

Paintbrush - *Castilleja*

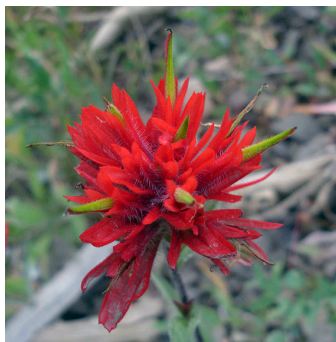
By Christine L Robertson



Photo: Christine L Robertson-June 14, 2025



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<https://wildaboutflowers.ca/products/paintbrush-indian>



<https://www.gardenia.net/plant/castilleja-coccinea-indian-paintbrush>

These showy native perennial forbs paint the open, sunny alpine and subalpine eastern slopes of the Rocky Mountains with vibrant hues of bright reds to scarlet, yellows and oranges (*C. miniata*, *C. occidentalis*, *C. sulphurea*). Rosy paintbrushes (*C. rhexifolia*) with varying shades of pinks, purples, and two-tones are results of hybridization between different species. This is also home to the only annual paintbrush (*C. minor* var. *exilis*) which is often red or reddish-tinged. Growing along the eastern slopes of the Rockies protects them from harsh Chinook winds during winter months.

The vibrant colors are fan shaped bracts surrounding the true tiny, yellow-green flowers, attracting hovering pollinators such as hoverflies and hummingbirds. The bracts look like they have been dipped in paint - giving them the name 'paintbrush.'

The upwards of 200 species of *Castilleja* are typically bi-ennials - establishing greenery (a basal rosette) the first year and producing a flowering stalk the next. Considered a ground covering plant, it forms clumps spreading 12-18 inches. The vast variety in color and size generally forms woody erect to clustered, 4 inch to 2 foot stems from the rosette, usually green or reddish brown, with some varieties covered in small hairs. The 1 to 7 cm long leaves are alternately attached, stemless, medium green coloured, may have entire margins, are linear to lance shaped, may be divided into 2 to 5 lobes, becoming smaller as they ascend. The flowers hide within protective, sometimes hairy, sometimes toothed bracts with long, slender upper lips ($\frac{1}{2}$ as long as the flower tube) and smaller, broader lower lips. They are tubular with many flowers in dense, compact yellow-green spikes. They may be red-edged, slightly hairy, sticky, and bloom beginning June through to August or September.

It is a hemiparasitic plant and relies on host plants such as lupines as a source of nutrients obtained through the roots. It grows best in moist, well-drained soils rich in organic matter in montane and subalpine meadows, streambanks, foothills, open woods, forest edges, and other riparian areas. Despite its somewhat parasitic nature, along with the root systems it relies upon, it acts as an important soil stabilizer - having a shallow root system interconnecting with other root systems and prevents soil erosion on slopes and embankments. This native herb is an important indicator of ecosystem health, levels of soil moisture, acidity, salinity, nutrients, and assists in monitoring levels of grazing pressure in land management practices.

Walk with caution, admire with care - do not pick - appreciate nature's beauty and offerings with reverence and respect.

Learn about Indigenous medicinal uses and view informative videos here:

<https://nativememoryproject.org/plant/indian-paintbrush/>

Information resource links:

<https://kananaskis.org/indian-paintbrush/>

<https://watersheds.ca/plant/indian-paintbrush/>

<https://www.gardenia.net/plant/castilleja-coccinea-indian-paintbrush>

<https://wildaboutflowers.ca/products/paintbrush-indian>