

# The Outside Story



## Ruby-Throated Hummingbirds

By: Susan Shea

Zzz-zzzt. Sitting on my deck on a summer afternoon, I'm often distracted by a hummingbird whizzing by. The tiny bundle of energy hovers in front of a row of jewelweed, probing each pendulous orange flower with its long beak, then backs up and darts to the next. My dozing cat raises his head and observes the hummingbird as it zips by, heading for the cardinal flower. "Don't you even think it," I admonish him.

This bee-like creature is a ruby-throated hummingbird, the only species of hummingbird found in our region. Iridescent green with a white breast, it is named for the male's scarlet throat (the female has a white throat – as do this year's little ones of both genders). Ruby-throats weigh only 0.1 to 0.2 ounces, less than a nickel. Kent McFarland of the Vermont Center for Ecostudies, who has

banded these birds, commented, "when you have one in your hand, it is shocking how small they are."

Ruby-throats feed both on nectar and small insects caught on the wing or near flowers, such as fruit flies, mosquitoes, gnats, small bees and spiders. In spring, before most flowers are blooming, they visit holes drilled in trees by yellow-bellied sapsuckers to drink sap and consume insects attracted there.

Hummingbirds sip nectar from flowers using a rapid licking motion of their long tongues. High-speed videography shows that they can extend and retract the tongue 13 times per second, said McFarland. With a wing beat of over 50 times per second when hovering, these birds have high energy requirements and must feed frequently, visiting thousands of flowers a day. They're effective pollinators. Ruby-throated hummingbirds are known to pollinate over 30 plant species in North America.

Many of these plants have evolved to attract hummingbirds and facilitate the transfer of pollen. For example, the jewelweed flowers in my backyard are designed for hummingbird pollination. They dangle from a long stalk and move easily. An experiment revealed that the flowers' movement helps to transfer the pollen, daubing the hummingbirds' beaks and heads. Another study showed that jewelweed produced more seeds when visited by ruby-throats and insects than when visited by insects alone.

Many flowers pollinated by hummingbirds are red or orange, which may make them

more conspicuous to the birds. They also often have adaptations to reduce competition by insects for nectar. They may have no fragrance, be tubular (and therefore require a longer reach to access the nectar) and have thickened tissue around the base to prevent insects from chewing their way through.

Ruby-throats winter in Central America and migrate northward in the spring, an amazing journey of up to 2500 miles over land and water for such a tiny bird. Late frosts that kill flowers can be a problem for them. I once observed several hummingbirds buzzing around inside a greenhouse when flowers were scarce outside. On cool nights, hummingbirds may go into torpor. Their body temperature drops significantly, and heart and breathing rate slow so they use less energy. As the day warms, their metabolism speeds up again. During nesting season, male hummingbirds establish a territory that includes an abundant food supply to attract females. Males may mate with more than one female, and will aggressively chase other males and even bees away from food sources.

If you'd like to observe hummingbirds, feeders are generally safe for the birds, according to McFarland. He recommends adding table sugar to boiling water in a 1 to 4 ratio, with no red dye. It's important to clean feeders weekly in warm weather to avoid spreading disease. Hummingbird feeders should not be placed too close to windows as the birds may fly into them.

McFarland recalled one spring when he forgot to put out his hummingbird feeder.

He looked out his kitchen window and saw a male ruby-throat hovering right where the feeder used to be — probably the territorial male from last year. “Even though their brains are only the size of our pinky fingernail, they will remember,” said McFarland.

You can plant flowers to attract hummingbirds. A successful hummingbird garden should include their favorite flowers, have flowers in bloom all season long, contain trees and shrubs that provide cover and perching spots, and include a shallow water source with a dripper or mister. Favorite hummingbird flowers include scarlet sage and other *Salvias*, red bee balm, cardinal flower, spotted jewelweed, red zinnia, trumpet honeysuckle, columbine, Mexican cigar plant, honeysuckle fuschia, and trumpet creeper.

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