Field Research Safety Handbook

Division of Biological Science, Graduate School of Science, Kyoto University

Department of Biological Science, Faculty of Science, Kyoto University

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Table of Contents

1. Safety Code of Conduct for Field Research

Preamble

Field research conducted in natural environments involves a variety of risks that are different from those found indoors. To prevent accidents, it is essential that safety measures be thoroughly implemented from the planning stage. Never assume that you will be the only one who will not be involved in an accident at the time of a research. Overconfidence often stems from a lack of ability to look objectively at one's surroundings. Remember the rule of thumb: "What can happen will happen." Do not be naive enough to think that a little risk is acceptable in order to advance your research. Safety should always takes precedence over research.

1.1. Safety Precautions Prior to Field Research

- The most important aspect of safety measures are not the measures taken in the event of an accident, but the measures taken to prevent accidents from occurring.
- Education on safety management should not be dismissed. Encountering a frightening situation will help us understand its importance, but regretting the lack of safety measures afterwards is too late.
- The researcher should carefully examine the hazards in the research area, including travel routes, and inspect safety measures, assuming different scenarios.
- Experienced researchers should also review their own research techniques, hazard perception skills, and ability to make decisions to avoid hazards.

1.2. Avoiding Hazards during Field Research

- You must remember that you have a lot to lose in the event of an accident.
- Accidents can happen unexpectedly. Do not be overconfident in your own safety management abilities.

- You must have the courage to stop a research without hesitation if you judge it to be dangerous.
- You must carefully assess changing conditions, such as weather and physical condition, and must not take unreasonable actions.
- You must not forget that familiarity with the research site may lead to complacency.

1.3. Preparedness of Supervisor

- It is the responsibility of the supervisor to ensure the safe return of students from the research site.
- Strive to create an atmosphere that emphasizes safety by using safety-oriented words and actions on a regular basis.
- Instruct students to understand the importance of education on safety management.
- Carefully check that the measures taken to ensure safety measures adequately take into account the characteristics of the research site.
- Assess the abilities, personality, and mental and physical condition of each student and provide guidance accordingly.
- In medium- to long-term research, supervisors will periodically ask about progress and provide appropriate guidance.

2. Preparation before Field Research

2.1. Research Plan

Adequate preparation before setting out for field research is important both for preventing accidents and for achieving research goals.

- The purpose of the research, location, work content, schedule, transportation, etc., should be decided after thorough consultation with your supervisor or someone with experience in the field.
- If this is the student’s first time conducting field research, they should be accompanied by their supervisor, a person delegated by the supervisor (in principle, a faculty member), or a person in a leadership position at the research site.
- Even in the case of experienced persons, it is recommended that they carry with them equipment useful for confirming their survival and calling for rescue, especially if they are alone.
- Share with your supervisor how to check on your safety on a daily basis.
- Have your supervisor's emergency contact information (cell phone, etc.).
- Submit the latest Emergency Contact Form (Appendix A) to the supervisor.
- You must purchase “Gakkensai” (Personal Accident Insurance for Student Pursuing Education and Research). In the case of overseas research, obtain travel insurance for overseas and overseas emergency accident support system (i.e., I-RAC). If you will be conducting research in Japan and will be visiting places that require search and rescue, you must purchase the "Search and Rescue Expense Insurance" of the Division of Biological Science.
- Prepare equipment useful for safety.
- When using a private car or motorcycle for the research, ensure that brakes, tires, engine, lights, etc. are inspected before departure, and that any defects are repaired. Be sure to purchase voluntary insurance with adequate coverage. If borrowing someone else's car, check the terms and conditions of their insurance coverage and make sure you are covered as the driver. (Insurance policies have insurance coverage

arrangements based on the driver's age and family composition. If you exclude yourself from coverage, you will not be covered in the event of an accident.)

- Do not conduct research alone in high-risk environments or locations, such as high mountains or caves.
- In case of emergency, confirm the location of hospitals, police stations, etc. When doing research in high-risk environments or locations, inform several people with rescue skills of the destination and research period, and establish a system in advance in case of emergency.
- Confirm information on dangerous plants, animals, and disasters in the research area.
- After submitting the "Safety Check List" and receiving approval from your supervisor, obtain approval other faculty members outside of the department like your secondary supervisor.
- In the case of medium- to long-term studies, the itinerary should include rest and reserve days. Accumulated fatigue not only reduces the efficiency of the research, but also increases the probability of accidents.
- Depending on the location of the research, there are times of the year when more care is needed or the site should be completely avoided. For example, researching the coast in mid-summer is inefficient due to the exhaustion of physical strength caused by the heat, and there is also the risk of heatstroke. The rainy season and immediately after typhoons should be avoided due to the high risk of landslides and swollen rivers.
- The university must know who is conducting what outdoor activities. In order to respond quickly and appropriately in the event of an emergency, be sure to submit a "Safety Check List" for approval. Also, report to your supervisor (responsible person) your departure from and return to the university. If there is no report of return to the University, or if there is no confirmation of return to the place of lodging, the student will be subject to a search for possible accidents. For requesting confirmation of return to the accommodation, please utilize the "Request for Emergency Notification to the Accommodation" (Appendix B).

3. General Precautions during Research

3.1. Health Condition

Good physical health leads to high-quality research. In addition to taking good care of your health before the research, do not hesitate to change your plans or stop the research if your health changes during the research, and practice “safety takes priority over research”.

- Always pay attention to your health condition, and have the courage to stop the research and take a rest if you are feeling unwell.
- To notice changes in one's physical condition as soon as possible, it is advisable to check and record one's temperature, pulse rate, etc. every day wherever possible.
- Avoid heavy drinking before and during the research and get plenty of sleep.
- During the research, take regular breaks, drink plenty of water, take salt, and eat supplemental foods.
- During medium- to long-term research periods, regular rest days should be scheduled to maintain and recover physical fitness.
- Keep in mind that the risk of accidents and injuries increases near the end of the research due to fatigue and complacency caused by familiarity.
- Consult with the person in charge of the research or his/her companion you feel any physical discomfort during the research. If it is difficult to conduct and continue the research, do not hesitate to stop or suspend the research.
- In the case of a group research, the person in charge of the research and the accompanying persons should make every effort to monitor the physical condition of the participants, and take measures such as changing the research plan or having those who are not feeling well take a day off. It should be noted that in group activities, participants may be forced to work even if they are not in good physical condition. Additionally, depending on the situation, have the participants visit a local medical institution for a checkup if they are injured or unwell.

3.2 Mental Health Condition

In confronting nature, we sometimes feel that we are challenging our own physical and mental limits. Research requires adaptation to unusual rhythms of waking and sleeping, physical activity, diet, and sanitation; coping with problems related to interpersonal relationships. These problems may include coping with communal living, and detecting and avoiding hazards and dangerous organisms that may be present at the field site. Therefore, while conducting field research, researchers may be placed under a high state of tension and mental strain, even if they are not aware of it. In addition, they may experience loneliness, anxiety, pressure, and frustration about the outcome of the research, and may experience mood swings. If you are under serious stress or suffering from a mental illness, you should first work to recover or remedy this situation, and it is not advisable to push yourself to engage in field investigations.

If you experience mental or physical changes, do not keep it to yourself. Seek help from several people and contact points, including the university's counseling office, faculty members, administrative staff, seniors in the laboratory, family members and friends, even if you have to interrupt your research. At the Counseling Office of the Graduate School of Science and Faculty of Science at Kyoto University and the Student Counseling Division of the Student Support Organization, you can meet with a professional counselor in person or online (appointment required, free of charge). Seeing a psychiatrist or psychosomatic medicine specialist at a medical institution is also an option.

- Since some mental illnesses may be caused by physical illnesses, you should always consider your own mental and physical condition and keep your physical condition in good shape through proper sleep, exercise and diet.
- The stress during research periods can be reduced by careful preparation in the planning stage and it is important not to bite off more than you can chew.
- If you are aware of a strong fear or aversion to a particular environment

or situation, such as a fear of heights or claustrophobia, you should communicate this to the person in charge of the research and the people accompanying you.

- Consult with the person in charge of the research or your companion if you feel mentally unwell during the research. If it is difficult to conduct and continue the research, do not hesitate to stop or suspend the research at your own discretion. The person responsible for the research should take into consideration the psychological safety of the accompanying persons.
- Do not be discouraged if the research does not go as planned and does not produce the expected results. It is important to take a break from the research to enjoy conversation, scenery, food, etc. with the members of the research team.
- When faced with a problem, failure, injury, illness, sudden change in weather, disaster, or accident during a research trip, first take a deep breath and stretch to relieve tension. Then, try to act calmly in response to the situation. A minor problem can lead to a distraction, which can cause a person to lose perspective and become distracted, leading to poor judgment, which in turn can lead to more serious accidents or incidents.
- An overwhelming life-threatening experience, such as a major accident or distress, may trigger post-traumatic stress disorder (PTSD), a disorder that causes significant psychological distress that interferes with daily life for an extended period of time. Even minor problems should be noted as a possibility that a great psychological burden has been placed on the student, and if a different disorder occurs, the patient should promptly seek medical attention and counseling.

3.3. Weather

To avoid encountering weather-related weather disasters, short- to long-term forecasts should be consulted to plan, conduct, and make decisions on the cancellation of research.

- Always collect information on local weather conditions and make

flexible changes to the plan.

- If stormy weather is forecasted, the plan itself should be cancelled and no unnecessary risks should be taken.
- If stormy weather is predicted in the short-term forecast during the research, research should be suspended and the team will stand by.
- If stormy weather occurs during the research, evacuate to a safe place as soon as possible.
- After stormy weather, you should pay maximum attention to the local conditions, bearing in mind the danger of falling branches and trees, and the increased possibility of being caught in slides, falling rocks, cliff collapses, and such like.

3.4. Lightning Strike

Lightning strikes can easily take human life, so extreme caution should be exercised in the event of an electrical storm. When checking weather information prior to the start of the research, also check for lightning advisories.

- If you begin to hear thunder, you are already in danger of being struck by lightning. Even if you are in the middle of a research, you should immediately evacuate to a safe place.
- Flat areas, especially on the coast, or at sea, or in alpine zones, are extremely dangerous because the human body is a potential target for lightning strikes. Keep low and get to a safe place immediately. If you cannot get to a safe place, squat on the ground trying to minimize your body touching the ground, cover your ears, and hold your head down; DO NOT LIE DOWN.
- Safe places are inside solid buildings and metal-enclosed vehicles such as cars, trains, and airplanes. Power lines are also safe under them, as they themselves act as lightning rods, but should be at least 3 m away from the power lines.
- Directly under a tree is dangerous because of the side impact if lightning strikes the tree. Keep at least 3 m away from the tree and its branches and leaves. The area with an elevation angle of 45° to 60°

toward the top of the tree is a "protected area" that is not susceptible to lightning, so it is possible to take shelter by crouching in this area, but safety as a shelter is not absolute.

3.5. Driving a Car

When driving a car, everyone should make efforts to drive safely in compliance with laws and regulations, bearing in mind that anyone can be the perpetrator of a traffic accident.

- When driving a car during the research, follow the rules and regulations set by the Graduate School of Science. Do not use a car without permission from your supervisor.
- Before the period of use, be sure to check your insurance coverage. It is essential that you have an insurance policy with unlimited coverage for (1) property and (2) bodily injury. For (3) personal injury, although insurance coverage systems of car rental companies and other companies often have a maximum amount, consider contracting a special clause for other vehicles in voluntary insurance policies to prepare for worst-case scenarios. In addition, please be aware of whether or not insurance coverage is available under your personal voluntary insurance policy (coverage restrictions based on the purpose of use of the vehicle, etc.). The liability insurance attached to “Gakkensai” does not provide any compensation for damage to the other party caused by an accident while driving.
- During the period of use, the driver must not drive the vehicle in an inappropriate condition due to overwork, lack of sleep, heavy drinking, injury or illness, etc.
- In the case of narrow roads such as forest roads, be very careful that the wheels do not come off the road.
- When parking on an incline, do not forget to use the side brake and vehicle stops.
- In the event of an accident, be sure to contact the police and, if necessary, the rental car company or insurance company at the scene of the accident. After that, be sure to report the accident to your

supervisor or other relevant personnel in accordance with the established emergency contact procedures.

3.6. Notes by Research

The members of this department will be conducting research in a wide variety of environments. Each member must conduct research and preparation in advance for each field, and when necessary, seek advice from or be accompanied by someone with experience to ensure that safety is the top priority in conducting the research. The following are some basic precautions to be taken in each field environment, and each researcher should learn safety management methods appropriate to each field.

- At the research sites, prior to the start of the research, reconfirm the status of the radio coverage area for possible communication and the means and methods of communication that were confirmed when the research was planned.
- When researching in mountains, forests, grasslands, or streams, do not neglect to check your current location. Before researching, familiarize yourself with the use of a map and compass, as well as a GPS device if you have one. If there is a possibility of rising water, do not cross a river or stream, and if it starts raining heavily during the research, leave the site immediately. If you lose your way, do not descend the stream whenever possible. Climbing up to the ridge will increase your chances of getting back on the right path.
- Ropework is one of the basic skills in research in mountainous and other areas. However, research requiring ropework should not be conducted by novices alone. When tying a rope to a tree, make sure that the tree is strong enough to support the weight. During group activities, it is advisable to confirm the names of rope tying methods among the members in advance.
- When conducting research in areas designated as hunting areas during the hunting season, it is necessary to take steps to reduce the risk of being mistakenly shot, such as wearing conspicuous clothing or

greeting the local hunting community.

- In addition to the skills required to conduct research in snow-free areas; knowledge, skills, and tools are needed to ensure safety on the snow. No research should be conducted solely by inexperienced persons.
- For research in marine or aquatic environments, prepare the necessary equipment (e.g., life jackets) and familiarize yourself with their use prior to the research. In particular, for seaside research, the tide table should be used to determine the change in tide levels at the research site prior to each day's work. Do not conduct research alone in areas where waves are extremely strong.
- In diving research, even when snorkeling, it is strongly recommended that two or more people work in a buddy system, and that novice divers do not work together. For scuba diving research, a diving license such as a C-card and a diver's license in accordance with the Occupational Health and Safety Law are required. Dive computers should be used for safety control to prevent decompression sickness (the bends). In order to avoid the risk of the bends, an appropriate waiting time should be allowed between scuba diving and boarding the plane.
- For small vessel research, the captain should be familiar with the research area. Life jackets must be worn at all times while on board. When conducting research on small vessels, safety against waves should be considered, for example, starting early in the morning and returning before the wind picks up. When crossing to an uninhabited island, etc., a sufficient schedule should be made and the captain should be particularly familiar with the area around the island.
- When researching on large vessels, always follow the instructions of the captain and crew (and, in the case of research vessels, the established regulations). In advance, confirm the storage and handling of life jackets, escape routes, emergency rendezvous points, the location of lifeboats (life rafts), and the location of nearby fire extinguishers. Usually, the emergency rendezvous point is located at the end of the escape route, and the lifeboats are located nearby.
- In principle, when conducting researches in underground environments

such as caves, multiple persons should conduct the research and follow the "Code of Ethics and Rules of Conduct for Caving and Cave Research" set forth by the Speleological Society of Japan.

4. Useful equipment, electronics, and insurance to ensure safety

4.1. Basic Concept

Careful advance preparation of equipment and instruments is extremely important to prevent accidents and injuries during research work and to respond quickly and appropriately in the event of an emergency. In addition, by purchasing the appropriate insurance for the research and sharing information, you and those accompanying you, can respond quickly in the event of an emergency. Such advance preparation leads to an efficient and comfortable research environment and reduces physical and mental exhaustion in the field, thus preventing accidents and injuries. The following are basic notandum common to most of this section.

I. Necessary equipment and insurance vary depending on the purpose, target, location, season, and country or region of research work. Beginners, in particular, should prepare equipment and insurance by making a list in consultation with supervisors or other experienced persons. In addition, they should note what needs to be improved during each research trip so that the next research trip can be better prepared.

II. Always check the functions and usage of equipment and devices, as well as any malfunctions or damage before the research trip. It is meaningless if you do not know how to use them or if they do not work when you try to use them in the field. It is important to be used to using the equipment and devices and well understand their functions beforehand.

III. Basic equipment (clothing, shoes, backpacks, etc.) and particularly crucial equipment (rain gear, warm clothing, helmets, etc.) should be of appropriate function and size for the research environment and your body. Inexpensive, low-functionality equipment should be avoided as much as possible. High-functionality equipment is more expensive but improves safety. In addition, it is also more durable,

which means they are purchased less frequently and are ultimately more economical.

4.2. Equipment

The equipment listed here is only a guide and is not an exhaustive list that can be applied to every research or environment. It is important to check with an experienced person to see if equipment is adequate, and to develop a list of equipment appropriate for each research trip.

4.2.1. Basic Equipment

Clothing: Comfortable clothing appropriate for the research environment should be chosen, but long sleeves and long trousers are generally recommended. Long sleeves and long trousers are effective in preventing sunburn, insect bites, rashes caused by plants, and skin injuries.

Shoes and footwear: Comfortable shoes and footwear appropriate for the research environment should be chosen, but it is important to break shoes in before going on field trips to avoid blistering of skin. Uncomfortable shoes can lead to excessive physical exertion, falls, and injuries. Check frequently for tears, worn soles, etc.

Backpacks: Use Backpacks of the appropriate size for the research and your body. If too large, it will be difficult to move around, causing unnecessary fatigue and accidents. If too small, it will be difficult to carry necessary equipment and collection materials. For a one-day research, a 20-35 liter bag is easy to use.

Rain gear: Getting wet in the rain will consume more energy than expected. It is advisable to use waterproof, breathable, tear-resistant rainwear made of a solid fabric. A foldable umbrella is useful for getting through a brief shower.

Water and water bottles: Frequent hydration is crucial to prevent dehydration and heat stroke. It can be used to clean wounds in case of injury. Therefore, carry 1-2 liters of water with you.

Action foods: It is important to take action foods at appropriate intervals

to prevent physical discomfort due to lack of energy. Small, lightweight, high-calorie, easy-to-eat foods should be chosen. Salt supplementation should also be taken consciously (especially in hot weather).

Towels: Towels can be used not only to wipe sweat but also to stop bleeding. Wet them and hang them around your neck to prevent heat stroke, or wrap them around your head as a hat. Japanese “tenugui” towels are quick-drying and can be easily torn, making them a good substitute for bandages.

Headlamps and flashlights: Used for visibility at night and in dark places. Even if the research is conducted during the daytime, if you are going to a remote area, be sure to carry it with you in case of any problems with the daylight. Be sure to change the batteries to maintain adequate brightness. Always carry spare batteries.

Map and compass: A map and compass are essential for safety and for the research. For domestic research, topographic maps at 1:25,000 by the Geospatial Information Authority of Japan are useful. If the research area is fixed or for overseas research, an enlarged original map may be used. In any case, it is essential to practice map reading in advance so that you can read the necessary information from the map and check your location and direction of travel using a compass.

4.2.2. Site Specific or Specialist Research and Safety Equipment (mountain, forest, grassland, cave, waterside, cold climate, etc.)

Helmets: Helmets should protect the head from falls, falling rocks, falling branches, slips and falls, etc. Make sure to wear a helmet of the correct size, and tighten the chinstrap firmly when wearing it, as it will not function if it comes off the head.

Life jackets: These are lifelines if you fall into the water while conducting research so be careful when purchasing and wearing life jackets. Consider your weight and the total weight of your clothing and equipment after absorbing water, and choose one that is designed to provide sufficient buoyancy in the event emersion in water.

Warm clothing: Layering is important. The basic structure consists of a

base layer made of water-absorbent and quick-drying material, a middle layer (fleece, etc.) to keep warm and wick perspiration, and an outer layer (rainwear, etc.) with waterproof, windproof, and moisture-permeable functions. Sweat cold is extremely dangerous in cold climates, so be sure to put on and take off clothing frequently in response to changes in environment and body temperature, and try to avoid sweating as much as possible.

Ropes: Ropes are used in various situations, such as for securing safety and tying luggage. The shock resistance and load-bearing capacity vary depending on the material and weave of the rope, so select the appropriate rope according to the purpose of use. Make sure there are no scratches before use, and replace the rope with a new one after 3 to 5 years to avoid using a deteriorated rope. Rope work should be practiced and mastered repeatedly.

Hats: Since sunburn can cause more fatigue than expected, hats should be worn in environments with strong direct sunlight to avoid exposure to the sun. It also helps protect the head. However, the disadvantage of affecting visibility should be taken into consideration when deciding whether or not to wear a hat.

Eyewear (sunglasses, goggles): Eyewear should be worn to protect the eyes from ultraviolet rays in environments with strong direct and reflected sunlight. They also help protect the eyes from bouncing grass, branches, dust, etc.

Gloves: protect hands from all hazards such as pests, noxious plants, plant thorns, cold, infection, etc. General work gloves, cotton gloves, rubber gloves, winter gloves, etc. should be used depending on the research environment.

Spats: Prevents fallen leaves and twigs from getting into shoes, dew from wetting feet, and snow from getting in. They also provide protection against snakes and leeches.

Insect repellent: Insect bites and stings are not only uncomfortable, but also make it difficult to concentrate and make the research inefficient. Insect repellent should be carried in environments where insects are present.

Sunscreen: In order to prevent sunburn, it is effective to apply sunscreen cream or other sunscreen in addition to wearing non-exposed clothing. Prepare a sunscreen that suits your skin by testing it on the back of your hand before you go out.

4.2.3. Equipment Useful in an Emergency

Whistle: Used to announce one's location in an emergency. Choose a whistle with good sound transmission. Plastic whistles are better in cold climates. Electronic whistles are also useful. Although used infrequently, always carry it with you and know where it is kept so that you can retrieve it quickly in case of an emergency.

Lighters and candles: In case of emergency or distress, lighters and candles are useful to keep you warm and to let others know where you are. Carry lighters and candles in a small aluminum can in your backpack.

Survival sheet: A sheet that keeps the body warm by wrapping the body. Large, thin sheets can be used in a variety of ways, such as draped over the body, laid out, or wrapped around the body, and can be folded compactly for easy portability.

A small knife: A knife can be used in a variety of situations and should be kept in your backpack. A multi-tool knife with tweezers and scissors is also useful.

Pocket radios: Pocket radios are useful for gathering information on weather conditions, etc. They are also useful for mental stability in times of distress. A hand-crank radio is recommended.

Personal contact information: Keep a card in your backpack or clothing with your personal information (name, organization, emergency contact, blood type, etc.) for identification in case you become unconscious due to an accident. You may also fill in the information in a field book.

4.3 Electronic Devices Useful for Safety

Electronic equipment can be very useful in improving the safety of

field research. However, one must also be aware that they cannot be used without a power source. To avoid running out of battery power during a research or in an emergency, remember to charge frequently and carry spare batteries. In addition, when using rechargeable devices overseas or in remote areas, it is necessary to check the local power supply system to ensure that stable recharging is possible.

4.3.1. General Equipment

Dry cell batteries: When multiple electronic devices are used, it is advisable to use the same size of dry cell batteries for all devices to the extent possible.

Rechargeable batteries: If electronic equipment is to be used frequently over a long period of time, rechargeable batteries that can be used repeatedly are economical and reduce the amount of luggage. However, please note that rechargeable batteries are not suitable for some devices.

Conversion plugs, transformers: In the case of overseas research, take a conversion plug or transformer if necessary, as the shape of electrical outlets and voltages differ among countries. Voltage is often the same globally, but check the voltage of the equipment you will be using.

GPS devices: A handheld GPS device with a built-in map is useful for accurately determining your current location. However, it is important to be able to read a map because it is impossible to manage a crisis if you rely solely on GPS and do not know where you are when the batteries run out.

4.3.2 Useful Devices for Survival Confirmation and Rescue Calls

Areas with coverage and internet access

Smartphones and PCs: Smartphones and PCs can be used for daily contact to confirm survival and for calling for rescue in an emergency. It is important to check and understand in advance the areas with signal coverage and internet stability around the research area before the research trip.

Areas with no signal or internet access

Digital Convenience Radio: Suitable for quick communication among researchers in the same area. However, it should be noted that the range is limited (generally 1 to 4 km), and communication is difficult in areas with many obstacles or over ridges. Specified low-power radios with an output of 0.01 W or less should not be confused with this, as they can only communicate over very short distances.

GPS with satellite communications: Garmin's GPSMAP series and inReach MINI series GPS devices enable real-time sharing of location information, sending and receiving text messages, and emergency rescue calls from out-of-range locations with a subscription to the satellite communications function.

Satellite phones: Satellite phones enable voice calls to and from regular landlines, cell phones, and other satellite phones in almost all areas of the globe. This is extremely useful in emergency situations when you need to make quick contact with the outside world. The service's coverage area differs depending on the service, so be sure to check if the research area is included in the service area. Also, be sure to confirm how to use the service in advance, as it differs from regular cellular phones. Usually, they cannot be used indoors or in closed forests, so they should be tested when they arrive at the study site.

4.4. Medical Supplies and Vaccinations

4.4.1. Medical supplies

It is recommended that you prepare the necessary medicines for your field research, whether in Japan or abroad, as there is often not a sufficient supply of common medicines in the research area. The following are examples of common medicines required for field research.

Sterile gauze and absorbent cotton / elastic bandages / taping tape / adhesive bandages / antiseptic / general cold medicine / antipyretic analgesic / gastrointestinal medicine / antidiarrheal medicine / antibiotics (oral and topical) / vitamin supplements / eye drops (eye wash,

antibacterial) / topical analgesic anti-inflammatory medicine / insect bite ointment / thermometer / tweezers (to remove ticks) / poison remover / epinephrine Self-injection kit (EpiPen) / Mask

4.4.2. Vaccinations

Research and be fully aware in advance of what diseases and injuries you may be at risk for in the places you visit (especially abroad). Knowledge can make the difference between life and death. Obtain vaccinations before departure, if necessary. Examples of infectious diseases for which vaccinations are recommended are: yellow fever (vaccination is mandatory in some countries), hepatitis A, hepatitis B, tetanus, typhoid, rabies, polio, meningitis, Japanese encephalitis.

Medical information on overseas countries can be found at the following websites: Ministry of Foreign Affairs of Japan, World Medical Situation, Quarantine Station of the Ministry of Health, Labour and Welfare, and FORTH.

4.5. Insurance

Injuries, accidents, distress, and liability that may occur during field research can impose a significant financial burden on the parties involved which insurance can help alleviate. Therefore, it is imperative that insurance with coverage appropriate to the research plan be purchased before undertaking the research. In addition, it is necessary to explain the meaning of insurance and its coverage to relatives and supervisors, and to share the contact information of the insurance company and the insurance card number in advance, so that a system can be put in place to respond quickly in case of an emergency.

Student Accident Insurance for Education and Research (Gakkensai)[*1]: In principle, students are required to purchase this insurance. It covers the cost of death, disability, medical treatment, and hospitalization due to accidents that occur during fieldwork[*2] during regular coursework.

Personal Liability Insurance for Students (Gakubai): International students are required to purchase this insurance (available from the Kyoto University COOP). This provides personal liability insurance coverage in case you accidentally injure someone or damage someone's property regardless of field research during regular coursework or daily life.

Search and rescue expense insurance: This insurance covers expenses incurred by search and rescue operations in the event of an accident during a field research. "Gakkensai**"** does not cover search and rescue expenses. Therefore, if you conduct a field research in which there is a risk of being lost, you need to purchase a separate insurance policy that covers search and rescue expenses.

Travel insurance for overseas: This insurance covers a wide range of expenses incurred in the event of an accident or incident involving bodily injury or property damage that occurs while conducting field research overseas. Coverage includes death, permanent disability, medical treatment, hospitalization, rescue, damage to personal belongings, flight delay, liability, and other expenses. When conducting overseas research, be sure to purchase an overseas study insurance policy attached to "Gakkensai" or an overseas travel insurance policy provided by an insurance company.

Overseas emergency accident support system (I-RAC): The Graduate School of Science, Kyoto University provides an overseas emergency accident support system (I-RAC), which is designed to assist students in the event of unforeseen circumstances during an overseas visit by communicating with diplomatic missions, relevant organizations, overseas travel insurance companies, etc., on the student's behalf. There is no cost to the student for joining the system. Students are required to subscribe to the system if they wish to conduct research overseas. However, since this system is not an overseas travel insurance policy, students must also purchase a separate overseas travel insurance policy.

(https://www.sci.kyoto-u.ac.jp/ja/inplace/office/forms-procedures/i-rac)

*1 Insurance may expire after the normal completion period, so it is

necessary to reapply for it. You can check the status of your insurance coverage at KULASIS.
(https://www.kyoto-u.ac.jp/ja/education-campus/campuslife/Insurance)

*2 "During regular course" refers to the time when the student is engaged in research activities under the direction of his/her academic advisor. To be recognized as a regular course, it is necessary to show documentary evidence such as travel application documents and research consent by the supervisor.

5. Harmful Animals

Since animals that require special attention often differ among regions, try to avoid encountering such animals by gathering information prior to undertaking research. If you do encounter a dangerous animal, act calmly and take care not to provoke the animal. Never feed wild animals. If you are attacked or become a victim of a poisonous animal, seek medical attention immediately. If you have symptoms, inform the doctor about the field research you were conducting and the research environment.

The following is a list of dangerous animals that are particularly likely to be encountered in the backcountry, “Satoyama” (Village-vicinity mountains) and aquatic environments. Note, however, that some animals may be encountered in environments other than those classified here.

5.1. Depths of the Mountain

① Bears

When conducting research in areas where bears may be encountered, carry a bell, whistle, or repelling spray. If information on bears is obtained in the field, immediately notify the person in charge of the research and refrain from activities in the area. Although bears do not attack humans basically, they may attack if surprised or frightened when encountered. To avoid unexpected encounters, sound a bell or whistle and wear brightly colored clothing. Be especially careful in situations where visibility is poor, such as when crossing a ridge, or when it is difficult to hear sounds, such as along a stream. If you encounter a bear at a distance and it is not agitated, quietly leave the area. If the distance is close, back away slowly without taking your eyes off the bear. If possible, move so that there is an obstacle between you and the bear, such as hiding behind a large tree, to prevent a rush. Avoid running away with your back to the bear, as this may provoke it to attack.

A bear that lunges at you without fleeing upon encountering you is intending to attack you, so fire a repelling spray at the bear. The spray

should be fired only after the safety pin is removed and the bear is within effective range (as noted on the spray can) and noting wind direction. When camping in bear habitat, food and food scraps should be sealed and placed far enough away from the tent so that bears attracted by the smell will not approach the tent. Avoid burying food scraps near your tent. If a bear takes food or your pack, do not retrieve it. Bears are obsessed with what they perceive as their own, and retrieving it will provoke them.

② Wild boars, deer, etc.

If you encounter a wild boar, do not threaten it by shouting or throwing things. Back away slowly and leave the area. If a wild boar is snapping its teeth or bristling its fur, it is in an agitated state and you should be careful. If the boar attacks, climb a tree. If there is no tree to climb, move so that there is always some obstacle between you and the boar, such as hiding behind a large tree, to prevent it from rushing at you. Mammals such as foxes, badgers, civets, raccoons, and bats can infect people with rabies through their bites, so stay away from them unless necessary. If there is a need to handle wild mammals for research purposes, rabies vaccine should be administered in advance. In addition, because of the increasing number of accidents involving deer rear-ending a car, be especially careful when driving a car at night in areas where deer are abundant.

③ Monkeys

Do not threaten them by shouting or throwing things when you encounter them. Back away slowly and leave the area. Do not make eye contact with the monkeys, as they perceive eye contact as a threat. If a monkey is approaching you with a food item that is clearly aimed at you, put the food item in your backpack so that the monkey cannot see it, and leave the area.

④ Bees, wasps, and other hymenoptera

Be aware that wasps, stinging bees, and honey bees have stingers and

can sting. Reactions to bee venom vary greatly from person to person, and some people may develop anaphylactic shock (an acute allergic reaction accompanied by difficulty breathing and a drop in blood pressure). When conducting research in areas where there is a possibility of encountering bees, the presence or absence and degree of allergy to bee venom should be determined in advance. Persons with high levels of antibodies to bee venom should receive a prescription for an epinephrine self-injection kit (EpiPen) or similar in advance and carry it with them. However, since this is for temporary symptom relief, inject yourself after being stung, and even if symptoms subside, immediately seek medical attention at a nearby specialized medical institution. It is also helpful to have anti-allergy medication prescribed, so if the degree of allergy is mild, keep antihistamine and steroid ointments and oral medications on hand. Wear boots, heavy clothing, and a hat when entering mountains where the risk of bees is greater. When doing so, try to avoid wearing black or blue clothing, which bees tend to gravitate toward. Be especially careful around nests, as bees may be attracted to the smell of perfume, cosmetics, shampoo, and fabric softener. Even if bees are around or on your body, wait quietly for them to leave, rather than suddenly swatting them away with your hand, because grouped bees that move away from their nests often do not attack immediately. After a certain distance is established, slowly leave the area. However, if the bees are near a hive, they may attack aggressively, so if you approach the hive or receive threatening behavior, leave the area immediately. Poison remover is said to be effective immediately after a bee sting. However, some doctors do not recommend it, and in any case, if symptoms are severe, see a specialized medical facility.

⑤ Ticks, land leeches, etc.

Since they are increasing in areas where deer and wild boars are abundant, be especially careful on animal trails and wallowing areas. Do not stay long in areas with lingering animal odors or large numbers of footprints, and check regularly during the research to see if ticks and land leeches are still on your body. Wear long-sleeved shirts and long

pants when researching in areas where ticks and land leeches are common. Apply insect repellents or tick repellents to exposed skin. Do not approach dead wildlife unnecessarily, as ticks often remain on them. After researching tick-infested areas, change clothes immediately upon returning home and wash used clothes immediately. If you are bitten by a tick, you can remove the tick by gently pressing it with an ethanol-soaked cotton ball for about 15 minutes, and then slowly pulling out the jaws with a tweezer or a tick remover. If the tick is pinched too hastily and forcibly, only the head will remain under the skin, possibly injecting pathogens from the tick's body into the subcutaneous region. If symptoms of high fever or rash appear after a tick bite, immediately seek medical attention at the nearest medical facility. As for land leeches, there is no need to be distraught over a bite, as they are unpleasant but not dangerous. Repellent should be applied to shoes, socks, pant legs, gloves, or jacket, not to the skin. If you are bitten by a land leech, remove the bite by burning it with a lighter flame or pouring salt or ethanol on it.

⑥ Echinococcus

Foxes are hosts for echinococcus in Hokkaido and some areas of Honshu. When infected in humans, it usually takes more than 10 years for adults to develop the disease, and if left untreated, it can cause serious liver dysfunction, so people should be careful to stay as far away from foxes as possible. Also, do not drink raw water in infested areas.

5.2. Satoyama (Village-Vicinity Mountain)

⑦ Stray dogs/Stray cats

If you are threatened by barking, etc., do not shout or throw things, but back away slowly and leave the area. Although no cases of rabies have been reported in Japan since 1957, it is possible to contract rabies from a bite abroad. Do not pet the animals easily, and try to stay away from it as much as possible.

⑧ Venomous snakes

When conducting researches in areas of high risk for venomous snakes, check information on venomous snakes in advance so that you can identify them. In Japan, be especially careful of pit vipers (Mamushi) and the tiger keelback snake (Yamakagashi) in the main islands and their adjacent islands, habu snakes in the Nansei Islands, and sea snakes (when conducting research in the sea). Collect information on medical institutions located near the research area that have snake venom sera available. Especially on remote islands in Okinawa Prefecture, check for medical institutions that have habu sera. When conducting research in environments where venomous snakes are present, wear boots and heavy clothing, and do not easily step into areas with poor visibility, but first check the area carefully visually. Since it is unlikely that you will be bitten unless you actively touch the snake, do not approach it and do not provoke it if you see it, unless it is necessary for the research. As for venomous snakes in Japan, sera have been purified for three species: habu, mamushi, and yamakagashi. If you are bitten by one of these venomous snakes, go to a medical institution immediately and inject the serum. In particular, be aware that in some cases, venom is injected into the bite of yamakagashi even if no pain is felt, and after several hours, symptoms such as hematuria, subcutaneous bleeding throughout the body, and kidney failure due to abnormal blood coagulation may occur. In other cases of venomous snake bites, seek medical attention immediately. In other countries, the venomous snake fauna and the availability of sera vary from region to region, so as much information as possible should be collected in advance.

⑨ Mosquitoes

Malaria-carrying mosquitos (Anopheles spp.) are distributed in a wide range of tropical and subtropical regions overseas, and malaria infection can occur through the bite of the mosquitos carrying malaria parasites. It is advisable to receive a prophylactic drug prescription and take prophylactic medication, but infection can still occur even if prophylactic medication is taken. Since the most effective way to avoid mosquito-borne diseases is to avoid being bitten by mosquitoes, the

following measures should be taken: staying away from places with many mosquitoes in the evening (when mosquitoes are most active), wearing long-sleeved shirts and long pants, frequently applying insect repellents with a high concentration of DEET, the active ingredient of mosquito repellents, and using mosquito coils. Another well-known mosquito-borne infectious diseases is dengue fever. Dengue fever is caused by infection with the dengue virus through the bite of the yellow fever mosquito or other mosquitoes, and symptoms such as fever and rash are observed. Although most cases of dengue fever occur in tropical and subtropical regions overseas, cases of dengue fever infection have also been reported in Japan in recent years. When conducting research outdoors where mosquitoes are abundant, take measures to prevent mosquito bites.

⑩ *Leptospira* spp.

Although it has not been reported in recent years from areas outside Okinawa Prefecture in Japan, it is found in a wide range of tropical and subtropical regions overseas. Infection with pathogenic Leptospira bacteria occurs either through percutaneous infection by direct contact with water, soil, or urine contaminated by wild or domestic animals carrying the bacteria or human urine, or through oral infection by eating contaminated food or drink. Infection causes fever and headache, and in most cases, recovery occurs within a week, but in rare cases, kidney damage occurs in severe cases. It is important to check in advance whether an area is endemic for leptospirosis, and to avoid carelessly entering fresh water in endemic areas. In particular, never drink raw water or enter water after a flood.

⑪ Pathogenic *E. coli*, *Salmonella* spp., *Campylobacter* spp., etc.

Food poisoning may result from infection with pathogenic E. coli, Salmonella spp., Campylobacter spp., Vibrio spp. (including V. cholerae), Rotavirus spp., Dysentery Amoeba, Rumble Flagellate, etc. by eating raw water, ice, raw vegetables, raw meat, etc. The incubation period and symptoms vary depending on the cause, but diarrhea,

abdominal pain, and vomiting are often present, and may be accompanied by fever, joint pain, bloody stools, and internal organ damage. Depending on the cause, taking intestinal regulators may aggravate the symptoms. Especially in foreign countries, be careful not to drink raw water and to eat well-cooked food, and if diarrhea symptoms persist or are severe, seek medical attention.

5.3. Aquatic Environment

⑫ Sharks, etc.

Local authorities, fisheries cooperatives and diving companies may have information on sharks, so check this information before diving research are conducted. Do not strike the surface of the ocean unnecessarily in areas where sharks are present. Also, avoid bleeding, holding bloody objects, and wearing shiny objects. Carry a shark-proof stick or knife. If you see one, quietly leave the area and go ashore or on board. If you are bitten, apply pressure to stop the bleeding and take the victim to a medical facility for emergency treatment. In addition to sharks, be aware that it is also possible to be bitten by large crabs, giant clams, and moray eels. In addition, needlefish are attracted to light sources at night, so if you shine a light horizontally on the surface of the water or on a boat, you may be hit by the sharp proboscis of a charging needlefish.

⑬ Stingray, gonzui, scorpionfish, etc.

The spines on the tail of stingrays, on the fins of the Japanese eeltail catfish and scorpionfish are poisonous, and a sting can cause severe pain and swelling for a while. People who are allergic to stingrays may go into anaphylactic shock, so be careful not to touch the bodies of stingrays. On mud flats where stingray meal marks (dents in the sand) can be seen, walk with shuffling feet, not with wide gaits. Scorpionfish hide in the crevices of rocks, so be careful when walking along rocky areas where visibility is poor, such as when algae is growing, and make sure you are safe. If you are stung, check to see if any thorns remain in the wound, and if so, pull them out with a hair remover or other tool. If the pain is

severe or does not subside, seek professional medical attention.

⑭ Jellyfish, corals, hydrozoans, etc.

Undon jellyfish, bonefish, fire jellyfish, red jellyfish, and other jellyfish have highly poisonous tentacles. When conducting diving research, wear long-sleeved shirts or rash guards to avoid touching jellyfish tentacles. Jellyfish are transparent and difficult to see underwater, and sometimes only the tentacles are broken off and drifting in the sea, so even if you do not see the body of the jellyfish, you may receive a sting. Tentacle fragments of jellyfish may remain in the netting of fishing gears such as tow nets, so gloves should be worn when using fishing gears. In the Kuroshio Basin, the poisonous Iramo eel is found, and this species can easily be mistaken for seaweed, so take extra care. If you are stung by jellyfish, corals, hydrozoans, or other stinging animals, first rinse well with seawater. Do not use fresh water, as osmotic pressure will cause the stingers to shoot out. After carefully checking that no tentacles remain, apply an over-the-counter anti-itch medicine. If the pain is severe or does not subside, seek professional medical attention.

⑮ Long spined sea urchins

Ganjaze sea urchins (Diodema setosum and D. savignyi) have very long sharp spines and inhabit reef areas. These spines are visible through rock crevices, so be careful when researching in reef areas. The spines of ganjazes are easily broken, and when they sting, they immediately break off and remain inside the body. The pain of the puncture itself will subside within a day or so, so if there are only a few residual spines, allow them to fall out spontaneously. If the puncture wounds are numerous or deep, seek medical attention. The same measures should be taken in the event of a stinging victim of the owl urchin, a less commonly encountered but equally poisonous sea urchin species.

⑯ Marine organisms with lethal venoms

The reef areas of the Kuroshio Basin are inhabited by mussels such as the geography cone and Tagayasan minensis, which have lethal conotoxins in their harpoon-shaped tongues, and the leopard octopus, which contains tetrodotoxin in its saliva. Since mussels rarely cause puncture wounds or bites by accidental contact, when conducting research in habitat areas, examine the shell shape beforehand and avoid holding the corresponding species in your hands or pockets for long periods of time. The leopard octopus may bite when turning over rocks, so gloves should be worn when researching on rocky shores. This species is characterized by its lack of ink and its distinctive coloration, but this coloration may not be apparent when the octopus is at rest, so do not carelessly touch small octopuses. If you are bitten or stung by one of these creatures, do not hesitate to call an ambulance and seek medical attention.

6. Harmful Plants

There are individual differences among people in their allergic reactions to plants. It is important to know which plants are dangerous in the field, to understand each person's physical constitution, and to avoid direct contact with dangerous plants.

6.1. Thorny plants

Some plants have thorns meaning that care should be taken to avoid injury. When walking in the forests, wear a long-sleeved shirt, long trousers, and cotton work gloves. Some plants without thorns also require caution. For example, touching nettle leaves can cause stings due to histamine and other chemicals. If stung, rinse the affected area with water.

6.2. Rash of the Skin

Some plants can cause rashes. Depending on one's constitution, serious symptoms may occur, so it is important to wear protective clothing and always have medicines and other items on hand to prevent these instances. Additionally, various allergic reactions to plant products, such as pollen, can occur. Sneezing is very physically exhausting and can interfere with research meaning that it is important to deal with it as soon as possible.

Plants that typically causes rashes are those of the genus Toxicodendron (poison ivy). The poison ivy plant causes contact dermatitis due to the urushiol contained in its sap, and some people get a rash just by walking in its vicinity. Be aware of the characteristics of the hazel tree, poison ivy, and poison oak, and be careful to avoid them. Particular attention should be paid to the leaf shape of Toxicodendron orientale when identifying it, as it varies greatly depending on its stage of growth. Since poison ivy is often attached to other trees, care should also be taken when touching trees. Burning poison ivy plants is also extremely dangerous, as the smoke inhaled can inflame the trachea and lungs, making breathing difficult. Even if you must build a bonfire in the

mountains, never burn poison ivy. Although not a plant, the fungus, Astragalus membranaceus, also causes inflammation when touched, and should be avoided.

If you come in contact with a plant that causes a rash, immediately wash the skin in the area of contact with lukewarm water and a soap, and wash the clothes you were wearing when you came into contact with the plant. If the rash persists, antihistamines should be applied, and if symptoms persist, consult a medical professional. Note that symptoms of the rash may develop several days after contact with the plant.

6.3. Food Poisoning

Ingestion of some plants or mushrooms can cause diarrhea, vomiting, and even death. During the research, do not eat anything collected in the field unless you are very confident of its identification.

7. Interpersonal Troubles

Getting along with others and working as part of a group are important skills for conducting a safe, comfortable, and effective research. In addition to taking care of your own physical and mental well-being, it is also important to be concerned about the well-being of those accompanying you. We should also take great care not to damage the properties or possessions of those who live or work in the area or to interfere with their duties. It is also important to greet and behave in a civilized manner with people you meet during your research. If you cause damage to the body, mind, or property of others, you should take appropriate action in good faith.

Even if you behave in what you think is a good manner, interpersonal problems can occur. These conflicts could include friction with local residents, being mistaken for suspicious individuals, experiencing harassment, or facing discord with accompanying persons. As a result, conducting or continuing investigations may become significantly challenging, and the psychological safety of the researchers may be jeopardized. In some cases, property damage such as theft of money and property, physical damage, and sexual violence can occur. It should be kept in mind that in interpersonal relationships, all persons may at times be both perpetrators and victims.

If you face a problem that is difficult to resolve, it is essential that you do not keep it to yourself. Seek assistance by consulting with several people and contact points, including the university's counseling office, faculty, staff and administrative staff, senior students in your laboratory, and family and friends. You can meet with a professional counselor in person or online at the Counseling Office of the Graduate School of Science and Faculty of Science at Kyoto University and the Student Counseling Section of the Student Support Organization (appointment required, free of charge).

7.1. Examples of Interpersonal Troubles and How to Handle Them

Recognize that activities conducted alone, especially at night, carry a high risk of interpersonal problems and take appropriate countermeasures. If possible, be accompanied by a trusted research leader or companion. Observe the rules of the landowner/manager and community regarding the research site and try to build friendly relationships with residents and local authorities. It is advisable to conduct preliminary research on means of communication in case of emergency and to confirm the time required to travel from the research site to a place where communication is possible, even after arrival at the site.

There is a risk of theft, such as pickpocketing. Be especially vigilant in places where large numbers of people gather, such as parking lots, roadside stations, restaurants, and campgrounds. However, theft can also occur in areas with few pedestrians, so be sure to keep an eye on your belongings at all times wherever possible. For equipment that will be in place for a long period of time, take measures such as affixing a tag indicating that the equipment is in use for the research. When commuting to and from, or within the research site, care should be taken not to impede the movement of local vehicles and the work of residents.

During field research, there are also instances where investigators are mistaken for suspicious persons and reported to the police. Take measures such as wearing an armband to indicate that you are conducting field research. When asked about the content of your research, respond appropriately from the viewpoint of science dissemination.

Discord may arise between team members due to conflicts or disagreements of opinions, customs, preferences, or values, or due to mental stress. In such cases, maintain a reasonable distance from each other, keeping in mind the safety and interests of each person and the team as a whole. In particular, not only direct and aggressive language and behavior, but also revealing ill-tempered feelings, ignoring others, viewing others with contempt, assigning unachievable tasks, etc., may

constitute harassment. Care should be taken to avoid offending the dignity and personality of others by careless attitudes and remarks. If you feel emotionally burdened, express your displeasure in words and attitude to the offender. If this is difficult or the problematic behavior persists, distance yourself from the person in question and consult a third party.

There have been cases of unwanted behavior and sexual harassment, such as attempts to be alone with a person, being photographed without permission, being followed, or being physically touched. In addition to strangers, there are also cases of being victimized by familiar persons such as companions, employees of lodges, and guests. Avoid being alone in a closed room. If you feel uncomfortable, keep your distance from the person in question and move to a safe place.

7.2. In the Case of Personal Injury or a Crime

If you are a victim or a perpetrator of a traffic accident or other personal injury accident; first, aid the injured and move the vehicle involved to a safe location. If you are a victim or assailant in a personal injury accident, promptly report it to the police, even if it is a minor accident. Even if the accident is minor and there are no external injuries, arrange for an ambulance and have a doctor examine the injured person. Organize and record the circumstances of the accident, confirm the other party's name, contact information, insurance company, and witnesses, and have an interview with the police. If you are claiming or are being claimed for damages (medical expenses, compensation, etc.), avoid negotiating a settlement with the other party on site, and deal with the matter through the insurance company or insurance agent.

If you are involved in a crime or tort, call the police damage counseling service (#110 for police, #8103 for sex crimes) or file a police report. If you are the victim of a crime, such as theft, fraud, injury, or destruction of property, you can also file a claim for damages.

7.3. In the Case of Overseas Research

It is important to be vigilant and be prepared for any contingencies with the mindset of “protecting yourself by yourself”. Gather information on the local security situation, criminal tactics, crime prevention measures, and emergency procedures from the Ministry of Foreign Affairs' overseas safety website ("Safety Guide" for each country/region) and the latest edition of traveler's guidebooks, etc.). Find out who to contact in case of an emergency, such as the nearest police station, Japanese embassy, or consulate general. In unsafe areas, it is advisable to work with a reliable local partner. Be aware of the possibility of becoming a victim of fraud, theft, intimidation, kidnapping, human trafficking, fake police officers, illegal cabs, sexual assault, etc. Japanese travelers abroad are particularly susceptible to property crimes such as theft. Therefore, it is advisable to take security measures such as hiding expensive items out of sight and wearing valuables on your person. In addition, differences in customs, religion, habits, and language can lead to misunderstandings and incidents. Therefore, be aware of the differences among cultures and do not forcefully impose your own culture on others.

8. Reference Data

Prevention and dealing with Harassment at Kyoto University
https://www.kyoto-u.ac.jp/ja/about/foundation/human-rights/harassment

Ministry of Foreign Affairs of Japan
https://www.anzen.mofa.go.jp/

Kyoto University, Graduate School of Science, Faculty of Science Consultation Office
https://sci.kyoto-u.ac.jp/ja/divisions/scipal /top

Ministry of Foreign Affairs of Japan, World Medical Situation
https://www.mofa.go.jp/mofaj/toko/medi/

Student Counseling Department of the Organization for Comprehensive Student Support
https://www.assdr.kyoto-u.ac.jp/ssc/

Quarantine Station, Ministry of Health, Labour and Welfare, FORTH
https://www.forth.go.jp/index.html

Appendix A Emergency Contact Form

氏名 Name	
誕生日 Date of Birth	
国籍 Nationality	
パスポート番号 Passport No	
自宅住所 Home Address	
自宅／携帯電話 Home/Mobile Phone No	
家族自宅住所 Family Home Address	
家族自宅／携帯電話／またはメール Family Home/Mobile Phone No/email （続柄 Relationship- 氏名 Name）	
健康保険証番号 Health Insurance Card No	
学生教育研究災害傷害保険証券番号 Personal Accident Insurance for Students Pursuing Education and Research Policy No	
（任意）血液型 Blood Type	
（任意）アレルギー　Allergies	
（任意）持病　Chronic Condition(s)	
（任意）飲んでいる薬 Current Medication(s)	
（任意）既往歴　Medical History	

記入日：　　年　　月　　日

Appendix B Request for emergency call to Accommodations

Request for emergency call

To.

I would like to thank you for your help in accommodating me for the ×××× research.
I am a biological science major and am conducting a research of ×××× as part of my research for the △△ course.
In this research, I will be walking in the mountains, along rivers and beaches where not many people live, so I will be very careful to ensure our safety. However, there may be unexpected accidents that prevent me from returning.
Therefore, if I do not return after □ hours □ minutes of the night and have not heard from me, please inform one of the following contacts (the contact with the youngest number should be given priority). ［I have also left a map in the room showing the location of the day's research so please take the time to enter the room and let them know where I conduct research.]

＜Contact in case of emergency>

① [Affiliation] Division of Biological Science, Graduate School of Science, Kyoto University.
［Relationships/Name] Supervisor/
［Phone number]

② [Affiliation] Division of Biological Science, Graduate School of Science, Kyoto University.
［Relationships/Name]
［Phone number]

② [Affiliation] Division of Biological Science, Graduate School of Science, Kyoto University.
［Relationships/Name] Parent/
［Phone number]

Kitashirakawa-Oiwake-cho, Sakyo-ku, Kyoto-shi, Kyoto, 606-8502, Japan
Division of Biological Science, Graduate School of Science, Kyoto University.

Mobile phone

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Yamamori, Runa (Field Science Education and Research Center, Kyoto University)
(in alphabetical order)

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Field Research Safety Working Group, Division of Biological Science, Graduate School of Science, Kyoto University
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氏名 Name	
現住所 Address	
電話 Phone No.	
事故の場合の連絡先 In case of accident notify 氏名 Name 住所 Address 電話 Phone No. 本人との関係 Relationship	


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