

# Interpretative Fact Sheet Indian Paintbrush (Castilleja miniata)



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# Indian Paintbrush (Castilleja miniate)

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By colliek2 September 8, 2020

There are about 4,500 species of parasitic plants and the native Indian paintbrush is one of them.

Indian paintbrush is a perennial herb that prefers sandy, well-draining soils. It grows in dry meadows, prairies, and open woods.

In the spring and early summer, Indian paintbrush are easy to find and recognize with their showy red bracts. Bracts are a type of modified leaf that gives the plant the look of a paint brush dipped in red paint.



Indian paintbrush courtesy of USDA Forest Service

### **Pollination**

Bracts also hide the small greenish tubular flowers which attract a variety of pollinators, especially bees and hummingbirds. Once pollinated, the plant creates a two-chamber seed capsule. When ripe, capsules can contain up to 300 seeds which are scattered via the wind.

Indian paintbrush are especially adapted for hummingbird pollination. Hummingbirds can hover near the plant and extract nectar with their long bills. The lack of a perch discourages non-hovering pollinators.

## **Hemiparasites**

Indian paintbrush photosynthesize energy like other plants. They are also 'obligate parasites' during a portion of their lifecycle (meaning they cannot complete their lifecycle without it). As a parasite, they penetrate the roots of a host, such as perennial grass, and sequester water and nutrients. This combination makes Indian paintbrush a hemiparasite.

There are a variety of other parasitic plants, some of which target food crops (corn, rice, millets, and Sorghum) causing significant economic losses. Some common parasitic plants include mistletoe (a stem parasite), Sandalwood (hemiparasitic), and even some Christmas trees (such as the Western Australian Christmas tree is an obligate root hemiparasite).

### **Common Uses**

Native peoples used this perennial, woody species extensively. Products include: food, beverages, and food preservation, a variety of medicines (for burns, contraception, injuries, wash, etc.), poison infusion, love charm, decoration (hide coloration, celebrations, and wreaths), hummingbird traps, and more. See the Native American Ethnobotany Database for more information at: <a href="http://naeb.brit.org/uses/search/?string=indian+paintbrush">http://naeb.brit.org/uses/search/?string=indian+paintbrush</a>

### **REFERENCES:**

- -USDA, Forest Service, Indian paintbrush plant of the week (https://www.fs.fed.us/wildflowers/plant-of-the-week/Castilleja-coccinea.shtml)
- -Better Homes and Gardens (https://www.bhg.com/gardening/plant-dictionary/perennial/indian-paintbrush/)
- -Wikipedia, Indian Paintbrush (https://en.wikipedia.org/wiki/Parasitic\_plant)