



Soil and Plant Science Division Technical Soil Services Northeast Soil Survey Region



New Hampshire Soils Workshop

St. Johnsbury, Vermont, Major Land Resource Area (MLRA) Soil Survey Office (SSO)

Purpose

On July 10, 2026, staff from the St. Johnsbury MLRA SSO helped with a soils workshop to teach soil basics to the New Hampshire Association of Natural Resource Scientists (NHANRS). The request for assistance came from NRCS New Hampshire staff who were presenting during the classroom portion of the workshop. They wanted assistance with the field portion of the workshop as well as reconnaissance for field sites (fig. 1).

The NHANRS is a membership of wetland scientists, soil scientists, biologists, foresters, surveyors, State and municipal employees, and citizens who work to promote the science of New Hampshire's wetlands and soils. The 30 attendees learned soil basics in the classroom portion of the workshop, learned about cultural resource protocols, and got hands-on experience with soils in the field. The sites selected by the MLRA SSO staff allowed participants to experience different parent materials and soil series. The workshop deepened their understanding of the landscape they work in every day.



Figure 1.—NRCS and NHANRS staff scouting locations for field pits the day before the workshop.

Background

The NHANRS members that attended the workshop are all relatively new to their careers and were interested in learning more about statewide soil mapping, diagnostic horizons, epipedons, and other key soil characteristics. The workshop took place in Bear Brook State Park, located in Allenstown. The park sits within MLRA 144A, New England and Eastern New York Upland, Southern Part. The heavily forested, rolling landscape of the park has a wide variety of parent materials and drainage classes and is characterized by glacial till hills, drumlins, and bedrock-controlled uplands. This location allowed attendees to interact with different drainage classes of sandy glaciofluvial and till deposits.

NRCS New Hampshire staff presented their approach to describing and identifying soils, focusing on key soil physical properties and topographic properties field staff often use. They shared their most recent work, a specific catena key for the soils mapped specifically in New Hampshire, which the attendees used later in the field to classify the soil series at different pit locations. Staff from NRCS New Hampshire also discussed NRCS cultural resource protocols, showing the attendees archaeological practices and screening methods for culturally sensitive areas (fig. 2). It was necessary to screen for artifacts at the site because it was once a Civilian Conservation Corps camp during the Great Depression.



Figure 2.—NRCS New Hampshire Archaeologist Tom Boyd (left) screening soil samples for artifacts while Resource Soil Scientist Josh Gaimaro (right) shovels new samples into a sifter.

During the field portion of the workshop, MLRA staff were stationed at different pits. They facilitated discussions on what the attendees were seeing and describing. Using the New Hampshire soil catena, they helped attendees identify the correct soils based on parent material, dominant textures, and drainage class (fig. 3). While some of the soils were straightforward to describe, others proved to be more of a challenge. This led to deeper discussions on hydric indicators of sandy soils and hydric spodosols, which are often identified as problem soils by private sector professionals.



Figure 3.—NHANRS members grouped around a soil pit discussing what they previously learned in the classroom portion of the session.

Key Outcomes

During the NHANRS workshop, St. Johnsbury MLRA SSO helped NRCS New Hampshire staff train workshop attendees on field descriptions of common New Hampshire soils. This workshop helped equip early career professionals from different backgrounds with practical skills to accurately describe and classify New Hampshire soils and navigate NRCS cultural resource protocols in the field. By learning the soil catena key and identifying different landscapes, attendees can more accurately delineate wetlands, assess land suitability, and ensure federal compliance in their daily consulting and regulatory fieldwork.