NATURE DETECTIVES

Summer2022

Hummingbirds Are In a Hurry!

With wings softly whirring, the **broad-tailed hummingbird** hovered, dipping her narrow bill into the red base of a sugar water feeder. She licked the sweet liquid, flicking her tongue in and out 13 times in just a second! The shrill buzzing of an incoming male broad-tail cut her meal short. Quickly she flew sideways then up and away. She caught a glimpse of the male's rosy-red throat feathers glinting in the sunlight as he took her place at the feeder. Glad for her quick drink, she zoomed off to search for small insect and spider prey.

She snatched a tiny caterpillar and raced to her nest to feed her two nestlings. All day, she made frequent trips to nearby wildflower patches for sugary nectar. She nibbled tiny flies, aphids, and caterpillars off plants. She plucked gnats out of the air to nourish herself and her hungry, growing brood. At dusk she was back at the feeder to lap up sugar water for enough energy to last the night.

Hummingbirds Zoom South As Summer Winds Down

Pull Out and Save

The **rufous hummingbird** was in a hurry to get back to Mexico. In early spring he'd found a territory far north in Alaska that included a lush area of wildflowers. He chased off other rufous males and waited for rufous females to begin arriving from Mexico. After he mated with nearby females, his biological clock signaled time to head south.

Although his spring migration was northbound up the west coast, he flew south toward Mexico along the Rocky Mountains where summer wildflowers bloom.
He stopped frequently on his 2000 mile journey to refuel with just enough sweet nectar to stay agile for quick, acrobatic flight. When he located an abundance of flowers or sugar water feeders, he stayed for a few days.

In July he reached Colorado. From a lookout perch on a high branch, he fiercely guarded his refueling stop from other hummingbirds. In sunlight his throat feathers winked orange like embers glowing at the bottom of a campfire. The larger broad-tailed hummingbirds darted in for quick nectar sips before the rufous saw them. The broad-tails were preparing for their own migration south.

A constant fight for survival drives a rufous hummingbird's aggressive competition and a broad-tailed hummingbird's seemingly rude behavior.

Broad-tailed Hummingbirds, the Flying Jewels of Spring

You might hear a male broad-tail near the end of April when he buzzes by the window where a feeder hung the previous summer. Males arrive first to claim a territory with a variety of plants for food and shelter. Broad-tails are our largest and most common hummingbird. They migrate up from Mexico where they are called *Zumbador Cola Ancha*. *Cola Ancha* translates to *wide tail* in English. Zumbador translates to *buzzer*, and these hummingbirds are known for the males' buzzing trill as they fly.

The shrill sound is attractive to female broad-tails, but it can be a territory challenge as well. Trilling is made by air moving over two long, narrow-tipped feathers on each wing. Feathers wear down with use so by the time winter comes, the males' trill is softer or silent. Once the birds molt, new wing feathers make the trilling sound as loudly as ever.

Male broad-tails also perform flying high dives to impress nearby females. Mating is the only time adult male and female hummingbirds are together.

A female will defend a territory from other female broad-tails. She looks for a protected place with shrubs, trees, and open meadow to build a nest. It takes about five days to construct the cozy cup-like nest. She starts it on a tree or shrub, often sheltered overhead by a drooping pine tree branch. She makes foray after foray to collect downy fuzz from flowering aspen and willow catkins. Carefully she weaves the fluffy material together with spider web threads. As she gathers spider webbing, she may dine on insects caught in the web, or munch the web-spinning spider. The nest outside is decorated with pieces of moss, lichen, or bits of bark. Two pea-sized eggs are laid inside. Stretchy spider web allows the nest to expand to fit the nestlings' growing bodies. By the time the fledglings fly off, the nest cup may look more like a flat saucer.

Stocky Rufous Are Tough Little Hummingbirds

Called *Zumbador Canelo* in Mexico, rufous have a reputation for their aggressive defense of feeders and flowers, despite having shorter, stockier bodies than broad-tails. *Canelo* translates to *cinnamon* in English, and rufous males are readily identified by that reddish-orange color and by their glittering copper-colored throat feathers. Females are mostly duller green, similar to female broad-tails.

Rufous nest farther north than any other hummingbird species. Luckily, they can survive frigid 0º temperatures! Rufous migrate up the Pacific Coast to nest in the Northwest U.S. or further into Canada. Some nest as far up as southern Alaska.

Delicate Calliopes, the Smallest Nesting Birds in North America

Calliope hummingbirds may be smaller than other Colorado hummingbirds, but they are mighty. They are the smallest long-distance migrant in the world! They are uncommon in Boulder County, but these little hummingbirds are easy to identify, especially when next to bigger species. The males are particularly showy with ribbons of shimmering reddish-purple feathers streaming off their throats. Calliopes migrating through Colorado to Mexico come from as far away as Canada, and show up in the foothills and mountains here in July and August.

Look for Black-chinned Hummingbirds in the Foothills

These rufous-sized migraters seldom stray from higher elevations, and are uncommon in our county. A streak of iridescent purple shimmers below the dark feathers on **black-chinned hummingbirds**. Besides the male's color, watch for tail pumping. For some reason, black-chinned hummingbirds pump their tail more than other hummingbirds.

Hummingbird Adaptations for a Sweet Life

Hummingbirds are smart. They remember migration routes and where the best food sources are located year to year. More importantly, they are curious and willing to adapt to changing conditions. During migration in early spring, they often encounter cold and snow that could be deadly if they didn't have the ability to go into a sleeplike state called **torpor**.

During torpor a hummingbird's energy needs plummet. Their heartbeats slow from 1250 beats a minute when flying and 250 beats when resting to a mere 50 beats a minute. Breathing also slows and their body temperature drops as much as 50 degrees. With reduced energy needs, they can survive cold nights, stormy days, and even a lack of food for a short while.

Acrobatic flight gives hummingbirds an edge on anything trying to catch them. They can speedily zip sideways, up, down, frontwards, backwards, and upside down. Such flight is possible because of the way their shoulders allow their wings to move in a unique figure eight pattern. Their wings make a humming sound as they beat 50 times a second or more, so fast our eyes see the wings as a blur.

The feet and legs on hummingbirds are thin and delicate. They cannot walk or hop. Feet are handy for perching, gripping, scratching, and preening. (Preening is cleaning and straightening their feathers.) Beautiful iridescent feathers on these birds glimmer with bright color only in sunlight. The sparkling throat patch is called a gorget. (*Gorget* rhymes with *poor pet*.) Juveniles avoid being harassed by adult males because the youngsters look like females. The young males' fancy feathers develop their second year.

Hummingbirds and Flowers Need Each Other

Hummingbirds have a long narrow bill and a tongue that can reach well beyond the tip of their bill. The hummingbird's flexible tongue acts like a pump to lap up nectar deep inside a flower. While the hummingbirds sip the nectar, pollen gets brushed onto the bird's feathers. The birds carry the pollen from flower to flower, and flowers need the pollen to make seeds.

Tubular flowers like salvia, penstemon, and columbine are hummingbird favorites. Look for some tube-shaped flowers on your next hike. Stay still and watch for hummingbirds hovering at the flowers. See if you can tell if they are males or females. For a bigger challenge, can you name the species? It might be fun to make a list of what you see.

Healthy Habitats for Hummingbirds

Hummingbirds sip nectar from flowers of all different colors, but they see darker colors like red and ultraviolet colors really well. (Bees and wasps are more attracted to yellow and other light-colored flowers. Humans can't see ultraviolet.) Keeping flowers free of pesticides is vital because hummingbirds need the tiny critters that thrive in a healthy ecosystem such as spiders, aphids, caterpillars, and their eggs.

Hummingbirds quench their thirst with nectar, but they play and bathe in fresh water. Dripping, bubbling, or misting water is particularly inviting to them. Trees and shrubs provide safe perches, look-outs, and shade.

Gardening for Hummingbirds

The loss of native plants due to climate change is challenging for hummingbirds since they need frequent food stops along their migration path. People can help hummingbirds by growing a native wildflower garden with a variety of flowers, insects, and little spiders.

Water sources, flowers, and feeders don't hold hummingbirds back from migrating when their instincts tell them it's time hurry on their way. The flashy flyers are here and gone on their own schedule. Some of our hummingbirds nest in the mountains and foothills, staying long enough to fledge young. Others simply stop for a few days or minutes to recharge along their migration route. Some are early migraters and some are stragglers. Whether they arrive early or late, a safe refuge may entice them to return year after year. Hummingbirds can live more than eight years. A few have returned to the same garden for 12 years.

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