

Standard Operating Procedure 10: Site Photography, version 1.0

Overview

Digital photos are inexpensive and relatively easy to capture but can take a significant amount of time to process and manage. A few steps in the field and lab can make it easier down the road. Typically, a single photograph is taken at the lower end of the site to help document the conditions present at the time of sampling. Wide-angle digital photos taken of the sites should feature the bottom of the transect looking upstream capturing the water level, stream side vegetation and some reference for the location of the start of the transect (tape measure or clipboard, see Figure 1). The two best times to take this photograph are either as the Hydrolab® is stabilizing, or just before habitat measurements are initiated. The photograph is taken to capture T0 in the lower portion of the pictures frame. This SOP documents proper field and office techniques. It is up to the photographer to know and understand the owner's manual for the camera being used. Required equipment is a digital camera of at least 8 megapixels and a charged camera battery.

Before going in the field: Make sure the battery has enough charge to make it through the week and pack the camera. Also ensure that the date and time is set properly on the camera.

In the field: Before establishing the first transect, take a picture. This can be done with habitat measurements or while the Hydrolab is stabilizing.

- 1) Prior to photographing a site, take a close up photograph of the datasheet showing the SiteID and date information (when renaming the photo, this will help clarify if there is some confusion).
- 2) Photographs should be taken by standing approximately four meters below the first transect (T0) with the camera at eye level.
- 3) The picture is taken looking upstream, ensuring that the full width of the bottom transect (T0) of the reach is captured at the bottom of the pictures frame. Ensure that a clipboard or tape is included at the photo where T0 occurs for scale and to mark the site start point in the photo.
- 4) On larger streams you will have to stand further downstream (> than four meters) to view the whole T0 transect.
- 5) Record the photo number (i.e. photo ID #) and camera number on the site datasheet (SOP 16). It is unnecessary to keep a photo log unless more than one camera is used during the week.

At the Office: Downloading, file naming, and camera file deleting.

- 1) At the office, download the incoming pictures to
O:\WORKING\AQUATIC\Aquatic_Images\Camera_Downloads.

- 2) Rename the pictures to reflect the following: Site number _YEAR-MONTH-DAY_original filename. Use the original camera file name at the end of the new file name to distinguish between multiples and allow confirmation of the original name if questions arise. In the following example, two pictures were taken at 2F300 on 10/20/2018. The pictures would be renamed from P4131258.JPG and P4131259.JPG to 2F300_2018-10-20_P4131258.JPG and 2F300_2018-10-20_P4131259.JPG. **Note:** If you're confused about which site the picture belongs to, check the photo file properties or ask the Biologist or Lead Technician. Once the site pictures are renamed they should be moved temporarily to O:\WORKING\AQUATIC\Aquatic_Images\ (year sampled).
- 3) If, after renaming, there are additional pictures of the crew working in the field, those should be moved to the file O:\WORKING\AQUATIC\Aquatic_Images\ (year sampled) \Working_Pictures. O:\WORKING\AQUATIC\Aquatic_Images\Site_Images\ (year sampled) is strictly for pictures of the site...not for additional photos of crew, organisms, etc.
- 4) Confirm that the picture was successfully renamed, and open the file to be sure it is functional.
- 5) Once the pictures are downloaded to the computer, renamed, and confirmed, you may delete those pictures (BUT ONLY THOSE THAT WERE DOWNLOADED) off of the camera.
- 6) At the end of the season after data entry is complete and confirmation that all of the photos have been renamed these files will be moved from the (year sampled) folder to the site folders containing site pictures through the years. Check with the data manager or biologist before doing this step.

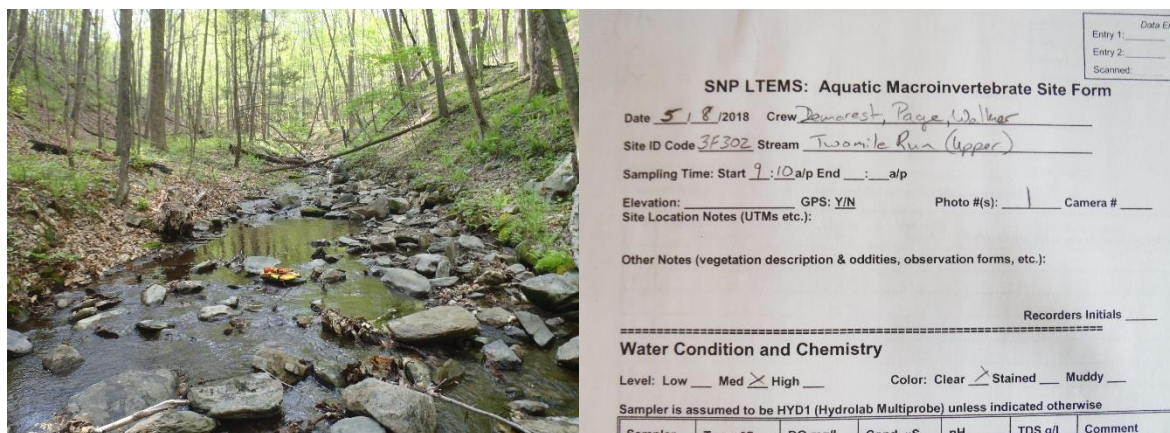


Figure 1. Example of field photograph and site form photograph.

SOP Revision History

All protocols, regardless of how sound they are originally, require modification as new and different information becomes available. SOP version numbers increase incrementally by tenths (e.g. version 1.1, version 1.2...etc.) for minor changes. Major revisions should be designated with the next whole number (e.g., version 2.0, 3.0, 4.0 ...). Small changes or additions to existing methods will be reviewed in-house by Shenandoah or Mid-Atlantic Network staff. However, if a complete change in methods is sought, an outside review is required.

Revision History Log:

Prev. Version #	Revision Date	Author	Changes Made	Reason for Change	New Version #