

ECU Guidelines for Fieldwork in the COVID-19 Pandemic

Due to the dynamic nature of the COVID-19 pandemic, it is important to realize that the policies contained in this document are based on the best information available at the time of its publication. As we learn more about COVID-19 and how it spreads, changes may be necessary. All participants are encouraged to remember that their health and safety are the highest priority. If an individual participant has a safety concern it should be addressed immediately. If items in this document do not appropriately address the specific concern, those issues should be brought up to the appropriate safety board and dealt with immediately. Participants are encouraged to bring any safety concerns without fear of reprisal.

The intent of these guidelines is to minimize the risk of COVID-19 disease transmission and protect the health and safety of personnel conducting research and other activities in the field (fieldwork). The guidelines pertain to both individual field trips and ongoing field research activities of a critical nature. Failure to follow the guidelines can put faculty, staff, students, and the public at unnecessary risk and may result in suspension of the fieldwork.

The importance of continuing critical field research, such as the collection of seasonal or time-sensitive data, is recognized by ECU. Research leaders are encouraged to be proactive in pursuing ongoing research activities by taking part in an active dialogue with their supervisors regarding whether an activity could be deemed as “critical”. As ECU moves toward increasing research operations, all faculty, staff, and students should be vigilant in pursuing their research programs to the degree they feel comfortable while maintaining safe operations, but they should also be empathetic in understanding that not all activities they wish to pursue can be approved in the interest of public health. Communication is key to balancing productivity and safety.

No fieldwork may begin until a [Critical Activities Request Form](#) with appended Field Operation Plan (FOP) has been prepared by the Principal Investigator (PI) and approved by the Department Chair (or unit manager), Associate Dean for Research, and Diving and Water Safety Staff if the activity involves a marine vessel and/or diving and snorkeling activities.

1. The approved FOP must be reviewed by all participants of the fieldwork prior to beginning. All participants must agree and comply to the guidelines outlined in the FOP.
2. The FOP must be maintained in a shared space that is accessible to all (e.g., Microsoft Teams).
3. Faculty, students, technicians and other staff must not be compelled to engage in travel or field activities that they feel puts them at unnecessary risk of contracting COVID-19. The PI will inform their staff that they have the right to refuse to engage in activities that could expose them to the public and obtain positive consent of their willingness to assume the risks involved. A consent form is appended below.

4. The FOP must include a description of the fieldwork activities and what precautions are being undertaken to limit potential disease transmission (i.e., personal protective equipment, social distancing, disinfection protocols). Procedures listed below must be addressed in the FOP:
 - a. List of all personnel, their contact information and an emergency contact.
 - b. Masks (i.e. cloth face coverings) are to be worn in public spaces and when 6 feet distance cannot be maintained.
 - c. Either personal or state vehicles may be used for transportation, with no more than two people per row of seats and a maximum of 4 people per vehicle. If possible, travel with windows open. High touch areas (i.e., truck keys, door handles and steering wheel) must be disinfected before and after the field day.
 - d. Boats will have a maximum number of total personnel allowed on the vessel at any time. Outboard vessels that are 21 feet or less will be limited to crews of two. Vessels over 21 feet but less than 27 feet will be limited to a crew of three. Vessels 27-42 feet will be limited to crews of four. If it can be demonstrated that, due to the configuration of a particular vessel, enough social distancing space (6ft) exists onboard, crewing in excess of these numbers may be considered on a case-by-case basis. However, particular attention should be given to general operating locations and conditions in such situations. Considerations may also be made for crewing of boats when crew members are socially isolated together – for instance, when they share rooms. Crewing of larger non-ECU vessels will be reviewed on a case-by-case basis.
 - e. During field tasks, eye protection is required if there is potential contact with another individual's sweat or other secretions.
 - i. The level and timing of disinfecting between uses of equipment should be determined by the PI in consultation with the fieldwork team. For some it may make sense to clean after each use, but for other teams it may be understood that the risk of exposure is a daily risk not an individual encounter risk.
 - f. All team members should bring ample water/liquids and food for themselves in clearly labelled bottles and containers. No sharing of drinks or food will be allowed.
 - g. Contact with the public outside the field team should be minimized, both during transit and at the field site. When public contact is a required component of the research study, the approved research protocol must include a safety plan designed to protect all parties.
 - h. Upon the completion of fieldwork all equipment must be disinfected.
5. No one should participate in fieldwork if they are ill, have a temperature of >100 degrees Fahrenheit (temperatures should be monitored daily), or if any members of their household are experiencing flu-like symptoms.

6. If non-ECU agencies or fieldwork partners are actively engaged in the fieldwork, the fieldwork should be conducted using the guidelines that are most stringent unless expressly permitted by the partner agencies.
7. Remote work that requires lodging and/or long-term stays.
 - a. Adherence to current state and institutional travel restrictions is required, and authorized exemptions must be documented.
 - b. Adherence to [current university requirements](#) when traveling abroad and returning from areas with active community spread of COVID-19 is required.
 - c. Remote fieldwork changes the risks of exposure to COVID-19 in positive and negative ways. Traveling to a remote work site often brings together individuals from multiple locations enhancing risk when people arrive but limits external exposure after arrival.
 - d. To protect team members, individuals planning to participate in remote work, should avoid community exposure as much as possible for two weeks before traveling to the remote site. If during the fieldwork, the team has contact with the public, team members should avoid community exposure as much as possible for two weeks after returning from the remote site.
 - e. Field crews should establish protocols to socially isolate individuals, pairs, and groups. For example, if individuals must share sleeping quarters, their daily activities should be arranged to minimize interactions with other team members. For example, roommate pairs should buddy while diving/snorkeling, share eating times, ride in vehicles and boats together, etc...
 - f. Purchasing of food, supplies and contact with society outside the field crew should be limited to as few individual interactions as possible.
 - g. If a member of the field crew presents flu-like symptoms the following steps are required:
 - i. The individual must cease fieldwork, self-quarantine, and contact ECU Student Health or Office of Prospective Health as appropriate. Contingency funds for a separate hotel room or other measures must be considered by the PI before field activities begin.
 - ii. Field Work should cease until potential exposures are identified and isolated.
 - iii. Apply for COVID testing as soon as possible.

While minimizing the risk of COVID-19 transmission is a high priority, fieldwork entails many risks, and teams and individuals must continue to follow the procedures put into place to reduce other health and safety risks (e.g. heat exhaustion and wildlife).

DIVING AND SNORKELING

1. Medical Clearance

- a. Any diver who has tested positive for COVID-19 or is presumptive for COVID-19 will undergo medical clearance prior to the diver resuming diving. A copy of this medical clearance from the attending provider will be given to the DSO.

2. EMS and Field Support

- a. Consider capacity at local emergency room and availability of emergency medical services. If local EMS is being overwhelmed with cases, operations should be suspended.
- b. Verify operational status of local hyperbaric chamber.

3. General Mitigation

- a. The number of diving and support personnel must be the minimum required.
- b. Personnel should make every attempt to maintain a minimum 6-foot physical distance at all times. When this distance is not practical masks shall be kept in place and proper disinfection procedures will be observed.
- c. Ensure standard diving emergency response kits (first aid, oxygen, AED) contain proper PPE including disposable gloves and oronasal resuscitation masks. This supply shall be reserved for emergency use only.
- d. Gear requirement- divers must be rigged with an octopus regulator that can be provided to another diver in the case of an out-of-air emergency. Divers are encouraged to air-share with this regulator rather than handing off their primary regulator.

4. Diver Staging

- a. Dive equipment and personal auxiliary equipment shall be dedicated to individual divers. No gear sharing.
- b. Divers shall handle and assemble only their own equipment.
- c. Function-tests: Divers shall function-test their own octopus second stage by test breathing it, and then dipping it in a disinfecting solution.
- d. Buddy checks: Divers should follow the appropriate pre-dive checklist from an appropriate physical distance.

5. Entries, Exits and Surface Swims

- a. Unless extenuating circumstances exist, entries and exits will be done with masks in place and regulators in mouths. Regulators and masks must stay on the divers until social distancing guidelines can be adhered to.
- b. Surface activity and swims: Divers should maintain physical distance of at least 6ft, whenever possible, on the surface unless masks and regulators are in place.

6. Contingencies

- a. Underwater: If air sharing is required, divers shall make every effort to donate the octopus second stage prior to initiating dive termination.
 - b. Surface assists and rescues: Unless immediate contact is required to prevent serious injury or loss of life, responders should maintain a safe distance from the distressed diver to assess and issue verbal guidance (“Are you ok? Inflate BC! Drop weights!”).
 - c. In the event of an in-water rescue response, rescuer’s mask and regulator should be used for as long as is practical.
7. Snorkeling
- a. Blast clearing is not recommended.
 - i. The preferred method for clearing the snorkel is removing from the mouth.
 - ii. The displacement method for clearing the snorkel may also be used.
 - iii. Sea-state is a consideration, as snorkeling in rough water could potentially require blast clearing of the snorkel to clear the airway.
 - b. Because social distancing is difficult while both members of a buddy team are snorkeling, only one member of a buddy team should be snorkeling while the other observes and maintains social distancing.
 - c. Freediving ascents should preferably be done with the snorkel out of the mouth. Freediving should only be done if a buddy can observe the diver from an appropriate social distance.

8. Cleaning and Disinfection

- a. Dive equipment should be properly disinfected prior to and after use with household bleach or other disinfectant per CDC recommendations² (using disinfectants for scuba gear other than bleach should be discussed with DWS). Gear should be disinfected as needed during field work (i.e. before a dive, after a dive).

Household bleach procedures paraphrased:

- i. Initial freshwater rinse
- ii. Immerse in a solution of diluted household bleach:
 - 1. To make a 0.1% solution of bleach, mix 1/3 cup (3 fluid oz) household bleach (5-6% sodium hypochlorite) with 1gal water.
 - a. Bleach solutions are effective for 24hrs.
- iii. Remain wetted for at least 1 minute.
- iv. Final freshwater rinse before drying.
- v. For more information regarding disinfection techniques and diving during the COVID-19 pandemic:
 - 1. DAN on-line presentation “[Disinfecting Scuba Equipment](#)” or read DAN article “[Disinfection of Scuba Equipment and COVID-19](#)”
 - 2. Dr. Ebersole on-line presentation [Dr. Ebersole “Diving After COVID-19”](#) or read Dr. Ebersole article [Diving in the era of COVID-19](#).

- b. Wetsuit decontamination:
 - i. MediClean Germicidal Cleaner Concentrate (EPA# 70385-6) and Opti-Cide 3 (EPA# 70144-1) are on the EPA-N list for effectiveness against COVID 19 and are specify wetsuits or neoprene in their usage instructions.
- c. Each diver will setup and breakdown their own gear and are responsible for decontaminating their own gear.
- d. Care will be taken not to re-infect gear after decontamination (i.e. during storage). Do not touch masks, mouth pieces and first stages with unwashed hands.
- e. Rebreather equipment will be sanitized in accordance with manufacturer recommendations. This equipment may not be shared.

9. Fill Station Protocols

- a. The number of fill station operators will be limited, and all fill station operators will wear cloth face coverings or mask when multiple operators are involved.
- b. Fill station equipment handled by the fill station operator and cylinder valves will be disinfected prior to and after cylinder filling operations using disinfectant wipes (or disinfectants on the EPA List N Disinfectants for Use Against SARS-CoV-2).
- c. Caution will be exercised to avoid injecting disinfectants into the cylinders after the cleaning process. Ensure that valves and fill whips have been blown clean prior to filling.
- d. Avoid using hand sanitizer during fill station operations. Avoid using alcohol wipes on scuba equipment.
- e. Fill station disinfection will be documented in a log.

¹ Mitchell, S.J., M.H. Bennett, N. Bird, et al. 2012. Recommendations for rescue of a submerged unresponsive compressed-gas diver. Undersea Hyperb Med. 39(6):1099-1108.

² Centers for Disease Control and Prevention. “Cleaning and Disinfection for Households. Interim Recommendations for US Households with Suspected/Confirmed Coronavirus Disease 2019.” CDC.gov. March 6, 2020.

RESEARCH ASSUMPTION OF RISK AND LIABILITY RELEASE

This is a legally-binding Release made by me, _____ [STUDENT'S NAME], to East Carolina University.

I fully recognize that there are dangers and risks to which I may be exposed by participating in-person in research during the COVID-19 pandemic. I acknowledge that my in-person presence on campus or at a remote field site places me at _____ [OSHA LEVEL OF RISK] risk of exposure to COVID-19 because it may cause me to come into contact with individuals who unknowingly have or carry COVID-19. The following is a description and examples of specific, significant, non-obvious dangers and risks associated with this activity: personal illness that may require hospitalization and significant bodily injury, including but not limited to pneumonia, stroke or death and may also cause similar illness in others I come into contact with. I understand that the Institution does not require me to participate in this activity at this time, but I want to do so, despite the possible dangers and risks and despite this Release.

I therefore agree to assume and take on myself all of the risks and responsibilities in any way associated with increased risk of exposure to COVID-19 due to participation in this activity. I agree that it is my responsibility to adhere to all infection prevention protocols at the research site. In consideration of and return for the services, facilities, and other assistance provided to me by the Institution in this activity, I release the Institution (and its governing board, employees, and agents) from any and all liability, claims and actions that may arise from COVID-19-induced injury or harm to me, from COVID-19-induced death or damage to my property in connection with participation in the research activities. I understand that this Release covers liability, claims and actions caused entirely or in part by any acts or failures to act of the Institution (or its governing board, employees, or agents), including but not limited to negligence, mistake, or failure to supervise by the Institution.

I recognize that this Release means I am giving up, among other things, rights to sue the Institution, its governing board, employees, and agents for injuries, damages, or losses I may incur. I also understand that this Release binds my heirs, executors, administrators, and assigns, as well as myself.

I acknowledge that my participation in the research is voluntary and not required by the Institution at this time. I acknowledge that I have been informed of my option to delay my research or otherwise not participate in the research activities due to concern of exposure to COVID-19. I understand that in some cases, not participating in research due to COVID-19 can delay completion of my degree, but the Institution will waive any requirements to complete my degree within a specific timeframe.

I have read this entire Release, I fully understand it and I agree to be legally bound by it.

THIS IS A RELEASE OF RIGHTS. READ CAREFULLY BEFORE SIGNING.

Student Signature

Date

As the faculty mentor or supervisor, I have read and understood this agreement and my role in protecting the rights afforded to the student herein.

Faculty Mentor/Supervisor Signature

Date