



# Cardinal Flowers

## Gems of the Floodplain Forest

Story and photographs by John Sullivan



One does not easily forget one's first encounter with cardinal flowers. My first sighting was along the banks of the Wisconsin River while on a field trip in graduate school at the University of Wisconsin-Stevens Point. After examining its complex tubular flower, which has an upper part that is two-lipped and the lower portion divided into three distinct lobes, I thought I had found a brilliant red orchid. My botany professor quickly pointed out that it was not an orchid but a member of the bluebell family.

The common name for this plant (*Lobelia cardinalis*) was inspired by its color, which resembles the red vesture of Roman Catholic cardinals. This flowering perennial grows along stream banks, marshes, wet meadows and the rich lowland soils of open floodplain forests throughout most of the United States and eastern Canada. From July

to September, its bright fire-engine red flowering head, called a raceme, forms at the top of a two- to four-foot stem and stands in stark contrast to the green foliage that usually grows with it. A closely related species found in similar habitats, the great blue lobelia (*Lobelia siphilitica*), is not nearly as showy. Like other members of the *Lobelia* genus, cardinal flowers are considered toxic, and no part of the plant should be consumed.

This red flowering gem of the river's floodplain can be found along the entire length of the Mississippi River. Along Wisconsin's reach, I have found large, isolated communities of these plants in the upper portions of the navigation pools on silty-clay soils of floodplain forests where the tree and shrub canopy is not dense. It is frequently found near yellow flowering sneezeweed (*Helenium autumnale*). Car-

dinal flowers can be abundant in some areas, forming an undulating, Christmas-like mass a few feet above the ground. The brilliant red floral display draws ruby-throated hummingbirds, which feed on the flower's nectar and spread its pollen. Butterflies like these flowers as well. For these reasons, it also attracts gardeners. It grows well under partial shade to full sun, as long as the soil provides constant moisture for these water-loving plants.

If you want to try your hand at growing these native flowers, get your plants from a local garden center or ask permission from a land owner to collect seeds in the fall. To protect these

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plants in their native habitat, don't remove mature plants or their basal offshoots (rosettes) for propagation. Instead, collect seed capsules in September and put them in a paper bag in a dry cool place. Once the capsules are completely brown and dry, vigorously shake the bag to separate the seed from the capsules. Sift the chaff from the rice-shaped seed by passing the seed through a fine-mesh screen. The seed is tiny, less than 1 mm long, and hundreds of seeds can be collected from just a few capsules. Seed can be stored in a refrigerator for many years.

I germinate a small quantity of cardinal flower seeds under artificial lights in the spring, after it has spent the winter in my refrigerator in a small plastic bag containing damp peat moss. This process, known as "stratification," generally improves germination. I sow the stratified seed and peat moss mixture over clean, damp peat moss in the early spring, cover it with plastic and place it under fluorescent lights on a 10-hour daylight cycle at 70 to 75 degrees F.



The upper portion of the flower has two lips, and the lower portion is divided into three lobes.

Seeds begin to germinate slowly after about two weeks. Then I carefully transplant the tiny seedlings into small pots after four to six weeks. I transplant the established seedlings to moist soil in mid-summer and keep them well-watered during hot weather. In late fall, I lightly cover the plants with leaf litter to provide some protection over winter. A north-facing window well may also work for overwintering plants.

Cardinal flowers will normally form a rosette the first year and send up flowering stems the following summer. Basal rosettes form at the base of mature plants in late summer. These rosettes can be divided and replanted

in moist ground in the fall or spring. Natural reproduction from seeds is also possible, but is highly dependent on site conditions and competition from other plants.

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*John Sullivan lives in La Crosse, Wis. His last story for Big River was "Solo Canoeing from Lake Itasca to La Crosse on the Mississippi," November-December 2012.*