

Field Safety Plan – Kelleher Lab Group – Wyoming Field Site

Section 1: Site and Travel Details

Geographic Location: Red Canyon Ranch, Lander, WY

Coordinates: 42.674406, -108.658595

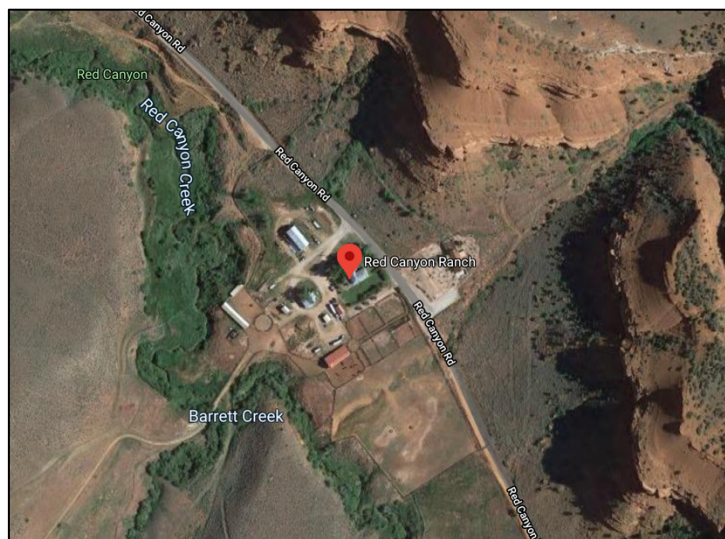


Figure 1: The field site.

Local Contact: [retracted for online URGE publication]

University Contact: Christa Kelleher [retracted for online URGE publication]. While students are in the field, they will be required to check in with CK via text by 6pm MTN (8pm EST) each day. If CK does not hear from students, she will call each of them. If she doesn't receive a returned call within the hour, she will contact JC.

Field Team: [retracted for online URGE publication]

Student 1 – Phone #

Student 2 – Phone #

Student 3 – Phone #

Student 4 – Phone #

Travel Details:

(flight numbers, times, reservation information)

Housing Details:

(retracted for online URGE publication)

Travel to site:

Students will travel with CK to the field site via plane to Salt Lake City and then rental car to Lander, WY. All initial travel will be conducted before dusk. Travel to the site is not dangerous, but it is an approximately 4-hour drive from SLC to the field site. While driving, there will be multiple stops to ensure safe conditions. Most roads are paved, though some are gravel.

Site Access:

There are two roads from which the site can be accessed – via route 28 (from the North) and via Red Canyon Rd (from the South). It is recommended to approach from the northern route and to avoid Red Canyon Rd (from the South) unless you are in a 4WD vehicle and it is during daylight (this road is much more treacherous, though still very much passable).

Site Resources:

Facilities at Site: Restrooms, water

Nearest Grocery Store: In Lander, WY (~ 15 minute drive)

Nearest Gas Station: In Lander, WY (~15 minute drive)

Physical demands are basic hiking and carrying small loads (10-15 lbs). Participants should be comfortable being on their feet and engaging in physical activity for 4 hour stretches and 8 hours total per day.

Expected Weather:

Weather is warm and dry, though rainstorms can occur. Weather is cool in the morning and at night. Prepare for warm conditions during the day, but cool mornings and evenings.

Drinking Water Availability:

Plumbed water is available on site. Be sure to bring multiple reusable water bottles and a day pack with you, as we will fill up water in the morning, and again at midday.

Access to shade/shelter:

Building structures and trees are available for shading, as is AC in field vehicles.

Areas requiring extra caution:

Driving around the RCR field site requires extra caution. We recommend parking the car at wide shoulders along the road. The PI will provide direct instruction on areas that are challenging to navigate in a vehicle.

Safety in the Field:

Cell Phone Coverage:

Coverage is spotty, but best at The Learning Center. All field groups (2+ persons) will have one cell phone on them at all times. Upon your first arrival to the site, take a walk around the site and establish where you have cell service.

Go/No Go Criteria for work at the site:

Water levels in the stream *should* be low, but any large storms may cause stream levels to rapidly rise. Field work in the river should be avoided on any day with rain exceeding 0.5 inches. In our three years traveling to the field site, we have never had a day where water levels made it unsafe to work. That said, large thunderstorms can occur without warning, and cause major streamflow changes. We encourage you to use your best judgement when it comes to safety; if you feel unsafe, wait it out.

Remoteness:

Due to the remote nature of the field site, all participants should plan to work in teams. No person should perform field work alone. This is due to the nature of the site - it is hard to hear someone calling out even over short distances. For safety purposes, when group members will be some distance apart, we recommend charging and bringing walkie-talkies for communication.

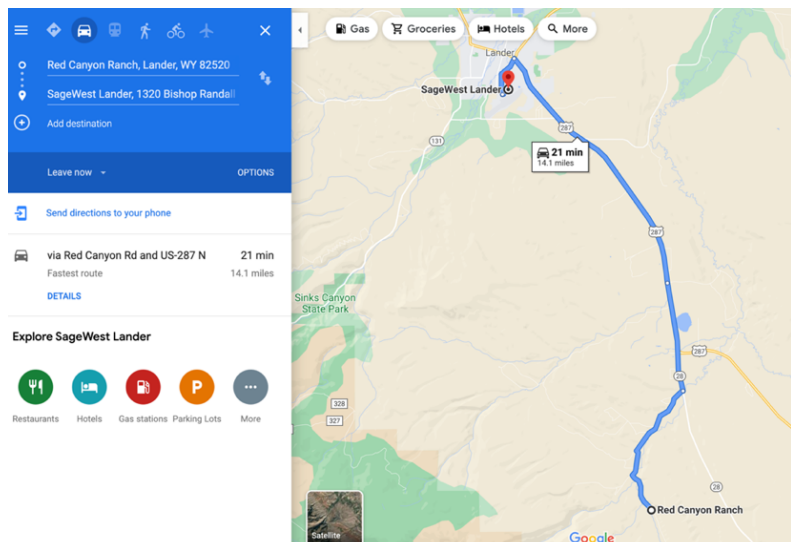
The site is remote, but as it is along a public road, individuals will drive through and stop at The Learning Center. For this reason, we recommend locking The Learning Center during the day. Very rarely will someone stop and approach the group, asking what we are doing. If this happens and you feel unsafe, trust your gut. Find your field buddy, and move away from the person or persons who have stopped at the site. Always ensure for each group that one team member has a cellphone with them and on their person.

The team will bring a first aid kit with them to the field site, in the case of small injuries. In the case of bigger injuries, participants are encouraged to contact medical services (911) and head to the local hospital via car as quickly as possible.

Nearest emergency services:

In the event that you need to travel to a hospital, the nearest hospital is located at: 1320 Bishop Randall Dr, Lander, WY 82520

Figure 2: Directions to local hospital. Head to route 287, left at Buena Vista Dr, then a left onto Bishop Randall Dr.



Wildlife:

Rattlesnakes are common at the field site. If you come across a rattlesnake, move to a safe distance away from the snake, then to alert any nearby individuals as to the location of the rattlesnake. Importantly, rattlesnakes may not always 'rattle' to alert their location.

If you or another researcher is bitten by a rattlesnake:

- Get away from the snake as quickly as possible
- Notice if you can the size and color of the snake (for reporting to medical personnel)

First and foremost, the goal is to get the bitten person to the hospital as soon as possible (within 30 minutes of being bitten). Use the following procedure:

- Keep the bitten person still (movement will increase blood flow and make venom circulate faster)
- Remove any tight clothing or jewelry (prior to swelling)
- Send one person to get a vehicle, to come back to retrieve the bitten person
- Head quickly to the Lander Regional Hospital (1320 Bishop Randall Dr, Lander, WY 82520)
- While on the way, call 911 – it will take longer for an ambulance to reach you, but calling 911 will ensure that the hospital knows you are coming

Other important considerations for a rattlesnake bite:

- Let the wound bleed
- Don't wash the wound
- Place a clean bandage on the wound if you can
- Remain calm
- Do not cut the wound, or apply a tourniquet or ice or water

Heat illness:

Temperatures often do not exceed 95°F. However, on any days with high heat, we will limit work to morning and late afternoon hours. Rest breaks will be taken regularly, and all present will monitor themselves and each other for heat illness.

| First Aid Reference – Signs & Symptoms of Heat Illness | | |
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| Signs & Symptoms | Treatment | Response Action: |
| <p>HEAT EXHAUSTION</p> <ul style="list-style-type: none"> • Dizziness, headache • Rapid heart rate • Pale, cool, clammy or flushed skin • Nausea and/or vomiting • Fatigue, thirst, muscle cramps | <ol style="list-style-type: none"> 1. Stop all exertion. 2. Move to a cool shaded place. 3. Hydrate with cool water. | <p>Heat exhaustion is the most common type of heat illness. Initiate treatment. If no improvement, call 911 and seek medical help. Do not return to work in the sun. Heat exhaustion can progress to heat stroke.</p> |
| <p>HEAT STROKE</p> <ul style="list-style-type: none"> • Disoriented, irritable, combative, unconscious • Hallucinations, seizures, poor balance • Rapid heart rate • Hot, dry and red skin • Fever, body temperature above 104 °F | <ol style="list-style-type: none"> 1. Move (gently) to a cooler spot in shade. 2. Loosen clothing and spray clothes and exposed skin with water and fan. 3. Cool by placing ice or cold packs along neck, chest, armpits and groin (Do not place ice directly on skin) | <p>Call 911 or seek medical help immediately.</p> <p>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!</p> |

Field Emergency Reporting:

What should be done if there is a case of serious injury, multiple injuries, or extensive property damage: First and foremost, if you have cell service, **call 911**

Provide your full name and phone number you are calling from

Describe the emergency and your location

Answer all questions and do not end the call until the 911 dispatcher gives the okay to do this

Immediately contact CK

If possible, and if safe to move the injured person, transport the injured person to a hospital ASAP. Contact the designated emergency contact in the department (earadmin@syr.edu, phone #), Risk Management (315.443.4011), and the Department of Public Safety (315.443.2224) to report the situation and receive assistance. After the situation has been stabilized, record details of the incident here: <https://riskmanagement.syr.edu/wp-content/uploads/2020/07/Accident-Report-Form-2020.pdf>

From: <https://riskmanagement.syr.edu/policies-and-procedures/field-trip-guidelines/emergency-situations-and-accidents/>

Sexual harassment:

Sexual assault (aka: sexual contact without consent) and sexual harassment (unwelcome advances, physical contact, or sexual innuendo) are not allowed at any time. If you are a victim of sexual abuse or harassment, we are here to help. It is hard to report sexual abuse or harassment when you are far from home and in an isolated area. Please avoid keeping this to yourself.

It is your decision whether to report an incident to the PI or to local authorities. If you report the incident to the PI, she will work with you to get you help and to present your options for reporting, both at SU and to the police. In such an event, you may need medical care. The PI can help you with this.

Field safety guidelines:

All participants agree to follow the below guidelines:

- Harassment of any kind is not tolerated. Any incident of harassment should immediately be reported to one of the PIs, who will work with the reporter to ensure they are safe and to report the incident via official SU channels and to address the problem with the harasser. Any participant found to be engaging in harassment will be immediately removed from the trip and may face further sanctions from the University.
- Act in a professional manner at all times.
- Take care of your trash – carry out any trash that you bring in.
- Carry enough water (2 L minimum) to avoid dehydration, especially during warm weather.
- Be safe and aware of hazards, including:
 - Avoiding steep hillsides that may be beyond your ability to climb.
 - Placing hands and feet only in areas that you can see – this is the best way to avoid snake bites (snakes like rock piles and ledges)
 - If you observe lightning and thunder occurring consecutively within 30 seconds or less, seek shelter (the storm is within 30 miles of you) and wait for the storm to pass (30 minutes or more).
- Maintain the buddy system: you should not go anywhere alone.

General packing list:

We recommend bringing the following with you to the field site. Please talk to CK or PV if you do not have certain equipment; we have extras or could find someone to borrow from.

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| <p>FOOTWEAR/ACCESSORIES:</p> <ul style="list-style-type: none">➤ Hiking boots➤ Sneakers➤ Flip-flops➤ Water Shoes➤ Warm gloves and ski hat➤ Sun hat/baseball cap➤ Sunglasses➤ Shell/Rain Jacket➤ Waders and wading boots (optional) <p>CLOTHING:</p> <ul style="list-style-type: none">➤ Breathable long pants➤ Shorts or zippie pants➤ T-shirts/Breathable shirts➤ Sweatshirt➤ One “nice outfit” – i.e. jeans and a shirt➤ Athletic socks/underwear➤ Pajamas➤ Long underwear (top and bottom) <p>TOILETRIES:</p> <p>**When staying on site, it’s nice to have a toiletry bag to carry to and from the shower.**</p> <ul style="list-style-type: none">➤ Sunscreen – lots!➤ Shampoo/conditioner➤ Soap➤ Moisturizer➤ Towel (no linens provided)➤ Razor➤ Toothbrush/toothpaste | <ul style="list-style-type: none">➤ Deodorant➤ Hairbrush➤ Hair ties➤ Feminine hygiene➤ Lip balm➤ Tylenol/Advil/Bandaids/Neosporine <p>CAMPING GEAR:</p> <ul style="list-style-type: none">➤ Day pack➤ Knife/multitool➤ Water bottle➤ Bug spray➤ Flashlight/headlamp (preferred)➤ Travel clock with alarm➤ Good book to read➤ Field book➤ Sharpies/pen/pencil➤ Maps (field site, Wyoming)➤ Camera and cables (optional)➤ Laptop➤ Cell phone and charger➤ Cash <p>AT TLC:</p> <ul style="list-style-type: none">➤ Sleeping bag➤ Sheet/sleeping bag liner (optional for hot nights)➤ Sleeping pad (optional – they have cots)➤ Pillow |
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Campus Contacts:

Department of Earth Sciences

315. 443.2672, earadmin@syr.edu

SU Public Safety:

315.443.2224

Report Injuries:

Emergency – call 911

Call Risk Management - 315.443.4011

All members will review this safety plan and sign it prior to heading to the field:

Name:

Signature & Date:

Name:

Signature & Date:

Name:

Signature & Date:

Name:

Signature & Date:

Name:

Signature & Date:

Name:

Signature & Date:

This form will be filed with the Department of Earth Sciences (emailed to earadmin@syr.edu 1 week before the trip).

To be filled out by each group member prior to travel:

Name: _____

DOB: _____

Gender: _____

Emergency contact details:

Name and relationship: _____

Home phone: (____) _____

Cell phone: (____) _____

Email: _____

Name and relationship: _____

Home phone: (____) _____

Cell phone: (____) _____

Email: _____

Physician contact details:

Name: _____

Office phone: (____) _____

Medical Insurance Carrier: _____

Policy Number: _____

1.) Are you allergic to bee stings? Yes _____ No _____

2.) Do you have a history of Asthma? Yes _____ No _____

3.) If yes to either, will you carry an EpiPen and/or inhaler? Yes _____ No _____

4.) Do you have any known allergies, food allergies or allergic reactions? If yes, please explain:

5.) List medications that you are currently taking including dosages and frequencies:

6.) Do you have any chronic medical problems (i.e., heart, lungs, kidneys, neurological disease, etc.)? If yes, please explain:

7.) Do you have any medical problems that may interfere with your ability to do rigorous field work? If yes, please list them:

8.) Do you require any special dietary needs for prescribed medical and/or religious reasons? If yes, please explain:

These forms adapted from:

-SDSMT Laboratory and Field Safety Guidelines:

<https://www.sdsmt.edu/Academics/Departments/Geology-and-Geological-Engineering/Docs/2014-15-GGE-Lab-and-Field-Safety-Guidelines-manual/>

-Keck Geology Consortium Project Directors Handbook: https://keckgeology.org/wp-content/uploads/Project-Director_Faculty-HB-2015.pdf

-Western Department of Earth Sciences Field Safety Policy:

<https://www.uwo.ca/earth/docs/Field%20Safety%20Policy-Dec2014-JH%202015%2008%2017.pdf>