



Hummingbirds

- **Species** - There are more than 340 species of hummingbirds. Hummingbirds are all part of the *Trochilidae* family of birds. *Trochilidae* is from the Greek word trochilos, meaning small bird. There are two sub-families of hummingbirds: Typical Hummingbirds and Hermit Hummingbirds. There are more than fifty species of hummingbirds that breed in Mexico. There are more than fifteen species of hummingbirds that breed in the United States. There are more than three species of hummingbirds that breed in Canada. White hummingbirds (or albino hummingbirds) are not a separate hummingbird type or species, they are regular hummingbirds that never developed color in their plumage. Names for hummingbirds in other parts of the world include: Beija-Flor - Portuguese for Flower-Kisser; Chupaflor - Spanish for Flower-Sucker; Joyas Voladoras - Spanish for Flying-Jewels; Picaflor - Spanish for Flower-Nibbler; El Zunzun - Caribbean for The Hummer. **The Ruby-throated Hummingbird** (*Archilochus colubris*) is the only species that is found east of the Mississippi River and the only breeding hummingbird in Pennsylvania. The Rufus Hummingbird is rare and accidental in Pennsylvania as they migrate from Alaska to the Gulf coast and Florida.
- **Range** - Hummingbirds are New World birds found only in the Americas with most of the species in South America, as far south as Chile. Hummingbirds are found as far north as Alaska. Ecuador has the largest number of species of hummingbirds.
- **Size** - Hummingbirds are one of the smallest kinds of bird in the world. With most species 3 - 5 inches in length. The Bee Hummingbird is the smallest at just 2 inches. The largest is the Giant Hummingbird reaching over 8 inches. A hummingbird can weigh anywhere between 2 and 20 grams. A penny weighs 2.5 grams. Female hummingbirds are usually larger than male hummingbirds.
- **Wings** - They are called hummingbirds due to the sound created by their rapidly beating wings. Depending on the species, a hummingbird's wings can flap on average around 50 times per second and can reach as high as 200 times per second. This allows them to fly faster than 34 mph. A hummingbird can dive up to 60 miles per hour. The hummingbird can hover, fly forwards, backwards and even upside down. A hummingbird's wings will rotate in a full circle.
- **Diet** - Hummingbirds drink the **nectar** of flowers which gives them a good source of glucose energy and they **prey** upon soft insects and spiders for protein. Apart from insects, hummingbirds have the highest **metabolism** of all animals due to the need to keep their wings rapidly beating. Because of this, the hummingbird visits hundreds of flowers each day, consuming more than their own weight in nectar each day. They are very smart and can remember every flower they have been to, and how long it will take a flower to refill. Hummingbirds need to eat on average 7 times per hour for about 30-60 seconds. They can eat anywhere from half to eight times its body weight a day. A hummingbird will visit an average of 1,000 flowers per day for nectar. Hummingbirds prefer tubular types of flowers. A hummingbird's metabolism is roughly 100 times that of an elephant. Because they need to conserve energy, hummingbirds do not spend all day flying, they spend the majority of their time perched digesting their food.
- **Value** - Hummingbirds **pollinate** flowers by rubbing their forehead and face in each flower as they get the nectar, spreading the pollen from one to another flower as they feed. Many plants depend on hummingbirds for pollination. Hummingbirds are predators of small insects (example: mosquitoes), they are food for other animals (see Predators), and they bring beauty and joy into our world.
- **Bill and Tongue** - A hummingbird's bill varies dramatically depending on the species. Their beak is generally shaped like any other bird beak, just longer in proportion to its body. Its lower **mandible** is slightly flexible. Most have a fairly long, thin bill that allows them to reach down to the nectar of a flower. Hummingbirds do not drink through their beaks or tongue like a straw. They lap up nectar with their tongues. Their tongue is grooved like the shape of a "W", and it has tiny hairs on the tip of the tongue to help lap up nectar. With the bill slightly open they use their tongue to quickly lap up the nectar inside at a rate of about 13 licks per second.

- **Torpor** - To conserve energy overnight when they sleep, they often go into a hibernation-like state called **torpor**. When a hummingbird goes into torpor, their metabolic rate is one-fifteenth of normal sleep. Torpor can save up to 60% of a hummingbird's available energy. When in torpor, a hummingbird's heart rate can drop from 250 beats per minute to as few as 50, and can lower the body temperature from 106 degrees Fahrenheit to as low as 70 degrees. When hummingbirds go into torpor, they will appear as if they are dead and have occasionally been found to be hanging upside-down.
- **Life Span** - Depending on the species, hummingbirds live on average 3 to 5 years, but have been known to live as long as 12 years. Most hummingbirds die in the first year of life. The oldest known hummingbird was a Broad-Tailed Hummingbird that was captured and tagged 12 years apart.
- **Migration** - Despite their tiny size, the Ruby-throated Hummingbird makes a remarkable annual **migration**, flying more than 1,800 miles from the eastern U.S.A., then crossing over 600 miles over the Gulf of Mexico in a single journey to winter in Central America. It is estimated that a Ruby-Throated Hummingbird takes about twenty hours to fly across the Gulf of Mexico. Most hummingbirds of the United States and Canada migrate south in fall to spend winter in Mexico or Central America. Some South American species also move north to these areas during the southern winter. The Rufous Hummingbird travels the farthest north of any other hummingbird during migration; all the way from Mexico to Alaska. Before migrating, the hummingbird will store up a layer of fat equal to half its body weight in order to slowly use up this energy source while flying. Hummingbirds DO NOT migrate on the backs of geese. In spring migration, the male arrives about a week earlier than the female to establish his territory.
- **Song** – Hummingbirds do not sing, rather, they have a short, high-pitched, squeaky call.
- **Predators** - Some hummingbirds are so small, they have been known to be caught by dragonflies and praying mantis, trapped in spider webs, snatched by frogs, and stuck on thistles and burdock. Mammals, reptiles, fish, and larger birds will try to catch hummingbirds as food. Generally, the hummingbird is so agile that it can avoid many **predators**.
- **Feathers** - The Ruby-throated Hummingbird has only approximately 940 feathers on its entire body. Hummingbirds can flash their bright colors, as well as hide them when needed. The bright radiant color on hummingbirds comes from iridescent coloring as when sunlight is shining on a soap bubble or prism. A **gorget** is the bright flashing of colored feathers of the hummingbird's neck. Males are usually more colorful than the females.
- **Senses** – Hummingbirds have better hearing than humans. Hummingbirds can see farther than humans. Hummingbirds can see ultraviolet light. Hummingbirds have little to no sense of smell.
- **Feet** - Hummingbirds have very weak feet and can barely walk, they prefer to fly. Hummingbirds spend most of their life **perching**.
- **Other Physical Features** - A hummingbird's brain is 4.2% of its body weight, the largest proportion in the bird kingdom. A hummingbird's heart is 2.5% of the total body weight. Its heart beats up to 1,260 times per minute when in flight and about 250 times per minute at rest. A hummingbird will take about 250 breaths per minute while at rest. The hummingbird's body temperature is around 107 degrees Fahrenheit.
- **Breeding** - Hummingbirds do not mate for life. Male hummingbirds are very aggressive and will chase another male hummingbird out of its **territory**. He may have several females within his territory that he has bred with. Male hummingbirds do not help raise the young. Female hummingbirds do all the nest building and raising of young. Females will lay a **clutch** of two eggs. Hummingbird eggs are about half the size of a jellybean, and depending upon weather and temperature, **incubation** lasts between 14 and 21 days. A hummingbird baby is generally smaller than a bean seed when first hatched. The female feeds her babies a mixture of nectar and soft insects and spiders. Baby hummingbirds will remain in a nest for three weeks and then **fledge**, to follow mom around as they learn where to find food.
- **Home Made Sugar Solution** – 1-part white table sugar to 4 parts water. Mix and then boil solution for 1 to 2 minutes. Cool and use in feeder. Store extra in refrigerator. Empty and clean feeders and refill with fresh solution at least once a week. No need to add food coloring, the birds will find it.
- **Ruby-throated Hummingbird** – Can be found throughout Pennsylvania in a variety of **habitats**: gardens, parks, orchards, swamps, woodland edges and openings, and wooded stream valleys.
- **Banded hummingbirds** should be reported with the banding number to 1-800-327-BAND.