Richfield, Utah, Major Land Resource Area (MLRA) Soil Survey Office (SSO)

Field Methods Training for BLM Seasonal AIM Crews

Purpose

The Bureau of Land Management (BLM) administers the Assessment, Inventory, and Monitoring Strategy (AIM). AIM utilizes the data collection methods described in the Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems (Volume I: Core Methods). The week of April 8, 2024, the Utah BLM conducted a training session in Cedar City, Utah for seasonal employees and contractors who will be performing field work this year.

Raven Chavez, BLM soil scientist, and Keith Crossland, NRCS soil scientist, were tasked with teaching the plot characterization segment of the AIM training session. The training started indoors with a presentation on soil map units and ecological sites and where to find information online (Web Soil Survey, SoilWeb, EDIT, OSDs site). Then, we got everyone's hands dirty and gave them a crash course in hand texturing soils. About a dozen soil samples with a wide range of clay content were used and made available for the students to take with them after the training. Once at the field site, instructions were given on how to determine a representative location for the soil pit and tips on how to excavate the soil pit. Techniques to identify and split soil horizons were demonstrated. For those not confident in their ability to delineate soil horizons, standard depths are to be used per the Monitoring Manual. Soil features that will be recorded for plot characterization were reviewed and demonstrated and include rock fragment content, texture, clay percent, effervescence, color, and structure. Identifying landscape, landform, position, and slope shape was explained. Students are only given 12 broad options to choose from for the landscape, landform, and landform position, so it is not too daunting of a task.

Background

This is a recurring Technical Soil Service the Richfield, Utah MLRA SSO helps with every April.

Key Outcomes

Overall, the students were attentive and curious about soils and the methods used to map soils. When the students were asking questions and showed a desire to learn, it left instructors motivated to refine and improve teaching methods. It is always a treat for a soil scientist when someone has questions that really dig deep into soils.

Our goal was to get the field crews to identify soil components and ecological sites competently and consistently.