



Scrophulariaceae (Foxglove Family)

Other names: Red paintbrush, Indian paintbrush, painted-cup.

Scientific name: *Castilleja miniata*
Dougl. ex Hook

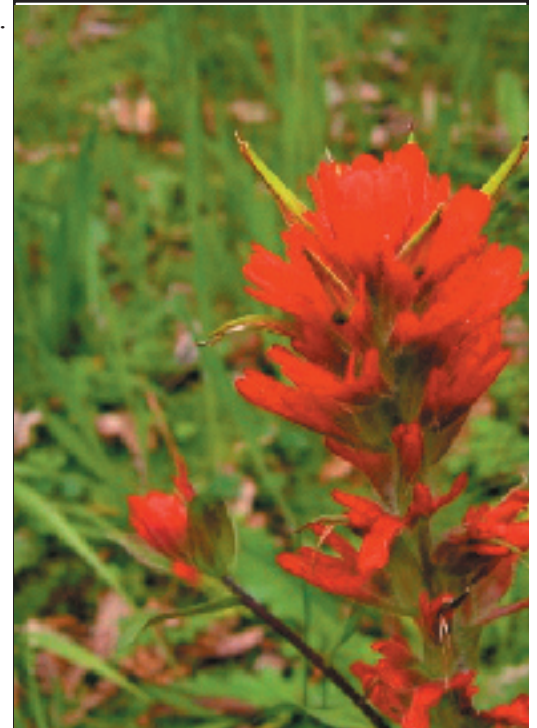
Description: A perennial with smooth or slightly hairy stems up to 60 cm tall, with alternate stalkless, narrow leaves and an unusual inflorescence consisting of a terminal spike of bright red bracts from which project tubular flowers with two lips, the upper one arched, which are green with red margins. It is partially parasitic on the roots of neighboring plants.

Habitat: Found in open woods (especially pine) and meadows on the southern edge of the boreal forest in western Canada and western USA.

Medicinal uses: The flower heads can be dried and added to wild chamomile (perhaps a *Matricaria* species, Asteraceae) flowers to make a tea to cure headaches and relax nerves.

Properties: The flowers and leaves of this species and other paintbrushes have been reported to contain pyrrolizidine alkaloids, quinolizidine alkaloids, monoterpene alkaloids, the lignan acteoside, and numerous monoterpenes, including aucubin (Farnsworth 1999). The presence of pyrrolizidine alkaloids suggests that paintbrush should probably not be taken internally due to the risk of liver damage.

Potential: Although paintbrush definitely has pharmacologically active compounds of potential significance, it is too toxic to recommend for development as a medicinal herb. It is an attractive ornamental, but would require cultivation of a suitable host plant.



Red Paintbrush; Castilleja miniata

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From Citation to Citation, or, how we turned our yard condemned by weeds into a prairie meadow showpiece by Howard R. Engel

When we bought our house in sunny Southdale in Winnipeg in 1991, the relatively poor lawn we inherited seemed to deteriorate with each passing year. Dandelions, quack grass and other common weeds thrived. Loathing to use any toxic chemicals, we resolved to remove at least the dandelions by hand. This proved extremely onerous! The numerous weeds seemed to condemn our valiant efforts to futility. Where we pulled one up, three more took its place. We might as well have attempted to mow a field with scissors! While our manual weeding method proved ineffective, we refused to believe our only alternative was to follow our neighbours in the application of pesticides and artificial fertilizers to keep the weeds under control.

We started to look at options besides restoring the old lawn. What about replacing it with a new one? If so, should we do it from sod or from seed? Since we refused the chemical treatment, we would soon find ourselves back where we started. What about an arid landscape complete with a dried creek bed, evergreens and no lawn in sight? We asked for quotes from a few local gardening centres to give shape to our ideas. This seemed better than struggling with a lawn, but none of the ideas truly satisfied our desires. We began to ask ourselves what we wanted in place of a front lawn. Through this process, we began to develop a set of principles that would govern what choices we wished to make: low maintenance (ie little or no watering, mowing, weeding, fertilizing etc.), biodiversity and indigenous variety.

We liked the idea of using indigenous or native plants to achieve low maintenance and biodiversity. But where could we find such plants? Did we have to go to the wild ourselves to seek out and save the all but lost species of the former tall grass prairie that once covered this part of southern Manitoba? We did some research and discovered a local expert, John Morgan of Prairie Habitats. He suggested we cover our lawn with black polyethylene sheeting for one growing season.

This would concentrate the heat of the sun and prevent moisture from coming in so that everything under the

plastic would die, and we could plant what we desired in our new fallow land. We placed sheets of black plastic in the fall of 1996 on most of the front yard (about 1000 sq.ft.). Well over one full growing season later in July 1998 we found a beautiful soil bed awaiting us. The combined heat and lack of moisture reduced the turf to a peat-like humus ready for planting.

In the meantime, we had to decide what to put on our earthy clean slate. John Morgan of Prairie Habitats collects and sells seeds of indigenous prairie species, some of which are difficult to germinate. We did not want to wait for the seeds to germinate for fear of reinfestation of weeds. John suggested Shirley Froelich of Prairie Originals who sells prairie plants as young “plugs” or as mature plants that can establish and spread quickly. John also suggested we enlist the expertise of a landscape architect, Cynthia Cohlmeier, who provided an overall plan and structure that incorporated a path and boulders to add interest and texture to our space. Following her advice, we stumbled on rainbow slate rocks that enhanced the orange/red colour of our interlocking brick driveway. Sourcing this stone from Pyramid Rock Gardening, they installed four large rainbow slate rocks plus two stone benches strategically placed to take full advantage of the view.

For her part, Shirley helped us select the plants for our prairie meadow, suggesting a mixture of 60% grasses and 40% flowers, all indigenous to both short and long-grass prairie. We held a planting bee with friends, and several planting sessions ourselves. We planted over 1100 plugs and pots within the space of six weeks during the summer of 1998. We watered the plants faithfully into September. We also constructed a makeshift fence around the perimeter of the planting to prevent the rabbits from nibbling away at the struggling plants. By the next growing season, our prairie meadow was well established.

The prairie meadow has achieved our goals and then some. It needs mowing only once a year. It needs no fertilizer or watering, since the plants are accustomed to whatever our Manitoba climate dishes out. It requires only the occasional weeding and these weeds

are mostly superficial. The indigenous plants are so prolific that they do not allow for many weeds to germinate. Those that do are easily pulled out. In addition, we leave most of the cuttings from our annual mowing on the surface as mulch to further prevent weeds.

The prairie meadow is a community, a symbiosis of plants, animals, insects and birds. We have witnessed masses of ladybugs emerging in the spring, monarch butterfly caterpillars munching on the whorled milkweed, dragonflies chasing each other and mosquitoes in high summer, rabbits hiding, robins perching on the rocks. Even more, we have found that the meadow cultivates us and raises our awareness of our own creaturehood that we share with every living thing.

We truly enjoy how our prairie meadow changes. We notice subtle changes from year-to-year and more dramatic ones as the growing season progresses within each year. At this point, mid-April, the Three Flowered Avens, or Prairie Smoke, is a bright green and the Manitoba Crocus is emerging. What a delight! And what a transformation! We have received many compliments from passers-by, and even from neighbours!

During the summer of 2001 one of these passers-by was professional photographer Andrew Leyerle of Toronto who was in Winnipeg looking for gardens to include in the book, *Front Yard Gardens* (2003), in which he collaborated with author Liz Primeau, former editor of the *Canadian Gardener*. The chapter on native gardens begins with one of his photos of our yard. This is the second citation referred to in the title of this article.

On July 16 all are invited to the Conserve Native Plants Society field trip which will include our front yard, now a native garden.

Upcoming Field Trips

Sat. May 21 This is the time to see Fairy Slipper Orchids, Early Coral Root and possibly Moccasin Flowers in bloom. With luck we may see the beautiful pink Bog Laurel along #308 and the shy Goldthread flowers as well.

Sat. June 18 Out to a cedar bog near Woodridge, this time to see the Ram's Head Lady Slipper, Yellow Lady's Slipper and Small Round Leaf Orchids. Paintbrush and other interesting plants are blooming at this time.

Sat. June 25 Our first trip of the year to the Gull Lake Wetlands to see the early orchids, sedges and insect-eating plants. The Showy Lady's Slippers should be blooming at this time as well as many other orchids. We can make a side trip to see the Moccasin Flowers in Belair Provincial Forest.

Sat. July 16 Trip to view wild cucumber, wild grapes, and the big cottonwood followed by a visit to the Engel's Winnipeg front yard native garden.

There is a \$10 charge to cover the costs of the field trip and you will be asked to sign a liability waiver. Please dress suitably for the weather. Hats and drinking water are recommended. You will be notified if a trip is cancelled. If interested, please contact Morag Belliveau at 477-1046.

News from Bud Ewacha

On April 12 the Conserve Native Plants Society received an award from the University of Manitoba department of Science and Technology for achievement in sustainable development and innovation.

The Gull Lake area will be set aside this year as an ecological reserve. We have been working on having this area conserved since 1995.

The Annual General Meeting was held and no changes were made in administrative positions.