Gambel Oak and Wavyleaf Oaks

Gambel oak, a shrubby oak with deep-lobed leaves, is the common oak of the southern Rockies, and forms oak scrublands widely throughout western and southern Colorado, and in adjacent areas of Utah, New Mexico, and Arizona. These oaks cover nearly 10 million acres, among the lower mountains, hillsides, and canyons. It just reaches the southern edge of Wyoming in the Medicine Bow mountains.

Gambel oak is found in dry locations from 4000 to 8500 or even 10500 feet elevation. Dense thickets of Gambel oak shrubs cover many miles of western hills and riverbanks. Often called scrub oak, it grows as shrubs as low as 4 to 6 feet high, or as trees to 20 feet in height, with a trunk diameter of 6 to 8 inches; rarely it may reach 50 feet high, with a diameter of 2 feet. The large tree form is more common in the southern parts of its range. Typical maximum age is only 80 years though a few trees reach 200 years.

Other southwestern oak shrubs form an extensive group of hybrids called the Wavyleaf oaks. The leaves, 1 to 3 inches (2 to 8 cm) long, vary in shape and variety of lobe pattern, some having very shallow lobes, or no lobes. All these oaks interbreed and are the cause for an enduring discussion among botanists about how to classify, relate, and name them. Other than Gambel oak, all oak species of this area are shrubs less than 10 feet (3 m) high.
Gamble oak and the scrub oaks provide important browse for mule deer, and for elk and bighorn sheep in summer. Porcupine and rabbits eat both foliage and the inner bark. Deer and numerous birds and small mammals including the wild turkey and Abert's squirrel eat the acorns. The wood is strong but tends to check and rarely forms useful timbers.

The scientific name is “Quercus gambeli Nuttall”, Gambel’s oak. William Gambel was a young naturalist who collected plants here in 1844, about the time beaver pelts ceased to be the only cash business in the Rockies, and fifteen years before the Pike's Peak gold rush. Thomas Nutall, a leading naturalist of the United States, first described the tree in 1848, and named the tree for Gambel.

Gambel oak leaves have variable shape, and are often deeply lobed, with lobes rounded not pointed. The lobes are usually indented about halfway to the center. The middle lobes are often the largest. The leaf length is 2 to 6 inches long, and 2 to 3 inches wide. Leaves are leathery in texture, and bright or dark green on the top surface.

Acorns are 1/2 to 1 inch long. The acorn cup is 2/5 to 3/5 inch wide, covering 1/3 to 1/2 of the acorn. The bark is light gray, thick, ridged or deeply fissured, or in irregular plates or scales.