The Amazing Hummingbird

Drs. Foster & Smith Educational Staff

Hummingbirds may be the smallest birds to visit your yard, but their amazing traits and capabilities make them giants in the avian world. Part of the Trochilidae family, one of the largest bird families, these migratory birds are found only in the Americas, ranging from Alaska in the north to Tierra del Fuego in the south. Most people want to attract these lovely birds during the breeding season, and we'd like to show you why they're adored so greatly.

Jewel-like Color

Though males are more colorful, the iridescent, jewel-like coloring typical of hummingbirds can be seen in both sexes. Green is the most common iridescent color on hummingbirds. This striking color trait is the result of a combination between pigmentation and refraction. The feather structure itself holds pigment, but the beautiful rainbow of color changes we see on the plumage is due to the distance between microscopic ridges in feather structure, the angle from which the feather surface is viewed, and the amount of light shining upon the plumage.

Though this iridescent plumage looks beautiful to the eye, it cannot be reproduced using standard still photography methods. In other words, a photo of a male hummingbird is not nearly as lovely as the real thing.

Fairy-Tale Flight

Hummingbirds have set the bar high in flight capabilities. These are some quick flight facts.

- They can rotate their wings in a circle, making them the only birds that can fly forward, backward, up, down, sideways and even upside down.
- They are the only birds that can hover - simply by moving their wings in a repeated figure 8 motion.
- Those that migrate over the Gulf of Mexico can do so in a 500-mile non-stop flight.
- They can muster flight speeds of 25-30 mph, or 60 mph when diving.
- 30% of their body weight consists of flight muscles.
- The Giant Hummingbird's wings beat at 8-10 beats per second, the wings of the Rufous and Ruby-throated beat about 50-70 beats per second, and the wings of Amethyst Woodstars and Bee hummingbirds beat 70-80 beats per second in normal flight and up to 200 beats per second in courtship dives.
- Hummingbirds are known to dive bomb hawks and other predators if they get too close to hummingbird territory.
- Their wings make a low buzzing sound when they fly - thus giving them their name.
- Because of their small size, they build up very little momentum when flying, so they're able to stop suddenly and make a soft landing.

Miraculous Metabolism

Hummingbirds have an amazing metabolism and appetite. It takes a lot of energy to keep them going. They eat as many as 10 meals per hour during the daytime, with each feeding time lasting about 30-60 seconds. They consume almost their entire

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*

body weight (3.5 grams) in sugar each day, visiting hundreds of flowers to accomplish this goal. Imagine the number of calories a human would need to eat each day to consume its body weight in energy!

A hummingbird's body temperature is much higher than a human's also, at about 105-108 degrees Fahrenheit. Hummingbirds need to consume lots of calories because of their high heart rate, their high activity level, high body temperature and small body size. It takes even more energy to keep them going when the temperatures are cold.

Luckily, hummingbirds have the ability to induce a state of torpor on cold nights. They can drop their body temperature by about 30 degrees Fahrenheit, which saves the calories required to maintain their normal body temperature. This is how they keep from starving over long cold nights when they cannot feed as often as during the day.

The heart rate of the Ruby-throated beats about 250 times per minute while at rest, and about 1,220 per minute while flying.

The Smallest of Size

The Bee hummingbird, the smallest of all birds, is about 2" long and weighs only about 1.8 grams. Hummingbirds like the Ruby-throated and the Rufous weigh about 3-4 grams. A nickel weighs 5 grams! The Giant hummingbird can weigh 18-20 grams and measure 8-1/2" long.

Oftentimes, migratory hummingbirds will nearly double their weight before their long migratory journey.

Hummingbird feet are almost useless except for perching. If they choose to travel just a couple of inches, they must fly. Even when they leave a perch, their lift comes entirely from their wing power; they do not push off with their feet.

Diet

The major portion of a hummingbird's diet is from nectar. They get nectar from flowers and also from man-made feeders. Their long, slender bills can be seen probing deeply into the center of tubular flowers.

They also enjoy a little help from humans. Anyone who hangs a nectar feeder should use only table sugar in the nectar, not honey or artificial sweeteners. Honey can produce bacteria that's toxic to hummingbirds, and artificial sweeteners do not deliver the calories hummingbirds need to maintain their metabolism.

Hummingbirds also need protein to keep their muscle mass, so they eat small insects. Their long tongues can catch insects in the air and also from spiderwebs and leaves.

Hummingbirds compete fiercely for nectar and insects. They often fight over feeders, sometimes colliding bills in an attack against an intruder. If you hang nectar feeders, hang several in various locations throughout your yard to keep an aggressive hummingbird from monopolizing a single feeder.

Courtship and Nesting

The male delivers spectacular j-shaped flight displays to attract his female mate. At key points in his dive, he may buzz, whistle, or make popping sounds using his wing feathers and vocal cords. The female may, from a perched position, spread her tail feathers to show the white tips. Both sexes may perform shuttle flights, rapid back and forth flight displays in front of the other.

Males do not mate for life; they are considered polygamous and may be involved with several females in a single nesting season. The male doesn't stay around to help build the nest or care for the babies, either. The female does the nest building, feeding, and fledging without help of the male.

Why you Should Attract them to your Yard

Hummingbirds are great pollinators, giving beautiful blossoms and luscious fruit to many flowers and garden foods. Since they also eat small insects and spiders, they help control mosquitoes and other insect pests in your yard.

The sheer joy of watching a hummingbird is probably your greatest reason to attract them. One encounter with them (you usually hear them before you see them) and you'll have a lasting memory.

In order to attract them, as mentioned above, you can set out several nectar feeders in varying locations in your yard. Be sure to clean the feeders and change nectar every 3 days or so in warm weather. You can also plant tubular-shaped flowers like honeysuckle, columbine, trumpet vines, salvia, petunias and similar. Even if you don't have a yard to plant flowers, you can use hanging baskets and containers to grow flowers hummingbirds enjoy.

Related Products

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*

Ultimate Blend Hummingbird Nectar

Enjoying Hummingbirds More

24 oz Glass Hummingbird Feeder

*Unauthorized use of any images, thumbnails, illustrations, descriptions, article content, or registered trademarks of **Foster & Smith, Inc.** is strictly prohibited under copyright law. Site content, including photography, descriptions, pricing, promotions, and availability are subject to change without notice. These restrictions are necessary in order to protect not only our copyrighted intellectual property, but also the health of pets, since articles or images that are altered or edited after download could result in misinformation that may harm companion animals, aquatic life, or native species.*