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EXPERT REVIEWED

Attracting Hummingbirds to Your Yard

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Hummingbirds are a popular attraction in any backyard. The ruby-throated hummingbird is the only species of hummingbird that nests in the Hoosier state. These colorful visitors are migratory and arrive from their wintering grounds around mid-April. Ruby-throated hummingbirds remain throughout the summer and can begin fall migration as early as late-July. Migrating ruby-throated hummingbirds can be observed in Indiana throughout the fall. It is possible to observe migrating hummingbirds at your feeder from late-July through October and occasionally later. In fact, during late autumn, rufous hummingbirds can be observed at feeders in Indiana. Some believe it is only a matter of time that other western species such as the black-chinned hummingbird are found in the state.

Ruby-throated hummingbird.

Ruby-throated hummingbirds have a few simple habitat requirements that can be easily met in most neighborhoods and backyard habitats. Hummingbirds need an ample supply of insects and nectar for food. Trees are required for nesting, resting, and escape cover. Landscapes that provide a mixture of mature hardwood forests with meadows, gardens, wetlands, shrub patches, and riparian areas provide ideal habitat conditions for the ruby-throated hummingbird. This mixture of habitat components describes many subdivisions and residential and rural areas throughout Indiana. Following a few of the tips described below can make your yard and neighborhood even more attractive for hummingbirds this summer.

Food – Insects

Meeting the food requirements of the ruby-throated hummingbird is the greatest secret to attracting them. Despite common belief, hummingbirds are not strictly nectar feeders. Insects and other invertebrates are the primary source of protein for adult hummingbirds and their young. An adult female can consume up to 2,000 insects per day. Small invertebrates including mosquitoes, gnats, small bees, fruit flies, spiders, caterpillars, aphids, and insect eggs make up a portion of the hummingbird's diet.

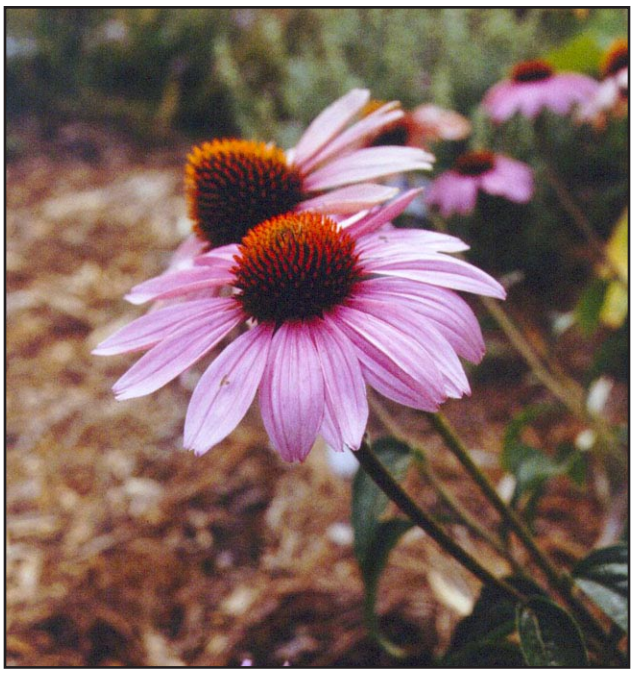
In natural settings, insects are attracted to "weedy patches" that have a mixture of taller grasses and forbs (non-woody, broadleaf plants). Some wildflower garden designs provide the required structure for ample insect populations, but naturalized areas containing a rich mixture

of native forbs and grasses are excellent insect habitats. Hummingbirds will forage for insects in naturalized areas, but will also search rock walls, bricks, cliffs, and other structures for insects, often stealing small insects from spider webs.

If you live in rural areas or if your yard is more secluded, simply tilling small areas in the spring and leaving them fallow for 3-5 years is one simple low cost approach to developing these "weedy patches" for insects. Leaving borders or selected areas of lawn un-mowed is another cost effective way to provide insect habitat for hummingbirds. However, local ordinances and weed laws in some neighborhoods may preclude such practices. Check your local codes and ordinances prior to initiating these practices.

For backyard landscaping, it is critical to present these naturalized areas in a manner that is pleasing to you and your neighbor. Integrate them with other landscape features so they don't stand out. Naturalized areas can be made more attractive and acceptable to neighbors by giving them some limits and defining their boundaries. Mow definite borders around them, pave a path through them, place a small segment of fence in front of them, or plant a few brightly colored flowers around their borders. Applying a few of these suggested practices will enhance the aesthetics of insect-producing areas in your backyard.

Native wildflower gardens and flowering trees and shrubs can provide abundant insects. These areas can be attractive additions to any yard and provide the needed structure insects require. The recommended practices above can be used to demarcate definite boundaries around flower beds. Species such as purple coneflower (*Echinacea purpurea*) or bee balm (*Monarda didyma*) attract insects and can visually enhance any garden. Careful selection of additional flower species (discussed below) will not only help to attract insects for hummingbirds, but can also provide nectar for both hummingbirds and butterflies.



Purple coneflower.

Food – Nectar

Hummingbirds have a very high metabolism. They can fly about 27 miles per hour and their wings beat 53 times per second. It takes a lot of high-energy food to support this level of activity. A hummingbird must eat its own body weight (about 3 grams) in nectar every day. Hummingbirds feed throughout the day at 5-minute to 1-hour intervals.

Nectar, an essential part of the hummingbird's diet, is obtained from one of two sources: flowers or nectar feeders. Flowers planted in your gardens and around your yard provide a valuable source of nectar for hummingbirds.

About 150 species of plants are pollinated by hummingbirds rather than bees. Flower color and structure in these species are less attractive to bees and other pollen feeding insects. Red is one color that bees do not see as well; therefore, many of the flowers that are pollinated by hummingbirds tend to be red. Flowers designed to favor hummingbirds usually don't offer perching platforms like many other flowers. These flowers often point downward and have long corolla tubes that exclude most insects.

By selecting a mixture of flower and shrub species that have overlapping blooming seasons you will provide an available nectar source to hummingbirds visiting your yard throughout the growing season. Extensive lists of plants for hummingbirds are available in several of the publications listed in the References section. The following species are provided as a guide to getting started.

Trees

The Ohio buckeye (*Aesculus glabra*) is a native tree with flowers that provide nectar for hummingbirds. Other nectar trees include horsechestnut (*Aesculus hippocastanum*) and tulip poplar (*Liriodendron tulipifera*).

Shrubs

Common shrub species providing nectar for hummingbirds include rhododendrons (*Rhododendron* spp.), deciduous azaleas (*Rhododendron* spp.), rose mallow (*Hibiscus moscheustos*), and pepperbush (*Clethra* spp.).

Perennials

Copper or red iris (*Iris fulva*), columbine (*Aquilegia canadensis*), phlox (*Phlox* spp.), beardtongue (*Penstemon* spp.), red morning glory (*Ipomoea coccinea*), bee-balm, bergamot (*Monarda* spp.), lilies (*Lilium* spp.), cardinal flower (*Lobelia cardinalis*), fire-pink (*Silene virginica*) , skullcap (*Scutellaria* spp.), foxglove (*Agalinas* spp.), gayfeather (*Liatris* spp.), royal catchfly (*Silene regia*), and scarlet sage (*Salvia splendens*) are perennials that will add beauty to your gardens and will ensure that some nectar is being provided throughout the growing season.

Royal catchfly.

Annuals

Annual flower species most attractive to hummingbirds include: pinks (*Dianthus* spp.), zinnia (*Zinnia elegans*), snapdragons (*Antirrhinum* spp.), Mexican sunflowers (*Tithonia* spp.), scarlet sage (*Salvia coccinea*), flowering tobacco (*Nicotania* spp.), and jewelweed (*Impatiens capensis*).

Vines

Adding some native vines like trumpet creeper (*Campis radicans*), coral or trumpet honeysuckle (*Lonicera sempivirens*), crossvine (*Bignonia capreolata*), or passionflower (*Passiflora* spp.) on trellises around garden edges or yard borders can also provide a source of nectar for hummingbirds.

Trumpet creeper.

Feeders

Nectar can also be made available by providing artificial feeders. Feeders can provide the nectar equivalent of 2,000-5,000 flowers. Nectar feeders also provide a common focal point in your yard where these colorful visitors can be readily observed throughout the day. Feeders provide a steady and valuable food source in early spring when most flowers are not yet in bloom. This food availability is

important in providing energy for hummingbirds that are preparing to reproduce. In addition, they can supplement natural sources of nectar throughout the summer and fall when plants in flower gardens are between flowering stages. In the fall, feeders are important in helping hummingbirds gain weight for the long migration. Prior to migration, hummingbirds will "balloon" from their normal 0.1-0.12 ounces to 0.19-0.22 ounces. This additional .07 ounces will sustain them for their non-stop trans-gulf migration of 18-22 hours.

When selecting a nectar feeder for your yard, look for feeders that are easy to disassemble and clean. Red feeders will more effectively attract hummingbirds, but are less attractive to insects. The wasp and hornet guards (honey bees seldom, if ever, come to feeders) on the feeder should be red (not yellow).

Selecting the proper site for your feeder is also an important consideration. Look for a shady area that is open enough to allow hummingbirds to freely fly around the feeder. The shade cools the nectar and delays spoiling on hot summer days.

Photo by Chip Morrison

Make sure the insect guards are red (not yellow).

Remember that hummingbirds are territorial. One dominant male can keep other males away from "his" feeder. As a result, you will attract a larger number of hummingbirds by providing multiple feeders. Feeders should be spaced 10-15 feet apart. When you see more than four birds using a single feeder, or when you see a male chasing off other males, add another feeder. As you keep adding feeders, you may be surprised at the number of hummingbirds you attract.

Hummingbirds need to rest between feedings. Locate your feeders near trees or perching areas so they don't have to move long distances between feeding and resting locations. Nearby perches also give them a place to wait their turn.

Ripe fruit next to feeders increases its attractiveness and also attracts gnats and other insects eaten by the hummingbirds.

If you do not have a large number of hummingbirds that drain your feeders regularly, change the nectar every 3-4 days. This will ensure that the nectar doesn't ferment or become rancid, cloudy, or moldy. Feeders should be cleaned every week or so with soap and water, rinsed with vinegar, and finally rinsed thoroughly with water. This will help keep your birds healthy. If ants become a problem on your feeder, water filled ant guards can be installed to keep ants out. Don't use insecticides; they may be harmful to hummingbirds.

Nectar solution for hummingbirds can be made by simply mixing four parts water to one part sugar. Boil the solution for 2 minutes to slow fermentation. Do not microwave the solution because it can cause a breakdown in the sugar molecule, thus changing its nutritional value. The mixture can be refrigerated until needed to replenish feeders. Sugar water is a perfectly acceptable if the feeder has a lot of red on it. Don't add honey, artificial sweeteners, or food coloring to the mixture. These items may pose some health problems for the hummingbirds.

Photo by Chip Morrison

Leave the feeder up as long as birds are coming to it in the fall. This will not stop or delay their migration. Leaving feeders up through October will make them available to other migrant ruby-throated hummingbirds passing through even after "your" resident hummingbirds have left. By leaving a feeder up later in the fall, you might attract another species of hummingbird that has been visiting Indiana the past few years. Two of the *Selasphorus* species of hummingbirds (Rufous and Allen's) have been seen at various locations in Indiana over the past several years.

Other Habitat Components

Ruby-throated hummingbirds are primarily a woodland species and require some woodland component nearby to fulfill their habitat requirements. Trees are used for resting and for nesting cover. Landscapes that have some patches of woodlands or mature hardwood trees interspersed with yards, gardens and meadows provides the additional food source of insects and nectar hummingbirds require. Wetlands, ponds, and streams, can enhance hummingbird habitat due to the greater insect abundance in some of these areas.

Ruby-throated hummingbird nests are usually located 10-20 feet above the ground in deciduous trees on small horizontal branches. They prefer isolated or undisturbed forest areas for nesting. Hummingbirds will return to the same nest each year and will rebuild if necessary. Nests are made with down from dandelion, thistle, and milkweed, and portions of ferns, mosses, and young leaves. These materials are attached to the limb with several yards of sticky spider webs and droplets of tree sap. The nest is camouflaged with lichens usually found in the nest tree or surrounding trees. Some of these nest materials can be provided in your flower beds and surrounding yard plantings.

Predators

Like most small birds, hummingbirds have their share of predators including the praying mantis, snakes, blue jays, crows (nest predators) and occasionally toads and frogs. The number one predator of hummingbirds is probably the domestic cat. By providing food at a centralized location such as flowerbeds and feeders, we often make it easy for cats to kill hummingbirds. Cats should never be allowed to roam freely, as they kill many species of wildlife including birds, amphibians, small reptiles, and mammals.

Photo by Chip Morrison

Add additional feeders if overcrowding becomes an issue.

References

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USDA Natural Resource Conservation Service. 1999. Ruby-throated Hummingbird (*Archilochus colubris*). Wildlife Habitat Management Fact Sheet, No.1. Wildlife Habitat Management Institute, Madison, Mississippi.
www.whmi.nrcs.usda.gov/technical/leaflet.htm

Additional Resources

Williamson, S. 2002. A field guide to hummingbirds of North America. Houghton Mifflin Co.

Cornell Lab of Ornithology http://birds.cornell.edu

National Plants Database http://plants.usda.gov

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