
Internal Audit Report

Safety on Field Research Assignments

Report No. SC-16-03
January 2016

James Dougherty
Principal Auditor

Approved
Barry Long, Director
Audit & Management Advisory Services

Table of Contents

I. EXECUTIVE SUMMARY2

II. INTRODUCTION

Purpose3

Background3

Scope3

III. OBSERVATIONS REQUIRING MANAGEMENT CORRECTIVE ACTION

A. Governance for Fieldwork Safety5

B. Field Safety Plan Template.....7

C. Registering for UC Trip Insurance9

APPENDICES

A. Summary of Work Performed and Results10

B. Example of Fieldwork Safety Policy - Duke University.....13

I. EXECUTIVE SUMMARY

Audit & Management Advisory Services (AMAS) has completed an audit of the adequacy of controls in place to ensure the safety of students, faculty and staff when engaged in fieldwork and related academic assignments and associated travel.

Overall, controls for ensuring the safety of students, faculty and staff when engaged in fieldwork and related assignments and associated travel were lacking as there was no policy, requirement or consistency in the development, form, and use of pre-fieldwork safety evaluations, plans, incident reporting and follow-up.

Currently, research and class fieldwork safety relies on campus PIs and instructors who may or may not be familiar with field safety planning. Campus offices are available to provide assistance if called upon. The EH&S Office provide tools and assistance for field safety risk analysis and measures and Risk Services both on campus and at UCOP provide services to help plan for health and safety risks when traveling abroad, with notifications and safety alerts.

In addition, the International Education Office (IEO) provides students who wish to take advantage of education opportunities abroad with health and safety advice, a health clearance process, visa requirements, supplemental insurance, budgetary analysis and possible academic credit for their studies. The IEO plans to include informal student field trips abroad within its umbrella of services and encourage registration in UC Away to record student travel (who, when, where) that provides safety and security information, including risk advisories and alerts.

However, without a fieldwork safety policy with procedures that include required documented field safety plans, their review and approval, and subsequent reporting of incidents and near misses, it is difficult for campus management to obtain assurance that safety in the field is managed adequately.

The following issues requiring management corrective action was identified during the review:

A. Governance for Fieldwork Safety

There was no fieldwork safety policy, and no requirement that fieldwork be preceded by a documented safety risk assessment and a response plan (except for animal research), with clearly defined responsibilities of those involved in planning and carrying out fieldwork activities.

B. Field Safety Plan Template

The field safety plan template provided for use by the campus was a web-based tool that was difficult to use and was not recommended for use by other campuses.

C. Registering for UC Trip Insurance

When campus researchers or field trip leaders who travel out of state or abroad do not use Connexus to arrange their travel or do not register their trip by the alternative method provided by UC Risk Services, there is no efficient way to centrally know who is away doing research in the field or on educational field trips.

Management agreed to all corrective actions recommended addressing risks identified in these areas. Observations and related management corrective actions are described in greater detail in Section III of this report.

II. INTRODUCTION

Purpose

The purpose of this review was to evaluate the adequacy of controls in place to ensure the safety of students, faculty and staff when engaged in off-site field research assignments and other academic assignments and associated travel.

Background

In our review, fieldwork was of two types: research and educational. Research in the field is as various as the disciplines that make use of it, from anthropology to zoology, both conducted by individuals or teams and led by a principal investigator (PI). Educational fieldwork is conducted by classes and led by the class instructor. The risks to safety and health involved with fieldwork rises with the remoteness of its location and difficulty with obtaining emergency assistance, environmental and animal hazards, the use of hazardous chemicals and equipment, risky procedures that require training, political threats and so forth.

Pis are responsible for the safety of themselves and their team, and class instructors are responsible for the safety of their class. The campus Environmental Health & Safety Office (EH&S) assists them by providing advice and tools.

PBSci had its own EH&S advisor, but he retired at the end of December 2015. Other campus units also provide assistance, such as training provided by the Office of Physical Education and Recreation and the Scientific Diving and Boating Safety Program.

The Office of Risk Services also provides assistance through consultations, system-wide UC trip insurance and safety alerts for those in the field or about field incidents to those at home.

Cal/OSHA enforces a legislative regulation for employers to provide safe working conditions for their employees through an Injury and Illness Prevention Program.

Health and safety risks involved with fieldwork may also be faced by students who travel abroad for educational experiences. The International Education Office (IEO) provides programs for students interested in such opportunities. The IEO provides programmatic support including health and safety advice, a health clearance process, visa requirements, supplemental insurance, budgetary analysis and possible academic credit.

Scope

Our review consisted of the following steps:

- Reviewed UC policies and practices that pertained to safety in research.
- Reviewed Cal/OSHA regulations pertaining to workplace safety
- Reviewed field safety practices and tools provided at UCSC, UCOP, other UC campuses and other institutions.
- Met with campus staff involved with research safety at PBSci, EH&S and Risk Services.
- Surveyed campus researchers on the use of field safety plans and UC travel insurance.

- Reviewed safety and health incidents that have occurred in field research and with students studying abroad.
- Reviewed training related to field safety provided by OPERS and the Scientific Diving and Boating Safety Program.
- Reviewed the UC trip insurance program and related safety guidance and assistance.
- Met with IEO management to discuss the safety of students on international field trips and the existence of a UC travel registry that could be used to record travel plans and locations, thus avoiding the need for IEO to purchase a travel registry and avoid duplicate efforts.

Testing was limited as there is no central record of research fieldwork; no fieldwork safety policy with related requirements; and no complete central record of fieldwork safety or health incidents. In addition, student safety when traveling on informal student abroad field trips was not separately identified or included in any formalized safety planning process, and therefore could not be readily reviewed.

III. OBSERVATIONS REQUIRING MANAGEMENT CORRECTIVE ACTION

A.	Governance for Fieldwork Safety	
<p>There was no fieldwork safety policy and no requirement that fieldwork be preceded by a documented safety risk assessment and a response plan (except for animal research), with clearly defined responsibilities of those involved in planning and carrying out fieldwork activities.</p>		
Risk Statement/Effect		
<p>Without a fieldwork risk assessment and a plan to address those risks, preventable accidents may occur. In addition to the negative consequences that range in severity from minor injuries and illnesses to fatalities, such occurrences may also bring the attention of Cal/OSHA that requires employers to have an effective written Injury and Illness Prevention Program. There is also the potential for criminal and civil liability for reckless disregard for the safety of employees and students. Workers compensation costs for injuries in the field may increase and the campus reputation may suffer.</p>		
Agreement		
A.1	<p>The Office of Research will establish a fieldwork safety policy that outlines the required criteria and elements for completing a fieldwork safety plan.</p>	Implementation Date
		9/30/2016
		Responsible Manager
		VC for Research

A. Governance for Fieldwork Safety - Detailed Description

Fieldwork off campus, whether for research or class instruction, may involve safety and health risks that should require a hazard assessment, communication plan, emergency procedures, and required training. Cal/OSHA established the Injury and Illness Prevention Program to provide a safe work environment to control injuries. UC campuses, such as UC San Diego and UC Berkeley, require researchers under certain conditions to create field safety plans to reduce occupational injuries and diseases, and to comply with such regulations.

Our campus management is committed to assuring the safety and compliance of research at UCSC. This commitment is demonstrated by laboratory safety policies that provide a framework to control health and safety risks in our laboratories and comply with various regulations. However, there is no fieldwork safety policy to mitigate risks during fieldwork where there are less engineered controls than in laboratories but may involve just as many hazards if not more.

We reviewed a report on workers compensation claims from PBSci employees for three fiscal years (FY12, FY13 & FY14) that had a total of 53 claims, 17 of which (32%) were related to fieldwork incidents. We found it interesting that 32 percent of all these claims took place during fieldwork that generally occupies a much lower percentage of an employee’s time. We, therefore, suspect that the inherent risks to health and safety during fieldwork we heard and read about were not exaggerated.

Our campus relies on the principal investigator (PI) to provide safety planning for research in the field and instructors to ensure class fieldwork is conducted safely. However, without a fieldwork safety policy there is no standard to assess safety planning nor is there a review process to ensure that such planning is conducted adequately.

We surveyed UCSC researchers to learn who used field safety plans when they did fieldwork. Of the 51 who responded to our survey, 25 did not create field safety plans either because they did not engage in fieldwork or their fieldwork did not entail the level of risks that in their opinion would warrant field safety plans. The majority of the remaining responders had used field safety plans either because it was their standard practice; it was required by a funding agency; or they substituted external safety protocols they were required to follow at the site of their research, such as on a NOAA research vessel. For some, safety planning was informal, in which an instructor identified potential risks and communicated steps to take to mitigate those risks to students; this was done orally and not documented. Only one researcher in our survey was unfamiliar with field safety planning but thought it was a good idea.

Other universities and campuses within the UC system have fieldwork safety policies in place. (See Appendix B for an example from Duke University, partially inspired by UC Berkeley). Campus PIs and instructors are familiar with field safety planning for the most part. The EH&S Office can provide tools and assistance for the implementation of a policy. Therefore, the campus is close to having all the conditions that are needed to establish a fieldwork safety policy.

B. Field Safety Plan Template		
The field safety plan template provided for use by the campus was a web-based tool that was difficult to use and was not recommended for use by other campuses.		
Risk Statement/Effect		
If the campus does not provide a standard, user-friendly field safety plan template then it will be difficult to implement a fieldwork safety policy or users may be discouraged to use it and will create their own, which will make uniform review difficult.		
Agreements		
B.1	EH&S has developed a field safety plan template that is user-friendly and will adequately document a field hazard assessment, communication plan, emergency procedures and required training.	Implementation Date
		02/01/2016
		Responsible Manager
		EH&S Director
B.2	EH&S has encouraged researchers traveling out of state or abroad to register their trip with UC Away, a UC travel registry, by including a description and reference in the EH&S Field Research website to UC Risk Services.	Implementation Date
		02/01/2016
		Responsible Manager
		EH&S Director

B. Field Safety Plan Template - Detailed Description

The field safety planner provided by EH&S on its Field Research website is the Field Safety/Travel Operations Planner (FSTOP), a web-based system provided by UCOP intended to address possible risks associated with field research, teaching and foreign operations. Generally, only researchers involved in animal research have made use of FSTOP, as they are required by the Institutional Animal Care and Use Committee (IACUC) to create these plans before they are allowed to obtain grants for their research. FSTOP has proven to be onerous to use, which has required the assistance of the PBSci EH&S advisor, who is now retired. Other campuses, such as UC Berkeley and UC San Diego, do not recommend its use.

Both that advisor and the director of EH&S were hoping that FSTOP would be improved by UC Davis Information Technology Services making it a more user-friendly planner. However, we recently learned that this is not going to happen in the foreseeable future due to changing priorities at UC Davis.

As field safety planning is a fundamental control for avoiding or mitigating safety hazards in the field, and its use is a critical procedure for implementing a fieldwork safety policy, the campus needs a practical, user-friendly field safety plan template.

This should not be difficult to achieve as the UC Berkeley Office of EH&S has a template that it uses, and is working on improving it.

Further, researchers who are traveling out of state or abroad should be encouraged to register their trip with UC UC Away. This will help ensure that their travel itinerary and emergency contact information is recorded on a UC system that can be accessed quickly if they need to be contacted. This is especially significant given when the field safety plan template is a Word document or fillable PDF file, and not a web-based system connected to an accessible database. This can be done with a link to UC Risk Services on the EH&S Field Research website.

C. Registering for UC Trip Insurance		
When campus researchers or field trip leaders who travel out of state or abroad do not use Connexus to arrange their travel or do not register their trip by the alternative method provided by UC Risk Services, there is no efficient way to centrally know who is away doing research in the field or on educational field trips.		
Risk Statement/Effect		
Without an efficient way to know who is out of state or abroad doing research or on educational field trips, our campus Risk Services Office and others may not be able to contact them with safety alerts or for other emergency information.		
Agreement		
C.1	Risk Services director will increase notices to the campus of the need to register for UC trip insurance for travel out of state or abroad.	Implementation Date
		03/01/2016
		Responsible Manager
		Risk Services Director

C. Register for UC Trip Insurance - Detailed Description

When travelers register for UC trip insurance they provide who, what, when and where information that allows them to be contacted by the campus with emergency information. Further, as part of the service provided by UC trip insurance, travelers will receive travel alerts and general safety and health information for their destination(s). These alerts can be modified by the travelers if they prove to be annoying.

Although, registering for UC trip insurance is stated as a UC policy, travelers may nevertheless successfully claim for reimbursements even if they did not register. Consequently, this registration is not necessarily known by faculty and staff. In our survey, 20 faculty members never registered for UC trip insurance; nine did not even know about it and two bought different travel insurance when they were already covered by UC travel insurance. Twenty-five faculty members were aware of UC travel insurance and have registered for it; among them were those who did not always remember to register.

Travelers would register for UC trip insurance if it was required for reimbursement for expenses borne by the traveler for covered services. However, it is not a requirement although making it a requirement could be a consideration.

APPENDIX A – Summary of Work Performed and Results

Safety on Field Research Assignments Review	
Work Performed	Results
1. Reviewed UC policies and practices that pertained to safety in research.	1. There is no UC policy for fieldwork safety. There are policies for safety in research such as lab safety.
2. Reviewed Cal/OSHA regulations pertaining to workplace safety.	2. Title 8 CCR Section 3202 provides details on regulatory requirements of an Injury and Illness Prevention Program for securing safety in places of employment.
3. Reviewed field safety practices and tools provided at UCSC, UCOP, and other UC campuses.	3. UCSD and UCB have a similar field safety plan template. UCB has a “Safety Guidelines for Field Researchers” on its EH&S website that was linked to from our EH&S website. UCSC EH&S provides a field safety planner based at UCOP called, FSTOP. UC Risk Services has a travel insurance plan that includes risk guidance for travel destinations.
4. Met with campus staff involved with research safety at PBSci, EH&S and Risk Services.	4. PBSci EH&S advisor was concerned about fieldwork safety. Hazards exist, but there is no requirement to create a field safety plan, except for animal research. He retired by 1/1/2016. EH&S director said if PBSci does not replace their EH&S advisor then EH&S will have to take over his responsibilities for assisting with fieldwork safety, as well as other EH&S services he provided; I believe this would be a strain on the existing staff. Risk Services is concerned with fieldwork safety as it has no way to contact people in the field who have not registered their trip on UC trip insurance.
5. We surveyed 51 UC researchers from a population of 167 gathered from a C&G travel query and an Institute of Marine Sciences Faculty and Research Index. We surveyed them on the use of field safety plans and UC trip insurance.	<p>Field Safety Plan:</p> <ul style="list-style-type: none"> • 25 of the 51 researchers have created field safety plans, although four were informal. • One anthropologist with a grad student did not create a field safety plan when it was a good idea. • 25 of the 51 researchers did not engage in fieldwork or their fieldwork was not risky and, therefore, a safety plan was not applicable.

	<p>UC Trip Insurance:</p> <ul style="list-style-type: none"> • 25 of the 51 made use of UC Trip Insurance when they traveled out of state or abroad, but some did not always remember to do so. • 20 did not register for UC Trip Insurance; nine of these were unaware of it; two of these had purchased other insurance when they were already covered by UC Trip Insurance. • Six did not travel out of state and, therefore, UC Trip Insurance was not applicable.
<p>6. Reviewed safety and health incidents that have occurred in field research and with students studying abroad.</p>	<p>Wall of the Dead: A Memorial to Fallen Naturalists:</p> <ul style="list-style-type: none"> • 250 deaths reported since ~1700-present • 84 deaths 1990-present • One UCLA researcher died of blood poisoning on a field trip to Mexico, 1937 • One UCD researcher killed in Peru, 2000; disappeared while bathing – probably taken by caiman • Two UCD researchers along with three others killed in Mexico, 2000; drowned in Sea of Cortez when their small boat was caught in a storm • One UCSD Scripps researcher killed while scuba diving off California in 2001 <p>This report only covered fatalities. We did not find a report on injuries and illnesses for UCSC researchers.</p> <p>We reviewed a workers compensation report of claims from PSci employees over three fiscal years (FY12, FY13 & FY14). There were 53 claims total, 17 of which were incidents that occurred during fieldwork.</p> <p>The UCEAP incident report addressed the following types of incidents: accident, conduct, physical and mental health, safety, sexual offense, substance abuse and other.</p>
<p>7. Reviewed training related to field safety provided by OPERS and the Scientific Diving and Boating Safety Program.</p>	<p>OPERS provides training in rock climbing, wilderness medicine and wilderness first responder courses and certifications in first aid and CPR. The scientific diving program provides certification needed to meet UCSC, OSHA and the American Academy of Underwater Sciences requirements. The program includes a review of all scientific diving and boating project proposals.</p>

<p>8. Reviewed the UC trip insurance program and related safety guidance and assistance.</p>	<p>Travel insurance is provided automatically when travel is arranged by Connexus. Otherwise, trip registration is required for University related trips out of state and to foreign countries. When registration occurs, the traveler may make use of the UC Trip Planner to learn how to reduce risks and obtain resources, travel tips and things to consider before the trip. Further, assistance is provided by United Healthcare Global that provides detailed travel, medical and security information as well as security alerts. When travelers register for UC trip insurance, their “who, what, when, where” information is captured on a system managed by UCOP and may be accessed by approved users at UCSC Risk Services or EH&S to provide emergency information to travelers and their emergency contacts at home.</p>
<p>9. Met with IEO management to discuss safety risks students abroad face and controls.</p>	<p>We learned that when students travel abroad within a University program, such as the Education Abroad Program, there are procedures in place to provide assurance that their safety and security will be looked after. However, there are student field trips that occur outside these programs and have not been provided the same procedures. The IEO had begun to review and assume facilitation of these field trips. Further, the IEO did not know that there was a UC travel registry (UC Away) and consequently was planning to purchase one to record student, faculty and staff travel plans and locations. Through this review, with the assistance of Risk Services, the IEO learned of the UC travel registry and could avoid both the purchase of a duplicate system and duplicate efforts in getting the campus to use it. This review resulted in management corrective actions to encourage the use of the UC travel registry. We expect the IEO will encourage students to make use of it when planning their travel abroad.</p>

APPENDIX B – Example of Fieldwork Safety Policy - Duke University

SECTION	I.	General
Chapter	8.	Fieldwork Safety
Revision Date		9/27/2012
Review Date		11/2/2015

FIELDWORK SAFETY

INTRODUCTION

PURPOSE

Fieldwork activities such as those involving isolated or remote locations, extreme weather, hazardous terrain, harmful wildlife, or lack of ready access to emergency services can expose participants to significant risks to their health and/or safety.

The intent of this policy is to minimize health and safety risks associated with fieldwork by requiring a risk assessment in advance of fieldwork activities and by clearly defining responsibilities of those involved in planning and carrying out fieldwork activities.

DEFINITIONS

“Fieldwork” consists of activities that are

- authorized by the University;
- conducted for the purpose of study, research, teaching, or provision of clinical services;
- undertaken by faculty, staff, students, and authorized volunteers;
- conducted at a location away from Duke’s main campus, Duke’s buildings or Duke’s leased offices.

“Fieldwork” includes study, research, or teaching activities in the Duke Forest.

“Fieldwork” does not include

- supervised study or work placements at the campus, buildings, or leased offices of other institutions;
- travel for conferences, seminars, meetings, or visits to other institutions.

RESPONSIBILITIES

Departments with employees or students participating in fieldwork activities shall ensure that each group has considered the health and safety hazards associated with these activities and developed a safety plan that adequately addresses those hazards. Department heads shall approve incorporation of high-risk activities (such as SCUBA diving, use of firearms, use of heavy equipment, or piloting a boat or aircraft) into any fieldwork program.

Each lead instructor, clinical coordinator, or Principal Investigator conducting fieldwork shall

- Develop a [Safety Plan](#) for fieldwork activities that identifies likely hazards associated with the activity or physical environment (such as weather, wildlife, plants, endemic

diseases, water-borne diseases, radiation, tools/equipment/chemicals to be used, noise, heights/steep terrain, unusual methods of travel, violence, or crime). The safety plan must also include a plan for communications in case of emergency. The [Safety Guidelines for Fieldwork](#) may be consulted for guidance.

- Provide training on hazards and prevention of exposure to hazards, or ensure certification/licensing for high-risk activities such as SCUBA diving, use of firearms, use of heavy equipment, or piloting a boat or aircraft. High-risk activities require department head approval before they can be incorporated into any fieldwork program.
- Provide training on appropriate emergency response to injuries or illnesses, including location of nearest medical care facilities in case they may be needed.
- Investigate all incidents to determine their cause and, where possible, incorporate preventive measures into the safety plan.
- Notify the department of incidents. If relevant, also notify Human Resources (employee injury) and/or Corporate Risk Management.
- Designate a field team leader for each excursion who will carry out the responsibilities named below.
- Set up a system for keeping track of personnel who will be in the field so that someone on campus (in the lab or department) knows where personnel will be, how to contact them, when they expect to be back, etc.

The Field Team Leader shall

- Ensure adequate training of all team members.
- Ensure implementation of controls (e.g., PPE, medical precautions).
- Ensure that at least one team member is certified in first aid/CPR and ensure that a first aid kit is available.
- Ensure adequate provisions for food, shelter, water, communication, and transportation.
- Conduct ongoing risk assessments & report new hazards to the lead instructor or PI
- Resolve safety concerns arising in the field.
- Maintain regular contact with PI or department.
- Inform PI or department of all incidents (e.g., injuries, illnesses, or near-misses).

Employees and students participating in fieldwork activities shall

- Communicate all medical restrictions to the lead instructor or Principal Investigator and the Field Team Leader before participating in field work activities. Consult with Employee Occupational Health and Wellness or Student Health for guidance if needed, or if requested by lead instructor/PI or Field Team Leader.
- Provide planned itinerary and communicate leaving for and returning from the field as required by the PI or lead instructor.
- Review the safety plan and become familiar with the risks identified and the relevant control strategies.
- Follow guidance from the PI, lead instructor, and/or team leader for minimizing risks.
- Notify the team leader, PI, or lead instructor of newly identified hazards.
- Report all incidents to the team leader, PI, or lead instructor.

Authorized volunteers and any non-Duke participants in fieldwork activities shall have the same responsibilities as employees and students (noted above) and shall sign a Participation Agreement (provided by Corporate Risk Management).

Employee Occupational Health and Wellness (or Student Health, where applicable) will

- Provide recommended immunizations, boosters, or prophylaxis for fieldwork in areas with vaccine- or prophylaxis-preventable diseases (such as polio or malaria).
- Provide Travel Health evaluations for fieldwork participants as requested by the participant, lead instructor, PI, or Field Team leader and will provide activity restrictions or other guidance as needed.

The Occupational and Environmental Safety Office (OESO) shall provide guidance and support to employees developing safety plans for fieldwork. When required by granting or certification organizations, OESO shall review and approve fieldwork safety plans.

Corporate risk shall provide consultation as needed on insurance, participation agreements for volunteers/non-Duke participants, and high risk activities.

PROCEDURES

Departments with employees or students participating in fieldwork activities shall develop a review process to ensure that each group has met requirements of this policy and any additional departmental and/or Duke requirements. The Department will ensure that department staff/students participating in fieldwork are familiar with the departmental review process.

A [Safety Plan](#) for field work activities will be developed by the PI, lead instructor, or clinical coordinator. The [Safety Guidelines for Fieldwork](#) may be consulted for guidance. The Safety Plan will include

- The itinerary (locations, arrival and departure dates, names, addresses and phone numbers of all participants).
- A brief description of the research or teaching activity.
- Contact persons at the university and in the field.
- Emergency procedures, including identification of any team members trained in first aid and contact information for local emergency medical care if needed.
- Unusual physical demands (such as those associated with high altitude, climbing, diving, or heavy lifting).
- A risk assessment of safety and health hazards associated with the activity or physical environment (such as weather, wildlife, plants, endemic diseases, water-borne diseases, radiation, tools/equipment/chemicals to be used, noise, heights/steep terrain, unusual methods of travel, violence, or crime). The risk assessment must include strategies for controlling risk.
- Information on necessary or recommended travel immunizations or prophylaxis.
- A list of all members of the team, including a designated team leader.

Working alone in the field is strongly discouraged, especially in remote or hazardous locations. If unavoidable, the PI, lead instructor, or clinical coordinator is responsible for establishing that

the person is competent to work alone. The person working alone is responsible for team leader and employee/student roles.

TRAINING

Initial training will be provided by the instructor, Principal Investigator, or clinical coordinator responsible for the fieldwork, and will include a review of all sections of the safety plan. Refresher training will be required whenever new hazards are expected, and/or for any new fieldwork location.

For high-risk activities such as SCUBA diving, use of firearms, use of heavy equipment, or piloting a boat or aircraft, certification from a commonly recognized authority and/or a license from the applicable governing body shall be required.

REFERENCES

Fieldwork Safety Guidelines, University of Hawaii

Safety Guidelines for Field Researchers, Office of Environment, Health & Safety, University of California, Berkeley

[Safety Guidelines for Fieldwork](#), Occupational and Environmental Safety Office, Duke University and Duke Medicine (Adapted from the *Safety Guidelines for Field Researchers*, Office of Environment, Health & Safety, University of California, Berkeley)

Source: http://www.safety.duke.edu/SafetyManuals/university/I_8FieldworkSafety.pdf