

Meet the Pollinators: Ruby-Throated Hummingbirds

By Jill Eisenstein, Master Gardener Volunteer

"I don't know what they were fighting about. The two little birds went at each other with long beaks, rising higher and higher into the air until I could barely see them. They seemed determined to outperform each other with aerial acrobatics amid quick jabs. Then flashing green and red, the jewels dove straight down from the heavens and vanished."

Found only in the Western hemisphere, most of the over 300 known hummingbird species are primarily tropical, found in Central and South America and a few in the Caribbean.

The Ruby-throated hummingbird (*Archilochus colubris*) is the only hummingbird species to regularly breed in the Eastern United States. Weighing in at less than an ounce – it would take more than 150 of them to tip the scale to a pound – they seem unaware of their diminutive size. Fiercely territorial, they have been seen attacking blue jays, crows and even hawks that invade their territory. Some backyard birders report one dominate hummer that guards all the feeders, chasing intruders away.

These tiny birds come with a long list of superlatives. First, mental acuity and spatial awareness may give them bird bragging rights.

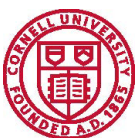
Hummingbirds have super memories – studies have shown how hummingbirds can remember their migration routes, including the yard and flowers they visited in the previous year – which allows them to migrate and feed more efficiently than many other bird species.

Body build also gives them reason to strut. Their lifestyle demands a lightweight, energy-efficient body. To that end, about 25 to 30 percent of a hummingbird's weight is in its pectoral muscles. And because of the structure of the wing joints, hummingbirds can rotate or twist the upper bones to invert their wings as they fly, making them the most agile birds on the planet.

And beauty? They are often called "jewels on the wing." Hummingbirds have the fewest feathers of any bird species in the world, but those throat feathers, the gorget, on the Ruby-throat turns heads with a dazzle of iridescent color. The colors do not come from pigments in the feathers but from



A flash of brilliant color! People love watching these birds visit their garden flowers.
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reflections of crystalline in their structural arrangement. Light level and angle, moisture, wear and tear, and other factors influence just how bright and colorful the gorget appears.

Hummingbirds are many gardeners' favorite pollinators to watch. The Ruby-throats have long, slender bills with a slight downward curve and fringed, forked tongues that they use to lick nectar from many brightly colored flowers (not only red!); this gives them the energy they need to fuel their high metabolism. As they move quickly from plant to plant, hovering just a moment at each, they carry pollen. For protein, they eat insects caught on the fly or spiders plucked from their webs.

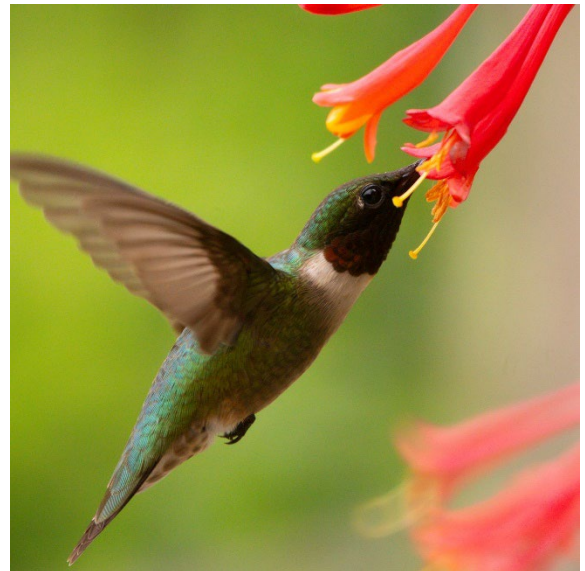
Have you ever been "scolded" by a hummer? Ruby-throated hummingbirds have a high-pitched, sharp chatter and sharp, high "pips" they will use when threatened or during courtship displays.

The hummingbirds that arrived a few months ago may have had one to three broods of chicks over the summer. Each female parent built a cup-shaped nest, lined it with fine plant fibers and down held together with spider web filaments, and trimmed it with moss and lichens for camouflage 5-20 feet above the ground. The plain, white oval eggs were smaller than jellybeans.

Our smart, feisty little jewels will be leaving any day now. The peak fall migration period for hummingbirds is from mid-July through early September, depending on the route and the exact species. Most Ruby-throated hummingbirds winter in Mexico, flying 500 miles nonstop across the Gulf of Mexico during both spring and fall migrations. They migrate individually (not in flocks) during the day and rest at night.

If you want to attract the smallest bird in the world to your backyard next spring, plant brightly colored native plants, at least some with tubular-shaped blooms. You can find appropriate plants for your ecoregion in this [native plant finder](#).

If you decide to hang hummingbird feeders, not necessary but fun for bird watchers, please keep your feeder clean and use sugar water with no honey, food coloring, or other impurities. Keep in mind, too, that larger creatures like bears and raccoons might also be attracted.



This male Ruby-throat is feeding from a native, coral honeysuckle or *Lonicera sempervirens*.
Photo T. Shahan via Flickr under CC 2.0

FUN FACTS

Hummingbird eggs are the smallest in the bird world. Their feet are also the smallest in the bird world.

Hummingbirds are the only birds that can fly in different directions. They can hover forward, backward, sideways, in mid-air, and even upside-down!

They don't "flap" their wings. The wings move in a figure 8 pattern, giving them better lift.

An average hummingbird's heart rate is more than 1,200 beats per minute. In comparison, a human's average heart rate is only 60 to 100 beats per minute at rest.

Hummingbird bills don't suck up nectar. Capillary action along the fringe of a hummingbird's tongue helps draw nectar up into its throat so the bird can swallow.

Hummingbirds use up a lot of energy for flight. Some need to consume half their total weight in sugar each day; for a 3-gram Ruby-throat, this may represent 50 to 60 full course meals a day to get 1.5 grams of sugar. Good thing they digest natural sucrose—the sugar found in floral nectar—with 97 percent efficiency for converting the sugar into energy!

References

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