

# SCIENCE QUEST GAZETTE



Volume 6

February

## Heron and the Hummingbird

Heron and Hummingbird were very good friends, even though one was tall and gangly and awkward and one was small and sleek and fast. They both loved to eat fish. The Hummingbird preferred small fish like minnows and Heron liked the large ones.

One day, Hummingbird said to his friend: "I am not sure there are enough fish in the world for both of our kind to eat. Why don't we have a race to see which of us should own the fish?"

Heron thought that was a very good idea. They decided that they would race for four days. The finish line was an old dead tree next to a far-away river. Whichever of them sat on top of the tree first on the fourth day of the race would own all the fish in the world.

They started out the next morning. The Hummingbird zipped along, flying around and around the Heron, who was moving steadily forward, flapping his giant wings. Then Hummingbird would be distracted by the pretty flowers along the way. He would flit from one to the other, tasting the nectar. When Hummingbird noticed that Heron was ahead of him, he hurried to catch up with him, zooming ahead as fast as he could, and leaving Heron far behind. Heron just kept flying steadily forward, flapping his giant wings.

Hummingbird was tired from all his flitting. When it got dark, he decided to rest. He found a nice spot to perch and slept all night long. But Heron just kept flying steadily forward all night long, flapping his giant wings.

When Hummingbird woke in the morning, Heron was far ahead. Hummingbird had to fly as fast as he could to catch up. He zoomed past the big, awkward Heron and kept going until Heron had disappeared behind him. Then Hummingbird noticed some pretty flowers nearby. He zip-zipped over to them and tasted their nectar. He was enjoying the pretty scenery and didn't notice Heron flap-flapping passed him with his great wings.

Hummingbird finally remembered that he was racing with Heron, and flew as fast as he could to catch up with the big, awkward bird. Then he zipped along, flying around and around the Heron, who kept moving steadily forward, flapping his giant wings.

For two more days, the Hummingbird and the Heron raced toward the far-distant riverbank with the dead tree that was the finish line. Hummingbird had a marvelous time sipping nectar and flitting among the flowers and resting himself at night. Heron stoically kept up a steady flap-flap-flapping of his giant wings, propelling himself forward through the air all day and all night.

Hummingbird woke from his sleep the morning of the fourth day, refreshed and invigorated. He flew zip-zip toward the riverbank with its dead tree. When it came into view, he saw Heron perched at the top of the tree! Heron had won the race by flying straight and steady through the night while Hummingbird slept.

So from that day forward, the Heron has owned all the fish in the rivers and lakes, and the Hummingbird has sipped from the nectar of the many flowers which he enjoyed so much during the race.



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# Hummingbird

Hummingbirds include the smallest birds in the world but they belong to one of the largest families of birds. These enchanting birds are found in deserts, mountains, and plains, but most are found in the tropical rain forests. Their name refers to the humming sound made by their tiny beating wings. In the Caribbean people call them *el zunzun*.

There are more than 300 kinds of hummingbirds. The smallest is the bee hummingbird *Mellisuga helenae* from Cuba; the largest is the giant hummingbird *Patagona gigas*. Hummingbird bills come in different sizes and shapes, too. The long slender bill is adapted for collecting nectar from flowers. The bills protect their long split tongues and allow each kind of hummingbird to feed from specific types of flowers. Hummingbirds are called "nectivores" because about 90 percent of their diet is nectar from flowers. They also snack on insects now and then, which they often catch by "hawking." A hummingbird "hawks" insects by flying and diving to snap them up out of the air.

Even though hummingbirds are small in size, they have large appetites. Hummingbirds consume between 3.14 and 7.6 calories a day. That may not seem like much, but if humans (who may eat 3,500 calories a day) had the metabolism of a hummingbird, they would have to consume approximately 155,000 calories a day. That's about 77 times as much as most humans eat! The hummingbirds' need for lots of calories is because of their high heart rate and small body size. Because they eat so much, they must digest their food quickly. A hummingbird can digest a fruit fly in 10 minutes. Thousands of New World plants rely on hummingbirds for pollination. Hummingbirds like flowers that are bright and that open during the day, when hummingbirds are awake.

Hummingbirds come in all colors of the rainbow. Some of their feathers actually change color as they move in the light. Hummingbird common names such as green-crowned comet, sapphire-vented puffleg, and ruby-throated hummingbird describe their beautiful, fancy feathers. In the mid-1800s, hundreds of thousands of hummingbirds were killed for their feathers and some species almost became extinct. Luckily, people today realize that the feathers look much better on the birds!

Hummingbirds are not very social animals, which is why you never see them flying in flocks. In fact, males and females live apart until breeding season. Usually a male will call to a female and show her his beautiful feathers. Some male hummingbirds attract a female by forming a lek. A single lek can include up to 100 males. If a female seems interested in one of the males, he may perform a flying dance for her in the air. Once they mate, the female is on her own to build the nest and raise her young. The eggs of the smaller hummingbirds are the size of a coffee bean. Hummingbird babies are blind when they hatch. They have only a little down on their bodies and bumps for bills. These tiny chicks are very vulnerable, and sometimes their predators include large insects! Fortunately their mothers are very protective.

If a hummingbird sees a hawk or some other bird of prey that it doesn't want in its territory, it will give a high-pitched warning and start doing dive attacks. Then other hummers and even birds of different species often join in to dive-bomb the hawk until they chase it away. The hummingbird is fearless because it can outmaneuver everything, unless it is taken by surprise. When it comes to flying, nobody does it better. Like a helicopter, a hummingbird can go up, down, sideways, backwards, even upside down! This is because most of its wing is made of hand bones instead of arm bones like other birds. Hummingbirds also have muscles that power both the up and down stroke instead of just the down stroke as in other birds. They can beat their wings up to 200 times per second. Hummingbirds are such good fliers that most of them never walk as far as 2 inches (51 millimeters).

In general, all wild animals do not make good pets. Hummingbirds have a specialized diet that is difficult to duplicate, so they would be hard to feed properly, and they might get sick and die too soon. They prefer to live in a large territory, where they can use their specialized flying skills to find food and mates, which would be difficult to provide for a pet. They are also territorial and very assertive, bold little birds, and it is unlikely they could be the affectionate companions that people expect of their pets.

Some hummingbird species have adapted to the presence of humans. It is important to keep native plants in hummingbird habitat so the birds still have food available. Gardens that include hummingbird-friendly flowers have helped strike a balance with human presence in hummingbird habitat. However, in many parts of the world the human population is growing so fast that hummingbirds are losing their habitat. The easiest way to save animal habitat is by recycling and buying recycled products. By reducing the amount of resources we use from nature, we leave more habitat for the animals, small and large.