

Standard Operation Procedure (SOP) #9

Conducting Surveys on Tutuila, American Samoa

Version 1.02 (June 3, 2024)

Change History

New Version #	Revision Date	Author	Changes Made	Reasons for Change	Previous Version #
1.01	8/12/2021	Anne Farahi	Minor edits for clarity.	Minor edits for clarity.	1.0
1.02	6/3/2024	Kim Weisenborn	Updated SOP references.	A new SOP has been added to the protocol therefore some SOP reference #s have changed.	1.01

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 setting up a sampling station (reach) and the general sampling order. This SOP will be used in American Samoa on the island of Tutuila at NPSA.

Conducting Surveys on Tutuila

1. *Mark the reach.* Each reach is thirty meters long following the thalweg of the stream. The start of the reach (0 m) is marked with flagging tape on the bank where the mark can be easily seen from the stream. Locations are then marked at 15 m and 30 m. At this point, it is also useful to divide the reach into five sections for the shrimp surveys, therefore, sections will be also be marked at 6 m, 12 m, 18 m, and 24 m. It is important not to enter the stream when marking the reach. If it is impossible not to enter the stream at any point during this procedure, stop and wait for shrimp observers to finish their surveys before continuing to mark the reach.
2. *Mark the location using a Global Positioning System (GPS).* See [SOP #4 Using Garmin GPS Units](#).
3. *Conduct water quality sampling.* See Water Quality Monitoring Protocol. Water quality nutrient samples and physical parameters are taken at the top of the reach above the 30 m mark..

4. *Snorkel surveys for fish are not conducted on the island of Tutuila.* Stream mouths are not safe for snorkeling due to potential contaminants from surrounding villages. Upstream regions are too shallow to utilize snorkel surveys. Fish presence is noted on site datasheets; however, fish are only identified and measured if caught incidentally during shrimp survey.
5. *Conduct the shrimp survey.* See [SOP #15 Shrimp \(ula vai\) Surveys on Tutuila, American Samoa](#). It is important that the shrimp observers are the only people in the water while conducting a survey in a given area.
6. *Conduct the snail survey.* See [SOP #16 Snail \(sisi vai\) Surveys on Tutuila, American Samoa](#). Snail observers use the same coordinate locations as the fish and shrimp observers. They work from downstream to upstream.
7. *Conduct the habitat survey.* See [SOP #23 Habitat Characterization at the Reach and Transect Scales](#).
8. *Take transect photographs.* See [SOP #6 Collecting Stream Transect Photographs](#). This step can be conducted simultaneously with the habitat survey (Step 7).