

Hummingbird Day at UCSC Arboretum is March 4!

by Linda Lane

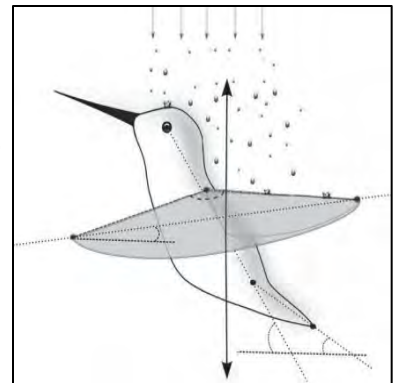


MARK YOUR CALENDAR: Saturday, March 4 is Hummingbird Day at UC Santa Cruz's Arboretum. Admission is \$10 for the general public, \$5 for Arboretum members, and free for UCSC students and children under 12. From 10 am to 4 pm, this fun-for-all event will include opportunities to watch hummingbirds in their natural habitat and a variety of activities focused on these wondrous creatures (see the [complete schedule](#) online):

- ❖ **Activities for kids** (*children 7 and under must be accompanied by an adult*): take-home crafts (mobiles, masks, watercolors, necklaces, and seed balls), face-painting, and bird walks/play.
- ❖ **Activities for all:** lectures and workshops on topics ranging from "Gardening for the Birds" to "Photographing the Fastest Birds in the World" and expert-led Garden Tours and Beginning Birder Tours.

During this event, you can purchase an assortment of delicious, healthy breakfast and/or lunch foods. And while at the Arboretum, drop by Norrie's Gift & Garden Shop (open 10:00am to 4:00pm) to forage through the array of souvenirs, books, unique gifts, plants that attract hummingbirds, gardening guides, jewelry, scarves, and decorative items made by local artists.

This annual event takes place no matter what the weather, so what do hummingbirds do when it rains? Researchers analyzed the flight responses of male Anna's hummingbirds in light, moderate, and heavy rain conditions. The birds were barely affected by light and moderate rain, but, in heavy rain they took on a completely different body posture to maintain aerial control: their bodies and tails shifted horizontally, their wings beat faster, and their wings' angle of motion was reduced. Though it exposed more of the bird's back to the rain, this position reduced the amount of drops hitting the wings, and drier wings keep the bird more stable in the air. Researchers also discovered the hummingbird's water-resistant feathers absorbed 50 percent of the impact from the heavy falling drops, thus helping the animal stay light in flight and in control no matter the weather.



Rain or shine, on Hummingbird Day you'll likely spot Anna's and Allen's hummingbirds, the two most common species in Northern California. "The density of hummingbirds — the number per area in the Arboretum — is ridiculously high," says Bruce Lyon, professor of Ecology and Evolutionary Biology at UCSC. "You can watch them feeding on flowers, you can watch their courtship, you can watch them chasing different species — it's a great opportunity to see some pretty amazing hummingbird biology."



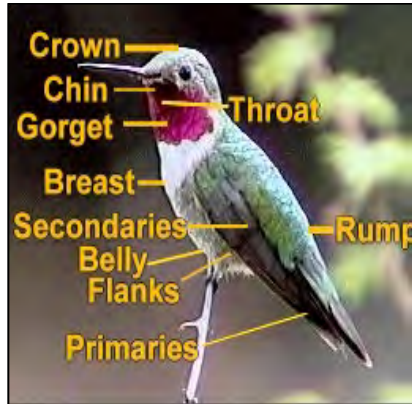
Anna's hummingbird was named for Princess Anna de Belle Massena, a 19th Century Italian Duchess. Though John James Audubon was allegedly smitten with her, it was naturalist René Primevère Lesson who christened the bird in her honor. While the females are mostly green, the males have rusty, orange-colored bodies and an iridescent orange-red throat. The males offer Arboretum visitors a spectacular sight: as part of the mating ritual, they fly in a frantic up and down U-shape that culminates with a high-speed dive. In fact, Anna's

hummingbird was recently declared the fastest animal on the planet after researchers clocked this courtship dive as comparatively speedier than a jet fighter at full throttle!



Allen's hummingbird was named for the American collector and taxidermist Charles Andrew Allen (1841-1930). The male has a green back and forehead, rust-colored body and tail, and an iridescent orange-red throat. While the mostly green females are similarly colored, their orange-colored throat has a series of speckles and their tail has white tips.

As you meander the Arboretum gardens on other days), it's helpful to know the "parts" bright-colored area on the throat and chin seen on females), and a bright-colored crown is called the "helmet." The tail offers rufous (orange-colored) spots and, if so, The bill can identify the species if unusually colored red.



Hummingbird Day (and of a hummingbird. A is called a "gorget" (not area on the forehead and a clue if it has white or their size and location. long, relatively short, or

Behavior of a bird is another "tell": when hover while others perch, and, when their head while others move their tail; the also distinguishes certain species as does while flying or hovering. Territory, of course, identifying a hummingbird because some species look and act similarly. For example, though Anna's, the ruby-throated, and broad-tailed hummingbirds all have reddish throats, as Arboretum visitors know, Anna's hummingbird is the only one found along the Pacific Coast (the ruby-throated hummingbird is mainly in the east and the broad-tailed hummingbird is spotted in the Southwest and the Rocky Mountain region).

feeding, some species drinking, some move level of aggressiveness the particular noise made is a major clue in

FASCINATING FACTS ABOUT HUMMINGBIRDS: You probably know the name "hummingbird" means to mimic the buzzing sound of the birds' fast flapping wings (up to 80 times per second), but below are more remarkable facts about these extraordinary birds:

❖ **Saving The Planet:** Hummingbirds are now contributing to clean energy! Tyler Wind, in North Africa, has designed wind turbines based on the figure-eight motion of hummingbird wings. Not only are these machines called the prettiest turbines ever invented, but, according to recent U.S. research, they are significantly more efficient than standard rotor-based wind turbines because they generate energy on both the up and down strokes.



❖ **Tiniest Creatures On Earth:** Hummingbird species include the tiniest birds on the planet, with some less than 2 inches long and weighing only as much as a penny (.08 ounces). But despite their small size, they are one of the most aggressive bird species, regularly attacking crows, jays, and hawks that infringe on their territory. If you have a hummingbird feeder, you'll likely see that a single dominant bird guards the food and chases away all intruders.



- ❖ **Physical Wonders:** Hummingbird hearts can beat over 1,200 times/minute when flying. They are the only bird that can fly both forward and backwards (as well as hover and fly upside-down), and their wings can rotate in a full circle. Because the average number of feathers on a hummingbird (around 1,000) is the fewest for any bird, their “lightness” allows flying speeds of 25-30 mph and diving speed up to 60 mph. Hummingbirds can’t walk or hop, but their feet do allow them to scoot sideways while perched and scratch any itches.
- ❖ **Extraordinary Senses:** Hummingbirds hear better and see better than humans (they can see ultraviolet light!) but have no or little sense of smell.
- ❖ **Energy Machines:** Because of their fast breathing/heart rate, hummingbirds must “dine” often, on average 7 times per hour so visit close to 1,000 plants per day. Their favorite flower color is red. Their daily diet can result in eating up to 8 times their body weight in a single day.
- ❖ **Deep Sleepers:** When hummingbirds sleep, they usually go into a hibernation-like state called “torpor” to conserve energy; sometimes birds in this condition appear dead, especially when they sleep hanging upside down.



The UCSC Arboretum is a research and teaching facility committed to plant conservation and serves both the campus and the public. Its rich and diverse collection, containing representatives of more than 300 plant families, provides a broad survey of the plant kingdom. For more information, see the Arboretum web site at arboretum.ucsc.edu.