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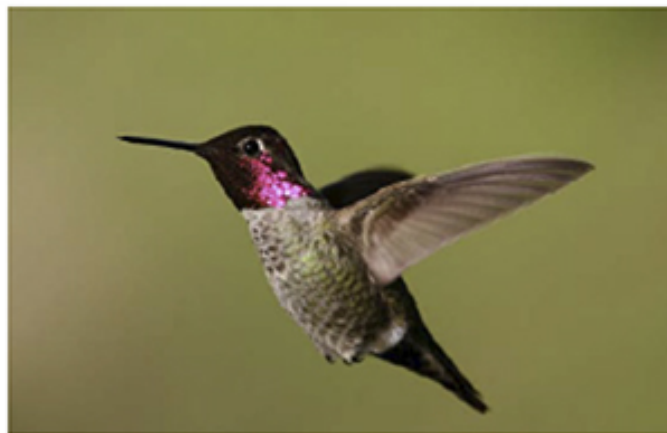
To promote the appreciation and conservation of Washington's native plants and their habitats through study, education, and advocacy.



## Gardening for Hummingbirds

by Walter Fertig

It is hard to find anyone who doesn't like hummingbirds. What isn't there to like about a bird that can hover in mid-air or even fly backwards? Or that lays the smallest eggs of any bird and has, proportionally, the largest heart? Or that pollinates some of our prettiest wildflowers and consumes large quantities of pesky mosquitoes and gnats—all for free? Or that is adorned in all sorts of iridescent green, orange, red, and purple plumages? Best of all, hummingbirds are not especially shy of people and will readily visit our urban and suburban landscapes, so long as we provide for their basic needs.



Anna's Hummingbird (*Calypte anna*). PHOTO: ROBERT D. MCMORRAN, U.S. FISH AND WILDLIFE SERVICE

Like all wildlife, hummingbirds need three basic things to survive: food, water, and a secure place to rest and nest. In nature, hummingbirds derive much of their sustenance from nectar. Produced by flowers as a bribe to entice visitors to pick up and unload pollen needed for fertilizing the next generation of seeds, nectar is like a high-energy sports drink—loaded with carbohydrates. These carbs help power a hummingbird's rapid daytime metabolism and bursts of speed (in flight, a hummingbird strokes its wings up to 90 times per second and can attain top speeds of 66 miles per hour). A well-balanced hummingbird diet also needs protein, which comes in the form of small insects and spiders. Hummingbirds perch on branches in wait of flying insects, much like a flycatcher, before taking off to snatch their prey in mid-air. Rather than catching bugs with their slender, forceps-like bills, recent slow-motion photography studies show that hummers can open their mandibles quite widely and form a surprisingly wide gape, not unlike their distant relatives, the swifts.

Hummingbirds have almost no sense of smell, relying instead on their exceptional vision to locate flowers for feeding. They are especially fond of red or orange flowers, but will also visit blue, pink, or white blooms (though they tend to avoid yellow ones). Flowers adapted to hummingbird pollination typically have elongate, cylindrical floral tubes and secrete precious nectar at its base or in a terminal spur or sac. Hum-

mingbirds use their long beaks and tongues to lap up the nectar reward, and in the process get their heads liberally dowsed with pollen from anthers borne near the rim of the flower tube. This pollen then gets deposited on receptive stigmas when the hummingbird repeats the process at another flower. Hummingbirds may visit 1,500 flowers in a day, so a lot of pollen is getting moved around.

To supplement their nectar diet, hummingbirds will also feed on sugar-water in specially designed hummingbird feeders. Some older gardening books recommend using a honey-water mix, but honey ferments quickly and can grow a fungus that is harmful to hummers. A four parts water to one part table sugar mixture that is either boiled or stirred until the sugar is completely dissolved works best (serve chilled). In hot weather, hummingbird juice can also go bad, so it is best to wash the feeder or refresh the fluid frequently.

Water and secure nesting and foraging habitat can also be provided by the careful hummingbird gardener. Hummers will enjoy a birdbath, especially if there is somewhere they can perch with their ridiculously undersized feet. Alternatively, a mister or waterfall will allow them to drink while on the wing. Hummingbirds prefer relatively open areas for feeding, but also like a few scattered trees and shrubs for perching and nest-building (too much brushy cover, however, encourages their predators). Willows, thistles, dandelions, milkweeds, and other



Red columbine (*Aquilegia formosa*). PHOTO: MARK TURNER

plants that produce fluffy or fuzzy down provide raw materials for hummingbird nests.

Even a modest yard can become a beacon for neighborhood hummingbirds, if the basics of good habitat are provided. Ideally, a hummingbird garden should include a variety of species that will be in flower over the course of the spring and summer to provide an uninterrupted food supply. The following are a few native wildflowers that are especially well-suited for attracting hummers in Washington:

Red columbine (*Aquilegia formosa*). Columbine flowers are specially built for hummingbirds, with their five nectar-packed spurs. Red (or Sitka) columbine occurs in all the mountain ranges of the state except the extreme northeast and in lowland settings in the Puget Sound and coast. In the wild, it grows in moist meadows, streambanks, and rockslides. It can be easily propagated by seed sown in the fall in shallow, well-drained soil. Sixty days of cold stratification may be helpful, though some gardeners have success without any treatment. Wild plants transplant poorly, so should be left alone. Most columbines flower from late spring to late summer. Taking a cue from hummingbirds, the Gitksan nation in British Columbia used red columbine nectar to make candy.



Scarlet gilia (*Ipomopsis aggregata*). PHOTO: MARK TURNER

Indian Paintbrush (*Castilleja* spp.). The actual corolla of an Indian paintbrush is typically green, but is enclosed by brightly colored sepals or leafy bracts that have assumed the role of attracting pollinators. Paintbrushes are hemi-parasitic, meaning that they derive some (though not all) of their nutrition by parasitizing the roots of other plants. This can make them difficult to transplant from the wild (which we shouldn't do under normal circumstances anyway). Paintbrush can be grown from seed, provided appropriate host species are also present in the garden. In western Washington, orange-flowered species such as harsh paintbrush (*Castilleja hispida*) or scarlet paintbrush (*C. miniata*) might work in dry and moist sites, respectively. In the Wenatchee and Ellensburg areas, Elmer's paintbrush (*C. elmeri*) is a yellow, orange, or red-flowered species adapted to local conditions. Gardeners in eastern Washington might have better luck with the yellow-flowered Thompson's paintbrush (*C. thompsonii*) if it can be grown with sagebrush or rabbitbrush. Paintbrush seeds usually require at least 30 days of cold stratification and are best planted in the fall on the surface to facilitate light exposure.

Larkspurs (*Delphinium* spp.). Although not red or orange, hummingbirds do show a strong affinity for blue or purple-flowered tall larkspurs, such as sierra larkspur (*Delphinium glaucum*). Relatives of the columbine, larkspurs also produce ample nectar in a single spur formed by the uppermost sepal. The tall larkspurs tend to grow in mountain meadows or streamsides in the wild, and so tend to do best in partially sunny gardens with consistently moist but well-drained soils. A native of the Columbia River Gorge, poison larkspur (*D. trollifolium*) will grow in the Puget Sound area and is an interesting accent plant with broad, rounded (*Trollius*-like) basal leaves. This species can monopolize a garden, if you let it (and as the common name suggests, don't eat it). Shorter larkspurs, like two-lobe delphinium (*D. nuttallianum*) are adapted to drier environments and would do well in more arid eastern Washington.

Scarlet gilia (*Ipomopsis aggregata*). This biennial or short-lived perennial has long-flaring tubular flowers that are red, pink, salmon, or white and can grow in a variety of habitats. It can be purchased from a native plant nursery or grown from seed in sunny, well-drained sites. Once established, it readily re-seeds.

Flowering currant (*Ribes sanguineum*). For those in need of some flowering shrubs, this native of western Washington and the Cascades is hardy in many garden settings. It does prefer well-drained soil and sunny sites, but can also grow in shade. The hanging clusters of deep red flowers are well-positioned for hummingbirds to sip while in flight.

Honeysuckles (*Lonicera* spp.). True to their name, honeysuckle flowers offer a sweet nectar reward. Twinberry (*L. involucrata*) is a shrubby species adapted to moist, shady stream sides in the mountains of Washington. In the garden, it can grow in sun or shade but will require extra water. The yellow tubular flowers of twinberry are not especially showy, but after the corolla falls and the fruits mature into black berries the sepals

enlarge and become bright red and fleshy. The related trumpet honeysuckle (*L. ciliosa*) is a common native vine with a large umbel of orange tubular flowers above a single, shield-like bract (actually a pair of fused leaves). This species is under-utilized in garden settings, given its unusual growth habit and stunning blooms.

For their size, hummingbirds are remarkably intelligent and can quickly learn where good habitat is located and return to the same spots year after year. Some gardeners worry that providing sugar water and attractive plants will entice the birds to stay too long in the fall, putting them at risk from unseasonably cool weather. They need not worry about three of the four hummingbird species regularly found in Washington (Black-chinned, Calliope, and Rufous) which have the good sense to winter in Mexico or the Gulf Coast. Only the Anna's hummingbird lives year-round in the greater Seattle area—largely due to supplemental feeding. Anna's have actually been expanding their range north out of California for several decades, and now breed as far north as SE Alaska. If you happen to have an Anna's hanging around in the winter it is especially important to keep the sugar water supply going and to keep feeders from freezing (a string of Christmas lights provide just enough heat and add a festive glow).

Some might question the intelligence of Anna's hummingbirds for choosing a gray, rainy winter in Seattle over the Mexican Riviera. But I think these tiny birds are actually outsmarting us. After all, it is not as though we have tricked them into feeding us 12 months a year!

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*Walter Fertig feeds Rufous hummingbirds in McCleary, Washington, for 3–4 months each summer.*

