Department of Botany

Field Safety Plan Form

**(Date of Last Revision: Sept 30, 2020)**

**Part 1. Planning Record**

*Please provide basic information about the trip (who will travel, by what means, to where, when).*

|  |
| --- |
| Who will travel: Jungsoo Park (PhD student in Parfrey lab) and Siobhan Schenk (PhD Student in Parfrey lab). Other members of the Parfrey lab may be approved by Laura Parfrey to join on the conditions that they 1) provide full contact and emergency information, 2) complete COVID training, 3) acknowledge in writing that they have read and agree to abide by conditions set out in this field safety document and related COVID safety plan. At least one team member must have wilderness first aid certification (this will generally be Jungsoo Park).    How: Jungsoo will drive a UBC vehicle. Other students will bike for daytime low tides. During fall and winter night time low tides necessitate traveling in pairs by car the field site for safety. Protocols to maximize distancing and ventilation are in place.  When: daytrips 1 or 2x per month for the next year.  To where: Girl in a wetsuit at Stanley Park |

**Trip or Project Name**

|  |
| --- |
| Bacterial manipulation in kelp cultivation |

Nature of field activity

|  |
| --- |
| Collection of kelp from intertidal. |

Is trip for teaching or research? (If teaching, please complete Course Information below)

|  |
| --- |
| Research |

Is trip local to Vancouver, within BC, within Canada, or international?

|  |
| --- |
| Local to BC |

How many days is the trip?

|  |
| --- |
| 2 days |

Is this ongoing work[[1]](#footnote-1)?

|  |
| --- |
| Yes |

If not ongoing, trip start and end dates

|  |
| --- |
|  |

**Team Leadership**

Project Leader

|  |
| --- |
| Laura Parfrey |

Will the Project Leader participate in the trip?

|  |
| --- |
| On occasion Laura Parfrey will participate in the trip, but Emily Adamczyk will be the trip leader |

Trip Leader

|  |
| --- |
| Emily Adamczyk |

Field Safety Officer (if different from Trip Leader)

|  |
| --- |
| Emily Adamczyk |

**Course Information (if applicable)**

Course number

|  |
| --- |
| N/A |

Course name

|  |
| --- |
| N/A |

Number of sections

|  |
| --- |
| N/A |

Number of students per section

|  |
| --- |
| N/A |

**Travel Information**

Country

|  |
| --- |
| Canada |

Immunizations Required   Yes/ No

|  |
| --- |
| No |

Geographical Site

|  |
| --- |
| Galiano Island |

Nearest Town/City

|  |
| --- |
| Galiano |

Means of Travel

|  |
| --- |
| Driving and Ferry |

Accommodations

|  |
| --- |
| Loft of house |

List of Drivers[[2]](#footnote-2)

|  |
| --- |
| Emily Adamczyk |

Travel Itinerary Details

|  |
| --- |
| Leave mainland Vancouver and travel to Galiano Island (~2h) (morning, day 1)  Wait for low tide in accommodation  Leave accommodation 1-2 hours before lowest tide time – Travel to Montague harbor  Sample eelgrass: 2-3 hours (low tide) (evening, day 1)  Return to accommodation  Return to Vancouver (~2h) (morning, day 2)  Deposit samples in lab for storage (day 2)  End |

**Participants**

*Add lines to list all participants for a research field trip or a non-local, course-related field trip. For a course trip to a local field site (i.e., for which there are no required immunizations or visas and participants are covered by MSP), please list all participants who are not already registered in the course.*

| Name | Health Insurance  (y/n) | Required Immunization  (y/n/na) | Visa  (y/n/na) | First Aid Training Level | Email |
| --- | --- | --- | --- | --- | --- |
| Emily Adamczyk | y | na | y |  | adamczyk@zoology.ubc.ca |
| Siobhan Schenk | Y | na | NA, Canadian citizen | No | sschenk@student.ubc.ca |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
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**Part 2.** **Communication Plan**

**Internal Communication Plan**

*This describes how members of the field team will communicate with one another, in the event of a planned or unplanned separation while on the trip.*

Trip Leader Phone Number

|  |
| --- |
| 604-842-8657 (Emily Adamczyk) |

Field Safety Officer Phone Number

|  |
| --- |
| 604-842-8657 (Emily Adamczyk) |

Is cell phone coverage expected to be reliable? If not, what means of communication will be used?

|  |
| --- |
| Yes. |

Does the group plan to be separated into subgroups without visual contact? Yes/no

|  |
| --- |
| no |

If yes, please answer the following:

* What is the planned check-in interval?

|  |
| --- |
|  |

* What steps will be taken if a check-in is missed?

|  |
| --- |
|  |

* At what stage will someone outside the group be alerted if check-ins are missed?

|  |
| --- |
|  |

If no, please answer the following:

* What steps will be taken if the group becomes unintentionally separated?

|  |
| --- |
| We will first visually scan the area for the separated group member and then call a separated group member. Members will meet back at vehicle if they are unable to locate other members of the party for more than 15 minutes. |

* At what stage will someone outside the group be alerted if the group cannot reestablish contact?

|  |
| --- |
| If group member cannot be located after 30 minutes of visual search, calls and is not at the vehicle check in site. |

**External Communication Plan**

*This describes how a representative of the field team will communicate with someone at UBC who is not on the trip.*

Name and phone number of participant responsible for external check-in, if not the Trip Leader

|  |
| --- |
| Trip Leader: Emily Adamczyk |

Project Leader Phone Number

|  |
| --- |
| 604-842-8657 |

Name and number of external contact person at UBC, if not the Project Leader

|  |
| --- |
| Laura Parfrey, 604-992-8397 in cases where Laura is not on field trip. Vincent Billy (604-767-7344, a PhD student in the Parfrey lab) will be the alternate contact if Laura is on the trip.  Parfrey lab #fieldtrip slack channel |

How will the trip team maintain external contact with someone at UBC?

|  |
| --- |
| A trip leader will be checking in and out on Parfrey lab #fieldtrip slack channel. |

External check-in schedule

|  |
| --- |
| The trip leader does will communicate via Parfrey lab slack channel within 2 hours of expected return. |

If external contact is not made at the designated time, please describe the steps to be taken (i.e., what will be done and who will be alerted).

|  |
| --- |
| First, the external contact will call the trip leader (Emily Adamczyk, 604-842-8657), and if does not get through will call (Siobhan Schenk, 506-471-3607). If unable to reach trip participants the external contact will then call local police (911) if participants cannot be located, and then emergency contacts of participants (506-471-7962 for Siobhan and – for Emily) |

**Site Contacts**

*Please list contact info for any local site contacts (e.g., field station managers, property owners, park staff) or local entities (e.g., park headquarters), if applicable.*

| Name/Entity | Title/Role | Email | Phone |
| --- | --- | --- | --- |
| **K2 Park Services Ltd.** | Contacts who operate Monatgue Harbour parc | [k2parks@shaw.ca](mailto:k2parks@shaw.ca) | 1 877 559-2115 |

**Departmental Contacts**

*Main departmental contacts are listed here. Please add other UBC staff contacts, if applicable.*

Department Head: Sean Graham, 604-822-3554 /personal # emergencies only: 604-714-1757

Admin Director: Alison Munro, 604-822-4882/personal # emergencies only: 604-817-9472

Assistant to the Head/Admin Support: Isabel Ferens, 604-822-8524

|  |
| --- |
|  |

**Emergency Contacts**

*Some typical emergency contacts are listed. Please provide additional contact information for local first responders and emergency services.*

General emergency hotline\*: 911

(\*note that this is not 911 in many countries; please edit accordingly)

|  |
| --- |
|  |

Canadian Coast Guard, 24-hr emergency line in BC: 800-567-5111 or #727 or VHF radio Ch. 16 or \*16 on cell phone

(for other locations in Canada, see <https://www.ccg-gcc.gc.ca/contact/emergency-urgence/search-rescue-recherche-sauvetage-eng.html>)

|  |
| --- |
|  |

Search and rescue, Canadian Pacific region: 250-413-8933

(for other locations, see <https://sarcontacts.info/>):

|  |
| --- |
|  |

Nearest hospital:

|  |
| --- |
| St. Paul’s Hospital, 1081 Burrard St, Vancouver, BC V6Z 1Y6 |

Police:

|  |
| --- |
| 911 |

Fire:

|  |
| --- |
| 911 |

**Part 3. Assessment of Risk**

**Description of activities**

*Please provide a brief description of the fieldwork activities.*

|  |
| --- |
| Purpose: We are collecting eelgrass blades, which we will swab to collect microbial DNA for later sequencing. Some of the collected blades will be used for electron microscopy. |

**Risk Assessment**

*For your planned field activities, use the risk matrix (Table 1) to assist you in determining level of risk associated with each potential hazard (Table 2). Hazards may be site- or task-specific, they may be insidious or apparent, they may have interacting or cumulative effects, and they have the capacity to affect individuals differently. Additional guidance is in Appendix I. Keeping these considerations in mind, please score each potential hazard based on the anticipated combination of ‘consequence’ and ‘likelihood’, resulting in a determination of low, medium, or high level of risk (Table 1).*

**Table 1. Risk Matrix**

**Likelihood**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Continuously or many times daily, expected to occur regularly under normal circumstances | Very Likely | **Medium** | **High** | **High** | **High** |
| From once per day to once per month, expected to occur at some time | Likely | **Medium** | **Medium** | **High** | **High** |
| From once per month to once per year, may occur at some time | Moderate | **Medium** | **Medium** | **Medium** | **High** |
| It has been known to occur but not likely in normal circumstances | Unlikely | **Low** | **Medium** | **Medium** | **Medium** |
| Not known to have occurred, but considered remotely possible | Rare | **Low** | **Low** | **Medium** | **Medium** |
|  | **Consequence** | Minor | Moderate | Major | Extreme |
|  |  | Minor cuts, bruises, irritation or physical discomfort | Injury or illness requiring medical treatment | Injury or illness requiring hospital admission and/or temporary impairment (less than 6 months) | Injury or illness resulting in long-term or permanent impairment and/or one or more fatalities |

**Table 2. Potential Hazards**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **High** | **Med** | **Low** |
| **Natural Hazards** |  |  | v |
| Temperature Extremes |  |  | v |
| Uneven/Slippery Walking Surfaces |  | v |  |
| Sharp Objects—rocks, coral, vegetation |  |  | v |
| Heights/Drop-offs (including high elevation) |  |  | v |
| Falling Objects/Obstructions |  |  | v |
| Tight Spaces/Narrow Openings/Overhangs |  |  | v |
| Darkness/Low Light | v |  |  |
| Strong Sunlight (including sunburn) |  |  | v |
| Foul Weather—wind, rain, snow, lightning, flash flood |  |  | v |
| Fire Hazard |  |  | v |
| Smoke/Dust/Fog |  |  | v |
| Toxic/Allergic Sources (vegetation, pollen) |  |  | v |
| Animals—insects, reptiles, mammals, other |  |  | v |
| Water/Current—streams, waves, tides, depth |  |  | v |
| Elevation (low oxygen) |  |  | v |
| Unpredictability of environment |  |  | v |
| **Transportation Hazards** |  |  | v |
| Vehicular Traffic—roads, railroads |  |  | v |
| Bridges |  |  | v |
| Route Conditions – Weather extremes |  |  | v |
| Route Conditions - rough (inc. flat tires) |  |  | v |
| Vehicle Condition |  |  | v |
| **Field Work Hazards** |  |  | v |
| Getting lost |  |  | v |
| Hiking/Walking |  |  | v |
| Climbing |  |  | v |
| Lifting/Carrying |  |  | v |
| Swimming/Snorkeling/SCUBA/Boating |  |  | v |
| Digging/Trenching |  |  | v |
| Use of Tools (including chipping) |  |  | v |
| Fatigue/Dehydration |  |  | v |
| Animal bites |  |  | v |
| Research/location specific additional risks: |  |  | v |

**Mitigation Plan**

*For activities with hazards determined as 'High' or ‘Medium’ risk, please explain the protocols that will be followed to mitigate that risk. Following the hierarchy of risk control (Table 3), first consider removing activities determined to be ‘High’ risk. When it is not practicable or possible to eliminate a hazard with high risk, the next levels of control, such as substitution or administrative changes, can be applied. Note that the final level of control, personal protective equipment, is considered the least effective because it assumes that participants will be exposed to some level of risk.*

**Table 3. Hierarchy of risk control**

|  |  |
| --- | --- |
|  | Example |
| 1. Elimination | Remove the hazard   * e.g., use the 30-30 rule to cease activity if thunderstorms are approaching |
| 2. Substitution | Use an alternative   * e.g., choose a longer approach route if it avoids steep drop-offs |
| 3. Engineering Controls | Separation of hazard   * e.g., park to avoid crossing busy roads |
| 4. Administrative  Controls | Change the work practice   * e.g., require participants to have certain rest periods * e.g., set alarms for reapplying sunscreen |
| 5. Personal Protective  Equipment | Provide protective clothing and or equipment. |

|  |
| --- |
| (Mitigation Plan)  Uneven/Slippery Walking Surfaces – We will be cautious and slowly walk around inter-tidal areas. Proper footwear will be worn.  Strong Sunlight (including sunburn) – We will apply sunblock before going to field and reduce exposed time (maximum 1.5 hours)  Darkness – during fall and winter low tides occur at night. All participants will be required to wear a headlamp and wear clothing with reflectors (e.g. rain gear or vest). The trip leader will carry a back up flashlight. Participants will maintain closer proximity (between 10 and 40 feet) and communicate frequently by talking. There are streetlights and city lights in the area preventing total darkness even on rainy nights.  Field trips will occur during low tides and be timed to start as tides are still going down to avoid the need to rush fieldwork. The time of low tide will be reviewed with all participants before each trip and again when participants meet on site so that participants are aware how long they have to work.  Tides at Stanley Park Girl in a Wetsuit location are low risk as the waves are always small in this protected area and there is no risk of being cut off from land. |

**Part 4. Emergency Response Plan**

*Please describe the appropriate procedures that are to be followed in the event of an emergency.*

**If a team member is injured and can communicate**

How will that member communicate their injury? Who will they communicate with, and how will that person respond?

|  |
| --- |
| An injured member will communicate with the trip leader & safety officer at the field site and assess injury to decide appropriate treatments. |

How will emergency help (e.g., paramedic) be gained if necessary?

|  |
| --- |
| Call 911 |

**If a team member is injured and cannot communicate**

How will the other team members become alerted to this? Who will respond if this happens?

|  |
| --- |
| Team members will work together and not be separated. If a team member notices that a team member is injured, we call 911 after assessing member’s physical condition. If the trip leader is incapacitated the participant will call 911 and the external contact (Laura Parfrey, 604-992-8397 or Vincent Billy (604-767-7344) The trip leader will call 911 if needed. |

How will emergency help (e.g., paramedic) be gained if necessary?

|  |
| --- |
| Call 911 |

**Evacuation plan**

Please list circumstances that could arise which would cause evacuation from the field.

|  |
| --- |
| Extreme weather (e.g. heavy rain)  Rising tides. If tides rise more quickly than expected participants will leave the site. |

Can all of these circumstances be detected by the on-site team?  Yes/ No

|  |
| --- |
| Yes |

If no, fill out the following 2 sections:

Please give the name and contact information of the external contact who will communicate to the team that they must evacuate.

|  |
| --- |
|  |

Please give the name and contact information of the team contact who will receive this information from the external contact.

|  |
| --- |
|  |

Please describe the procedure for safe evacuation of all the team members. Include how it will be determined that each team member is safely evacuated.

|  |
| --- |
| Participants will not be separated and will evacuate the intertidal area together.  It is easy to evacuate this location as the slope is gentle, there is no risk of being cut-off from land, and there are many exit points from the beach back to the paved bike/walk way. |

1. Multiple trips to the same site(s) for the same activities by the same people can be covered by one Field Safety Plan, provided activities and participants remain as specified. When minor changes occur, an addendum to a previously submitted plan can be added. Any significant changes to the activity will require the Project Leader to reassess risks and submit a new Field Safety Plan. Any new Participants must submit Participant Forms, and changes to the Participant list should be reflected on a revised Planning Record. A Field Safety Plan is good for 12 months. For ongoing or long-term projects, the Project Leader should submit a new version each year*.* [↑](#footnote-ref-1)
2. Use of personal vehicles is strongly discouraged. If possible, UBC-owned fleet vehicles or rental vehicles are preferred. In the event of a motor vehicle accident in a personal vehicle, the individual’s ICBC personal insurance would be the primary coverage. The University’s ICBC insurance coverage would respond for an accident in a UBC fleet vehicle, provided the driver was a UBC authorized driver. For a rental vehicle, the driver should ensure they have third party liability coverage purchased either through the University, through their credit card, or through the rental company (see here for further details: <https://srs.ubc.ca/insurance/insurance-programs/automobile-insurance/>). [↑](#footnote-ref-2)