

Featured Plant

Common Name: Wholeleaf Indian paintbrush
Scientific Name: *Castilleja integra*



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A spike of showy, reddish-orange bracts generally calls our attention to this paintbrush. The showy color of the paintbrush plant is produced by the bracts (modified leaves) that occur in a variety of colors. The greenish, tinged scarlet, tubular true flowers are inconspicuously hidden among the bracts. "Integra", Latin for "whole", refers to the bracts and leaves which are not incised or lobed as in many other species of *Castilleja*. *Castilleja integra* is a perennial and is one of about 200 species of the genus *Castilleja* in the family of Scrophulariaceae (Figwort or Snapdragon Family). It grows to a maximum of about twenty inches tall. The plant ranges through the southwest in Pinyon/Juniper and Ponderosa forest communities at elevations of 3000 to 7500 feet. Indian paintbrush was adopted as Wyoming's state flower in 1917.

Indian paintbrush plants are partially parasitic. The plant takes water and nutrients from the roots of other native wildflowers, shrubs, and grasses via finger-

like projections of parasitic tissue called *haustoria*, which grow from the roots of the paintbrush and penetrate the roots of the host plant. They do not completely deplete the nutrients from the host plant, although it often does take a toll on its fitness and growth. *Castilleja* species are generalist parasites - they do not require a particular host species; however, you will often find paintbrush growing together with bunchgrass, chamise, sagebrush, lupine and wild buckwheat.

The flowers of Indian paintbrush are edible and sweet, but must be eaten in small quantities. These plants have a tendency to absorb and concentrate selenium in their tissues from the soils in which they grow, and can be potentially very toxic if the roots or green parts of the plant are consumed. Various Native American tribes used the flowering parts as a paintbrush, as well as an ingredient in paints and dyes. The Chippewa Indians are known to have used the Indian paintbrush as a medicine to treat rheumatism and as a bath rinse to make their hair glossy.

Featured Bird

Common Name: Lucy's Warbler
Scientific Name: *Vermivora luciae*



Dan L. Fischer

Dan L. Fischer - Author of *Early Southwest Ornithologists, 1738-1900*, University of Arizona Press

The end of March marks the time of growth and renewal in the lower deserts of Arizona. When adequate winter rains and temperatures have occurred, a whole array of plants emerge or burst forth. Some annuals may begin a gorgeous floral display while early cactus buds follow on certain species, and some even begin showing lavish flowers. Along the washes and dry stream courses, leaves develop on the large mesquite and shrubs. In April and May the blue palo verde begins a glorious show of intense yellow blossoms which is quickly followed by the foothills

palo verde in a massive and widespread panorama of pale yellow.

At this same time among the larger mesquite thickets, an assemblage of avian species burst forth in song which includes Lucy's Warbler, just returning on migration from Mexico. As the smallest of our wood warblers, it would hardly be noticed were it not for its loud, distinct, sweet song that is delivered almost incessantly in early spring. They are tiny pale gray birds, just over four inches, with the male showing a reddish chestnut cap and rump as they probe the branches and leaves for insects. Nesting begins almost immediately as sites are selected mainly among mesquite, sometimes palo verde, occasionally ironwood and less commonly in trees slightly higher in elevation. Generally four creamy-white eggs, speckled with reddish-brown are laid in cavities or in partially concealed tree bark or split branches. Sometimes two broods are reared before returning to Mexico.

The discovery of Lucy's Warbler in 1861 was made by Dr. J. G. Cooper (1830-1902) while posted at Fort Mojave, located on the east side of the Colorado River near latitude 35°. He was first attracted to the warbler "by their notes, as their small size and concealment in the dense mesquite thickets...would have

prevented their discovery." Cooper was a great admirer of Spencer Fullerton Baird (1823-1887), Secretary of the Smithsonian Institution and the central figure regarding the natural sciences in the country at that time. It was because of this lasting friendship that Cooper applied the scientific and common names to this bird in honor of Baird's daughter Lucy Hunter, who was only thirteen at the time. The Cooper Ornithological Society was later named in his honor for his many notable contributions to science.

The late 1800s brought forth a great interest and advancement to science in the little known wilderness of Arizona and indeed, the entire Southwest. The competitive but respectful spirit, seriousness, and discovery of the local bird life among many individuals was very high as three other men noted this elusive warbler in quick succession. The first was a Mr. Holden near the 34th parallel in 1863, then two notable army officers, Dr. Elliott Coues at Fort Whipple north of Prescott in 1865, and Lt. Charles Bendire close to Camp Lowell near Tucson in 1872. The two army officers, like Dr. Cooper, in addition to their military assignments, became prominent ornithologists through their common interest and close association with Baird.