We also searched for peer-reviewed papers using online research databases (Web of Science, PubMed, Google Scholar, JSTOR) using keywords drawn from STEM fields (e.g., “geology”, ”ecology”), and “fieldwork”, paired with “marginalized groups”, ”minorities”, “LGBTQIA+”, “queer”. After applying these filters, we identified a total of 62 published papers. The articles were divided among five readers (co-authors of this study), such that each reader extracted information from 12-14 articles, and each article was reviewed by two readers. From the 62 articles, we extracted all unique best practices

recommendations. One article lacked specific recommendations and was therefore excluded from the analysis. In total, we identified 165 distinct recommendations across 61 articles in this study.

All data exploration, analysis, and visualization were done in R (v. 4.5.0; Rstudio v. 2025.09.2+418; R Core Team, 2025; RStudio Team, 2025), using packages from the *tidyverse* (v. 2.0.0, Wickham et al., 2019). We examined how often recommendations for queer and trans field safety included actionable implementation plans, and how this varied across thematic categories and scales of responsibility in the literature. Each recommendation was coded by recommendation category, by recommendation scale, and whether the authors suggested a specific plan for implementing it ("Yes" or "No"). If an article implemented at least one of their recommendations, the entire article was marked "Yes" for having an implementation plan. While this method overestimates implementation, it was necessary to reduce ambiguity. We calculated the overall proportion of each *category* and *scale* among all recommendations (N = 165). We then determined the proportion of each *category* (Table 2a) and *scale* (Table 2b) among articles that included an implementation plan, and those that did not. Disproportionality was calculated by comparing the baseline proportion to the representation of each recommendation *category* and *scale* within the two implementation plan categories (supplemental Fig. S1).

QT (Queer and/or Trans) Field Safety Assessment (QTFSA) Development

Insights from the literature search directly informed the development of the QTFSA. The assessment is a checklist reviewed by the principal investigator (PI) and discussed with their lab on whether appropriate precautions, safety measures, and resources for queer and trans individuals are in place before, during, and after fieldwork (see instructions on how to use this tool in S1). The assessment follows our four-category framework with criteria drawn from recommended practices in the literature, along with relevant resources, explanations, and/or examples (Figure 1). This tool is flexible for multiple environments and audiences – for example, it could be distributed by administrators to all labs conducting fieldwork or adopted by a new undergraduate research team member requesting it as a standard practice before fieldwork (Maskall & Stokes, 2008). Upon completion, the lab group is scored based on the number of fulfilled recommendations, which gives them a sense of their level of preparedness for QT field safety and identifies clear, actionable steps to improve field safety.

To pilot and refine the QTFSA, our team distributed the assessment to three leaders involved in field safety practices in 2025: a UC Santa Cruz field technician responsible for lab safety, the

manager of the Blue Oak Ranch Reserve field station, and a UC Santa Cruz professor responsible for teaching undergraduate field courses. Each leader filled out the assessment and provided open-ended commentary and feedback. Given the wide variation of fieldwork settings, we aimed to gather multiple perspectives and adjust the assessment for different situations.

Results

The distribution of the 165 unique recommendations across recommendation *categories* and *scales* revealed several patterns (Fig. 2A). The climate category contained the highest number of recommendations (73 total; Fig. 2C), most of which were assigned to be carried out at the PI or institution level (21 and 20 recommendations, respectively). The training category contained the lowest number of recommendations (23 total). Across all categories, responsibilities for carrying out the recommendations were assigned primarily to the PI or institution (Fig. 2D), and the fewest recommendations were assigned to laboratories and to parties outside of the institution.

Recommendations varied in how often they were accompanied by an implementation plan, depending on both their thematic category and the scale of responsibility assigned. Most (77.0%) articles did not provide a plan for real-world implementation (Fig. 2B). At the category level (Table 2a), implementation plans were most overrepresented in the *Protocols* category; that is, articles suggesting Protocols were more likely to have implementation plans than their overall representation in the dataset would predict (+10.5% compared to their representation in the dataset). *Training* recommendations were slightly overrepresented (+1.7%), while *Accessibility* (−3.3%) and *Climate* (−8.9%) were less likely to be paired with implementation plans, despite their prevalence across the literature.

At the scale level (Table 2b), actionable implementation plans were again more common among localized actors. *Lab-level* and *Department*-level recommendations were overrepresented by 3.1% and 2.1%, respectively, among articles that included implementation plans. Recommendations directed at *Outside Institutions* also showed a smaller positive skew (+2.8%). In contrast, recommendations targeting *PIs* (−2.9%) and *Institutions* (−3.9%) were underrepresented, despite being the most frequently cited scales overall.

Upon reviewing the feedback from the three fieldwork leaders, all respondents highlighted a key theme: the need to make the QTFSA flexible and applicable to a broad range of field scenarios (see the feedback and results in document S4). Therefore, we created three versions of the assessment for labs, field courses, and field stations (See document S1).

Discussion

Who is Responsible for Protecting LGBTQIA+ Researchers?

We found that the primary party responsible for instituting field safety measures was usually–but not limited to PIs and institutions, yet actionable follow-through was concentrated at smaller, localized levels. Articles that venture to include concrete implementation plans disproportionately emphasized lab- and department-level actions, suggesting that while systemic responsibility is broadly acknowledged, change is more often expected at the scales where individuals have direct influence. Thematic patterns reinforce this divide: recommendations that focused on *Protocols* were the most likely to include practical implementation plans, reflecting their inherently actionable nature. In contrast, broader themes like *Climate* and *Accessibility*, though frequently discussed, were less often paired with specific strategies for implementation.

Importantly, there was considerable disagreement among experts familiar with field safety and inclusion about which actors bore responsibility for implementing specific recommendations, and the boundaries of accountability were often unclear. This uncertainty underscores the central challenge in addressing LGBTQIA+ field safety: when responsibility is diffuse, the burden of creating safer field environments fall disproportionately on students and early-career researchers, who often have the least structural power to enact change, rather than on systems being designed to protect everyone.

Our findings emphasize an urgent need for institutions to move from statements of inclusion toward concrete accountability measures. Until institution leaders adopt and implement tools like the Queer and Trans Field Safety Assessment, progress will continue to depend on grassroots efforts by those most at risk in the field.

Adapting Best Practices into a Practical Tool

A common theme from the feedback at UCSC was that the relevance, responsibility, and language of action items shift depending on the field context. By creating three different versions of the assessment (lab, field course, field station), we increase adaptability. For instance, the version used at field stations is tailored for field station staff and incoming research scientists who may have high turnover rates, while the version used in field courses is geared toward teaching staff who may interact with students over a multi-week course. This framing places responsibility on the appropriate parties that have real opportunities for implementing change.

These findings underscore the need for tools like the Queer and Trans Field Safety Assessment, which translate high-level recommendations into specific, actionable steps. By making climate- and accessibility-related recommendations tangible, our tool can help bridge the gap between conceptual responsibility and practical implementation to ensure that leadership-level actors adopt, not just delegate, responsibility for inclusive fieldwork safety. While receiving a lower score does not result in a consequence, it clearly identifies the areas needed for improvement with examples on how to achieve it. Our goal is that this assessment will be a standard practice and that labs might share their scores publicly, further holding the PI, department, and institution accountable for field safety.

Our field safety assessment can help to increase implementation of best practices and discourage the tendency for one group to unilaterally be in charge of field safety (see Box #1 for FAQs and tips on using the QTFSA). This is consistent with other studies showing that the responsibility for fostering a safe, inclusive, and successful institution is shared across many roles (Cheyne, 2019; Nordseth et al., 2019; Wilkins et al., 2019). In efforts to increase inclusivity for queer scientists, it is essential to consider the intersectionality of identities. Those with multiple marginalized identities often encounter greater risks and discrimination than those belonging to a single marginalized group (Demery & Pipkin, 2021). Therefore, creating safer, more inclusive environments enriches not only the individual but also the entire scientific community (AlShebli et al., 2018). Nonetheless, this work should not be seen as a substitute for intentionally addressing the specific risks faced by other marginalized groups.

While our study attempts to reduce practical barriers to implementing best practices, we recognize limitations in our capacity to do this. For instance, our literature search provides a scoping overview of the majority of best practices available; however, our search criteria may

have excluded other relevant literature. We also recognize that our work is rooted in California, where working in a more progressive state provides us with a unique opportunity to explore inclusive practices. There are important challenges to implementing queer and trans field safety plans that could arise in a more conservative state that we do not address here. We have made the assessment as adaptable as possible across different settings, but ultimately, we cannot cover all potential contexts. Therefore, we advise that the leaders who use the QTFSA adjust it for their needs.

Promoting inclusivity, allyship, and awareness of risk in field research is essential to the success and well-being of queer and trans researchers. This tool supports that goal by maximizing implementation of best practices across labs, field sites, and field courses. Through the establishment of a shared baseline for safety, we can set a new standard for inclusion and equity in field research.

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Statement of Contribution

AP, AR, and RS helped organize the Queer and Trans Field Safety Summit. All authors participated in the summit and contributed data and ideas for the manuscript. AR, EH, and AP led the writing of the manuscript. RS carried out data exploration, analysis, and visualization. AP and RS provided supervision, while all authors provided feedback on multiple manuscript drafts and approved the final submission.

Statement of Compliance

All data and code used in this study are publicly available and archived in Zenodo (DOI 10.5281/zenodo.17531742) and are publicly available on GitHub (https://github.com/rsteinitz/qtifs). This complies with ESA's Open Research Policy.

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Tables

Table 1. Four key categories—Climate, Protocols, Training, Accessibility —identified through the preliminary literature review used to distill common themes in best practices. Each category includes a description and representative examples from the literature.

Category	Description	Examples
Climate	Evaluating the **safety and inclusivity** of field environments, considering allyship, local context, and intersectionality.	• Facilitating conversations on the unique challenges faced by LGBTQ+ individuals in fieldwork (Atchinson, 2021) • Promoting a collaborative rather than competitive field environment (Baker 2020) • De-prioritizing the "heroic male geoscientist" by reducing fieldwork's cultural weight, and by changing attitudes towards physical fitness norms (Bracken and Mawdsley 2004)
Protocols	Establishing clear **safety guidelines** and **reporting mechanisms**, including specific requirements for **gender-affirming care.**	• Creating a risk management plan particularly on identity-related risks (Demery & Pipkin, 2021) • Developing field specific code of conduct to prevent intimidation and harassment (Emery 2020) • Outlining consequences for breaking code of conduct and providing a plan for the offender to leave the field if necessary (Green et al., 2019)
Training	Ensuring education on **queer and trans inclusivity** and **cultural competency**, focusing on **preventing harassment** and healthy work dynamics/productivity.	• FieldFutures interactive trainings for a research group to help identify unique risks posed by fieldwork (fieldfutures.org; Cronin et al., 2024) • Training on appropriate work behavior; cultural awareness training taken by leaders/PIs (Clancy et al., 2017) • Gender awareness and power dynamic training for the department chair (Daniels & Lavallee, 2014)
Accessibility	Promoting **inclusive field environments**, ensuring physical access, inclusive facilities, and opportunities for feedback.	• Accounting for prayer breaks, fasting, travel restrictions, related to sexuality/gender identity (Giles et al., 2020) • Providing access to keys, maps, phones, passwords, and contact access (Cronin et al., 2024) • Providing options for solo accommodation, no questions asked. Allow participants to choose if they want to room with same gender (Green et al., 2019)

Table 2. Disproportionality in implementation planning across recommendation types.
Each row represents a combination of either a thematic *recommendation category* (**2a**) or an *implementation scale* (**2b**) and whether the article included a plan for implementation (*Yes* or *No*). *N* is the number of recommendations in that category or scale and plan type; *plan total* is the total number of recommendations within each plan group; *proportion in plan group* is the proportion of recommendations within that category or scale among articles with or without a plan; *overall proportion* is the baseline frequency of that category or scale in the full dataset; and *disproportionality* is the difference between the within-plan proportion and the overall proportion. Positive values indicate that a given category or scale was more likely to appear in recommendations that included a plan, while negative values indicate underrepresentation.

Table 2a.

Recommendation Category	Plan	N	Plan Total	Category Proportion	Category Overall Proportion	Disproportionality
Climate	Y	18	51	35.3%	44.2%	-8.9%
	N	55	114	48.2%	44.2%	4.0%
Protocols	Y	14	51	27.5%	17.0%	10.5%
	N	14	114	12.3%	17.0%	-4.7%
Training	Y	8	51	15.7%	13.9%	1.7%
	N	15	114	13.2%	13.9%	-0.8%
Accessibility	Y	11	51	21.6%	24.8%	-3.3%
	N	30	114	26.3%	24.8%	1.5%

Table 2b.

Recommendation Scale	Plan	N	Plan Total	Scale Proportion	Scale Overall Proportion	Disproportionality
Individual	Y	8	51	15.7%	17.0%	-1.3%
	N	20	114	17.5%	17.0%	0.6%
Lab	Y	5	51	9.8%	6.7%	3.1%
	N	6	114	5.3%	6.7%	-1.4%
PI	Y	14	51	27.5%	30.3%	-2.9%
	N	36	114	31.6%	30.3%	1.3%
Department	Y	6	51	11.8%	9.7%	2.1%
	N	10	114	8.8%	9.7%	-0.9%
Institution	Y	11	51	21.6%	25.5%	-3.9%
	N	31	114	27.2%	25.5%	1.7%
Outside Institution	Y	7	51	13.7%	10.9%	2.8%
	N	11	114	9.6%	10.9%	-1.3%

Figures

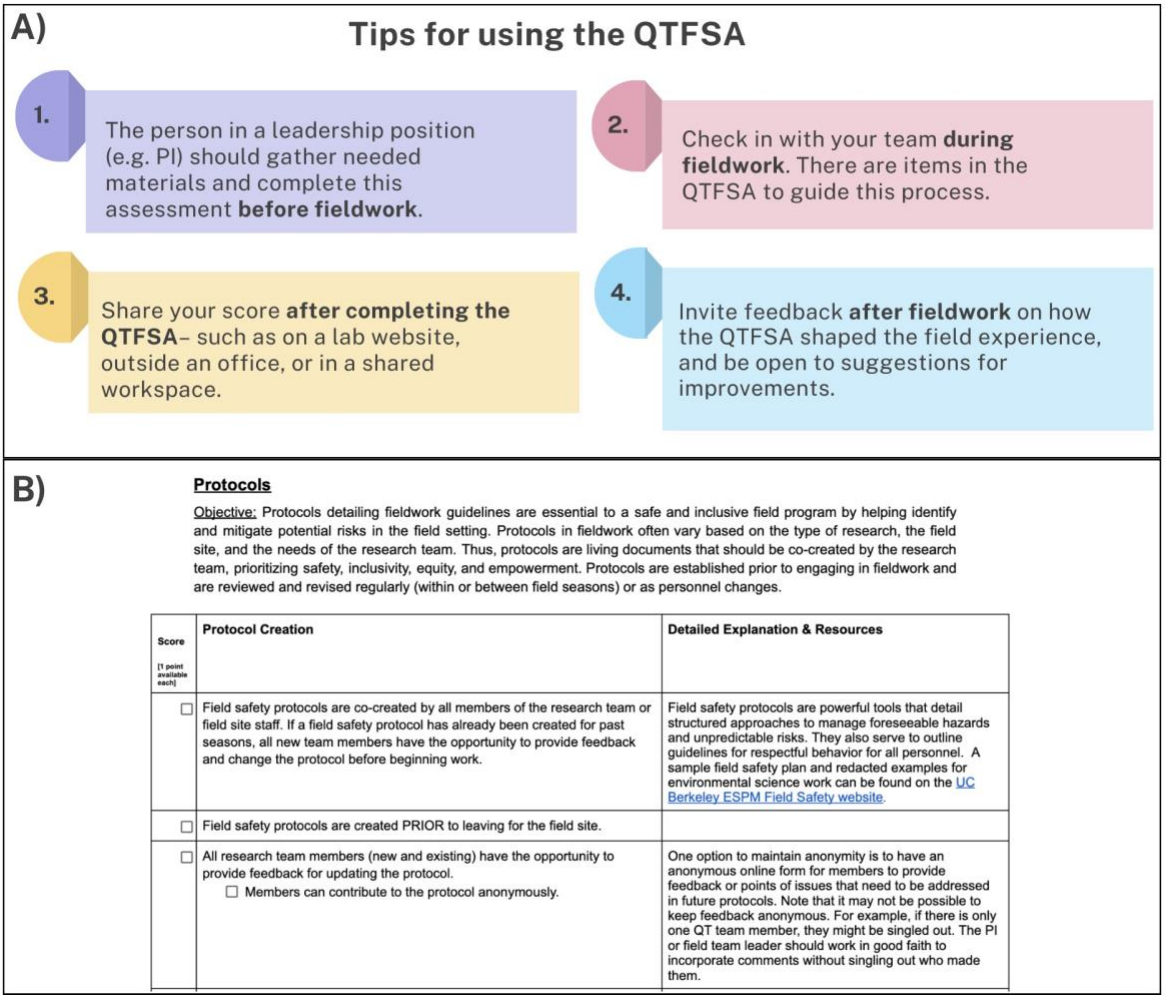

Figure 1. **Tips for how to use the QTFSA and a sample of the Protocols section from the QT Field Safety Assessment (QTFSA).** A) Four tips for using the QTFSA. B) The QTFSA is a structured checklist designed to evaluate and improve QT inclusion and safety practices across field courses, field stations, and labs. The full assessment, available in supplemental materials, is organized into four categories: protocols, accessibility, climate, and training.

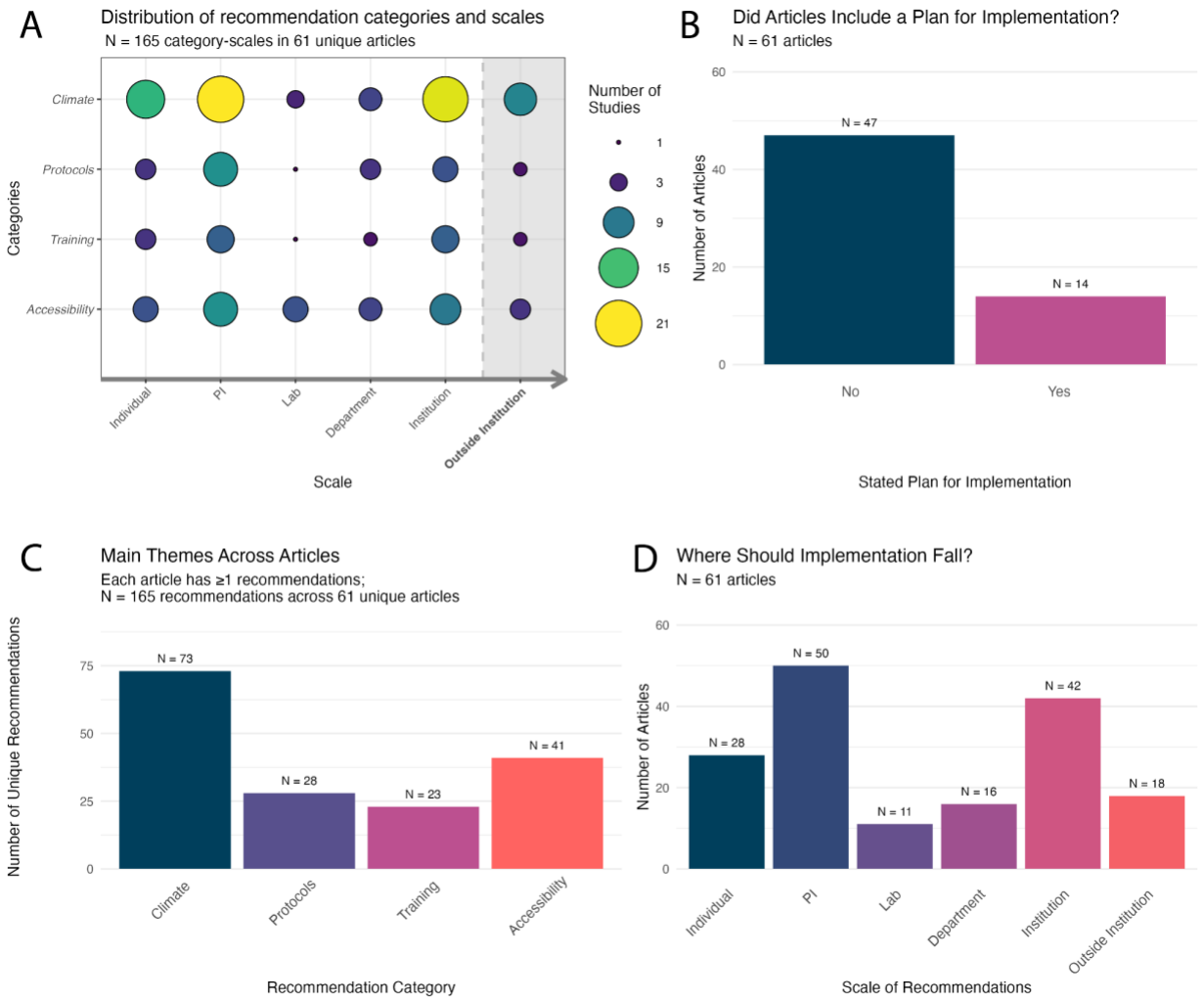

Figure 2. Summary plots of recommendation categories, implementation responsibility, and plan inclusion across all articles in the literature review. A) Balloon plot showing the number of recommendations across four thematic categories (*Climate*, *Protocols*, *Training, Accessibility*) and six levels of implementation responsibility (*Individual*, *Lab*, *PI*, *Department*, *Institution*, *Outside Institution*). Lighter and larger circles indicate a higher number of recommendations for a given category-scale combination, and smaller and darker ones indicate fewer recommendations. Where no circle appears, no recommendations were made for that combination of category and scale. The gray panel represents recommendations above the institution level. B) Bar chart showing the number of articles that included a plan for implementing the recommendations they proposed (*Yes* or *No*). Bar height reflects the number of unique articles per response type. C) The total number of recommendations in each thematic category. D) The number of recommendations assigned to each level of responsibility.

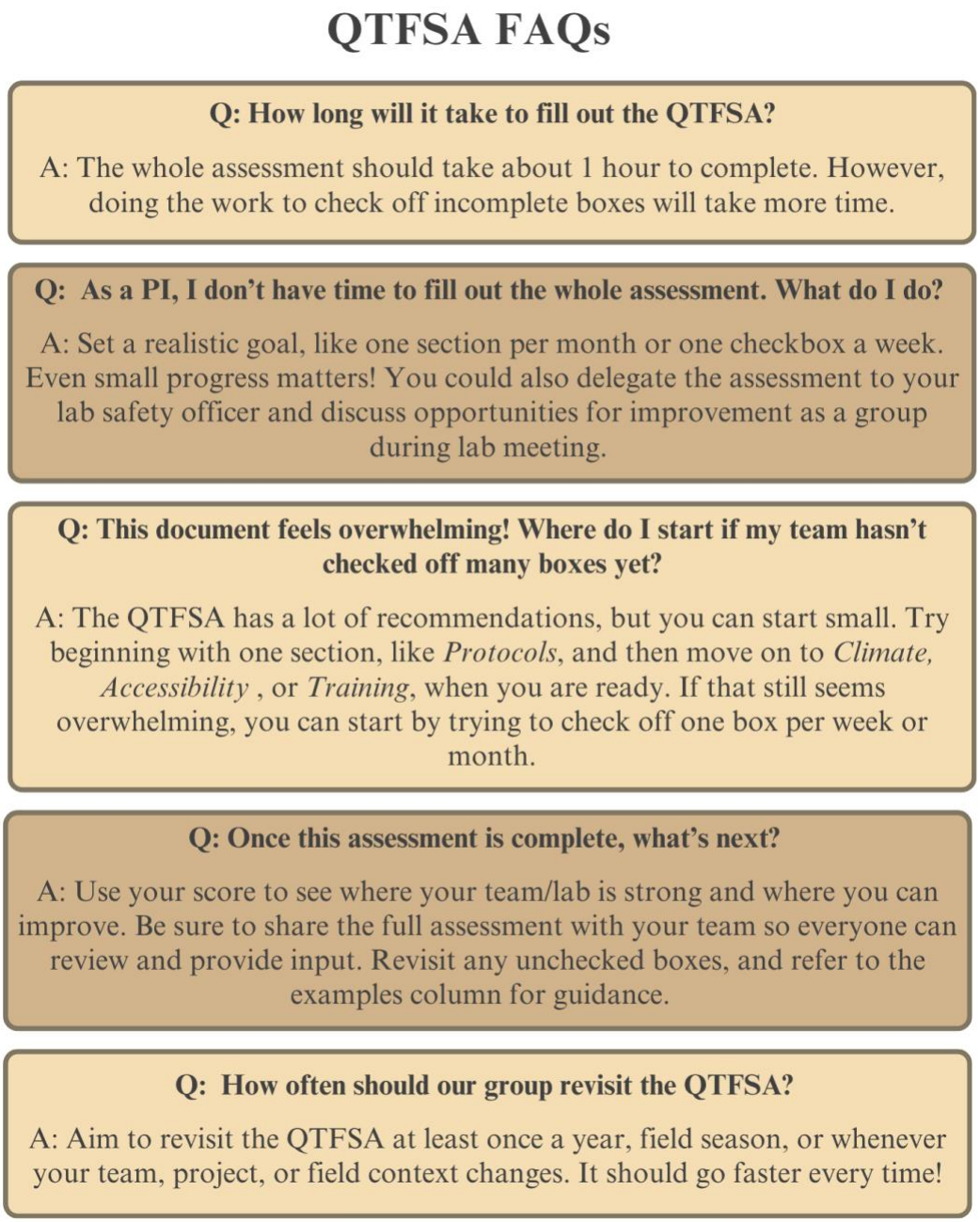

Figure 3. Frequently Asked Questions (FAQs) for the QTFSA. Common questions and answers that help guide users when first using the assessment.

QT Field Safety Assessment

Introduction

Objective: This QT Field Safety Assessment provides a detailed checklist **to assess field safety readiness**, with a strong focus on ensuring the safety of queer and trans (QT) team members. **The research team lead** (e.g. PI, lab technician/director) fills out this assessment on their own to the best of their ability. While they should be able to complete the assessment in its entirety, some of the items may be out of the control of a PI or field team leader, but are intended to help acknowledge and incorporate the potential impact of the climate outside of the field team (for example, at the department or university level). **Gather your field team's existing safety plans, materials, and resources and share them with team members to review.** Once the team lead has filled out the assessment, they should schedule a meeting during a time that works for all members of the team to review together, discuss any discrepancies, with the aim of coming to a consensus.

Afterwards, use the assessment to identify action items for the team to improve their score, and create a timeline for accomplishing them. For instance, the assessment may reveal that your field safety protocol is missing a conflict resolution plan. The next step would be to schedule time to develop one together. If your team needs help getting started, there and there are resources provided in the “Detailed Explanation & Resources” section.

Assessment: The assessment is broken down into four categories (Protocols, Accessibility, Climate, and Training) and encompasses best practices before, during, and after fieldwork. The score will be based on how well a research lab/team abides by best practices for QT researchers. Each checkbox is worth 1 point. To get a point for a sub-checkbox, you must score the superseding main checkbox. An evaluation is calculated based on the sum of points. There are 30 possible points in the Protocols section, 26 in Accessibility, 25 in Climate, 21 in Training, and 3 in Reporting and Sharing Results.

Evaluation	**Beginning**	**Emerging**	**Developing**	**Proficient**	**Exemplary**
Score Range	0 - 50	51 - 70	71 - 80	81 - 90	91 - 100

Protocols

Objective: Protocols detailing fieldwork guidelines are essential to a safe and inclusive field program by helping identify and mitigate potential risks in the field setting. Protocols in fieldwork often vary based on the type of research, the field site, and the needs of the research team. Thus, protocols are living documents that should be co-created by the research team, prioritizing safety, inclusivity, equity, and empowerment. Protocols are established prior to engaging in fieldwork and are reviewed and revised regularly (within or between field seasons) or as personnel changes.

Score [1 point available each]	**Protocol Creation**	**Detailed Explanation & Resources**
●	Field safety protocols are co-created by all members of the research team or field site staff. If a field safety protocol has already been created for past seasons, all new team members have the opportunity to provide feedback and change the protocol before beginning work.	Field safety protocols are powerful tools that detail structured approaches to manage foreseeable hazards and unpredictable risks. They also serve to outline guidelines for respectful behavior for all personnel. A sample field safety plan and redacted examples for environmental science work can be found on the UC Berkeley ESPM Field Safety website.
●	Field safety protocols are created PRIOR to leaving for the field site.	
●	All research team members (new and existing) have the opportunity to provide feedback for updating the protocol. ● Members can contribute to the protocol anonymously.	One option to maintain anonymity is to have an anonymous online form for members to provide feedback or points of issues that need to be addressed in future protocols. Note that it may not be possible to keep feedback anonymous. For example, if there is only one QT team member, they might be singled out. The PI or field team leader should work in good faith to incorporate comments without singling out who made them.
●	Dedicated administration-level support is available when developing your team's field safety protocol. ● Administration requires co-creation and discussion of field safety protocols for	The safety officer of your department may lead this, the Environmental Health and Safety (EH&S) department, or a department administrator in charge of fieldwork or safety. Regardless, there should be a staff member who can assist in double-checking the existence and contents of your field safety

	faculty. ● Administration requires the co-creation and discussion of field safety protocols for graduate students. ● Protocols are screened by someone independent from the team (e.g., a university- or department-designated field safety officer).	protocol. Ideally, this staff member will have some knowledge about the specific needs of QT members of the field team.
●	Field safety protocols are routinely reviewed at least annually, and updated based on team member feedback, incidents, near misses, or experiences from prior field seasons.	It is important to keep written records of incident management in the field. Near misses and incident reports should be accessible to the crew at all times during fieldwork. A **near miss** is an event where no injury occurred, but a slight change in timing or location could have resulted in an injury. These, along with actual injuries, need to be taken seriously and used as learning experiences to improve future safety protocols. These records should also include instances of microaggressions and harassment against members of the field team and members of the communities.

Protocol Creation Score:_____ out of 9

	Protocol Contents (general)	**Detailed Explanation & Resources**
●	Field safety protocols require regular check-ins with on and off-site personnel (e.g., home institution, personal emergency, and/or local contact).	These check-in protocols should include frequent contact with someone independent of the field team who can identify if you or your team need emergency assistance.
●	Field safety protocols include a conflict resolution plan.	Use your university's conflict resolution plan. If one does not exist, here are some public resources.
●	There is explicit written communication of duties and expectations, which includes	This should be written in good faith with flexibility to best accommodate accessibility and scheduling needs.

	any accommodations and/or resources necessary for field safety.	
●	Personal reporting mechanisms and institutional reporting mechanisms are explicitly outlined. ● There is a protocol to report and discuss near-misses and injuries in the field. ● There is a protocol to report other incidents of harassment or assault (e.g., Title IX, relevant crisis line numbers).	Reports may be made to your PI, the safety officer of your department, or the EH&S department. Protocol for reporting harassment and assault may want to include resources for QT employees facing workplace discrimination, which can be found here. In this section, make a note of who may be responsible employees in your community. Responsible employees are required to report suspected abuse, neglect, or violations as soon as possible to appropriate authorities.
●	There are protocols for emergency situations and evacuations that are reviewed with all staff members. These are previewed in high traffic areas of the field station.	Emergency situations may include wildfire events, extreme storms, active shooter or bomb threats, or chemical spills along with other potential disasters. Protocols for emergency situations and evacuations should be key components of field station preparedness. These protocols include fire exit routes, contact information for local first responders, plans for certain extreme weather events or likely emergencies written down in detail, or maps with drivable or hikeable evacuation routes. Documents detailing these protocols like printed versions of exit routes should always be shared within the research lab.
●	Documented medical information is kept private by the PI or crew lead and is only available in case of emergency, respecting HIPAA and individual privacy regarding protected health information.	
●	Field protocols include discussions of cultural and	Field protocols should consider questions such as:

	political considerations and communication policies for local communities.	*How will you communicate with communities at and around your field sites? How will you explain your research to the community? How will you ensure that your work is not detrimental to the local community? How will community safety be prioritized? Are there political or cultural differences that may cause your crew or community members to feel unsafe?* A more detailed set of questions to ask can be found here: Field safety checklist
●	Protocol measures include language for accountability and consequences if a team member violates established safety procedures. These consequences are discussed before fieldwork.	Protocol violations could result in verbal warnings, additional training, and disciplinary actions. The field safety officer, PI, or designated point person is responsible for enforcing and applying consequences for field safety violations, which may be included in your Code of Conduct.

Protocol Contents (general) Score:_____ out of 10

	Protocol Contents (for fieldsite and crew)	**Detailed Explanation & Resources**
●	There are protocols that allow for flexibility in accommodations and housing changes during fieldwork if needed.	
●	Field safety protocols and accommodations explicitly discuss gender-affirming and culturally relevant clothing (e.g., binders, hijabs).	For example, a researcher wearing a binder may experience greater heat-related stress. Accommodations should account for this by incorporating more breaks, offering specialized field gear, and/or private changing areas in the field. etc.
●	There are protocols for organized medical emergency responses. Medical care is gender-affirming and does not compromise the safety and security of QT individuals. ● There are protocols that specifically address the needs of QT team members,	QT individuals may have different treatment needs in the field than other field scientists. For example, someone experiencing heat stroke or a heart issue who is wearing a binder will be experiencing additional compression on their chest during the emergency. Someone taking testosterone shots in the wilderness may have a higher rate of infection due to open injection sites. Basic and wilderness first aid courses are offered by the American Red Cross and other training organizations (ex: NOLS, Sierra Rescue).

	accounting for person-specific needs. ● Identify the location of the nearest emergency care hospitals. ● At least one person on the field team is first-aid certified. If you are traveling more than an hour from access to advanced medical care, ensure this person is Wilderness First Aid certified. ● If possible, register your field trip with any associated university travel insurance to get coverage for medical care and evacuations while traveling.	The Healthcare Equality Index provides information on safe healthcare facilities for queer and trans individuals via an interactive map.
●	Staff at field stations are trained in understanding QT risks and accommodations.	Participating in cultural competency trainings can provide a more in-depth understanding of the unique risks and everyday challenges of QT folks, subverting heteronormative assumptions. Example trainings can be found here: https://www.thetrevorproject.org/ally-training/ https://thesafezoneproject.com/activities/
●	The field safety plan includes explicit notation regarding "all-stop" conditions during field work. ● Every individual has equal rights to determine if an "all-stop" is reached during work. ● The equipment used to determine if "all-stop" conditions have been met are easily accessible to all crew members and in working condition.	"All-stop" criteria are conditions where work will cease immediately for the safety of the crew. This will be case dependent determined by the risks and type of work being conducted. Ex: when flying a drone for research, "all-stop" conditions might be winds exceeding 20 mph. When 20 mph winds occur, the drone will be landed immediately and work will cease until the conditions become safe. Despite the power structure that exists on the project for determining work and making decisions, this power structure cannot apply to "all-stop" criteria. Every member of the team has a right to prioritize their personal safety. If all stop criteria are determined ahead of time, it should be easy to ensure every member is

		able to accurately assess those criteria and call for a work stoppage. If the crew lead is flying the drone and a crew member checks the wind speeds, the crew member has the power to call a work stoppage if they find that “all-stop” wind conditions are occurring. The crew lead should never request that the team push through these conditions.

Protocol Contents (for fieldsite and crew) Score: ____ out of 11

Total Protocols Score: _____ out of 30

Accessibility

Objective: Researchers in the field and at field stations must have access to basic necessities. This section lists ways to ensure that accessibility options address safety, identity affirmation, and health-related needs. The field team leader or an appointed field safety officer is primarily responsible for ensuring that fieldwork is accessible to all researchers and that detailed accessibility information is shared with all members of the research team prior to fieldwork.

	General Accessibility	**Detailed Explanation & Resources**
●	A designated point person is responsible for maintaining and upholding access to necessary equipment and spaces and ensuring that all needs are met throughout the project's duration. ● This point person will ensure that the costs for the necessary permits, equipment, travel costs, and other needs do not fall on the student. Name point person here:_____	This point person could be the PI or field safety officer. To decentralize this power, this position could be designated to two people. PIs or Departments can assist in providing funds for training (e.g., Wilderness First Aid) and equipment (e.g., satellite phones). They should be doing what they can in their power to assist in the funding and purchasing.
●	There are systems in place to honor one's lived name and pronouns in the field, even if they differ from legal documentation.	This could be discussed in the code of conduct (see climate). Systems in place: Your university may have policies regarding gender recognition and care, such as these examples: ● UC Santa Cruz Gender Recognition and Lived Name Policy

		• UC Berkeley Transgender and Gender Diversity Care • Central Michigan University Gender Recognition and Lived/Chosen Name Policy These resources should be comprehensive and include guidelines for gender and lived name care in terms of legal, medical, and workspace culture. There may be difficulties with passports/IDs for trans people during international fieldwork and support for people whose names/genders/etc do not match.
•	There is a screening process for working with new personnel or traveling to a new fieldwork location (may not always be applicable). • If personnel at a new fieldwork location are not associated with a university (e.g., private landowners), they sign a document that includes their name, signatures, contact information (phone # or email), and confirmation that the research can be conducted on that site.	Screening new personnel may be in the form of having a conversation about QT field safety and normalizing this dialogue. This can be a way to get a feel for an individual's perspective without feeling too confrontational. Screening a new fieldwork location may come in the form of assessing field safety protocols that are already in place (or lack thereof). This should be done by all members engaging in fieldwork. This may not apply to some field settings.
Prior to international travel, the research team is given timely instructions on: • necessary passports and travel documents • prophylactic vaccinations and medications (e.g. anti-malaria) • accessibility of QT-specific medications or therapies (e.g., HRT)		Good to know for air travel: Body scanning technology used for airport security requires TSA agents to personally identify the gender of the traveler. The machine scans the traveler's body, and if the body parts do not match what is expected on the scan, the traveler may be flagged for additional searches. This is an invasive procedure that has the risk of escalation. Registering for TSA precheck can allow people to walk through metal detectors rather than body scanners, but this is associated with additional costs.

General Accessibility Score: _____ out of 8

	Field Site Accessibility	**Detailed Explanation & Resources**

●	Before fieldwork, a resource list is sent out to explain the resources available at the field site.	This resource list will vary based on the kind of fieldwork. A comprehensive and up-to-date list of resources at the field site is provided, which allows for best practices in field safety, emergency response, and sustainable fieldwork for all members of the research team.
●	There is explicit written communication of physical demands and/or environmental challenges relevant to conducting research at your field site.	Ideally, these details are given by the field site manager to the lead researcher to share with the team.
●	Individual privacy needs are respected and protected in housing and bathing facilities.	For fieldwork with a designated field station, housing should not be gendered, and QT individuals should not be forced to sleep separately. They should be provided the opportunity to sleep separately if desired but never forced. If desired, members should have the option of having a single room. If space is an issue, there must be some way to guarantee privacy, such as using privacy screens/curtains for sleeping areas. Ensuring privacy in certain types of fieldwork can be more challenging, such as in remote/backcountry sites, yet it does not excuse a lack of an attempt at providing privacy. This can be achieved through solo tents, a private and secluded sleeping area, etc.
●	Housing and bathing facilities have non-gendered/communal options.	
●	QT individuals are not forced to sleep separately or segregated from other individuals.	
●	Individual housing options are provided (e.g., single room, solo tent).	
●	Privacy is ensured in the bathroom. At least one single, private bathroom option is available.	Privacy policies also apply to bathroom use, where if members are sharing a bathroom, individuals are ensured full privacy, and the bathroom can be locked when in use. Examples of private bathroom options include a solo stall in a bunk house, the ability to separate from the group in the backcountry to use the bathroom privately, or having access to a pop-up tent. In remote areas, the expectations of privacy remain the same.
●	A private bathing area is provided in housing (solo enclosed bathroom with locking doors). If working in the backcountry, individuals are able to bathe privately (at least with body wipes in a secluded or private location).	
●	The field station has communal, clean products to use in the bathroom (e.g., toilet paper, shovel, menstrual products, hand sanitizer, bathing products, and paper towels).	Many field station resource lists exist, such as these: ● REI First-Aid Checklist ● UCLA Field Safety Research Manual, see Appendix 3 ● UC Berkeley First Aid Kit

	These are provided along with a fully stocked first aid kit, sunscreen, and bug spray (and/or other supplies as needed). ● It is in an easily accessible location. ● This location is also accessible in private if needed. ● It is kept in stock and supplies are not outdated/expired.	Importantly, these lists are for general fieldwork safety and do not consider the possible needs of specific individuals. Check with the research team to see if there are supplies that are needed and are not present at the field station, and see if it's something that can be brought by the research team.
●	There are accessible places to store any necessary medication (e.g., refrigerators).	For remote fieldwork, this may be more difficult. Have a one-on-one discussion with team members to see if this is needed, and if so, consider developing an alternative research plan. For example, an alternative research plan may include more visits to a nearby site with electricity than originally planned.

Fieldsite Accessibility Score: _____ out of 13

	Accessible working conditions	**Detailed Explanation & Resources**
●	Before fieldwork, a survey is sent out to determine what medication, food, accommodations, etc., are needed by research team members.	This point person could be the PI or field safety officer. To decentralize this power, this position could be designated to two people. Do not ask for or store HIPAA protected information, such as why someone needs a specific accommodation. If you need this information, work with your campus Disability Center.
●	Fieldworkers are not required to go into the field alone. If fieldworkers must perform fieldwork alone, they are equipped with an emergency phone and field safety kit.	Alternatives to engaging in fieldwork alone may be going in pairs, having a point person on call in case of emergencies, having radio communication at all times, etc.
●	Required field gear is in good condition and, to the extent possible, can be worn at the same time as gender-affirming garments.	

●	A stipend is provided if individuals require specialized gear or gear that is not currently provided (larger sizes of clothes, boot inserts, prescription goggles, etc.).	Any specialized gear should be included in the fieldwork budget and may be funded either directly by the research fund or through applying for separate funding.
●	Access to laundry is available if fieldwork is an extended period of time, or if otherwise necessary (access to machines, backcountry washing plan, etc.).	For remote fieldwork, have a plan to do laundry regularly. There are guides available for how to do laundry while remote, such as: ● Cleaning clothes in the backcountry ● Doing laundry on the backpacking trail
●	The research team discusses plans for rest based on the needs of every individual.	

Accessibility Working Conditions Score: _____ out of 6

Total Accessibility Score: _____ out of 26

Climate

Objective: Climate describes the socioemotional space within the research team and at the field site. All participants must feel safe, represented, and comfortable to raise any potential concerns with authority figures and peers without fear of being reprimanded. Ideally, the lab, department, and university will foster a community where we incentivize inclusive and safe fieldwork.

	General Climate	**Detailed Explanation & Resources**
●	A code of conduct is crafted with input from all members of the fieldwork team. ● Code of conduct is readily available (e.g., posted high-traffic areas at the field station, in the lab or office space on campus, on lab website) ● The code of conduct has a community agreement. ● The code of conduct has specific language around a	Example codes of conduct can be found here: https://www.cscce.org/resources/ On developing community agreements: https://www.nationalequityproject.org/tools/developing-community-agreements In the code of conduct, take special care to recognize and honor 'invisible' and intersectional identities, including one's chosen name and pronouns, and avoid making generalities or assumptions. This should also include statements about recognizing personal privilege and biases.

	team-wide recognition of the need for representation of and respect for QT identities to ensure all field members are safe and feel included. ● The code of conduct is a living document and is updated or reviewed at least annually.	
●	There is an open line of communication for all members of the research team to discuss the power dynamics inherent to the fieldwork. ● The research team discusses the power dynamics among groups at the fieldsite at the beginning of each field season. ● The research team discusses the power dynamics within the team as roles or personnel change.	Power dynamics describe the inherent, imbalanced distribution of power between groups or individuals. Power dictates the structure of professional and interpersonal relationships. Power may be inherently distributed among groups at the field site, including field station managers, other research groups, locals, volunteers, and law enforcement. Within the research team, an individual's race, ethnicity, sex, gender, age, and other intersectional identities affect their position of power.
●	Field safety administrators, PIs, and members of the research team share local resources and opportunities specifically related to promoting safety and inclusivity in field programs to stay up to date on the best practices.	These resources may include white papers and safety manuals and can extend to programs at diversity centers, legal support, and QT-friendly healthcare.
●	A meeting is held **<u>after</u>** fieldwork with the entire research team to review the assessment, identifying what worked and what still needs to be addressed. ● An anonymous feedback option is provided. Date of meeting here:	It may be helpful to provide questions that could help shape the check-in such as "Were there moments when you felt unsafe?" or "What additional resources would have been helpful?".

	_____	

General Climate Score: _____ out of 11

	Climate prior to fieldwork	**Detailed Explanation & Resources**
●	University administration provides resources for gender-affirming services for QT individuals seeking changes to name and gender marker on identification. ● University honors lived names and pronouns in university communications and on professional documentation. ● University assists with name and gender marker changes on legal documentation.	You can find an example of these resources here.
●	The location of research is assessed for potential dangers specifically for QT individuals (this applies both domestically and/or internationally). ● If fieldwork is conducted in an area that is dangerous specifically for QT individuals, the research team is alerted and consulted about this danger.	QT field members may face additional challenges when traveling for fieldwork, including harassment, discrimination, barriers to entry, and physical violence. Research local laws and restrictions that pose safety risks when traveling within the US and internationally: ● Map of states with anti-LGBTQ+ legislation (ACLU) ● US State Department Travel Advisories ● US State Department LGBTQ+ Travel Considerations ● UC Davis LGBTQ+ Travel Advisories Utilize official resources and travel advisories to identify the level of safety in the country or state of travel.
●	There are NO negative consequences for individuals who choose to opt out of fieldwork due to safety concerns before or during fieldwork.	Alternative research plans may include virtual field trips using Google Earth, laboratory experiments, data processing and analysis, or returning to the field site at another time when it is safer.

	● In cases where the goals of the field program cannot be fulfilled as intended, an alternative research project or plan is designed.	
●	There is an established support system where field team members can confidentially request support for themselves or another member. ● The support system allows members to check in without having to initiate (e.g., it occurs regularly).	This support system could take on many forms, including a designated point person from the research team for routine check-ins, your university's field safety officer, or a counselor at a nearby or offsite location. Ideally, the support team should be available at emergency-notice and include other members besides the PI.
●	Members of the research team have discussed and set balanced work expectations that are mindful of the capacity of each member.	
●	Expectations for credit and co-authorship are discussed prior to work beginning. ● Leadership is open to discussing changes to authorship policies if individual efforts or roles within the project change	Prior to work beginning, it should be made clear in writing what work will be credited and what work is expected for authorship. This may be a sentence written down about the expectations or a list of data collection and paper writing-related activities, with a clear number of activities needed to get included as an author. If this does not happen prior to work, the inherent power dynamics of the field team may make a member feel uncomfortable talking about it or asking to reassess whether the work done is appropriate for authorship. If anyone at any point feels that their work has exceeded what was previously discussed, ensure that there is a safe line of communication where this can be negotiated in or out of the field.
●	Members of the research team have access to university-branded equipment to establish legitimacy in the community if this is appropriate at the site.	Know before you go: it may either promote OR hinder field safety to have visible branding from your institution.

●	Leaders of the research team have identified local medical providers that are able to give quality care to QT individuals.	The Healthcare Equality Index provides information on safe healthcare facilities for queer and trans individuals via an interactive map.

Climate Prior to Fieldwork Score: _____ out of 14

Total Climate Score: _____ out of 25

Training

Objective: Prior to fieldwork, all members of the research team should participate in topical trainings in effort to promote an inclusive and safe field program for QT team members. Trainings should occur regularly, and the research team should debrief on the success or pitfalls of the training and how to apply this knowledge to their specific fieldwork.

	General Training	**Detailed Explanation & Resources**
●	There is a field safety training program that includes QT-specific risks and safety at your institution. ● It is funded and provided by the academic institution. ● Training is led by gender-affirming professionals with QT cultural competency. ● There is an anonymous way to request additional trainings or repeat trainings for the team if it becomes clear that the research team is not following the advice given in the trainings.	An example of university-provided trainings specific to QT issues can be found here.
Topics to cover in QT field safety training programs (listed alphabetically):		
● Awareness of gender-affirming (e.g., binders) and culturally relevant (e.g., hijab) clothing in fieldwork ● Bystander intervention ● De-escalation techniques		For bystander intervention and gender-based harassment and sexual assault prevention, look for trainings done by groups like Field Futures and ADVANCEGEO. For near-misses and Safety I vs Safety II training,

• Gender-based harassment and assault prevention • Identity-based risks and field safety • Implicit bias • Inherent power dynamics and boundary setting for personal empowerment • Recognizing and assessing privilege • Maintaining good mental health during the field season • QT safety during regional, national, and international fieldwork • training is specific to your field site • Risk assessment • Sexual harassment and assault prevention • Understanding and using appropriate, gender-inclusive language		look for resources such as https://www.outdoorrisk.com/. For LGBTQ+ field safety, pronoun use, and mental health trainings, look for resources such as https://ehs.berkeley.edu/publications/uc-field-safety-leadership-training-series.

•	QT-specific risk trainings are completed by all members of the research team.
	  • The training(s) is required at a minimum every two years.
	  • There is a debrief by the research team after the training to assess possible issues that still need to be addressed.
		To maintain an inclusive and safe field program, all members of the research team should be up to date on trainings. Recompleting trainings at regular intervals reinforces the dedicated commitment to QT safety in the field.
		
		Honest discussions surrounding the effectiveness, relevance, and impact of trainings are encouraged to identify where trainings fall short in promoting QT safety. Consider adding pre-and post-training assessments for members of the research team. In addition, take care to honor if QT individuals don't find the trainings to be having their desired impact or if more trainings are required.
		
		Here are some guiding questions for debriefing: *Did the training meet your expectations? Did the training provide new insights for promoting safety? How well did the training align with your field team's goals? What adjustments should be made to the field program, fieldwork protocols, or code of conduct to increase safety? How confident do you feel? What's missing?*

Total General Training Score: _____ out of 21

Reporting and Sharing Results

Objective: Posting the results of the field safety assessment publicly will demonstrate to QT individuals that your lab is a safe space for collaboration and encourage colleagues to complete this assessment in their lab. It allows prospective students to see that your team prioritizes QT field safety when considering joining your team.

	General	**Detailed Explanation & Resources**
●	A gender-affirming professional with QT cultural competency (*or* the whole research team) checks the assessment to ensure that it is filled out honestly.	If there is a field safety training program that includes QT-specific risks and safety at your institution, someone leading this training is considered a gender-affirming professional with QT cultural competency. If this is not available at your institution, reviewing this assessment with your whole lab works as well.
●	The result from this rubric for your lab or research team will be posted somewhere publicly (lab website, department website, Field Futures, etc.).	
●	Your lab has a scheduled plan to revisit this assessment every two years.	Re-assessing every two years allows your lab to measure progress toward making a QT-safe lab space. Additionally, it can remind your lab of points that were missed in the past and may have forgotten to work towards.

Total Reporting and Sharing Results Score: _____ out of 3

QT Field Safety Assessment Final Score: ____ out of 100

Evaluation	**Beginning**	**Emerging**	**Developing**	**Proficient**	**Exemplary**
Score Range	0 - 50	51 - 70	71 - 80	81 - 90	91 - 100
What does this score mean?	Don't be discouraged if your score falls in this category. Choosing to do the	Your team has some work to do to improve your field safety plan. Use this assessment	Your team has a good start on developing a QT field safety plan, but also has some room for growth. Use this	Your team is almost there! Your team is doing a great job planning for QT field safety; use	Your team is doing a stellar job to ensure QT field safety! Please

	assessment is a great step to identify action items to improve your field safety plan. Use this assessment, and the resources found in the metadata, to improve your field safety plan, and take the assessment again once your team is ready.	to identify what action items can be done to improve your team's field safety readiness, and be sure to use resources listed in the metadata for guidance.	assessment to identify what action items can still be done to improve your team's field safety readiness.	this assessment to identify what action items can still be done to improve your team's field safety readiness.	consider sharing your field safety strategies with fellow research teams to make field research safer for everyone!

QT Field Safety Assessment

Introduction

Objective: This QT Field Safety Assessment provides a detailed checklist **to assess field safety readiness**, with a strong focus on ensuring the safety of queer and trans (QT) team members.**The field station manager** should **gather the field station's existing safety plans, materials, and resources and** fill out this assessment on their own to the best of their ability. Finally, some of the items may be out of the control of a field station manager, but are intended to help acknowledge and incorporate the potential impact of the climate outside of the field station (for example, at the department or university level). Once the field station manager has filled out the assessment, they should schedule a meeting during a time that works for all other members of the field station team to review together, discuss any discrepancies, with the aim of coming to a consensus.

Afterwards, use the assessment to identify action items for the team to improve their score, and create a timeline for accomplishing them. For instance, the assessment may reveal that your field safety protocol is missing a conflict resolution plan. The next step would be to schedule time to develop one together. If your team needs help getting started, there and there are resources provided in the "Detailed Explanation & Resources" section.

Assessment: The assessment is broken down into four categories (Protocols, Accessibility, Climate, and Training). The score will be based on how well a field station incorporates best practices for QT researchers. Each checkbox is worth 1 point. To get a point for a sub-checkbox, you must score the superseding main checkbox. An evaluation is calculated based on the sum of points. There are 31 possible points in the Protocols section, 23 in Accessibility, 21 in Climate, 20 in Training, and 3 in Reporting and Sharing Results.

Evaluation	**Beginning**	**Emerging**	**Developing**	**Proficient**	**Exemplary**
Score Range	0 - 50	51 - 70	71 - 80	81 - 90	91 - 100

Protocols

Objective: Protocols detailing fieldwork guidelines are essential to a safe and inclusive field program by helping identify and mitigate potential risks in the field setting. Protocols may vary based on the type of research, the field site, and the needs of the research team. Nevertheless, protocols for a field station apply to all field station staff and visiting researchers and should prioritize safety, inclusivity, equity, and empowerment for all. Protocols are established prior to engaging in fieldwork and are reviewed and revised regularly or as personnel changes.

Score [1 point available each]	**Protocol for Field Station Staff**	**Detailed Explanation & Resources**
●	Field safety protocols are up-to-date and co-created by all members of the field site staff.	Field safety protocols are powerful tools that detail structured approaches to manage unpredictable risks and hazards. They also serve to outline guidelines for respectful behavior for all personnel. A sample field safety plan and redacted examples for environmental science work can be found on the UC Berkeley ESPM Field Safety website.
●	All staff members (new and existing) have the opportunity to provide feedback for updating the protocol. ● Members can contribute to the protocol anonymously.	One option to maintain anonymity is to have an anonymous online form for members to provide feedback or points of issues that need to be addressed in future protocols. Note that it may not be possible to keep feedback anonymous. For example, if there is only one QT staff member, they might be singled out. The field station leader should work in good faith to incorporate comments without singling out who made them.
●	Dedicated administration-level support is available when developing a field safety protocol for the field station.	The safety officer of your department may lead this, the Environmental Health and Safety (EH&S) department, or a department administrator in charge of fieldwork or safety. Regardless, there should be a staff member who can assist in double-checking the existence and contents of your field safety protocol. Ideally, this staff member will have some knowledge about the specific needs of QT members of the field team.
●	Field safety protocols are routinely reviewed at least annually, and updated based on team member feedback, incidents, near misses,	It is important to keep written records of incident management in the field. Near misses and incident reports should be accessible to the crew at all times during fieldwork.

	or experiences from prior field seasons.	A **near miss** is an event where no injury occurred, but a slight change in timing or location could have resulted in an injury. These, along with actual injuries, need to be taken seriously and used as learning experiences to improve future safety protocols. These records should also include instances of microaggressions and harassment against members of the field team and members of the communities.
●	Field safety protocols include a conflict resolution plan to address potential conflict between staff members at the station.	If one does not exist, here are some public resources.
●	Informational fliers on personal reporting mechanisms and institutional reporting mechanisms are explicitly previewed in high traffic areas on the field station. ● There are resources that discuss near-misses and injuries in the field. ● There is contact information to report other incidents of harassment or assault (e.g., Title IX, relevant crisis line numbers).	Reports may be made to your PI, the safety officer of your department, or the EH&S department. Protocol for reporting harassment and assault may want to include resources for QT employees facing workplace discrimination, which can be found here. In this section, make a note of who may be responsible employees in your community. Responsible employees are required to report suspected abuse, neglect, or violations as soon as possible to appropriate authorities.
●	There are protocols for emergency situations and evacuations that are reviewed with all staff members. These are previewed in high traffic areas of the field station.	Emergency situations may include wildfire events, extreme storms, active shooter or bomb threats, or chemical spills along with other potential disasters. Protocols for emergency situations and evacuations should be key components of field station preparedness. These protocols include fire exit routes, contact information for local first responders, plans for certain extreme weather events or likely emergencies written down in detail, or maps with drivable or hikeable evacuation routes. Documents detailing these protocols like printed versions of exit routes and accessible roads by car should always be shared with visiting groups.

●	Documented medical information is kept private by the PI or crew lead and is only available to others in case of emergency, respecting HIPAA and individual privacy regarding protected health information.	
●	Field protocols include discussions of cultural and political considerations and communication policies for local communities.	Field protocols should consider questions such as: *How will you communicate with communities at and around your field sites?* A more detailed set of questions to ask can be found here: Field safety checklist
●	Protocol measures include language for accountability and consequences if a field station staff member violates established safety procedures.	Protocol violations could result in verbal warnings, additional training, and disciplinary actions. The field safety officer or designated point person is responsible for enforcing and applying consequences for field safety violations, which may be included in your Code of Conduct.
●	There are protocols that allow for flexibility in accommodations and housing changes during fieldwork if needed.	
●	Field safety protocols and accommodations explicitly discuss gender-affirming and culturally relevant clothing (e.g., binders, hijabs).	For example, a researcher wearing a binder may experience greater heat-related stress. Accommodations should account for this by incorporating more breaks, offering specialized field gear, and/or private changing areas in the field. etc.
●	There are protocols for organized medical emergency responses. Medical care is gender-affirming and does not compromise the safety and security of QT individuals. ● There are protocols that specifically address the needs of QT team members, accounting for person-specific needs. ● Identify the location of the	QT individuals may have different treatment needs in the field than other field scientists. For example, someone experiencing heat stroke or a heart issue who is wearing a binder will be experiencing additional compression on their chest during the emergency. Someone taking testosterone shots in the wilderness may have a higher rate of infection due to open injection sites. Basic and wilderness first aid courses are offered by the American Red Cross and other training organizations.

	nearest emergency care hospitals. ● All members of the field station team are Wilderness First Aid certified. ● If possible, register your field trip with any associated university travel insurance to get coverage for medical care and evacuations while traveling.	

Protocol for Field Station Staff Score: _____ out of 20

	Protocol Creation for interactions between Visiting Researchers & Site Managers	**Detailed Explanation & Resources**
●	Site manager establishes a check-in protocol between staff and visiting scientists.	A check-in protocol should include frequent contact between onsite staff and visiting researchers in the case of emergency. If contact is not available (e.g., no wifi, cell service), come up with some alternative plan.
●	Field safety protocols include a conflict resolution plan to address potential conflict between staff and visiting scientists.	
●	There are systems in place to check in with visiting research scientist(s) about their accommodations and necessary resources prior to the arrival. ● The field station manager has access to the visiting research team's field safety protocol during their visit. ● The field station manager has emergency contact information and critical medical information for the visiting research team. This information is kept private.	

●	Protocols for emergency situations and evacuations are reviewed with each visiting research group upon arrival to the station. Participation is mandatory.	
●	The field safety plan includes explicit notation regarding “all-stop” conditions during field work. ● Every individual has equal rights to determine if an “all-stop” is reached during work. ● The equipment used to determine if “all-stop” conditions have been met are easily accessible to all crew members and in working condition.	“All-stop” criteria are conditions where work will cease immediately for the safety of the crew. This will be case dependent determined by the risks and type of work being conducted. Ex: when flying a drone for research, “all-stop” conditions might be winds exceeding 20 mph. When 20 mph winds occur, the drone will be landed immediately and work will cease until the conditions become safe. Despite the power structure that exists on the project for determining work and making decisions, this power structure cannot apply to “all-stop” criteria. Every member of the team has a right to prioritize their personal safety. If all stop criteria are determined ahead of time, it should be easy to ensure every member is able to accurately assess those criteria and call for a work stoppage. If the crew lead is flying the drone and a crew member checks the wind speeds, the crew member has the power to call a work stoppage if they find that “all-stop” wind conditions are occurring. The crew lead should never request that the team push through these conditions.
●	Local cultural and political considerations are communicated to all visiting researchers upon arriving at the field station.	Field protocols should consider questions such as: *How will you explain your research to the local community? How will you ensure that your work is not detrimental to the local community? How will community safety be prioritized? Are there political or cultural differences that may cause your crew or community members to feel unsafe?* A more detailed set of questions to ask can be found here: Field safety checklist
●	Protocol measures include language for accountability and consequences if a visiting field researcher(s) violates established safety procedures.	Protocol violations could result in verbal warnings, additional training, and disciplinary actions. The field safety officer or designated point person is responsible for enforcing and applying

		consequences for field safety violations, which may be included in your Code of Conduct.

Protocol Creation for interactions between Visiting Researchers & Site Managers Score_____out of 11

Total Protocols Score: _____ out of 31

Accessibility

Objective: Researchers in the field and at field stations must have access to basic necessities. This section lists ways to ensure that accessibility options address safety, identity affirmation, and health-related needs. The field safety officer is primarily responsible for ensuring that fieldwork is accessible to all researchers.

	Field Station Accessibility	**Detailed Explanation & Resources**
●	A field station manager is responsible for maintaining and upholding access to necessary equipment and spaces and ensuring that all needs are met throughout the project's duration. Name point person here:_____	To decentralize this power, this position could be designated to multiple people at the field station.
●	Before research team arrives, a resource list is sent out to explain the resources (e.g., first aid kit) available at the field station. ● Before fieldwork, a survey is sent out by the field station manager to determine team members' needs regarding medication, dietary restrictions, and other accommodations.	This resource list will vary based on the kind of fieldwork. A comprehensive and up-to-date list of resources at the field site is provided, which allows for best practices in field safety, emergency response, and sustainable fieldwork for all members of the research team. This point person for the survey could be the PI or field safety manager. To decentralize this power, this position could be designated to two people. Do not ask for or store HIPAA protected information, such as why someone needs a specific accommodation. If you need this information, work with your campus Disability Center.
●		Examples include:

	The field station assigns a list of mandatory requirements– such as documents, vaccinations, and/or medications– that all team members must have in order to conduct fieldwork on the station grounds.	- necessary passports and travel documents - prophylactic vaccinations and medications (e.g. anti-malaria) - QT-specific medications or therapies (e.g., HRT)
●	There is explicit written communication of physical demands and/or environmental challenges relevant to conducting research at your field site.	
●	Individual privacy needs are respected and protected in housing and bathing facilities.	For fieldwork with a designated field station, housing should not be gendered, and QT individuals should not be forced to sleep separately. They should be provided the opportunity to sleep separately if desired but never forced. If desired, members should have the option of having a single room. If space is an issue, there must be some way to guarantee privacy, such as using privacy screens/curtains for sleeping areas. Ensuring privacy in certain types of fieldwork can be more challenging, such as in remote/backcountry sites, yet it does not excuse a lack of an attempt at providing privacy. This can be achieved through solo tents, a private and secluded sleeping area, etc.
●	Housing and bathing facilities have non-gendered/communal options.	
●	QT individuals are not forced to sleep separately or segregated from other individuals.	
●	Individual housing options are provided (e.g., single room, solo tent).	
●	Privacy is ensured in the bathroom. At least one single, private bathroom option is available.	Privacy policies also apply to bathroom use, where if members are sharing a bathroom, individuals are ensured full privacy, and the bathroom can be locked when in use. Examples of private bathroom options include a solo stall in a bunk house, the ability to separate from the group in the backcountry to use the bathroom privately, or having access to a pop-up tent. In remote areas, the expectations of privacy remain the same.
●	A private bathing area is provided in housing (solo enclosed bathroom with locking doors). If working in the backcountry, individuals are able to bathe privately (at least with body wipes in a secluded or private location).	

●	The field station has communal, clean products to use in the bathroom (e.g., toilet paper, shovel, menstrual products, hand sanitizer, bathing products, and paper towels). These are provided along with a fully stocked first aid kit, sunscreen, and bug spray (and/or other supplies as needed). ● It is in an easily accessible location. ● This location is also accessible in private if needed. ● It is kept in stock and supplies are not outdated/expired.	Many field station resource lists exist, such as these: ● REI First-Aid Checklist ● UCLA Field Safety Research Manual, see Appendix 3 ● UC Berkeley First Aid Kit Importantly, these lists are for general fieldwork safety and do not consider the possible needs of specific individuals. Check with the research team to see if there are supplies that are needed and are not present at the field station, and see if it's something that can be brought by the research team.
●	There are accessible places to store any necessary medication (e.g., refrigerators).	For remote fieldwork, this may be more difficult. Have a one-on-one discussion with team members to see if this is needed, and if so, consider developing an alternative research plan. For example, an alternative research plan may include more visits to a nearby site with electricity than originally planned.
●	Required field gear is in good condition and, to the extent possible, can be worn at the same time as gender-affirming garments.	
●	Access to laundry is available if fieldwork is an extended period of time, or if otherwise necessary (access to machines, backcountry washing plan, etc.).	For remote fieldwork, have a plan to do laundry regularly. There are guides available for how to do laundry while remote, such as: ● Cleaning clothes in the backcountry ● Doing laundry on the backpacking trail

Field Station Accessibility Score:_____out of 18

	Personnel Accessibility	**Detailed Explanation & Resources**
●	There are systems in place to honor one's lived name and pronouns, even if they differ from legal documentation.	This could be discussed in the code of conduct (see climate). Systems in place: Your university may have policies regarding gender recognition and care, such as these examples: ● UC Santa Cruz Gender Recognition and Lived Name Policy ● UC Berkeley Transgender and Gender

		Diversity Care ● Central Michigan University Gender Recognition and Lived/Chosen Name Policy These resources should be comprehensive and include guidelines for gender and lived name care in terms of legal, medical, and workspace culture. There may be difficulties with passports/IDs for trans people during international fieldwork and support for people whose names/genders/etc do not match.
●	There is a screening process for working with new on-site staff members or research groups traveling to the field station (may not always be applicable). ● If the new personnel are not associated with the university (e.g., private landowners), they sign a document that includes their name, signatures, contact information (phone # or email) and confirmation that the research can be conducted on that site.	Screening new personnel may be in the form of having a conversation about QT field safety and normalizing this dialogue. This can be a way to get a feel for an individual's perspective without feeling too confrontational. Screening a new fieldwork location may come in the form of assessing field safety protocols that are already in place (or lack thereof). This should be done by all members engaging in fieldwork. This may not apply to some field settings.
●	Researchers and/or field station staff are not expected to go into the field alone. If fieldworkers must perform fieldwork alone, they are equipped with an emergency phone and field safety kit.	Alternatives to engaging in fieldwork alone may be going in pairs, having a point person on call in case of emergencies, having radio communication at all times, etc.
●	The field station staff or research team discusses plans for rest based on the needs of every individual.	

Personnel Accessibility Score: _____out of 5

Total Accessibility Score: _____ out of 23

Climate

Objective: Climate describes the socioemotional space within the research team and at the field site. All participants must feel safe, represented, and comfortable to raise any potential concerns with authority figures and peers without fear of being reprimanded.

Both the field station staff and incoming research team should foster an inclusive community, which is vital for safe fieldwork.

	General Climate	**Detailed Explanation & Resources**
●	A code of conduct is crafted with input from all members of the field staff. ● The code of conduct is reviewed with all visiting research scientists ● The code of conduct is readily available (e.g., posted high-traffic areas at the field station, in the lab or office space on campus, on lab website) ● The code of conduct has a community agreement. ● The code of conduct has specific language around a team-wide recognition of the need for representation of and respect for QT identities to ensure all field members are safe and feel included. ● The code of conduct is a living document and is updated or reviewed at least annually.	Example codes of conduct can be found here: https://www.cscce.org/resources/ On developing community agreements: https://www.nationalequityproject.org/tools/developing-community-agreements In the code of conduct, take special care to recognize and honor 'invisible' and intersectional identities, including one's chosen name and pronouns, and avoid making generalities or assumptions. This should also include statements about recognizing personal privilege and biases.
●	There is an open line of communication for all members of the field station team to discuss the power dynamics inherent to the field site. ● The field station team discusses the power dynamics at the field site at the beginning of each field season with incoming field researchers. ● The field station team discusses the power dynamics within the team as roles or personnel change.	Power dynamics describe the inherent, imbalanced distribution of power between groups or individuals. Power dictates the structure of professional and interpersonal relationships. Power may be inherently distributed among groups at the field site, including field station managers, other research groups, locals, volunteers, and law enforcement. Within the research team, an individual's race, ethnicity, sex, gender, age, and other intersectional identities affect their position of power.
●	Field station staff and members of the	These resources may include safety manuals or

	research team share local resources and opportunities specifically related to promoting safety and inclusivity in field programs to stay up to date on the best practices.	journal articles and can extend to programs at diversity centers, legal support, and QT-friendly healthcare.
●	The location of research is assessed by field station staff for potential dangers specifically for QT individuals (this applies both domestically and/or internationally). ● If fieldwork is conducted in an area that is dangerous specifically for QT individuals, the research team is alerted by the field station staff and consulted about this danger.	QT field members may face additional challenges when traveling for fieldwork, including harassment, discrimination, barriers to entry, and physical violence. Research local laws and restrictions that pose safety risks when traveling within the US and internationally: ● Map of states with anti-LGBTQ+ legislation (ACLU) ● US State Department Travel Advisories ● US State Department LGBTQ+ Travel Considerations ● UC Davis LGBTQ+ Travel Advisories
●	There are NO negative consequences for individuals who choose to opt out of fieldwork due to safety concerns before or during fieldwork. ● In cases where the goals of the field program cannot be fulfilled as intended, an alternative research project or plan is designed.	Alternative research plans may include virtual field trips using Google Earth, laboratory experiments, data processing and analysis, or returning to the field site at another time when it is safer.
●	There is an established support system where all members at the field site can confidentially request support for themselves or another member. ● The support system allows members to check in without having to initiate (e.g., it occurs regularly).	This support system could take on many forms, including a designated point person from the research team/field staff for routine check-ins, your university's field safety officer, or a counselor at a nearby or offsite location. Ideally, the support team should be available at emergency-notice.
●	Members of the field station staff have discussed and set balanced work expectations that are mindful of the capacity of each member.	
●	Field station staff check with the	Know before you go: it may either promote OR hinder field safety to have visible branding from

	incoming research team that they have university-branded equipment to establish legitimacy in the community if this is appropriate at the site.	your institution.
●	Field station has visible information on local medical providers that are able to give quality care to QT individuals.	The Healthcare Equality Index provides information on safe healthcare facilities for QT individuals via an interactive map.
●	A meeting is held **after** fieldwork with the entire field station staff and research team to review the assessment, identifying what worked and what still needs to be addressed. ● An anonymous feedback option is provided. Date of meeting here: _____	It may be helpful to provide questions that could help shape the check-in such as “Were there moments when you felt unsafe?” or “What additional resources would have been helpful?”.

Total General Climate Score: _____ out of 21

Training

Objective: Prior to fieldwork, all members of the field station staff should participate in topical trainings in effort to promote an inclusive and safe field program for QT team members. Trainings should occur regularly, and the field station staff should debrief on how they can support each other and incoming field researchers.

	General	**Detailed Explanation & Resources**
●	There is a field safety training program that includes QT-specific risks and safety. ● Training is led by gender-affirming professionals with QT cultural competency. ● There is an anonymous way to request additional trainings or repeat trainings for the team if it becomes clear that the field station team is not following the advice given in the trainings.	An example of university-provided trainings specific to QT issues can be found here.

Topics to cover in QT field safety training programs (listed alphabetically):		
• Awareness of gender-affirming (e.g., binders) and culturally relevant (e.g., hijab) clothing in fieldwork • Bystander intervention • De-escalation techniques • Gender-based harassment and assault prevention • Identity-based risks and field safety • Implicit bias • Inherent power dynamics and boundary setting for personal empowerment • Recognizing and assessing privilege • Maintaining good mental health during the field season • QT safety during regional, national, and international fieldwork ◦ training is specific to your field site • Risk assessment • Sexual harassment and assault prevention • Understanding and using appropriate, gender-inclusive language		For bystander intervention and gender-based harassment and sexual assault prevention, look for trainings done by groups like Field Futures and ADVANCEGEO. For near-misses and Safety I vs Safety II training, look for resources such as https://www.outdoorrisk.com/. For LGBTQ+ field safety, pronoun use, and mental health trainings, look for resources such as https://ehs.berkeley.edu/publications/uc-field-safety-leadership-training-series.

•	QT-specific risk trainings are completed by all members of the field station staff.
	  ◦ The training(s) is required at a minimum every two years.
	  ◦ There is a debrief by the staff after the training to assess possible issues that still need to be addressed.
		To maintain an inclusive and safe field program, all members of the research team should be up to date on trainings. Recompleting trainings at regular intervals reinforces the dedicated commitment to QT safety in the field.
		
		Honest discussions surrounding the effectiveness, relevance, and impact of trainings are encouraged to identify where trainings fall short in promoting QT safety. Consider adding pre-and post-training assessments for members of the research team. In addition, take care to honor if QT individuals don't find the trainings to be having their desired impact or if more trainings are required.
		
		Here are some guiding questions for debriefing: *Did the training meet your expectations? Did the training provide new insights for promoting*

		safety? How well did the training align with your field team's goals? What adjustments should be made to the field program, fieldwork protocols, or code of conduct to increase safety? How confident do you feel? What's missing?

Total Training Score: _____ out of 20

Reporting and Sharing Results

Objective: Posting the results of the field safety assessment publicly will demonstrate to QT individuals that your field station is a safe space for fieldwork. It allows all researchers to see that your field station team has put in the time and effort to prioritize QT fieldwork safety .

	General	**Detailed Explanation & Resources**
●	A gender-affirming professional with QT cultural competency (*or* the whole field station team) checks the assessment to ensure that it is filled out honestly.	If there is a field safety training program that includes QT-specific risks and safety at your relative institution, someone leading this training is considered a gender-affirming professional with QT cultural competency. If this is not available at your relative institution, reviewing this assessment with your whole team works as well.
●	The result from this rubric for your field station team is posted somewhere publicly (field station website, Field Futures, etc.).	
●	Your station has a scheduled plan to revisit this assessment every 2 years.	Re-assessing every two years allows your station to measure progress toward making a QT-safe field site. Additionally, it can remind you of points that were missed in the past and may have forgotten to work towards.

Total Reporting and Sharing Results Score: _____ out of 3

QT Field Safety Assessment Final Score: ____ out of 100

Evaluation	**Beginning**	**Emerging**	**Developing**	**Proficient**	**Exemplary**
Score Range	0 - 50	51 - 70	71 - 80	81 - 90	91 - 100
What does this score mean?	Don't be discouraged if your score falls in this category. Choosing to do the assessment is a great step to identify action items to improve your field safety plan. Use this assessment, and the resources found in the metadata, to improve your field safety plan, and take the assessment again once your team is ready.	Your team has some work to do to improve your field safety plan. Use this assessment to identify what action items can be done to improve your team's field safety readiness, and be sure to use resources listed in the metadata for guidance.	Your team has a good start on developing a QT field safety plan, but also has some room for growth. Use this assessment to identify what action items can still be done to improve your team's field safety readiness.	Your team is almost there! Your team is doing a great job planning for QT field safety; use this assessment to identify what action items can still be done to improve your team's field safety readiness.	Your team is doing a stellar job to ensure QT field safety! Please consider sharing your field safety strategies with fellow research teams to make field research safer for everyone!

QT Field Safety Assessment

Introduction

Objective: This QT Field Safety Assessment gives professors and TAs a detailed checklist to **assess their field safety readiness**, with a strong focus on ensuring the safety of queer and trans (QT) students and staff**. The field course teaching team lead** (e.g. teacher, lead TA) fills out this assessment on their own to the best of their ability. While they should be able to complete the assessment in its entirety, some of the items may be out of the control of a teacher or lead TA, but are intended to help acknowledge and incorporate the potential impact of the climate outside of the field teaching team (for example, at the department or university level). **Gather your teaching team's existing safety plans, materials, and resources and share them with team members to review.** Once the team lead has filled out the assessment, they should schedule a meeting during a time that works for all members of the team to review together, discuss any discrepancies, with the aim of coming to a consensus.

Afterwards, use the assessment to identify action items for the team to improve their score, and create a timeline for accomplishing them. For instance, the assessment may reveal that your field safety protocol is missing a conflict resolution plan. The next step would be to schedule time to develop one together. If your team needs help getting started, there and there are resources provided in the “Detailed Explanation & Resources” section.

Assessment: The assessment is broken down into four categories (Protocols, Accessibility, Climate, and Training) and encompasses best practices before, during, and after fieldwork. The score will be based on how well a research lab/team abides by best practices for QT researchers. Each checkbox is worth 1 point. To get a point for a sub-checkbox, you must score the superseding main checkbox. An evaluation is calculated based on the sum of points. There are 30 possible points in the Protocols section, 26 in Accessibility, 23 in Climate, 22 in Training, and 3 in Reporting and Sharing Results.

Evaluation	**Beginning**	**Emerging**	**Developing**	**Proficient**	**Exemplary**
Score Range	0 - 50	51 - 70	71 - 80	81 - 90	91 - 100

Protocols

Objective: Protocols detailing fieldwork guidelines are essential to a safe and inclusive field program by helping identify and mitigate potential risks in the fieldwork setting. Protocols in fieldwork often vary based on the type of research, the field site, and the needs of the students. Thus, protocols should be co-created by the entire teaching team with feedback from participating students, prioritizing safety, inclusivity, equity, and empowerment. Protocols are established prior to engaging in fieldwork and are reviewed and revised regularly or as personnel changes.

Score [1 point available each]	Protocol Creation	Detailed Explanation & Resources
●	Field safety protocols are co-created by all members of the course. If a field safety protocol has already been created for past seasons, all new teaching team members and students have the opportunity to provide feedback and change the protocol before beginning work.	Field safety protocols are powerful tools that detail structured approaches to manage unpredictable risks and hazards. They also serve to outline guidelines for respectful behavior for all personnel. A sample field safety plan and redacted examples for environmental science work can be found on the UC Berkeley ESPM Field Safety website.
●	Field safety protocols are created PRIOR to leaving for the field site. ● Students are given a finalized, updated field safety protocol prior to leaving for the field portion of the course.	
●	All teaching team members (new and existing) have the opportunity to provide feedback for updating the protocol. ● Members can contribute to the protocol anonymously.	One option to maintain anonymity is to have an anonymous online form for members to provide feedback or points of issues that need to be addressed in future protocols. Note that it may not be possible to keep feedback anonymous. For example, if there is only one QT team member, they might be singled out. The PI or field team leader should work in good faith to incorporate comments without singling out who made them.
●	Dedicated administration-level support is available when developing your team's field safety protocol. ● Administration requires co-creation and discussion of field safety	The safety officer of your department may lead this, the Environmental Health and Safety (EH&S) department, or a department administrator in charge of fieldwork or safety. Regardless, there should be a staff member who can assist in double-checking the existence and contents of your field safety protocol. Ideally, this staff member will

	protocols for the field course. ● Protocols are screened by someone outside of the team (e.g., a university- or department-designated field course instructor) to ensure their contents support the safety/inclusivity of QT team members.	have some knowledge about the potential needs of QT members of the field teaching team/students.
●	Field safety protocols are routinely reviewed at least annually, and updated based on team member feedback, incidents, near misses, or experiences from prior field seasons.	It is important to keep written records of incident management in the field. Near misses and incident reports should be accessible to the crew at all times during fieldwork. A **near miss** is an event where no injury occurred, but a slight change in timing or location could have resulted in an injury. These, along with actual injuries, need to be taken seriously and used as learning experiences to improve future safety protocols. These records should also include instances of microaggressions and harassment against members of the field team and members of the communities.

Protocol Creation Score:_____ out of 9

	Protocol Contents (general)	**Detailed Explanation & Resources**
●	Field safety protocols require regular check-ins with on and off-site personnel (e.g., home institution, personal emergency, and/or local contact).	These check-in protocols should include frequent contact with someone independent of the field team who can identify if you or your team need emergency assistance.
●	Field safety protocols include a conflict resolution plan.	Use your university's conflict resolution plan. If one does not exist, here are some public resources.
●	There is explicit written communication of duties and expectations (see explanation for examples), which includes any accommodations and/or resources necessary for field safety.	This should be written in good faith with flexibility to best accommodate accessibility and scheduling needs. This could include details on job duties, physical tasks/demands, housing, and privacy expectations.
●	Personal reporting mechanisms and	Reports may be made to your PI, the safety

	institutional reporting mechanisms are explicitly outlined. ● There is a protocol to report and discuss near-misses and injuries in the field. ● There is a protocol to report other incidents of harassment or assault (e.g., Title IX, relevant crisis line numbers).	officer of your department, or the EH&S department. Protocol for reporting harassment and assault may want to include resources for QT employees facing workplace discrimination, which can be found here. In this section, make a note of who may be responsible employees in your community. Responsible employees are required to report suspected abuse, neglect, or violations as soon as possible to appropriate authorities.
●	There are protocols for emergency situations and evacuations that are reviewed with all teaching team members.These are previewed in high traffic areas of the field course.	Emergency situations may include wildfire events, extreme storms, active shooter or bomb threats, or chemical spills along with other potential disasters. Protocols for emergency situations and evacuations should be key components of field course preparedness. These protocols include fire exit routes, contact information for local first responders, plans for certain extreme weather events or likely emergencies written down in detail, or maps with drivable or hikeable evacuation routes. Documents detailing these protocols like printed versions of exit routes should always be shared within the field course group.
●	Documented medical information is kept private by a member of the teaching team (e.g., professor, TA, GSI) and is only available in case of emergency, respecting HIPAA and individual privacy regarding protected health information.	
●	Field protocols include discussions of cultural and political considerations and communication policies for local communities.	Field protocols should consider questions such as: *How will you communicate with communities at and around your field sites? How will you explain your research to the community? How will you ensure that your work is not detrimental to the local community? How will community safety be prioritized? Are there political or cultural*

		differences that may cause your crew or community members to feel unsafe? A more detailed set of questions to ask can be found here: Field safety checklist
●	Protocol measures include language for accountability and consequences if a teaching team member violates established safety procedures. These consequences are discussed before fieldwork.	Protocol violations could result in verbal warnings, additional training, and disciplinary actions. The field safety officer, PI, or designated point person is responsible for enforcing and applying consequences for field safety violations, which may be included in your Code of Conduct.

Protocol Contents (general) Score:_____ out of 10

	Protocol Contents (for fieldsite and crew)	**Detailed Explanation & Resources**
●	There are protocols that allow for flexibility in accommodations and housing changes during fieldwork if needed.	
●	Field safety protocols and accommodations explicitly discuss gender-affirming and culturally relevant clothing (e.g., binders, hijabs).	For example, a student wearing a binder may experience greater heat-related stress. Accommodations should account for this by incorporating more breaks, offering specialized field gear, and/or private changing areas in the field. etc.
●	There are protocols for organized medical emergency responses. Medical care is gender-affirming and does not compromise the safety and security of QT individuals. ● There are protocols that specifically address the needs of QT team members, accounting for person-specific needs. ● Identify the location of the nearest emergency care hospitals. ● At least one person on the	QT individuals may have different treatment needs in the field than other field scientists. For example, someone experiencing heat stroke or a heart issue who is wearing a binder will be experiencing additional compression on their chest during the emergency. Someone taking testosterone shots in the wilderness may have a higher rate of infection due to open injection sites. Basic and wilderness first aid courses are offered by the American Red Cross and other training organizations. The Healthcare Equality Index provides information on safe healthcare facilities for queer and trans individuals via an interactive map.

	field team is first-aid certified. If you are traveling more than an hour from access to advanced medical care, ensure at least one person is Wilderness First Aid certified. ● If possible, register your field trip with any associated university travel insurance to get coverage for medical care and evacuations while traveling.	
●	All members of the teaching team are trained in understanding QT risks and accommodations.	Participating in cultural competency trainings can provide a more in-depth understanding of the unique risks and everyday challenges of QT folks, subverting heteronormative assumptions. Example trainings can be found here: https://www.thetrevorproject.org/ally-training/ https://thesafezoneproject.com/activities/
●	The field safety plan includes explicit notation regarding "all-stop" conditions during field work. ● Every individual has equal rights to determine if an "all-stop" is reached during the course. ● The equipment used to determine if "all-stop" conditions have been met are easily accessible to all crew members and in working condition.	"All-stop" criteria are conditions where work will cease immediately for the safety of the crew. This will be case dependent determined by the risks and type of work being conducted. Ex: when flying a drone for research, "all-stop" conditions might be winds exceeding 20 mph. When 20 mph winds occur, the drone will be landed immediately and work will cease until the conditions become safe. Despite the power structure that exists on the project for determining work and making decisions, this power structure cannot apply to "all-stop" criteria. Every member of the team has a right to prioritize their personal safety. If all stop criteria are determined ahead of time, it should be easy to ensure every member is able to accurately assess those criteria and call for a work stoppage. If the crew lead is flying the drone and a crew member checks the wind speeds, the crew member has the power to call a work stoppage if they find that "all-stop" wind conditions are occurring. The crew lead should never request that the team push through these conditions.

Protocol Contents (for fieldsite and crew) Score: ____ out of 11

Total Protocols Score: _____ out of 30

Accessibility

Objective: Researchers in the field and at field stations must have access to their basic necessities. This section lists ways to ensure that accessibility options address safety, identity affirmation, and health-related needs. The field team leader or an appointed field safety officer is primarily responsible for ensuring that fieldwork is accessible to all students and that detailed accessibility information is shared with all members of the field course prior to fieldwork.

	General Accessibility	**Detailed Explanation & Resources**
●	A designated point person is responsible for maintaining and upholding access to necessary equipment and spaces and ensuring that all needs are met throughout the project's duration. ● This point person will ensure that the costs for the necessary permits, equipment, travel costs, and other needs do not fall on the student. Name point person here:_____ _____	This point person could be the PI or field safety officer. To decentralize this power, this position could be designated to two people. PIs or Departments can assist in providing the funds for training (e.g., Wilderness First Aid) and equipment (e.g., satellite phones). They should be doing what they can in their power to assist in the funding and purchasing.
●	There are systems in place to honor one's lived name and pronouns in the field, even if they differ from legal documentation.	This could be discussed in the code of conduct (see climate). Systems in place: Your university may have policies regarding gender recognition and care, such as these examples: ● UC Santa Cruz Gender Recognition and Lived Name Policy ● UC Berkeley Transgender and Gender Diversity Care ● Central Michigan University Gender Recognition and Lived/Chosen Name Policy

		These resources should be comprehensive and include guidelines for gender and lived name care in terms of legal, medical, and workspace culture. There may be difficulties with passports/IDs for trans people during international fieldwork and support for people whose names/genders/etc do not match.
●	There is a screening process for working with new personnel or traveling to a new fieldwork location (may not always be applicable). ● If personnel at a new fieldwork location are not associated with a university (e.g., private landowners), they sign a document that includes their name, signatures, contact information (phone # or email), and confirmation that the research can be conducted on that site.	Screening new personnel may be in the form of having a conversation about QT field safety and normalizing this dialogue. This can be a way to get a feel for an individual's perspective without feeling too confrontational. Screening a new fieldwork location may come in the form of assessing field safety protocols that are already in place (or lack thereof). This should be done by all members engaging in fieldwork. This may not apply to some field settings.
●	Prior to international travel, students are given timely instructions on: ● necessary passports and travel documents ● prophylactic vaccinations and medications (e.g. anti-malaria) ● accessibility of QT-specific medications or	Good to know for air travel: Body scanning technology used for airport security requires TSA agents to personally identify the gender of the traveler. The machine scans the traveler's body, and if the body parts do not match what is expected on the scan, the traveler may be flagged for additional searches. This is an invasive procedure that has the risk of escalation. Registering for TSA precheck can allow people to walk through metal detectors rather than body scanners, but this is associated with additional costs.

	therapies (e.g., HRT)	

General Accessibility Score: _____ out of 8

	Field Site Accessibility	**Detailed Explanation & Resources**
●	Before fieldwork, a resource list is sent out to explain the resources available at the field site. Students and staff are provided with an explicit list of what they are required and recommended to bring themselves.	This resource list will vary based on the kind of fieldwork. A comprehensive and up-to-date list of resources at the field site is provided, which allows for best practices in field safety, emergency response, and sustainable fieldwork for all members of the field course.
●	There is explicit written communication of physical demands and/or environmental challenges relevant to conducting research at your field site.	Ideally, these details are given by the field site manager to the lead researcher to share with the team.
●	Individual privacy needs are respected and protected in housing and bathing facilities.	For fieldwork with a designated field station, housing should not be gendered, and QT individuals should not be forced to sleep separately. They should be provided the opportunity to sleep separately if desired but never forced. If desired, members should have the option of having a single room. If space is an issue, there must be some way to guarantee privacy, such as using privacy screens/curtains for sleeping areas. Ensuring privacy in certain types of fieldwork can be more challenging, such as in remote/backcountry sites, yet it does not excuse a lack of an attempt at providing privacy. This can be achieved through solo tents, a private and secluded sleeping area, etc.
●	Housing and bathing facilities have non-gendered/communal options.	
●	QT individuals are not forced to sleep separately or segregated from other individuals.	
●	Individual housing options are provided (e.g., single room, solo tent).	

●	Privacy is ensured in the bathroom. At least one single, private bathroom option is available.	Privacy policies also apply to bathroom use, where if members are sharing a bathroom, individuals are ensured full privacy, and the bathroom can be locked when in use. Examples of private bathroom options include a solo stall in a bunk house, the ability to separate from the group in the backcountry to use the bathroom privately, or having access to a pop-up tent. In remote areas, the expectations of privacy remain the same.
●	A private bathing area is provided in housing (solo enclosed bathroom with locking doors). If working in the backcountry, individuals are able to bathe privately (at least with body wipes in a secluded or private location).	
●	The field station has communal, clean products to use in the bathroom (e.g., toilet paper, shovel, menstrual products, hand sanitizer, bathing products, and paper towels). These are provided along with a fully stocked first aid kit, sunscreen, and bug spray (and/or other supplies as needed). ● It is in an easily accessible location. ● This location is also accessible in private if needed. ● It is kept in stock and supplies are not outdated/expired.	Many field station resource lists exist, such as these: ● REI First-Aid Checklist ● UCLA Field Safety Research Manual, see Appendix 3 ● UC Berkeley First Aid Kit Importantly, these lists are for general fieldwork safety and do not consider the possible needs of specific individuals. Check with your students to see if there are supplies that are needed and are not present at the field station, and see if it's something that can be brought by the teaching team.
●	There are accessible places to store any necessary medication (e.g., refrigerators).	For remote fieldwork, this may be more difficult. Have a one-on-one discussion with team members to see if this is needed, and if so, consider developing an alternative research plan. For example, an alternative research plan may include more visits to a nearby site with electricity than originally planned.

Fieldsite Accessibility Score: _____ out of 13

	Accessible working conditions	Detailed Explanation & Resources
●	Before fieldwork, a survey is sent out to determine what medication, food, accommodations, etc., are needed by students and staff.	This point person could be the PI or field safety officer. To decentralize this power, this position could be designated to two people. Do not ask for or store HIPAA protected information, such as why someone needs a specific accommodation. If you need this information, work with your campus Disability Center.
●	Students and staff are not required to go into the field alone. If fieldwork must be performed alone, they are equipped with an emergency phone and field safety kit.	Alternatives to engaging in fieldwork alone may be going in pairs, having a point person on call in case of emergencies, having radio communication at all times, etc.
●	Required field gear is in good condition and, to the extent possible, can be worn at the same time as gender-affirming garments.	
●	A stipend is provided if individuals require specialized gear or gear that is not currently provided (larger sizes of clothes, boot inserts, prescription goggles, etc.).	Any specialized gear should be included in the fieldwork budget and may be funded either directly by the research fund or through applying for separate funding.
●	Access to laundry is available if fieldwork is an extended period of time, or if otherwise necessary (access to machines, backcountry washing plan, etc.).	For remote fieldwork, have a plan to do laundry regularly. There are guides available for how to do laundry while remote, such as: ● Cleaning clothes in the backcountry ● Doing laundry on the backpacking trail
●	The teaching team discusses plans for rest based on the needs of every individual.	

Accessibility Working Conditions Score: _____ out of 6

Total Accessibility Score: _____ out of 26

Climate

Objective: Climate describes the socioemotional space within the field course team and at the field site. All participants must feel safe, represented, and comfortable to raise any potential concerns with authority figures and peers without fear of being reprimanded. Ideally, the teaching team, department, and university will foster a community where we incentivize inclusive and safe fieldwork.

	General Climate	**Detailed Explanation & Resources**
●	A code of conduct is crafted with input from all members of the program. ● Code of conduct is readily available (e.g., posted high-traffic areas at the field station, in the lab or office space on campus, on lab website) ● The code of conduct has a community agreement. ● The code of conduct has specific language around a team-wide recognition of the need for representation of and respect for QT identities to ensure all field members are safe and feel included. ● The code of conduct is a living document and is updated or reviewed at least annually.	Example codes of conduct can be found here: https://www.cscce.org/resources/ On developing community agreements: https://www.nationalequityproject.org/tools/developing-community-agreements In the code of conduct, take special care to recognize and honor 'invisible' and intersectional identities, including one's chosen name and pronouns, and avoid making generalities or assumptions. This should also include statements about recognizing personal privilege and biases.
●	There is an open line of communication for all students	Power dynamics describe the inherent, imbalanced distribution of power between groups or individuals. Power

	and staff to discuss the power dynamics inherent to the fieldwork. ● The group discusses the power dynamics among groups at the fieldsite at the beginning of each field season. ● The group discusses the power dynamics within the team as roles or personnel change.	dictates the structure of professional and interpersonal relationships. Power may be inherently distributed among groups at the field site, including field station managers, other research groups, locals, volunteers, and law enforcement. An individual's race, ethnicity, sex, gender, age, and other intersectional identities affect their position of power.
●	Field safety administrators, professors, TAs, and students share local resources and opportunities specifically related to promoting safety and inclusivity in field programs to stay up to date on the best practices.	These resources may include white papers and safety manuals and can extend to programs at diversity centers, legal support, and QT-friendly healthcare.
●	A meeting is held **<u>after</u>** fieldwork with the entire teaching team to review the assessment, identifying what worked and what still needs to be addressed. ● An anonymous feedback option is provided. Date of meeting here: _____	It may be helpful to provide questions that could help shape the check-in such as "Were there moments when you felt unsafe?" or "What additional resources would have been helpful?".

General Climate Score: _____ out of 11

	Climate prior to fieldwork	**Detailed Explanation & Resources**
●	University administration provides resources for gender-affirming services for QT individuals seeking	You can find an example of these resources here.

	changes to name and gender marker on identification. ● University honors lived names and pronouns in university communications and on professional documentation. ● University assists with name and gender marker changes on legal documentation.	
●	The location of research is assessed for potential dangers specifically for QT individuals (this applies both domestically and/or internationally). ● If fieldwork is conducted in an area that is dangerous specifically for QT individuals, the teaching team and students are alerted and consulted about this danger.	QT field members may face additional challenges when traveling for fieldwork, including harassment, discrimination, barriers to entry, and physical violence. Research local laws and restrictions that pose safety risks when traveling within the US and internationally: ● Map of states with anti-LGBTQ+ legislation (ACLU) ● US State Department Travel Advisories ● US State Department LGBTQ+ Travel Considerations ● UC Davis LGBTQ+ Travel Advisories Utilize official resources and travel advisories to identify the level of safety in the country or state of travel.
●	There are NO negative consequences for individuals who choose to opt out of fieldwork due to safety concerns before or during fieldwork. ● In cases where the goals of the field program cannot be fulfilled as intended, an alternative	Alternative research plans may include virtual field trips using Google Earth, laboratory experiments, data processing and analysis, or returning to the field site at another time when it is safer.

	research project or plan is designed.	
●	There is an established support system where students or staff can confidentially request support for themselves or another student. ● The support system allows members to check in without having to initiate (e.g., it occurs regularly).	This support system could take on many forms, including a designated point person from the teaching team for routine check-ins, your university's field safety officer, or a counselor at a nearby or offsite location. Ideally, the support team should be available at emergency-notice and include other members besides the teaching team.
●	Professors and TAs have discussed and set balanced work expectations that are mindful of the capacity of each student.	
●	Members of the group have access to university-branded equipment to establish legitimacy in the community if this is appropriate at the site.	Know before you go: it may either promote OR hinder field safety to have visible branding from your institution.
●	Professors have identified local medical providers that are able to give quality care to QT individuals.	The Healthcare Equality Index provides information on safe healthcare facilities for queer and trans individuals via an interactive map.

Climate Prior to Fieldwork Score: _____ out of 12

Total Climate Score: _____ out of 23

Training

Objective: Prior to fieldwork, all members of the teaching team should participate in topical trainings in effort to promote an inclusive and safe field program for QT team members. Trainings should occur regularly, and the teaching team should debrief on the

success or pitfalls of the training and how to apply this knowledge to their specific fieldwork.

	General	Detailed Explanation & Resources
●	There is a field safety training program for the teaching team that includes QT-specific risks and safety at your institution. ● It is funded and provided by the academic institution. ● Training is accessible to students prior to the course. ● Training is led by gender-affirming professionals with QT cultural competency. ● There is an anonymous way to request additional trainings or repeat trainings for the team if it becomes clear that the research team is not following the advice given in the trainings.	An example of university-provided trainings specific to QT issues can be found here.
Topics to cover in QT field safety training programs (listed alphabetically):		
● Awareness of gender-affirming (e.g., binders) and culturally relevant (e.g., hijab) clothing in fieldwork		For bystander intervention and gender-based harassment and sexual assault prevention, look for trainings done by groups like Field Futures and ADVANCEGEO. For near-misses and Safety I vs Safety II training, look for

• Bystander intervention • De-escalation techniques • Gender-based harassment and assault prevention • Identity-based risks and field safety • Implicit bias • Inherent power dynamics and boundary setting for personal empowerment • Recognizing and assessing privilege • Maintaining good mental health during the field season • QT safety during regional, national, and international fieldwork • training is specific to your field site • Risk assessment • Sexual harassment and assault prevention • Understanding and using appropriate, gender-inclusive language		resources such as https://www.outdoorrisk.com/. For LGBTQ+ field safety, pronoun use, and mental health trainings, look for resources such as https://ehs.berkeley.edu/publications/uc-field-safety-leadership-training-series.

•	QT-specific risk trainings are completed by all members of the teaching team.
	  • The training(s) is required at a minimum every two years.
	  • There is a debrief by the teaching team after the training to assess possible issues that still need to be addressed.
		To maintain an inclusive and safe field program, all members of the teaching team should be up to date on trainings. Recompleting trainings at regular intervals reinforces the dedicated commitment to QT safety in the field.
		
		Honest discussions surrounding the effectiveness, relevance, and impact of trainings are encouraged to identify where trainings fall short in promoting QT safety. Consider adding pre- and post-training assessments for members of the teaching team. In addition, take care to honor if QT individuals don't find the trainings to be having their desired impact or if more trainings are required.
		
		Here are some guiding questions for debriefing: *Did the training meet your expectations? Did the training provide new insights for promoting safety? How well did the training align with your field team's goals? What adjustments should be made to the field program, fieldwork protocols, or code of conduct to increase safety? How confident do you feel? What's missing?*

Total Training Score: _____ out of 22

Reporting and Sharing Results

Objective: Posting the results of the field safety assessment publicly will demonstrate to QT individuals that your field course is a safe space for collaboration and encourage colleagues to complete this assessment in their course. It allows prospective students to see that your team prioritizes QT field safety when considering joining your field course.

	General	**Detailed Explanation & Resources**
●	A gender-affirming professional with QT cultural competency (*or* the whole teaching team) checks the assessment to ensure that it is filled out honestly.	If there is a field safety training program that includes QT-specific risks and safety at your institution, someone leading this training is considered a gender-affirming professional with QT cultural competency. If this is not available at your institution, reviewing this assessment with your whole team works as well.
●	The result from this rubric for your field course or teaching team will be posted somewhere publicly (department website, Field Futures, etc.).	
●	Your team has a scheduled plan to revisit this assessment every 2 years.	Re-assessing every two years allows your teaching team to measure progress toward making a QT-safe field course space. Additionally, it can remind your team of points that were missed in the past and may have forgotten to work towards.

Total Reporting and Sharing Results Score: _____ out of 3

QT Field Safety Assessment Final Score: ____ out of 100

Evaluation	**Beginning**	**Emerging**	**Developing**	**Proficient**	**Exemplary**
Score Range	0 - 50	51 - 70	71 - 80	81 - 90	91 - 100
What does this score mean?	Don't be discouraged if your score falls in this category. Choosing to do the assessment is a great step to identify action items to improve your field safety plan. Use this assessment, and the resources found in the metadata, to improve your field safety plan, and take the assessment again once your team is ready.	Your team has some work to do to improve your field safety plan. Use this assessment to identify what action items can be done to improve your team's field safety readiness, and be sure to use resources listed in the metadata for guidance.	Your team has a good start on developing a QT field safety plan, but also has some room for growth. Use this assessment to identify what action items can still be done to improve your team's field safety readiness.	Your team is almost there! Your team is doing a great job planning for QT field safety; use this assessment to identify what action items can still be done to improve your team's field safety readiness.	Your team is doing a stellar job to ensure QT field safety! Please consider sharing your field safety strategies with fellow research teams to make field research safer for everyone!

Supplementary Section 3. **Figures**

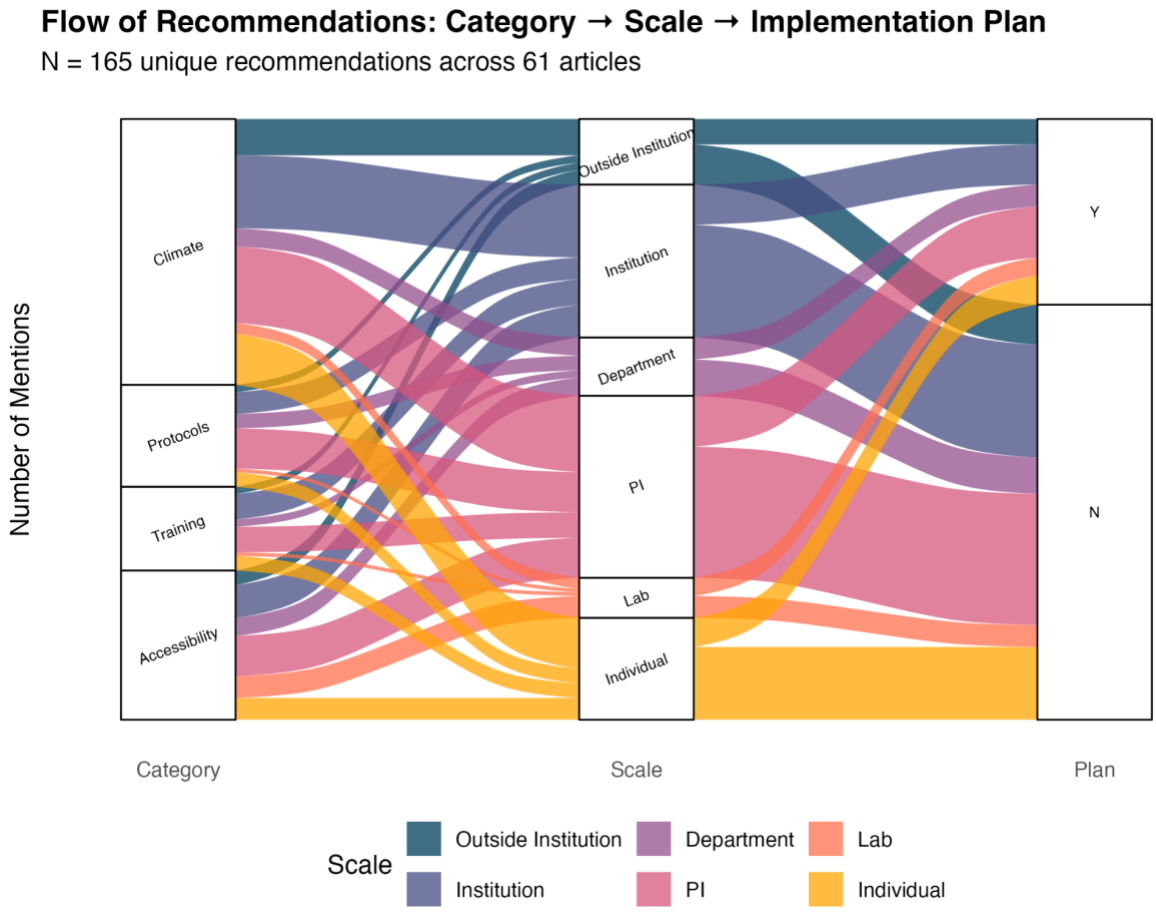

Figure S1. Flow of Recommendations in Literature. Sankey diagram depicting the flow of recommendations from category (left axis) to assigned implementation scale (middle axis) to presence of a stated implementation plan (right axis). Flow width is proportional to the number of recommendations at each path. Colors correspond to the assigned implementation scale. Categories include *Protocols*, *Accessibility*, *Climate*, and *Training*; implementation scales range from *Individual* to *Outside Institution*; plan inclusion is binary (*Y* = plan included, *N* = no plan mentioned).

Supplementary Section 4. Feedback on the Queer and Trans Field Safety Assessment (QTFSA)

Overall Feedback

Participants emphasized the importance of ensuring the QTFSA is flexible and applicable across diverse fieldwork scenarios. While the tool provided valuable structure, some noted that it felt too specific to certain situations, raising concerns about applicability across different field contexts (e.g., lab groups, field stations, field courses). Reviewers recommended designing the QTFSA to accommodate the wide variety of forms that fieldwork can take.

Summary of Key Recommendations

- Increase flexibility to apply across varied fieldwork contexts.
- Clarify whether assessment is intended for students, instructors, or both.
- Adjust scoring system to be more transparent, balanced, and positively framed.
- Add examples, references, and explanatory notes to reduce ambiguity.

Specific Feedback

Feedback #1: Field Station Manager, Blue Oak Field Station (San Jose, CA)

- Many checklist items did not apply because lab groups differ from field groups.
- Suggested using the QTFSA primarily as a guide to develop tailored field safety plans.
- Mentioned efforts to design documents that could work across all University of California, Berkeley reserves.
- Estimated that completing the QTFSA took about 40 minutes.

Feedback #2: Field Course Professor, University of California, Santa Cruz

- Questioned whether all points should be weighted equally.
- Expressed concern that the checklist could feel overwhelming.
- Raised challenges with medical emergency response, noting that EMTs' biases are outside a teacher's control, yet still impact QT safety.
- Recommended making it explicit whether the QTFSA should be completed from the perspective of students vs. instructors (participants vs. teaching team).
- Suggested splitting sections accordingly.
- Described the tool as aspirational but in need of clear guidance on how to debrief with QT participants (e.g., an end-of-year check-in).
- Raised concerns about housing and bathing accommodations, noting the need to be more specific about group housing arrangements (e.g., avoiding "men's dorm" labels, specifying privacy considerations).

Feedback #3: Lab manager, University of California, Santa Cruz

- Recommended providing more examples, explanations, and resources for checklist items.
- Suggested including the total number of possible points to make scoring easier.
- Emphasized that some areas were too vague and required greater specificity.
- Recommended adding references for best practices.
- Suggested including a notes section for open-ended responses.
- Highlighted the importance of adding positive framing to the scoring system, such as recognizing that filling out the QTFSA is already a meaningful step toward inclusivity and safety.
- Expressed that scoring felt overly harsh, and suggested a more lenient, encouraging approach.