The lead diver is generally not the principal investigator (PI) for a research project, but has an essential role in making sure that the project is planned properly, conducted safely, and goes smoothly. Typically, but not always, the lead diver is a divemaster and is selected and/or approved by the Diving Safety Officer (DSO). There are several regulations, policies, and responsibilities that are inherent with being a lead diver. A basic outline for these can be found in the UCD Diving Safety Manual on page 6, section 1.26.

Lead Divers are also responsible for coordinating much of the research project. The following is an unofficial addendum to section 1.26 of the Diving Manual. This is a list of many common provisions that need to be addressed by the lead diver.

- Maps to dive site, directions, accommodations, or other useful landmarks or facilities (Hospitals, ranger station, etc)
- Permits for collection, parking, day use, etc
- Equipment- all necessary SCUBA equipment plus back-ups if necessary. Necessary thermal protection, gear in good working order, serviced recently
- Sampling equipment, containers for samples. *Some of the most essential equipment for a research project may have little or nothing to do with diving at all, such as transportation vessels for samples. Without these, the whole project may be ruined.
- Accident management plans, emergency procedures, local hyperbaric chamber, adequate O₂ supply for evacuating injured diver, phone numbers of local EMS, sheriff dispatch, etc
- Local conditions: tides, currents, wind patterns, (does it pick up in the afternoons?)
- Status of each individual diver- depth limitations imposed by the DSO, certifications, familiarity and training in the research environment
- Local activities, particularly those that may interfere or pose a risk to divers such as boaters, rafters, fisherman, etc
- Dive schedule, buddy teams, assignments and dive objectives
- Coordinate cleaning of equipment, boats, camp, dive site
- COLLECTING DATA FROM BUDDY TEAMS AFTER EACH DIVE!!!