

Albuquerque's Amazing Hummingbirds

By Christopher Witt, UNM Assistant Professor Bird Curator, Museum of Southwestern Biology

Hummingbirds provide a wildlife spectacle in Albuquerque for about six months of every year. They are so ubiquitous and accessible here that we tend to take them for granted. To keep things in perspective, I always recall the story related by my graduate advisor, Dr. Van Remsen, about the Japanese exchange student who came to the New World for the first time (there are no hummingbirds outside of the Americas). The student arrived at night, and the next morning, Dr. Remsen stood him next to a hummingbird feeder that was swarming with hungry, migrating hummingbirds that were dipping, diving, chasing, and drinking, with wings whirring around his head. After about a minute, the exchange student collapsed to his knees and began bawling with tears of wonderment.¹

Hummingbirds weigh about as much as a penny, but their diminutive size is only one of the things that makes them inspiring. Hummingbirds consume more than their body weight in food on a daily basis. To put this in perspective, world champion hot dog eater Joey Chestnut consumes about 7% of his body weight in hot dogs and buns during a contest. But Joey can't fly backwards, nor hover with pinpoint control even in high winds. Even more amazingly, hummingbirds can continue to fly at altitudes above Mt. Everest, where most humans would perish in minutes from lack of oxygen.² No animal of the African savannas, the Bornean jungles, the Malagasy thorn forests, or the Australian outback can burn energy as fast as our neighborhood hummingbirds, gram for gram. And these gluttonous, hyperactive animals live right outside our windows.

Hummingbirds live at such high speed (60 wing-beats per second) that many of their behaviors and displays were unknown before high-speed video cameras became available and affordable. Even now, nobody is really sure what the male black-chinned hummingbird does to produce the strange sounds that it creates at the bottom of its U-shaped display dive, even though the birds perform these dives in Albuquerque backyards all summer long.³

To consider yourself a reasonably well-informed citizen of the Duke City, you must know that the black-chinned hummingbird is the most common species in the area. It is the only hummingbird that breeds in town. The best way to recognize the species is not by the marks on its plumage (which are hard to see), but by its habit of constantly pumping its tail while hovering. The humming wings create a muted dry-sounding trill that is distinctive of the species and can only be heard from close range.

The broad-tailed hummingbird is the characteristic species of New Mexico mountains. It breeds in forests above approximately 6,000 feet. That means that most of us in Albuquerque need to drive up the foothills of the Sandias or the Jemez to find this species; we'll start noticing them around Cedar Crest or Jemez Springs. The wings of adult males make a conspicuous high-pitched, musical-sounding trill that is unmistakable.

Between elevations of 6,000 and 8,000 feet, the black-chinned hummingbird and broad-tailed hummingbird overlap and compete for nectar resources. UNM student Bethany Abrahamson is studying the interactions of these two species in this zone of overlap. She wants to figure out why the black-chinneds don't breed higher, and why the broad-taileds don't breed lower. To solve this mystery, she is observing hummingbirds and their competitive interactions at hummingbird feeders between the Rio Grande Nature Center and Sandia Crest.⁴

For New Mexicans, there are very few excuses for not feeding hummingbirds, especially if there are kids around to enjoy them. Hummingbird feeders provide cheap entertainment, but they are also great tools for doing science projects. They make it easy to quantify competitive behavior, food consumption, or hummingbird preferences for color, nectar concentration, or feeder location. With regards to feeding, there is an abundance of advice available on the internet, but most of it is excessively complicated. Here are my guidelines for keeping it simple: (1) Make nectar by mixing three parts water with one part sugar; (2) Rinse with water and refill the moment you see or smell fungal growth (every few days in summer, but up to two weeks in cool weather); (3) Use a wind-proof, bee-proof, ant-proof, leak-proof feeder.⁵



A hungry black-chinned at the author's feeder

Remember that hummingbirds are smart, tough, and adaptable, and it's unlikely that you could do harm to them by making mistakes in your feeding protocol. Nectar is highly variable in flowers, and hummingbirds can tolerate a wide range of sugar concentrations; one proven method to bring hummingbirds to your yard is to make sure that your nectar is slightly more concentrated than your neighbor's. If you feed regularly, hummingbirds will remember your yard and you will slowly build up a clientele just as the Nature Center feeders have done over the years. Even migrant hummingbirds *en route* from Alaska to southern Mexico have been known to stop over at the exact same backyard feeders from year to year. And lastly, don't forget to set up your chair by the feeder ... and observe.

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In the Nature Shop



Wings



Away!



With Summer Wings on the horizon, we're getting the bugs out — the bees, dragonflies, and hummingbirds, too! As you explore the vast world of small animals, discover again the curiosity and joy of a child in the waving antennae of a beetle, the weaving magic of a spider, and the foldaway tongue of a butterfly.

Toys and Gifts for Kids

- ▶ Two-way microscope (top and side), \$12.
- ▶ Butterfly Net with Wooden Handle, \$6
- ▶ Butterfly Stickers, \$1.
- ▶ Nineteen-piece Butterfly Building Set, \$18.
- ▶ Butterfly Bungalow: Box with Viewing Screen, \$5.
- ▶ Desert Toob, Insect Toob: Collectable Critters, \$9.99.
- ▶ Bug Vacuum for Catch and Release: \$9.
- ▶ Ant Universe, \$17.

Books for Kids

- ▶ Seymour Simon, Illustrations by Betty Fraser. *Pets in a Jar: Collecting and Caring for Small Wild Animals*. New York: Viking Press, 1975. \$6.99.
- ▶ Vickie Krudwig, Illustrations by Craig Brown. *Cucumber Soup*. Golden, CO: Fulcrum Publishing Co., 1998. \$16.95.
- ▶ Claire Llewellyn, Illustrations by Simon Mendez. *Starting Life: Butterfly*. Oxford: Andromeda Oxford Ltd., 2003. \$16.95.
- ▶ Nancy Parker & Joan Wright, Illustrations by Nancy Parker. *Bugs*. New York: Greenwillow Books, 1987. \$6.99.
- ▶ Sandra Markle. *Creepy Crawly Baby Bugs*. New York: Walker & Co., 1996. \$6.95.
- ▶ *Little Ladybug*. Finger Puppet Book, \$6.95.

Books and Gifts for Adults

- ▶ Kim Long. *Hummingbirds: A Wildlife Handbook*. Boulder: Johnson Books, 1997. \$15.95.
- ▶ Forrest Mitchell & James Lasswell. *A Dazzle of Dragonflies*. College Station: Texas University Press, 2005. \$39.95.
- ▶ Rose Houk. *Frequently Asked Questions About Hummingbirds*. Tucson: Western National Parks Association. \$5.95.
- ▶ Jim Peterson. *The Hummingbird Wheel*. Texas Parks and Wildlife, 1995. \$12.
- ▶ Hummingbird Earrings by Mary Gutierrez: Silver and Colored Glass. \$12-\$18.
- ▶ Handmade Painted Treasure Boxes by Melva Kellet, \$6-\$10.
- ▶ Sun Protection Hats in Blue and Brown. \$19-\$38.
- ▶ Judith Roderick Bird Cards. \$3.50 each.
- ▶ Friends' Logo Long-sleeve Tees for Adults & Kids. \$14-\$22.
- ▶ Hummingbird Photos by Celestyn Brozek: Black-chinned, White-throated Mountain Gem, Green Violet-ear, Broad-Billed. \$22 each.

¹To experience what the exchange student experienced, sit quietly and motionless next to one of the Rio Grande Nature Center hummingbird feeders during late summer.

²This is one of our latest findings from the field. To hear more about our hummingbird research at the UNM Department of Biology, visit: <http://biology.unm.edu/Witt>

³To slow down the world of the hummingbird, watch the spectacular PBS documentary, "Hummingbirds: Magic in the Air," which is available at pbs.org free of charge.

⁴Bethany is looking for help with this study, especially if you maintain a hummingbird feeder that you wouldn't mind her visiting. Contact her at babraham@unm.edu.

⁵We like the *Best-1* feeders, but use a piece of painter's tape on the threads before screwing it together to insure a tight seal. Use an ant-moat for neat and chemical-free ant protection (Duncraft makes one that is evaporation-proof). And if you live in bear country, use a long pole to hang feeders safely out of reach.

Chet Brown

The Staff and Friends of the Rio Grande Nature Center mourn the loss of volunteer Chet Brown, USAF Major (Ret.), who died March 13. Decorated combat veteran of the Korean and Vietnam wars, avid balloonist, and husband of former RGNC superintendent Karen Brown, Chet devoted head, heart, and handiwork to every kind of job that needed doing at the Nature Center. Beginning in 1991, he cut brush; built exhibits and the storage shed; designed, built, and installed shelves and sales cases in the Nature Shop and then sold merchandise there. He also trained as an interpretive naturalist, leading visitors of all ages through the park and into the bosque.

Chet Brown continues to fly high through this cottonwood forest.