



Vegetation Mapping at Curecanti National Recreation Area

Wondering where in the park to look for a certain bird? Trying to plan a prescribed fire? Need help identifying potential habitat for a threatened species? You need a vegetation map!

Vegetation maps visually display the distribution of vegetation communities across a landscape. Knowing what's growing where, and what kinds of habitat occur in a park, helps park managers to successfully conduct a variety of activities, including park planning, resource monitoring, interpretive programs, prescribed fire, and climate change response. Vegetation maps also provide a baseline for ecological studies.

In cooperation with the U.S. Geological Survey and many other partners, the National Park Service (NPS) is engaged in an effort to classify, describe, and map vegetation communities in more than 270 NPS units across the U.S. Each map represents hundreds to thousands of hours of effort by dozens of contributors: ecologists, field technicians, GIS technicians, data managers, writers, editors, and park staff. Each finished project comprises not just a map and report, but also an entire library of vegetation data and descriptive information.

The Curecanti NRA mapping project was led by the Northern Colorado Plateau Network, with assistance from park staff and several partners, including engineering-environmental Management, Inc., NatureServe, the Colorado Natural Heritage Program, U.S. Department of Agriculture, and U.S. Bureau of Reclamation. The team gathered aerial photography, established and collected data from vegetation plots, used those data to classify vegetation types and write descriptions, wrote a vegetation-type key, performed photo interpretation, assessed the accuracy of the results, created a geodatabase, and wrote a final report.

To create a map, vegetation is first classified into *associations* and/or *alliances*, which are repeating assemblages of plants in similar habitats. Those assemblages are then organized into *map classes*, which identify meaningful units to represent existing vegetation and land uses. *Ecological systems* are used to organize the map classes (see map, next page). They represent groups of communities that occur in similar environments and are shaped by similar ecological processes.

For the Curecanti NRA project, the NCPN crew developed 27 natural or semi-natural vegetation map classes, represented by 10,520 map polygons. The mapped vegetation was classified into 131 community types. The most widespread vegetation mapping unit was Wyoming Big Sagebrush Shrubland, covering 22.3% of the project area. Quaking aspen woodlands and sagebrush shrublands accounted for 40 associations.

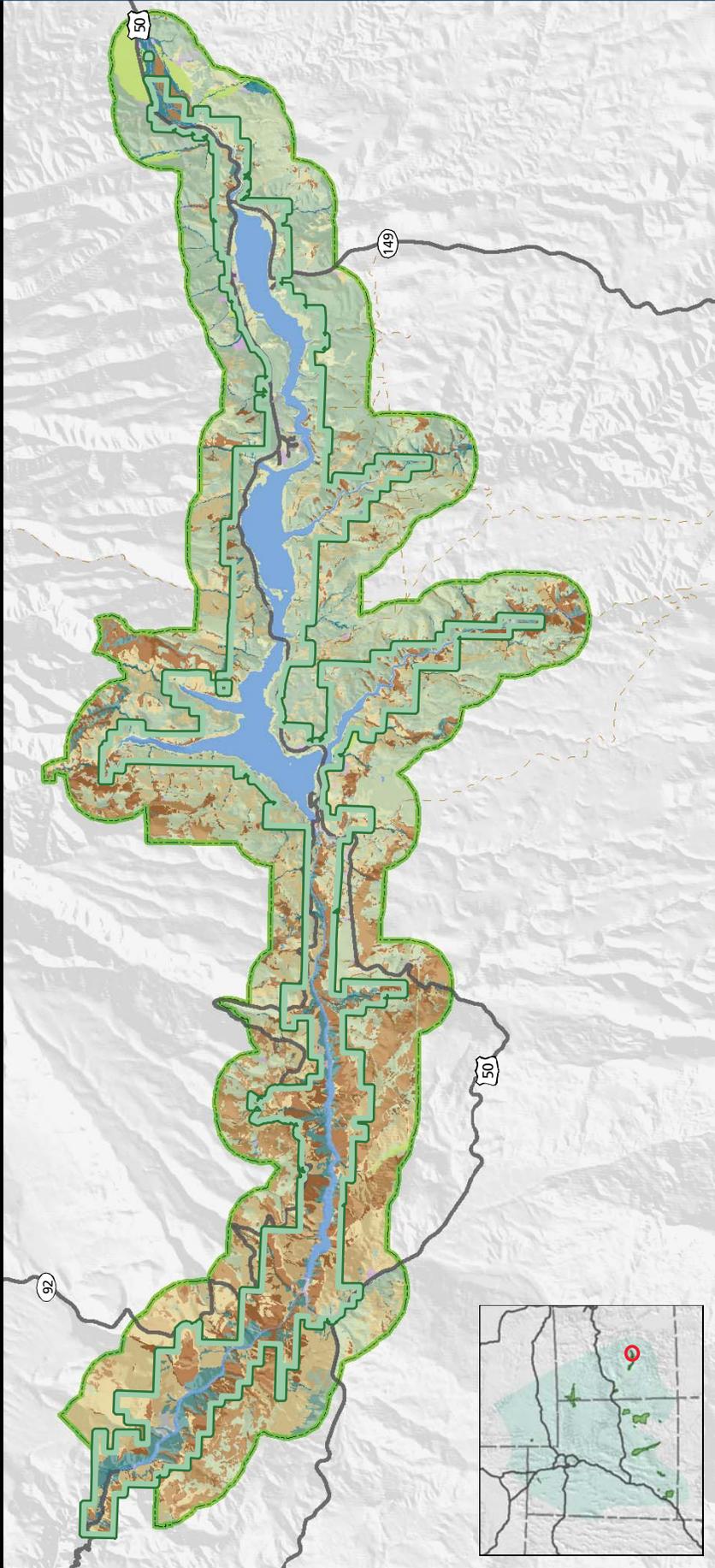
The mapping results revealed that shrubland vegetation types are by far the most common, occupying a large area of the park. Woodland vegetation types are also common, occupying many available habitats. Herbaceous vegetation types are uncommon, often occurring as small patches. Forested vegetation types consist primarily of quaking aspen and Douglas-fir stands; riparian forest and woodland vegetation types consist primarily of narrowleaf cottonwood stands, as well as boxelder and blue spruce stands. Riparian shrubland vegetation types occur along the Gunnison River floodplain and in its tributary canyons, in ravines, along small stream channels, and adjacent to old hay meadows. Riparian grasslands are widespread but uncommon and restricted in their distribution to areas with water at or near the surface for some or all of the growing season.

Map on other side!



**Curecanti National Recreation Area
Vegetation Map**

U.S. Department of the Interior
National Park Service



Ecological Systems

- Rocky Mountain Lower Montane - Foothill Riparian Woodland and Shrubland
- Rocky Mountain Subalpine - Montane Riparian Shrubland
- Rocky Mountain Cliff, Canyon and Massive Bedrock
- Inter-Mountain Basins Mixed Salt Desert Scrub
- Inter-Mountain Basins Semi-desert Shrub-Steppe
- Colorado Plateau Mixed Low Sagebrush Shrubland
- Inter-Mountain Basins Montane Sagebrush Steppe
- Inter-Mountain Basins Semi-desert Grassland
- Rocky Mountain Lower Montane - Foothill Shrubland
- Rocky Mountain Gambel Oak - Mixed Montane Shrubland

- Colorado Plateau Pinyon-Juniper Woodland
- Southern Rocky Mountain Ponderosa Pine Woodland
- Inter-mountain Basins Aspen - Mixed Conifer Forest and Woodland
- Rocky Mountain Alpine - Montane Wet Meadow
- Southern Rocky Mountain Dry - Mesic Montane Mixed Conifer Forest and Woodland
- Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland

- Bare Lands
- Developed
- Agriculture
- Water
- Curecanti National Recreation Area Boundary
- Vegetation Mapping Project Boundary

