Hummingbirds in the Garden

On July afternoons, my garden provides a relaxing immersion in nature. I planted bee balm, a member of the mint family, in hopes of attracting hummingbirds, and the flowers have done just that. True, I put out a hummingbird feeder around the first of May when the tiny hummers return from South America and when there are few flowers attracting them to my garden. Although the birds soon learn the feeder represents a reliable source of sugar water and investigate the yellow "flowers" at the base of the feeder, visiting two or three of them before flying over to the bee balm, they quickly zoom over to the flowers. They concentrate on a single flower head, probing its tubular red blooms one at a time. Then they flit from flower to flower and repeat their investigations. When they finish, they may fly off across the yard, or they may land on a branch in the neighboring redbud tree and preen their feathers. Even though I have often witnessed these smallest of all birds feed. I still marvel at their ability to hover all-but-motionless in front of the feeder or a flower, probing for the sugar water or nectar.

The hummingbirds we have in DuPage County are Ruby-throated Hummingbirds, so-called because males have a red gorget, or throat. They are one of sixteen species of hummingbirds reported from North America: the others reside in the West and Southwest, although some have been reported wintering along the Gulf Coast and even straying into the Chicago region in the winter. As a family, hummingbirds are

unique to the Western Hemisphere, and range from southeastern Alaska, across North America, and down to Tierra del Fuego at the tip of South America. Despite being highly specialized, the family numbers as many as 340 species. As small as the Ruby-throated is, it is not by any means the smallest hummer: That distinction belongs to the Bee Hummingbird of Cuba, which at 0.07 oz. is the smallest warm-blooded animal in the world!

Besides their small size, several other features distinguish hummingbirds from other birds. First is the length of their bills, evolved for probing different kinds of flowers for nectar. These bills exhibit a great deal of variation in length and shape, and in many cases are adapted to feed at only one or two species of flowers, preventing hummingbirds from competing with related species and allowing them to partition and share resources. A hummingbird's tongue is even longer than its bill, and recent studies have shown it to work rather like a pump in drawing up nectar from a flower. During their visits to flowers, hummers become covered in pollen, and so help fertilize the flowers that they visit.

A second feature distinguishing hummingbirds is their ability to hover in one place and the wing structure that facilitates this. Scientists know that a hummingbird beats its wings twenty to eighty times a second, but scientists have confirmed that during its courtship flight, a Ruby-throated Hummingbird flaps its wings 200 times per second! Studies have also shown that the hummingbird's down stroke supports three-

fourths of its weight, and the up stroke supports the remaining quarter. In all other flying birds, one hundred percent of the weight is supported by the down stroke. The wings rotate from the hummer's shoulder in a horizontal figure eight, and this permits the forward thrust to be canceled by a "backstroke," permitting the bird to hover. Scientists have also discovered that the hummingbird's brain functions somewhat differently from most animals. The brains of most animals are wired to prefer a forward motion (we humans are unique in our ability to move forward, backward, and side-toside, although we too prefer forward motion). Scientists have discovered that. unlike any other animals they have worked with, the hummingbird's brain appears not to show a preference in any direction to what it sees; it responds equally to movement in all directions.

Attracting Hummingbirds

There are several ways to attract hummingbirds to your garden. The simplest way is to put out one or more hummingbird feeders. Garden centers offer a variety of designs, some of them very ornate and elaborate (and expensive!). The most effective feeders I use, however, come from a dollar store and cost . . . a dollar! I hang the feeders on branches and shepherd's hooks from three to five feet above the garden.

Stores also sell "nectar" for these feeders, but I prefer to make my own. I dissolve one cup of sugar into four cups of

hot water. There is some debate over the kind of sugar, the source of the water, etc. I have decided that if I can drink the water and use the sugar in my iced tea, I can share it with the birds.

Let me caution you about red dyes: DO NOT DYE YOUR NECTAR OR USE DYED NECTAR! There is credible concern about the chemicals used to dye the product. Another caution: Change the nectar and clean the feeder every two or three days. The nectar will ferment, especially during the hottest part of the summer, and attract ants, bees, and wasps more than it does the birds.

Another approach to attracting hummingbirds is to garden specifically for them. An online search will reveal a score of book titles (as well as ornaments that attract more gardeners than birds), as well as almost seventy million online articles that address the how and why. Let me share what I have found effective.

As a rule, hummingbirds are attracted to tubular red flowers, and native species are preferable. In my garden, a bee balm variety called "Cambridge Scarlet" is the flower of choice. Hummingbirds also visit impatiens (I know: They are not native), purple coneflower, gladiolus, columbine, native bee balm, and red salvia. I recently planted some crocosmia (it was included in a bag of bulbs billed as a hummingbird and butterfly garden): the birds eventually visited the flowers.

A native flower I have not yet grown but which I have seen attracting the birds in forest preserves is the cardinal flower, which as its name suggests is red. Unfortunately, many flowers we desire in our gardens—think roses—do not attract hummingbirds. The birds (and butterflies, for that matter) are usually more attracted to the plainer, humbler varieties of flowers. Again, books and online resources provide exhaustive lists of what does work.

Additional Resources

The DuPage Birding Club is one of the largest organizations of its kind. The club's website may be found at

dupagebirding.org

The club posts a number of educational videos on YouTube, as well as having an informative Facebook page.

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By John Cebula Adapted from his book *Wild DuPage*

