

Cumberland Piedmont Network

National Park Service
Inventory and Monitoring Division



Standard Operating Procedure 4

Plot Photopoints—Version 1.34

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Overview

This standard operating procedure (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.

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Step by Step Instructions

Photograph the plot from both ends of the 20-meter (65.5 feet [ft]) 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 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 toward 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 number, 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 1).

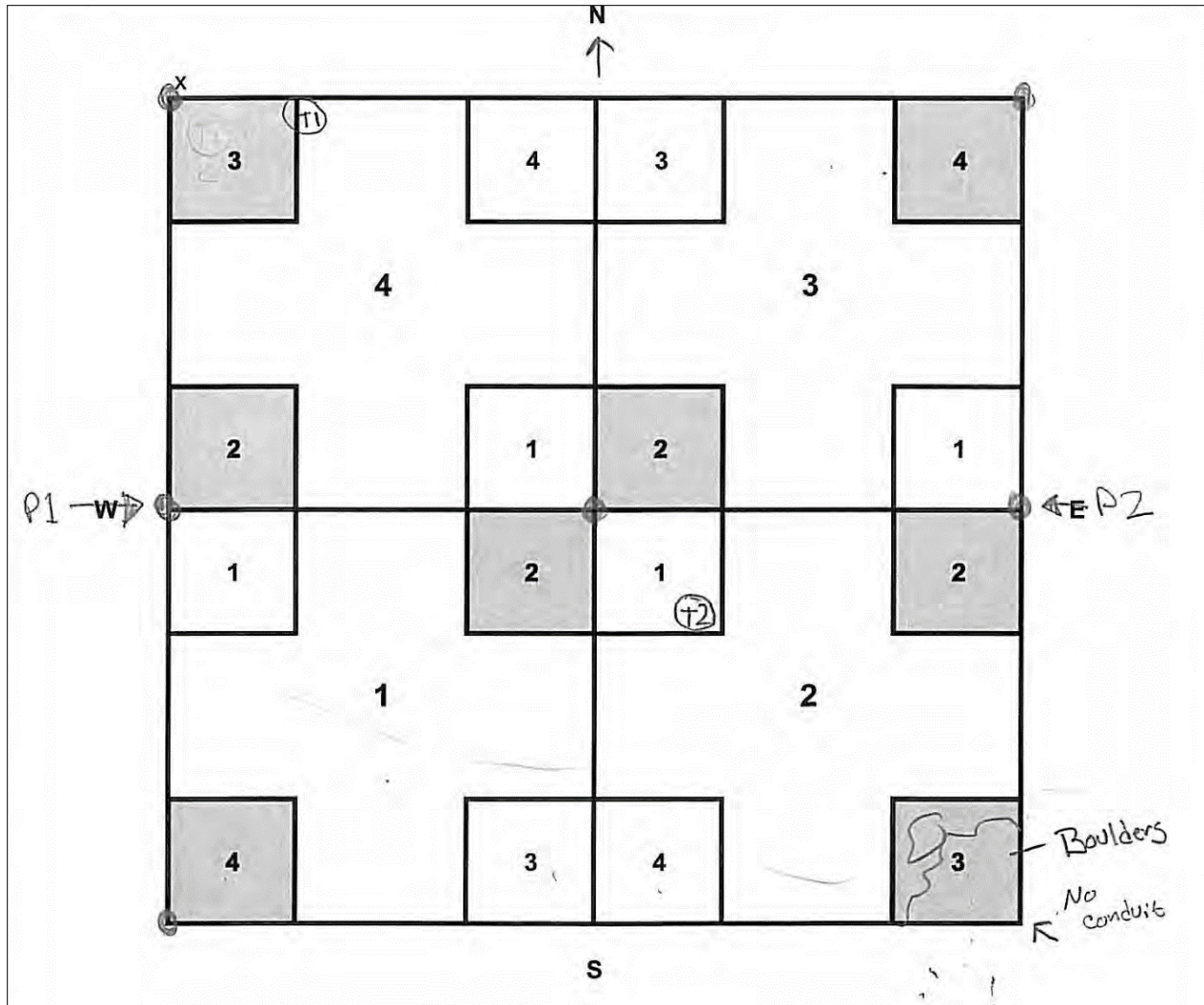


Figure 1. Example of plot diagram indicating photopoint (i.e., P1 and P2) location and photo direction, as well as tag tree (T1 and T2) locations and other plot details.

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

At the end of each field week, a field crew member will download all photos from the camera, renaming the images using the established file naming convention and copy to the appropriate folder on the network server. Refer to SOP 12 *Data Management: Procedures upon Return from the Field—Version 1.39* (CUPN 2023a) for additional details.

Equipment List

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

Completing Field Data Forms

A detailed list of field descriptions for each field on the field data form associated with this SOP can be found in SOP 5 *Canopy Closure and Stand Height Measurements—Version 1.36* (CUPN 2023b), as they share the same field datasheet.

Literature Cited

Cumberland Piedmont Network (CUPN). 2023a. Data management: procedures upon return from the field—Version 1.39. Cumberland Piedmont Network Standard Operating Procedure NPS/CUPN/SOP—12. Cumberland Piedmont Network, Mammoth Cave, Kentucky. Available at: <https://irma.nps.gov/DataStore/Reference/Profile/2299612> (last accessed November 2023).

Cumberland Piedmont Network (CUPN). 2023b. Canopy closure and stand height measurements—Version 1.36. Cumberland Piedmont Network Standard Operating Procedure NPS/CUPN/SOP—5. Cumberland Piedmont Network, Mammoth Cave, Kentucky. Available at: <https://irma.nps.gov/DataStore/Reference/Profile/2299606> (last accessed November 2023).

Revision Log

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
1.34	8/03/2023	—	Removed directions to annotate field datasheets with correct photo names. <i>This has never been done.</i> Formatted by editor to regional I&M publication standards