

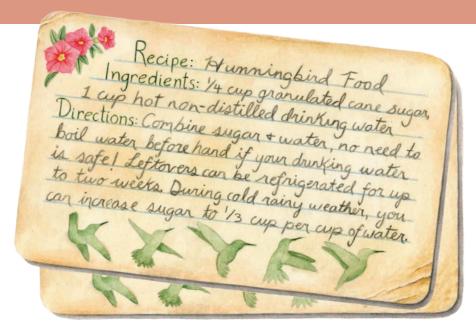
The tiniest birds in the world are also among the most fascinating and the easiest to watch, sometimes from inches away in your window feeders. Feeding hummingbirds is fun and rewarding and, when done properly, can also make life easier for hummingbirds. Hummingbirds get quick energy from sugar-water feeders, energy that fuels their search for the insects and flowers which provide most of their nourishment.

SELECTING FEEDERS

The most important feature of a good hummingbird feeder is that it be easy to open and to clean. If you can't easily reach every bit of inside surface with a bottle brush, the feeder will soon foster bacteria, fungi, and other harmful organisms.

Feeders should have red parts. Flowers pollinated by hummingbirds are often red, and hummingbirds are attracted to that color. Hamster water bottles and similar items are much more likely to attract hummingbirds if part of the glass is painted with red nail polish or something red is placed on them.

Some feeders come with bee guards—plastic screens that fit over the feeding ports. When these are yellow, they may actually attract yellow jacket wasps. Those feeders that come with bee guards tend to be rather drippy, and if solution drips onto the bee guard, it will attract wasps rather than discourage them. In basin feeders, the sugar water is often too far within for wasps to reach, though humming-



Recipe for success: There's no need to add red food color to sugar water, or to use redcolored commercial mixes. Flower nectar is clear and red food coloring may be harmful to hummingbirds.

bird tongues have no trouble, so these feeders are often the best choice for discouraging flying insects.

Some feeders have ant moats. Fill these with water to discourage ants while helping small birds that sometimes take drinks from the moats. If crawling insects are a problem, try a dab of petroleum jelly on the hanging wire, making sure a bird's feathers will not brush against it. Hummingbirds are exceptionally territorial and often fight with one another. You will attract more hummingbirds that can feed with fewer disruptions if you place several small feeders around your yard rather than just one large feeder. Hummingbird sugar solutions should be changed fairly often, so unless you have a great many hummingbirds, smaller feeders are also less wasteful.



Hummingbirds prefer feeders near trees and shrubs, where they can perch to rest and observe their surroundings, and can feed on nearby natural food between visits.

FILLING THE FEEDERS

t's easy to make your own hummingbird solution. Use granulated cane sugar and unsoftened, non-distilled drinking water. Heat if needed to dissolve. The ideal ratio is usually 1/4 cup of sugar per cup of water; your mixture should never be stronger than that during hot, dry weather.

During cold, rainy weather, you can make it stronger, using up to 1/3 cup of sugar per cup of water. If you're having problems with insects, a solution of 1/5 cup of sugar per cup of water may discourage the insects without losing the hummingbirds' interest. The concentration of sugars in natural flower nectar varies within this range.

Many people boil sugar water before using. This isn't necessary if your drinking water is safe for you as long as you change the solution every few days. Hummingbird bills and tongues quickly introduce microorganisms that cause spoilage anyway. Leftover solution can be refrigerated for up to two weeks.

Honey fosters bacterial and fungal growth and ferments faster than sugar water, so it should never be used in hummingbird feeders. Don't add red food coloring; it's unnecessary and its effect on birds is unknown. Commercial mixtures with added vitamins and minerals (and often food coloring) are a needless expense, and mixtures formulated for captive hummingbirds spoil within hours. Hummingbirds that frequent feeders get a balanced diet by also eating many natural foods, including nectar and plenty of insects.

PLACING THE FEEDERS

ummingbirds prefer feeders near trees and shrubs, where they can perch to rest and observe their surroundings, and can feed on nearby natural food between visits. Plants with red, tube-shaped blooms, such as bee-balm, trumpet vine, and jewelweed, are very attractive to hummingbirds, as are trees with sap wells drilled by sapsuckers.

Set feeders in the coolest areas of your yard and where there is some protection from wind. Humming-birds are unusually fearless and come readily to window feeders. You can use hooks in your window framing or use feeders that attach directly on glass with suction cups.

If bees or wasps discover your feeder, you may confuse them, at least for a while, by moving the feeders to new places, often just a few feet away.

MAINTAINING THE FEEDERS

Bacteria and fungi grow more rapidly as the temperature rises. When the thermometer reaches 80 degrees Fahrenheit, scrub your feeders with a clean bottle brush and very hot water and refill every 3 days. When it's over 90 degrees, sugar water may be spoiled in 2 days or less. Even when temperatures are cool it's best to clean feeders and change the solution fairly often. If you see any sign of cloudy water or black mold, discard the solution and clean the feeder immediately.

Hummingbirds may

use color and location

cues to remember

where they found a good supply of nectar.

Always rinse feeders in hot or boiling water before adding fresh solution. At least once a month, and immediately if black mold is detected, soak emptied feeders for one hour in a weak vinegar solution and then scrub with a clean bottle brush. Rinse well with running water before refilling.

HELPING HUMMINGBIRDS

ative plants attractive to hummingbirds will provide an abundance of natural food for them and give you more opportunities to view these charismatic creatures at close range. Learn about the best plant choices from local conser-



Watch hummingbirds on the Cornell Lab of Ornithology **HUMMINGBIRD CAM!**cams.allaboutbirds.org

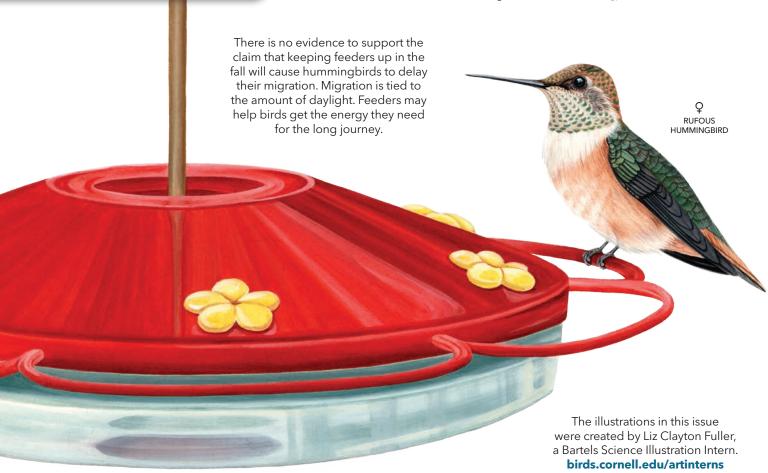
Setting out banana peels near hummingbird feeders will attract fruit flies and other nutritious soft-bodied insects which hummingbirds eat. It's exciting to watch hummingbirds darting about chasing down these tiny flying insects.

Hummingbirds are very sensitive to pesticides and herbicides, so try to keep the area around your feeders as bird-friendly as possible. Hummingbirds construct their nests with spider silk. Fostering spiders will both encourage hummingbirds to nest near you and control many insect pests naturally.

Make sure all feeders and resting perches are safe from cats and other predators.

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www.birds.cornell.edu/AllAboutBirds www.hummingbirds.net www.sabo.org/hummers.htm



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