Coverdale Lab Fieldwork Handbook

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I. Introduction and Purpose for Manual

Conducting fieldwork can be one of the most rewarding and enjoyable aspects of our jobs! However, it can also come with some very significant and potentially severe hazards. These hazards often disproportionately affect those of us from underrepresented backgrounds, discriminated-against identities, and/or minority groups. It is essential that *all* members of our lab and field teams understand the risks that fieldwork may present for themselves and others, and that everyone takes appropriate steps to eliminate or minimize risks whenever possible. *Remember: we are a team, so a risk to one of us is a risk to us all.*

The purpose of this fieldwork manual is fourfold:

- 1. To educate all lab members and affiliates about what hazards and preparations may be encountered and required, respectively, by people of all identities
- 2. To lay out necessary pre-departure and post-return procedures
- 3. To prepare all fieldwork participants for what to expect in the field and for any emergency situations
- 4. To gather useful resources and information from a variety of sources.

This manual is *not* meant to scare anyone or to discourage fieldwork in any way; it is meant to prepare all persons as best as possible so that everyone can have rewarding and successful field experiences.

Our fieldwork manual and procedures are partly inspired by the article "Safe fieldwork strategies for at-risk individuals, their supervisors and institutions," written by Amelia-Juliette Claire Demery and Monique Avery Pipkin and published in Nature Ecology & Evolution in 2020 (<u>https://www.nature.com/articles/s41559-020-01328-5</u>). We thank these authors for their great work on this subject!

Types of Fieldwork Risks

Both in and out of the field, risks can appear that affect any dimension of our wellbeing, including physical, emotional, social, intellectual, environmental, spiritual, vocational, and financial wellness (see https://www.northwestern.edu/wellness/8-dimensions/ for definitions of each). For the purposes of this manual, risks that we may encounter while conducting fieldwork and traveling to or from the field generally fall into three categories: 1) Environmental, 2) Sociocultural, and 3) Mental/Emotional. All three types of risk overlap and are different for each individual and location.

| Risk Type | What it includes | Example |
|-------------------------------|--|--|
| Environmental Risks | any hazards posed by working in natural or human-made physical environments, including travel | increased risk of diseases,injury, decreased access to healthcare, high UV levels, etc. |
| Sociocultural Risks | risks that stem from the social and/or cultural context in which a fieldworker is existing. colleagues, dangerous historical contexts, sexual harassment or assault, etc. | increased risk of law enforcement encounters, inappropriate or hurtful rhetoric, miscommunications due to language barriers, violence from community members or others |
| Mental and Emotional risks | anything that could deteriorate or harm a person's mental, emotional, or spiritual health while in the field | increased risk of stress, anxiety, depression, burnout, and exhaustion due to jetlag, isolation, homesickness, long days, discrimination, etc. |

Identity-Based Risk Levels

Prejudices against certain identities lead to differences in risk levels for individuals holding these identities. "At-risk individuals include minority identities of the following: race/ethnicity, sexual orientation, disability, gender identity and/or religion" (Demery & Pipkin 2020), among others. Minoritized researchers may experience greatly increased environmental, sociocultural, and/or mental/emotional risks in the field, including potentially life- or career-threatening situations.

It is paramount that all fieldworkers, including those who do not face identity prejudice, understand the heightened risks that fieldwork can pose to minoritized individuals and do everything possible to minimize and mitigate such risks.

Though "topics related to identity are inherently difficult to broach" (Demery & Pipkin 2020), it is important to engage with these topics before potentially dangerous situations arise in a way that feels safe and equitable. Please see "Safe fieldwork strategies for at-risk individuals, their supervisors and institutions," written by Amelia-Juliette Claire Demery and Monique Avery Pipkin and published in Nature Ecology & Evolution in 2020 (https://www.nature.com/articles/s41559-020-01328-5), for more information on this topic. Additionally, refer to the tables and figures from Demery & Pipkin 2020.

II Pre-Departure Coordination

This section contains guidance for meeting lab specific, departmental (BIOS), and University of Notre Dame (ND) requirements for planning and implementing fieldwork.. **START EARLY Estimate that this process will take 6+ months leading up to your trip.** <u>A printable,</u> <u>checklist version of these tables can be found here.</u> The purpose of this checklist is to ensure that all necessary steps outlined in the tables below have been taken to prepare for the proposed fieldwork trip. <u>Click here for a high level planning timeline</u>

| | > 6 months Feasibility, Permits, Approvals | |
|---------------------------------|--|--|
| Meet with Tyler | Discuss feasibility, timeline, and how fieldwork fits into your research | |
| Determine travel feasibility | Is a ND travel exemption necessary? Is there enough time to get visas and necessary permits? Considerations for non-US citizens Review Field Work Field Site spreadsheet for tips from other lab members about your proposed site | |
| Equipment | Communicate equipment needs to PI and lab coordinator | |
| Arrange research permits | Contact researchers/field site administrators/partners for advice Apply for country-specific approvals and permits Any work involving drone(s) will require special permits; these can take months to receive | |

| >3-4 months | | Logistics, Entry Requirements, Fieldwork Planning | |
|------------------------------|---|--|--|
| Logistics Meeting | • | Meet with the Tyler to discuss logistics: book travel, reimbursements, equipment, shipping, and research compliance. | |
| Entry requirements | • | Visas, permits, COVID vaccination/testing, other vaccinations | |
| Voluntary trainings | • | Notre Dame offers courses on first-aid, self-defense, ally/bystander, etc | |
| Disability accommodations | • | Team members should be aware of disability resources at ND | |
| Fieldwork worksheet | • | Contact Tyler with any questions | |

| >1-2 month Health Consult, Pre-trip briefing, ND forms, Register with State Dept. | | |
|---|--|--|
| Schedule pre-travel medical consultation | Make a plan for vaccinations and prescription medication (3 months if rabies vaccine is required), if required Schedule a pre-travel health consultation at least 1 month before your trip to obtain necessary vaccinations and medications. You can do this at the ND Wellness Center. Talk with your health insurance provider about coverage abroad. Understand if you will need to pay out of pocket at the time of service and file reimbursements when you return. Obtain health clearance, if required | |
| Pre-departure briefing | See lab fieldwork manual for details about briefing Ensure all team members have necessary information and full travel details from home to field site | |
| Complete ND requirements for your trip | Register your Trip through <u>International SOS</u> through <u>Notre Dame</u> <u>International</u>. International SOS provides eligible ND students, faculty, and staff with 24/7 medical and security support and evacuation services. Request an International SOS card to have for travel. All international trips must be registered through <u>ND International</u> | |
| Determine computing needs | Backup personal/lab computers prior to departure (ask about ND Box and Drive options or external hard drives) Lab servers can be used for lab-related data and documents | |
| Data Management Plan | Consult with Tyler about how to manage data in the field and upon return | |
| Register travel with State Department | Not applicable for non-US citizens | |

Reimbursements

The lab will make every effort to pay for fieldwork costs before your trip using lab funds (i.e. flights, lodging, etc.) There will, however, be times when you will need to cover your expenses in the field for items such as food. In these instances, please save your receipts so that you can be reimbursed. Before you go make sure to meet with the lab coordinator to go over the reimbursement process. <u>Go to Reimbursement Process</u>

Equipment

Coverdale Lab field equipment to date includes various field and computing equipment. Some of this equipment is stored at field sites off campus. Additional items can be purchased, but keep in mind that some items (e.g., certain batteries, reagents) require special shipping or handling considerations.

Planning, permitting, and ordering equipment can also be a timely process, so be sure to consult labmates early on in your field work planning (up to 6 months in advance depending on your equipment needs) to be sure you have everything you need before you go.

Permits and Approvals

- Research Permits
- Approvals for Research involving animals (IACUC) or human subjects (IRB)

Animal Protocol and Occupational Health Requirements for Field Research

Field research on wildlife species is overseen and evaluated by the IACUC (Institutional Animal Care and Use Committee) to ensure that the protocols employed are consistent with humane care and use of animals.

Unlike many other on-site research projects, field studies present logistical and other challenges to IACUC evaluation. Consideration is given to many factors including the species being studied, conservation implications and procedures performed on animals in the field. The occupational health program for personnel working with animals is also administered through IACUC, and thus the approach used by the researcher, in terms of animals that they may encounter, environment and terrain, season, and zoonoses and other regional hazards are also considered.

It is important to note that studies conducted on free-living wild animals in their natural habitat do not require IACUC review and protocol approval as long as the research activity <u>does not alter or influence</u> the activity of the animals that are being studied (e.g., observation, photography, collection of shed feathers, scales, and/or feces, and other zero-contact types of studies). Please note that even if you will have no contact with the animals, you may be required to enroll in the occupational health program and participate in post-field studies health monitoring via a questionnaire.

However, if the research <u>alters</u> the (1) environment, (2) behavior, or (3) influences activities of the animals, such as direct interaction (e.g., trapping/capture, handling, confinement, transportation, anesthesia, euthanasia), invasive procedures (e.g., tissue sampling) causing pain or distress, or if there is potential for harm to animals or impacts the health or safety of research personnel, the research activity <u>must be reviewed and approved by the IACUC</u>.

The determination as to whether or not field research on wildlife requires a protocol, should be made by IACUC Administration. Please contact <u>IACUC Administration</u> to start a dialogue regarding your upcoming field research. If a protocol is required, IACUC Administration will provide access and training, and facilitate occupational health program enrollment.

Approvals for Research human subjects (IRB)

The Institutional Review Board (IRB) is responsible for ensuring that research with methods performed on people is done in an ethical and legal manner. This includes doing interviews or surveys. Research with human subjects requires approval from the IRB at whatever institution the PI is from. You'll need to have most of the details of your research methods worked out before submitting to the IRB, as they ask a lot of detailed questions. They can also provide technical assistance to you as you plan methods. The IRB requires completing ethics training and a detailed application/questionnaire. More information about the process is on their <u>website</u>.

Fieldwork Planning Worksheet

This fieldwork worksheet serves as a tool to document your preparations, cultural understanding, risk assessment, and emergency preparedness for international fieldwork.

Filling out this worksheet with all team members is an important step towards keeping yourself, your team members, and your collaborators safe. Information can be included from past worksheets, but please ensure that all information is up-to-date and reflects current conditions at the field site (and the risks to the current research team). Go to the Fieldwork Planning Worksheet

Departure Briefing Meeting

The project leader should run a debriefing meeting before the team departs for the field trip. Topics from the Planning Worksheet should be discussed, and social/cultural risks should be fully stated. The briefing will be public with any lab member being able to attend. If traveling alone for a project, the individual must still have a departure briefing to verify that the information is complete and correct, as well as to receive feedback on the plan.

If there are concerns and/or considerations that someone is uncomfortable with, private conversations with Tyler, other Department staff or faculty, traveling team members, and other lab members are completely appropriate alternatives.

Packing Recommendations

For *General Packing and Personal Items*, please refer to <u>Harvard OEB's Field Gear Guide</u> for an extensive review of how to navigate the world of field gear from clothing to practical items and reliable retailers. *For Field and Lab Equipment,* please work with Tyler for packing and transporting field and lab equipment.

III. During the Field Trip

Field work comes with many inherent risks that, though rare, have the potential to lead to serious emergency situations. It is important to have key risk-response plans in place to help you maintain your mental and physical well-being, as well as those of others. *Establishing reliable response plans and lines of communication that will be accessible during every part of your trip is vital to the safety of you and your team.* Refer to the following sections before and

during your trip to be sure you have the tools in place for a healthy and successful field work season.

During Travel

It's important to remember that your field trip begins on your way to the field. Having a plan and knowing what to expect during each stage of travel is just as important as knowing your plan once you arrive. Below is a non-extensive list of travel situations to consider, plan for, and talk through with your supervisor prior to departure.

| Travel Situation | Considerations |
|----------------------|--|
| To Airport | Who is bringing you?Are there additional fees?How are you transporting equipment? |
| At the airport | Will there be extra fees for additional baggage? Do you have special permits and copies of all necessary permits for each stop at your trip? |
| During transit | How are you keeping your valuables safe during travel? Do you need special food or medications? Do you have any stopovers? Do you have a way to communicate with personnel back home in case of itinerary changes? Do you have money to stay in a hotel if needed? |
| Entry and customs | Do you have your visa and entry documents, as well as visa fees? Are there enough pages in your passport? Make sure your passport is not so close to expiration that you will be denied entry. Do you have all the necessary permits? Are there in-country contacts available to help you? |
| Upon arrival | Who is picking you up once you arrive? Do you need to rent a car? Do you have reliable directions or a working GPS (Google Maps is quite reliable in many countries)? Do you have accommodation at your field site or do you need a place to stay upon arrival? |

Acclimation and Rest Days

It can be easy to feel pressure to accomplish as much as possible, but pacing yourself is key to avoiding burnout and exhaustion, which can often inadvertently lead to risk exposure. Building in these acclimation and rest days, including thinking about when and where to take them *prior* to departure, can be important for a variety of reasons:

| Rest Days - Before Field Work | | |
|-------------------------------|--|--|
| Rest and adjust | Catch up on sleep, deal with jet lag, inventory equipment, check in with your team. Adjust to and learn about the culture of your field site. | |
| Pre-field errands | Pick up equipment shipped via air or ground, shop for food supplies if needed. | |
| Adapt and plan | Unforeseen circumstances can get in the way of your "Plan A". Taking time to adapt and think through your "Plan B/C/D" to save time and prevent stress | |

| Rest Days - During Field Work | | |
|-------------------------------|--|--|
| Rest during the field trip | Rest should be incorporated on a situational basis in-line with your needs and those of your team. Note that your team includes local collaborators that may work during defined hours, have built-in rest times or meal/cultural breaks, and have days off. Make sure you are aware of and respect the time that others need to recuperate. | |

Rest Considerations for Different Identity Groups

Different types of rest correspond with different types of risk as well as different identity groups. It is important to create a safe space where people with different requirements for rest or acclimation feel that it is acceptable to request and take the time they need. Discuss rest requirements before and throughout your trip to make sure everyone takes the time they need to have a successful field campaign that does not compromise their mental or physical health.

| Possible Reasons for Rest Days or Rest Time | | |
|---|--|--|
| Physical | Necessary to stay healthy and prevent exhaustion | |
| Mental | Team members may need time to themselves, to check in with family, or to address other personal needs. | |
| Acclimation | Minority identities may feel added stress when in field situations that are not welcoming to them, and may require more time to regroup and prioritize their well- being; people in these groups may also feel less comfortable requesting rest time. | |
| Cultural | Certain religious or cultural identities may make time for prayer or refrain from work at specific times. | |

Taking Care of Your Team

During a trip to the field, it is important to remember that vulnerability and risk will vary among the members of your field team (both within and outside of the Coverdale Lab). As a member of the Coverdale Lab, you are responsible for considering your individual well-being as well as the health and safety of your colleagues. Demery and Pipkin define at-risk individuals to include "minority identities of the following: race/ethnicity, sexual orientation, disability, gender identity and/or religion" (2020).

Different identities will carry different levels

- It is important to remember that different identities will carry different levels of risk depending on the cultural, sociopolitical, and environmental setting.
- Risks are often vastly different from one's home environment and thus have the potential to be overlooked by individuals who do not carry these identities.
- It is the responsibility of the team to identify and mitigate these risks to ensure the physical and emotional safety of everyone during fieldwork.

Demery and Pipkin provide example situations experienced by at-risk individuals in the field and strategies for mitigating and minimizing risk (2020), which should be reviewed and discussed by all team members before entering the field.

- Many of these risks will be considered prior to fieldwork via the pre-departure worksheet, but risk and mitigation strategies should be continually discussed and adapted over the course of the field campaign.
- Communication strategies for identifying and addressing risky situations in the field should be established prior to departure.
- It is the shared responsibility of the field team to address risks to *all* team members in a manner that does not place an additional burden on at-risk individuals.

Fieldwork often involves spending extensive amounts of time in new, confined, sometimes stressful spaces with your team. Make sure to take the time to take care of yourself physically and mentally. Be aware that everyone falls at a different point along the introvert-extrovert scale and thus may require different things to take care of their wellbeing (e.g., alone time, non-work-related social interactions, etc.). Try to facilitate your team's varying wellbeing needs whenever possible.

Taking Care of Your Field Community

Your field team extends beyond the members of the Coverdale Lab and Notre Dame community and includes both local collaborators and community members at your field site and collaborators from other institutions. Important things to remember:

Risk-mitigation must extend to all members of your field community

It is important to keep in mind that seemingly minor cultural differences (e.g., working after hours, drinking with colleagues, professional power dynamics) can put field assistants and other non-Notre Dame collaborators at personal and professional risk.

Local Professional and Cultural Norms

Understanding the professional and cultural norms/standards of those working at your study site *before* your work begins is critical to establishing shared expectations that will not only keep everyone as safe as possible. Doing so will also help build and maintain relationships with field collaborators in a respectful manner that reflects well on you, your lab, and your institution.

Communication

Recognize that, especially where cultural and communication barriers are present, it may be difficult to understand work standards and establish field expectations. Meeting with lab members who have experience at a field site or talking with known points of contact or managers at a field site can help you prepare *before* you leave for your trip.

Once on the ground, you are also responsible for directly communicating with collaborators to confirm schedules and responsibilities, as well as mitigate risk. Check in with field administrators or managers to make sure everyone is on the same page. These contacts may also be able to assist if language is a barrier, confirming in both languages that everyone understands expectations. Ask open ended questions instead of yes/no questions

Communication Methods

Clear and open communication with your field team and community is key to success and safety in the field, but it is also important to maintain practical lines of communication with a point person back in the lab (i.e., PI or lab coordinator.) This usually requires getting an in-country SIM card for your cell phone or having internet access. If you have cell phone or internet service, use WhatsApp or email to let the point person know you are safe during key points of your trip (i.e., arrival, when you change locations, upon return from a remote excursion). If you will not have cell phone or email access, let the point person know for how long you expect to be out of reach.

Types of Incidents and What to Do

ND International has <u>EMERGENCY RESPONSE PROGRAM SERVICES</u>; while you may never use them, it is helpful to familiarize yourself with the services. ND's dedicated 24/7 emergency hotline (+1 574 631-5555) will immediately connect you to International SOS operators.

Incidents or conflict in the field can occur that makes it difficult or uncomfortable to communicate with field-mates, collaborators, or community members at your site. A person also may feel that attempts to communicate may create additional risks of conflict or retribution, deterring them from seeking help. If these situations occur, it is important that lab members not feel isolated, atrisk, or like they have no safe avenue by which to effectively address and correct these situations while in the field.

It is important to informally document what happened, where and when. Sometimes this is for insurance purposes (medical, property), other times it can be useful to process what has occurred (personal). You can do this in a journal, notebook, or digitally. To maintain a safe environment for all people at all times, please use the following resources to report and address incidents in the field:

| Type of Incident | What to do |
|--|--|
| Safety serious injury or illness, unsafe equipment or work conditions | Seek medical attention at nearest facility Document date, location of incident, treatment provided. Report the incident to ND's International SOS (ND's dedicated 24/7 emergency hotline: +1 574 631-5555) |
| Sensitive topics Harassment, unsafe/at-risk behavior, discrimination | Seek out a team member you trust and tell them what happened Record what happened (this may be uncomfortable, but important to document) Contact <u>ND Title IX Coordinator</u> |
| Equipment: stolen or lost equipment, broken equipment, customs or travel problems | Record what happened, when, and where If damage please take photos. If theft, contact local authorities Contact Tyler |
| Research and/or any other issue related to work or academics | 1. Contact the <u>Ombudsperson at ND</u> The Ombudsperson's office provides informal, impartial, confidential and independent assistance to all members of the ND community in managing or resolving issues affecting their work or academics. The office is informal, assures confidentiality, and is independent from University administration. <i>Speaking with the Ombudsperson is off the record.</i> |

IV. Upon Return

A crucial final step in your fieldwork journey is returning home! Upon returning, it can be tempting to try to jump right back into "normal" life. However, it is important to take some time to debrief and readjust, for yourself, your team, and your loved ones back home. This section of the manual will provide some guidance for returning from the field.

Return Checklist

The checklist below can be used by all fieldwork team members to ensure that all necessary steps are taken to wrap up a field trip upon return.

Within your comfort zone, you should also report any environmental, sociocultural, and/or mental/emotional issues that arose during your field experience. The lab believes that it is important to address and remedy such issues so that you and others can have productive and safe environments in which to conduct research, both in the field and at Notre Dame. Issues may be discussed with Tyler (PI) or any other lab member. Additionally, there are resources available at ND to help you work through any issues you may be facing. These include the <u>Gender Relations Center</u>, <u>Title IX Office</u>, <u>University Counseling Center (UCC)</u>, <u>Care and</u> <u>Wellness Support</u>, and <u>ND Wellness Center</u>, among others. Please reach out if you need support; there are people and resources that can help.

Go to Return Checklist

Readjustment

After an exciting and challenging field trip, readjusting to life back home can be difficult, particularly when coming from an international field site. Just as people may experience "culture shock" when visiting unfamiliar places and cultures, many also experience "<u>reverse culture</u> <u>shock</u>" upon returning home.

Reverse culture shock can occur for many reasons, including things having changed at home since you were away, home now feeling foreign, your worldviews or priorities having shifted due to experiences abroad, feeling more critical of the U.S., and/or apathy from others about your field experiences. You may experience feelings of frustration, loneliness, anxiety, depression, and overwhelmedness. If you do, remember you are not alone! It is *critical* that you give yourself the time and space to readjust to life at home at your own pace and in your own way. Re-entry to home and Notre Dame is personal and may be experienced differently by different people, even those who were on the same trip. In particular, those with identities that are treated differently at home and abroad may face more hardship during re-entry. Be kind to yourself and to others who may be experiencing reverse culture shock.

Some strategies that may help mitigate the effects of reverse culture shock include: talking to friends who were traveling with you or who have had similar experiences, documenting your

abroad experiences, maintaining certain habits you developed during your trip (e.g., speaking a foreign language, washing your hair less often, eating certain foods, etc.), and/or speaking with a therapist. Notre Dame's <u>University Counseling Center (UCC)</u> provides easy access to professionals and is a great place to start when seeking support!

Debrief meeting

Holding a debrief meeting after you return provides the opportunity to discuss successes and challenges related to both research and logistics in the field. You are responsible for coordinating this meeting with relevant PIs (Tyler) and the members of the field team that accompanied you on the trip. The format and length of the debrief meeting is flexible, and discussion topics will vary for each trip. In addition to looking back on your time in the field, it is important that you also use this time to talk about next steps, both those to be completed from your return checklist and other action items related to your research.

Potential topics include:

- Research recap
- Field site insights
- Logistical wins and struggles
- Lessons learned for next trip

- New potential research ideas or collaborations
- Questions about return procedures

V. Useful Resources

First Aid Reference

| First Aid Reference – Signs & Symptoms of Heat Illness | | |
|--|-----------------------|--|
| Signs & Symptoms | Treatment | Response Action: |
| HEAT | 1. Stop all exertion. | Heat exhaustion is the most common |
| EXHAUSTION | 2. Move to a cool | type of heat illness. Initiate treatment. If |
| Dizziness, | shaded place. | no improvement, call 911 and seek |
| headache | 3. Hydrate with cool | medical help. Do not return to work in the |
| Rapid heart rate | water. | sun. Heat exhaustion can progress to |
| Pale, cool, | | heat stroke. |
| clammy or | | |
| flushed skin | | |
| Nausea and/or | | |
| vomiting | | |
| Fatigue, thirst, | | |
| muscle cramps | | |

| • Disoriented, | 1. Move (gently) to a cooler spot in shade. | Call 911 or seek medical help immediately. |
|--|--|--|
| irritable, combative, unconscious Hallucinations, seizures, poor balance Rapid heart rate Hot, dry and red skin Fever, body temperature above 104 °F | Loosen clothing and spray clothes and exposed skin with water and fan. Cool by placing ice or cold packs along neck, chest, armpits and groin (Do not place ice directly on skin) | Heat stroke is a life threatening medical emergency. A victim can die within minutes if not properly treated. Efforts to reduce body temperature must begin immediately! |