Standard Operation Procedure (SOP) #7

Training Observers

Version 1.01 (June 28, 2021)

Change History

New Version #	Revision Date	Author	Changes Made	Reasons for Change	Previous Version #
1.01	6/28/2021	Kim Weisenborn, Amanda McCutcheon	Minor Updates to content	To update SOP references	1.0

Only changes in this specific SOP will be logged here. Version numbers increase incrementally by hundredths (e.g., version 1.01, version 1.02) for minor changes. Major revisions should be designated with the next whole number (e.g., version 2.0, 3.0, 4.0). Record the previous version number, date of revision, author of the revision; identify paragraphs and pages where changes are made, who approved the revision, and the reason for making the changes along with the new version number.

Purpose

This SOP describes general qualifications and training procedures for implementing the Pacific Islands Stream Monitoring: Fish, Shrimp, Snails and Habitat Characterization protocol. Training may be conducted on a yearly basis by experienced PACN staff, for example the PACN Aquatic Ecologist. In line with other monitoring programs, such as the USGS NAWQA program, periodic training (every three to five years) and review of the SOPs should be conducted in conjunction with other experts (for example the authors of the protocol).

Review the Protocol

The first step of the training procedure is to thoroughly read and understand the protocol and especially the associated SOPs. All persons doing fieldwork should read the protocol prior to beginning sampling, and should periodically review it (at a minimum it should be reread each year). Field crews should always carry a copy of all the SOPs describing the field activities for the location they will be sampling.

Species Identification

For snorkeling surveys, all crew members doing sampling must be able to identify fish and shrimp (in Hawaii) by sight. Because shrimp (is American Samoa and Guam) and snails are collected,

identification of these organisms can be done using field guides. Currently, atyid shrimp in Guam are sent to a laboratory for identification, so crew members do not need to be able to identify them.

The first step in learning to identify the fish, shrimp, and snails that will be surveyed occurs in the office. Crew members should familiarize themselves with the entire native and introduced organisms that they are likely to observe at the sampling site. SOPs #12-21 provide pictures to assist in species identification and training. Waterproof copies of these appendices should be carried in the field. Initially new crew members should review the species on their own, and then receive training from an experienced observer on key characteristics to assist in identification in the field.

The second step occurs in the field. Prior to conducting any surveys, all new crew members should pair up with an experienced observer and work together on identifying the species they observe while snorkeling in a reach of the stream that will not be part of the actual sampling.

Conducting Faunal Surveys

Steps for conducting surveys are covered in detail in SOPs #8-21. Initially new crew members should review the SOPs on their own, and then receive training in the office prior to going to the field. Additional training on conducting surveys should occur at a field site. Finally, prior to beginning the sampling each year, all steps for conducting surveys for each taxonomic group should be practiced in a reach of the stream that will not be part of the sampling. Training for conducting surveys should include not only the actual surveying of fish, shrimp, and snails, but also proper data entry and field checking of data sheets.

Conducting Habitat Assessments

Steps for conducting habitat assessments are covered in detail in SOP #22 Habitat Characterization at the Reach and Transect Scales. Initially new crew members should review the SOPs on their own, and then receive training in the office prior to going to the field. Additional training on habitat assessments should occur at a field site. Finally, prior to beginning the sampling each year, all steps for making habitat measurements should be practiced in a reach of the stream that will not be part of the sampling. Training for conducting surveys should include not only the actual habitat measurements, but also proper data entry and field checking of data sheets.

Data Management

All persons involved with any aspect of data management should review Chapter 4 and SOPs #25-33. Each year an in-office training should be conducted by the PACN data manager, to review all data management activities.

Data Analysis and Reporting

All persons involved with any aspect of data analysis and reporting should review Chapter 4 and SOP #34 Data Analysis and Reporting. Assistance with data analysis and reporting efforts can be provided by the PACN Aquatic Ecologist and authors of this protocol.

Other Training

All crew members should be certified in first aid and CPR. A range of other training is available nationally; from wilderness first aid and swift water rescue to advanced statistical techniques for data analysis.