

Attracting Hummingbirds to Your Garden

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During the summer months, eastern North America provides the breeding grounds for visiting migratory Ruby-throated Hummingbirds. In the Philadelphia, PA area, the colorful hummingbirds with their iridescent plumage arrive in late April or early May. The males usually precede the females by 1-2 weeks. During the spring and summer, they mate, nest and rear their young. The adult and first year young hummingbirds don't leave for their winter home in Central America until late September. It always seems, that in the fall, the last to leave the area, is an adult female. It is as though, the mother wants to make sure that all the young have safely left for the long flight to their winter home.

The Ruby-throated Hummingbirds are small, light weight birds (3 grams), about the size of your thumb and are very skillful flyers. They are fast flying and can fly forward or go backwards and can hover in place, as they feed on the nectar of a flower or at a feeder. They can easily maneuver around obstacles and are agile at avoiding bees and wasps who compete with them at the feeders. Their wing beat rate is about 60 beats per second. As is typical with many birds, the male Ruby-throated Hummingbird is more colorful with a ruby red colored throat, greenish back and dark tail feathers (See Figure 1). The female is plainer with a white or slightly streaked throat, greenish back and white tips on the ends of the tail feathers (See Figure 2). The females are slightly larger than the males and have a longer bill. The first year young males and females resemble the adult female. As the summer goes on, the young males may start to show some spots of ruby color in the throat (See Figure 3). In the winter, the Hummingbirds molt (cyclic renewal of feathers) and when they come back the next spring, the young males have the adult male coloring with the ruby red throat.

When the females arrive in the spring, the males compete for a mate, performing their aerial dance display involving high speed diving with swooping U shaped loops, down and up again to impress the females who watch the displays and eventually chose a mate. Nesting does not involve the males. The female builds a small nest and lays two or three white eggs. The babies hatch in about 15 to 17 days. Three more weeks and the babies are fully feathered and leave the nest. This initiates a lot of hummingbird activity in the garden.

If one is watching or photographing the hummingbird activity, it seems that the best time to observe or photograph the males is in early spring when the males first arrive and then for a while after that, when the females are busy on the nest and seem to only occasionally visit the feeders, usually late in the evening. After the babies are born and start to fly, the feeders seem to be taken over by the females and the young hummingbirds. This results in fewer opportunities to photograph the adult males at the feeders.



Fig 1. Male Ruby-throated Hummingbird with Bee Balm



Fig 2. Female Ruby-throated Hummingbird at Feeder



Fig 3. Young Male Ruby-throated Hummingbird with a Ruby Red Spot on his Throat and White Tipped tail Feathers Normally seen on the Females.

Attracting Hummingbirds with Plants and Feeders:

Hummingbirds feed mostly on nectar, insects and spiders, and many plants are pollinated by hummingbirds. The nectar is taken in through a long tubular tongue which is inserted deep into a flower. The hummingbirds will revisit the plants they like many times during the daylight hours when they feed. They do not feed at night. The major part of their diet is nectar, but a portion consists of insects and spiders. Often hummingbirds take in insects with an open beak while in flight. (Yes, the beak does open, see Figure 7). Other times insects are picked from plant foliage and flowers.

A good way to attract hummingbirds to your garden is to grow the types of plants that they like. Some of their favorite nectar plants that I have used include cardinal flower, bee balm, butterfly bush, fuchsias, salvia, abelia, penstemon and a few others. Another method of attracting hummingbirds is to add several hummingbird feeders to your garden. You should keep these filled with fresh sugar water throughout the hummingbird season - mid April through early October. Figures 4, 5 and 6 show several types of feeders. Figure 4 shows a general purpose multiport feeder having four ports, each with a perch for the hummingbird to stand on while feeding. Figure 5 shows a smaller feeder with a single port (spout) and no perch, so the hummingbird has to hover in place while feeding. A single spout is good for photography purposes since you know exactly where the hummingbird will be feeding. The smaller feeder is shown supported by a water filled ant trap which is hung from a pole. The water in the ant trap forms a water moat between the post holding the upper support hook and the outer edge of the water cup. The lower cup hook is used to support the small feeder. The ants that climb up the pole would have to swim in the water moat to get to outer edge of the cup and so this forms a water barrier to stop the ants from getting to the sugar water at the feeder spout. It is helpful to have ant traps on all of the feeders. Ant traps are available from www.AudubonWorkshop.com, www.Duncraft.com. and others. Figure 6 shows a window mounted feeder with no perch which is convenient for observing hummingbirds while sitting inside the house. Sometimes an aggressive male hummingbird will claim a feeder as his own and will spend a lot of time fending off other hummingbirds that want to use his feeder. As the summer goes on, bees and wasps will also start to compete for the use of the feeders. See Figure 8.

Sugar Water Mix for Hummingbird Container Feeders:

For hummingbird container feeders, a sugar water solution of four parts water to one part white table sugar is easy to prepare and is similar to the natural nectar of flowers that the hummingbirds feed on. The mixture does not have to be exact but should be between three and five parts water to one part table sugar. Red dye is not needed in the water (flower nectar is colorless), and the red color on the feeder is enough to attract the birds attention. To prepare the solution, bring the water to a boil, then add the sugar, stir and bring the solution to a boil again and then turn off the heat. Let the solution cool to room temperature before using it in a clean feeder. Any unused solution should be refrigerated and can

be kept for about a week. Before refilling a feeder, clean it with a brush and periodically soak the interior with a weak solution of bleach for a few minutes to help rid the feeder of any mold that may have built up. Change the feeder solution every 3-4 days to help prevent the buildup of unhealthy conditions in the solution. Generally, a smaller feeder is preferred since its contents will be emptied sooner and you will be refilling it more often with fresh sugar water.



Fig 4. Hummingbird in Rose Garden at Multiport Feeder



Fig 5. Single Spout Feeder held by Water Filled Ant Trap. Cardinal Flower and Rose Bushes are behind the Feeder.

Enjoying the Hummingbirds in the Garden:

The hummingbirds are friendly creatures and a joy to watch in the garden as they conduct their various activities. Often one or more will suddenly dart into view moving swiftly to perch on a branch or else to go directly to hover over a flower of interest or to a feeder containing sugar water. Occasionally they will go to the flower blooms of the roses, apparently gleaning small insects from inside the flowers. Often times they will fly to a high point in the garden where they will look around and survey the situation as they rest for a few moments (See Figure 9). Pairs of hummingbirds will often fly close together, maneuvering at high speed as though a sort of flight training was going on.

If you sit still and don't make sudden moves, often the hummingbirds appear to ignore you as they go about their business. I have a setup on my back porch, with a single spout feeder, where sometimes in the early evening at about 6-8 pm, I take photographs of hummingbirds in flight. When I am photographing the hummingbirds, I am usually only three feet away from the feeder spout, staying still as I peer through the camera viewer looking for a good photo opportunity. Often times I can hear the humming beat of their fast moving wings before I see them. It sounds to me like a small helicopter is coming in and I get ready for action at the feeder spout. It is while photographing, that I have observed over the years, that a particular hummingbird will return to the feeder about every 10-15 minutes as he makes his rounds. I have read that this may be related to the time it takes a flower to regenerate the nectar that was taken on a previous visit. Often the flash of the camera will temporarily chase a hummingbird away, but they always come back. The females and the babies seem to tolerate the camera flash better than the males and will stay for repeated photo shots.

Bring Them Back Again Next Year:

If you supply the hummingbirds with a good reliable source of food in the form of the plants that they like, and augment these with artificial feeders filled with fresh sugar water, they will remember your garden and will return again.



Fig 7. Male Hummingbird Showing Open Beak



Fig 8 Competition With Yellow Jacket At Feeder



Fig 6. Hummingbird at Window Feeder



Fig 9. Male Hummingbird on a High Point in the Garden