

SOP 4: Plot Photopoints

Version 1.32 (August 2020)

Time estimate: 10 minutes

Overview

This SOP documents the procedure for photographing plots. Photographs will be archived and used as a visual reference for documenting changes in appearance of plots over time. It is best to take photographs shortly after plot setup to record plot conditions before trampling occurs.

Step by Step Instructions

Photograph the plot from both ends of the 20-meter east/west centerline pointing in towards the center of the plot and mark the photos on the plot map as in the example below (Figure 4.1).

If the view at this location is blocked by a large tree or obstruction, move one pace to the right (north) of where you are standing and indicate this on the gridded plot diagram. The photo should be taken from this point facing towards plot center and the photo should be shot as if one were aiming to center the photo on the head of an averaged size person 20 meters away (i.e., photo will follow the slope in which it is pointed at eye level).

If a photo cannot be taken from one pace away from each end of the transect, move the photo location to one corner of the plot on the same end and point camera toward center of plot to take photo. Note the alternate location of the photo on the data sheet. If necessary (in very thick vegetation), the plot photos can also be taken from plot center facing outward in the direction of the centerline. In this case, clearly explain on the gridded data sheet where the photo was taken and which direction the camera was facing.

It is important to ensure that plot photos are properly attributed to the correct plots and labeled accordingly upon return to the office. Therefore prior to taking a plot photo, write the plot ID, date, photographer initials, plot photo #, and direction of the photo on the back of a plot data sheet and take a photo of that page first.

Use the “landscape mode” or equivalent on your camera to get maximum coverage of all vegetation layers. Do not zoom-in on the scene. Allow the camera to automatically select the appropriate aperture for the given light conditions. Check photo quality on the camera’s LCD screen. Take additional photographs if the quality is questionable. If lighting is questionable, take one photograph with flash and one photograph without flash. Be aware that sometimes the flash causes the vegetation in the immediate vicinity to bleach out, and the vegetation further away to be quite dark in the image. If the camera has a date stamp function, make sure the date and time are set correctly and turn this function on, so the date and time will be displayed in the photograph. Mark direction of photo with label on plot data sheet map (Figure 4.1).

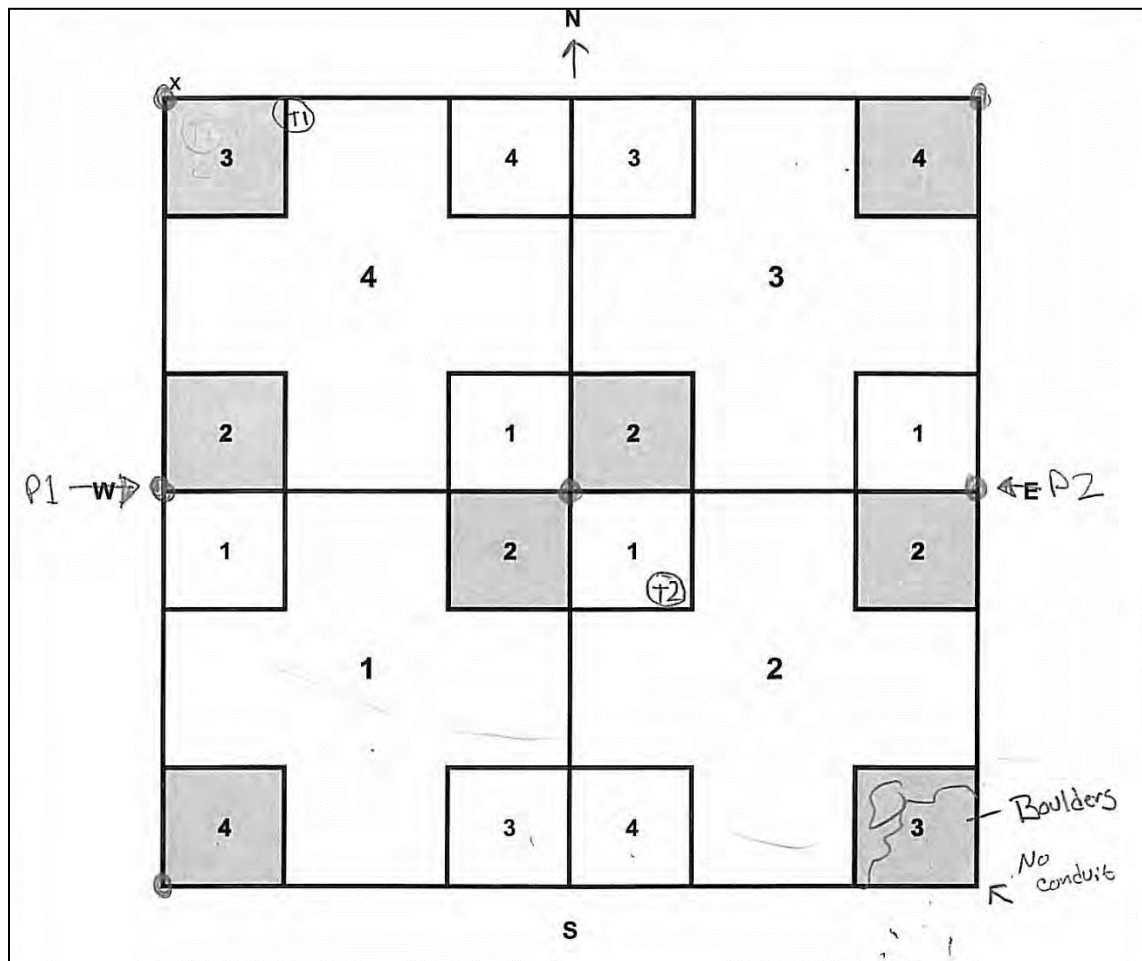


Figure 4.1. Example of plot diagram indicating photopoint (i.e., P1 and P2) location and photo direction, as well as tag tree (T1 and T2) locations and other plot details.

For revisit plots, field crews should examine photographs from previous visits and attempt to recreate the position and angle used.

At end of each field week, a field crew member will download all photos from the camera, make sure to rename photo files using the standard naming convention, and annotate plot data sheets with the correct name of each photograph. Refer to SOP 12: Data Management: Procedures upon Return from the Field, for additional details.

Equipment List

Relatively high-quality camera with installed SD card
Gridded plot datasheets (1 for each plot)

References

Perles, S., J. Finley, and M. Marshall. 2010. Vegetation and soil monitoring protocol for the Eastern Rivers and Mountains Network, Version 2. Natural Resource Report NPS/ERMN/NRR-2010/183. National Park Service. Fort Collins, Colorado.

Revision History

Version numbers are incremented by decimals where minor grammatical changes or textual clarifications are incremented by hundredths (e.g., 1.01, 1.02, 1.03, ..., etc.) and moderate changes, such as equipment updates or changes in methodology that do not impact analysis are incremented by tenths (e.g., 1.1, 1.2, 1.3, ..., etc.). Whole number increments (e.g., 1.0, 2.0, 3.0, ..., etc.) are reserved for major revisions. Of course, differentiating between what is moderate vs. major may not always be clear, but it is anticipated that with a little “common sense” and discussion protocol leads can adequately document and track revisions through time to the benefit of future data users. It should be noted that prior to 2020 all revisions were incremented by tenths.

Revision History Log

Version #	Date	Revised by	Changes
1.1	01/15/12	B. Moore and R. White	- Minor editorial changes adding clarification following 2011 field season; formatted for publication in NRR series
1.2	9/27/12	B. Moore and R. White	- Minor editorial changes to reduce confusion after 2012 field season.
1.3	3/29/17	C. Bledsoe	- Minor editorial changes
1.31	3/16/20	C. Bledsoe and B. Moore	- Minor editorial changes - Moved Revision History to end of SOP and added more detailed list of changes made to date, where applicable - Added reference to SOP 12 for post field processing details
1.32	8/9/2020	B. Moore	- Address grammatical changes and clarifying comments made by IMD regional program manager