California Soil-Vegetation Survey Correlation Discussions in Eastern Fresno County

California Soil-Vegetation scientists Gordon Huntington (in red), Jack Fischer, Bob Gardner, and Ralph Nelson study “minipeds,” or “specipeds” as they were sometimes called in eastern Fresno County, CA in 1955.

California’s Soil-Vegetation Survey was a unique state-funded program that began in 1947 as a result of the working relationship and efforts of Dr. Earl Storie, University of California-Berkeley soil scientist, and A.E. Weislander, USFS forester and wildland vegetation mapper. The program operated under the general administration of the State Board of Forestry until the 1980s when the Soil Conservation Service was asked to manage it. The program ended during in a state budget crisis in the early 1990s. More than 3.8 million hectares of Soil-Vegetation Survey mapping were completed in nonfederal forest, range, and wildland areas during the years this unique program was active.

California Field Collection Boxes of Specipeds

Small square samples of soil were taken from soil horizons during the California’s Soil-Vegetation Survey to be used for correlation of soils and to maintain a physical and visual record of specific soils. These very interesting mini soil profiles, also known as “minipeds” or “specipeds,” were produced for specific soils on small cards. Along with the minipeds, thousands of soil samples were also taken for laboratory analysis. The work of California’s Soil-Vegetation Survey was state of the art in its day and was in high demand at the time. The work also laid the foundation for many modern detailed soil surveys later conducted by USDA-SCS/NRCS soil scientists.

Information and photos courtesy of William Reed, USDA-NRCS Soil Scientist, Davis, CA and Kerry Arroues, USDA-NRCS Soil Scientist, Hanford, CA, retired.

Information also taken from abstract and presentation at SSSA Meetings, 1 Nov. 2010, 117-12, entitled “California’s Soil-Vegetation Survey Program: Underpinning to Detailed Mapping in the State’s ‘Wildlands’” by David Smith, Director, USDA-NRCS Soil Science Division, Washington, DC.

Soil Climates in California’s White Mountains

In June, Robert Graham, Professor (Univ. of California, Riverside), Doug Merkler, Resource Soil Scientist (NRCS, NV), Yvonne Wood (U.C. Cooperative Extension, retired) (shown right to left), and Sam Indorante, MLRA Project Leader (NRCS, IL) (photographer) described and sampled the soils at the 9,000-ft elevation on the colluvium mantled mountain back slopes in the White Mountains near Bishop, CA. These samples will be processed by the Kellogg Soil Survey Laboratory (KSSL) and will help in establishing baseline data against which the effects of climate change may be measured in the future. This cooperative research is designed to study soil, vegetation, and site characteristic trends along an elevation transect to predict how climate change may shift those characteristics upward or downward along the elevation gradient. Patti Novak-Echenique, State Rangeland Management Specialist NRCS, NV, inventoried the vegetation using the National Resources Inventory (NRI) protocol near each of meteorological stations.

Dr. Graham is utilizing climate information from a transect of meteorological stations located at approximately 1000-ft elevation increments up the west face of the White Mountains. The stations were established in 2005/2006 by Dr. Daniel R. Cayan, a research meteorologist at the Scripps Institution of Oceanography (USGS/UC San Diego). In a cooperative effort between University of California-Riverside and USDA-NRCS, soils and vegetation are being inventoried and sampled by Dr. Graham and his associates along the 7,000- to 14,000-ft transect range near the meteorological stations.

Submitted by Douglas J. Merkler, USDA-NRCS, Las Vegas, NV. Photo by Sam Indorante, USDA-NRCS, Carbondale, IL.