

# WILD GUIDES

## ZOOMING IN ON THE SOUTHWEST!



Adult male Blue-throated Hummingbird

photo courtesy Jack Milichanowski

### THIS EDITION'S FEATURED CREATURE: **HUMMINGBIRDS!**

Hummingbirds are the smallest birds in the world. They only live in North America, Central America and South America. There are nearly 340 different species of hummingbirds. As you move closer to the equator, the number of hummingbird species increases; the number of species decreases as you move north and east. Many people call hummingbirds “hummers” for the sound they make when they fly by. The Cuban Bumblebee Hummingbird (scientific name *Calypte helenae*) is the smallest of all. This tiny bird measures a little more than 2 inches from the tip of its bill to the tip of its tail and weighs only 2 grams, less than a penny! The largest is the Giant Hummingbird (*Patagona gigas*) that lives in the Andes Mountains of South America. It measures about 8 inches long and weighs more than many of our small songbirds.

### HUMMINGBIRDS IN NEW MEXICO

In North America there are 26 different species of hummingbirds and most of these can be found in the U.S. Southwest. New Mexico has 18 species and, of these, 7 species use our state for breeding throughout the Spring and Summer – building nests and raising families. At lower elevations (*elevation* is measuring how high the land is compared to sea level) you can find nests of the Black-chinned Hummingbird. Higher in the mountains you can search for nests of the Broad-tailed Hummingbird. Other species that can be found nesting in New Mexico are the Violet-crowned, Anna's, Lucifer, Magnificent, and Blue-throated Hummingbirds.



photo© Ross Hawkins

Annas Hummingbird

## HUMMINGBIRD NESTS

Hummingbird nests are made of soft plant fibers such as Apache Plume and cattail fluff, along with soft animal hair. These are held in place with spider webbing. The cup-shaped nest is usually secured



onto a branch of a tree to protect the nestlings from harsh weather and predators. The female hummingbird does all the work. Once the nest is built, she covers the nest with lichens and moss to help camouflage it (*camouflage* is when an animal or its home blends into its surroundings). This camouflage also helps protect the nest and baby birds from predators, including other birds, insects and even small mammals.



*Adult female Black-chinned sitting on her nest.*

The mother hummingbird lays two eggs and they will hatch in 19 to 21 days. She sits on her nest to incubate her eggs, looking much like a fancy lid on a tiny bowl. When the young are hatched, the elasticity of the spider webbing allows the nest to expand as the chicks grow – just like pulling on a rubber band – giving them more room. Nests can be found near to the ground or very high up; some have even been found in the links of a chain or on top of a wind chime in the garden, so keep your eyes open around your house and community. But remember, do not get too close to a nest.

photos courtesy Jess Alford & Joan E. Day-Martin

## FLOWERS & BUGS & WATER



*Many flowers are an inviting source of food.*

Hummingbirds are easy to tell apart from other birds because of their long, slender bill. The hummingbird's long bill allows it to reach the nectar of flowers. As they lap up the nectar with their tongues, they may come into contact with the pollen (*pollen* is part of what a plant needs to create a seed). As they feed, pollen may stick onto their feathers, under their bills or on their heads, depending on the shape of each particular flower. When the tiny bird visits many flowers, this pollen is exchanged among the flowering plants. Sharing one flower's pollen with another flower creates the act of *pollination*. Butterflies and many moths share pollen among flowers, too.

Because protein is very important in a hummingbird's diet, they sometimes will "hawk insects." They will hover like a helicopter in a group of gnats and are skilled at catching the gnats in the air. They have also been seen snatching bugs from spider webs, picking bugs off plants and eating tiny insects that have become trapped in tree sap.

Almost all animals, including people, need water. So do hummingbirds. Someday you might see a hummingbird taking a drink from a sprinkler or a fountain just like you at a water fountain.

## MAGICAL COLORS IN TINY FEATHERS

The famous naturalist and artist John James Audubon described hummingbird feathers as “glittering fragments of the rainbow.” In the world of hummingbirds, the bright gorget (feathers on the throat) and sometimes the tops of their heads are made up of layers of feathers. Hummingbirds have the ability to adjust their feathers so that sometimes we see their bright colors and other times not, depending on the reflection of light on them.

Because hummingbirds are so small, they don't have as many feathers as some larger birds. They may have just 1,500 tiny feathers compared with a Mallard duck that has over 12,000 or a swan with more than 25,000.



photo courtesy Joan E. Day-Martin

Adult male Lucifer with his “lights” on.

## HOW DO THEY FLY?



photo© Ross Hawkins

Annas Hummingbird

Although you may think that a hummingbird is the fastest of all birds when they zip by you, they only travel about 30 miles per hour. They seem so fast because they are so small and small objects appear to travel faster than larger objects. A Broad-tailed Hummingbird may reach 70 miles per hour when it dives. The Peregrine Falcon is the fastest bird recorded at 175 miles per hour when diving after a meal.

Hummingbirds fly forwards, sideways, backwards and even upside down! They have the ability to hover while feeding from wildflowers or when they are taking in a “bird's eye view” from high above the ground. The bones in the wings of a hummingbird can move more easily than the bones in our arms, which allows for this acrobatic flight. They move their wings in oval and figure 8 patterns, which allows hummingbirds to do backward somersaults, hover, dive or just buzz straight ahead. Medium sized hummingbirds in North America, like the Broad-tailed or Ruby-throated, beat their wings an estimated average of 76 times per second! Can you flap your arms 76 times per second? That requires strong flight muscles, and in some species, such as the Rufous, those muscles make up almost one-third of its total body weight.

## MIGRATION – LONG-DISTANCE TRAVELERS

While many kinds of hummingbirds do not migrate (*migration* is moving from one place to another with the changing seasons), some travel great distances. The Rufous Hummingbird, seen during the summer in New Mexico, may travel 2,000 miles from Mexico in the winter, to the Pacific Northwest and Alaska in summer in search of flower nectar for food.

In preparation for migration a hummingbird may double its body weight. This extra weight is then burned off during its travels. The Ruby-throated

Hummingbird, one that is most commonly seen in the eastern U.S., really needs to plump up for its migration over the Gulf of Mexico. There is no place for it to stop over the open water and high winds or hurricanes can make the journey especially dangerous. When they arrive on land again, they must find food quickly, as well as get plenty of rest.

While our hummingbirds in New Mexico do not migrate over the Gulf of Mexico, they do travel great distances, stopping at flowers and hummingbird feeders along the way.

## TAKING CARE OF HUMMERS



photo courtesy Joan E. Day-Martin

### PUT OUT A HUMMINGBIRD FEEDER:

The proper mixture for making home-made nectar is 1/4 cup of sugar thoroughly dissolved in one cup of water. It is easiest to do this by gently heating the water and sugar mixture and then letting it cool. Change the nectar in the feeder every 3 days or so and clean the feeder well before putting in new nectar each time.

**CREATE A HUMMINGBIRD GARDEN:** Many nurseries and books can tell you which flowering plants attract hummingbirds in your area.

**KEEP YOUR CAT INDOORS:** Cats that go outside kill millions of birds each year. Please do not let your cat run loose outdoors.

## CITIZEN SCIENCE

### COLLECT DATA AND HELP SCIENTISTS

Cornell Laboratory of Ornithology and the National Audubon Society operate the BIRDSOURCE web site, [www.birdsource.org](http://www.birdsource.org). There you can find citizen science projects, such as The Great Backyard Bird Count and Project Feeder Watch for individuals and classrooms. Observe birds, collect data, and share your information on the Web!

## T H A N K   Y O U !

This *Audubon Adventures* supplement was written by Joan E. Day-Martin, founder of Hummingbirds of New Mexico [www.hbnm.org](http://www.hbnm.org)

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