

# Hummingbirds in Arizona

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Hummingbirds are often referred to as 'flying jewels' or 'wonders of nature' due to their striking colors, small size and unique ability to hover or even fly backwards! Male hummingbirds are generally more brightly colored than females and, amazingly, all of that dazzling color is a result of feather structure, not pigment. Hummingbirds are among the smallest birds in the world. In fact, the smallest extant bird is the Bee Hummingbird. Even the largest hummingbird weighs less than 20 grams (0.71 oz) and most weigh around 5 grams (0.18 oz).

Another distinct feature of hummingbirds is the variety of beak adaptations they have developed for obtaining nectar from an equally wide variety of flower species. Hummingbird beaks range from short to long and curved to straight and each has co-evolved with specific flowering plants that depend upon hummingbirds for pollination. These specialized flowers generally produce large amounts of nectar, providing a much needed source of food for a bird that must consume more than its own weight in nectar every day. Generally, plants adapted for hummingbird pollination do not provide any type of perch for the feeding bird. In response, hummingbirds have developed the ability to remain stationary in the air while sipping nectar, or to hover in the breeze in response to swaying flowers. This hovering is necessary for the birds to obtain sufficient nectar from their favorite flowers, many of which have long corollas (the whorl of petals usually colored to attract insects and birds).

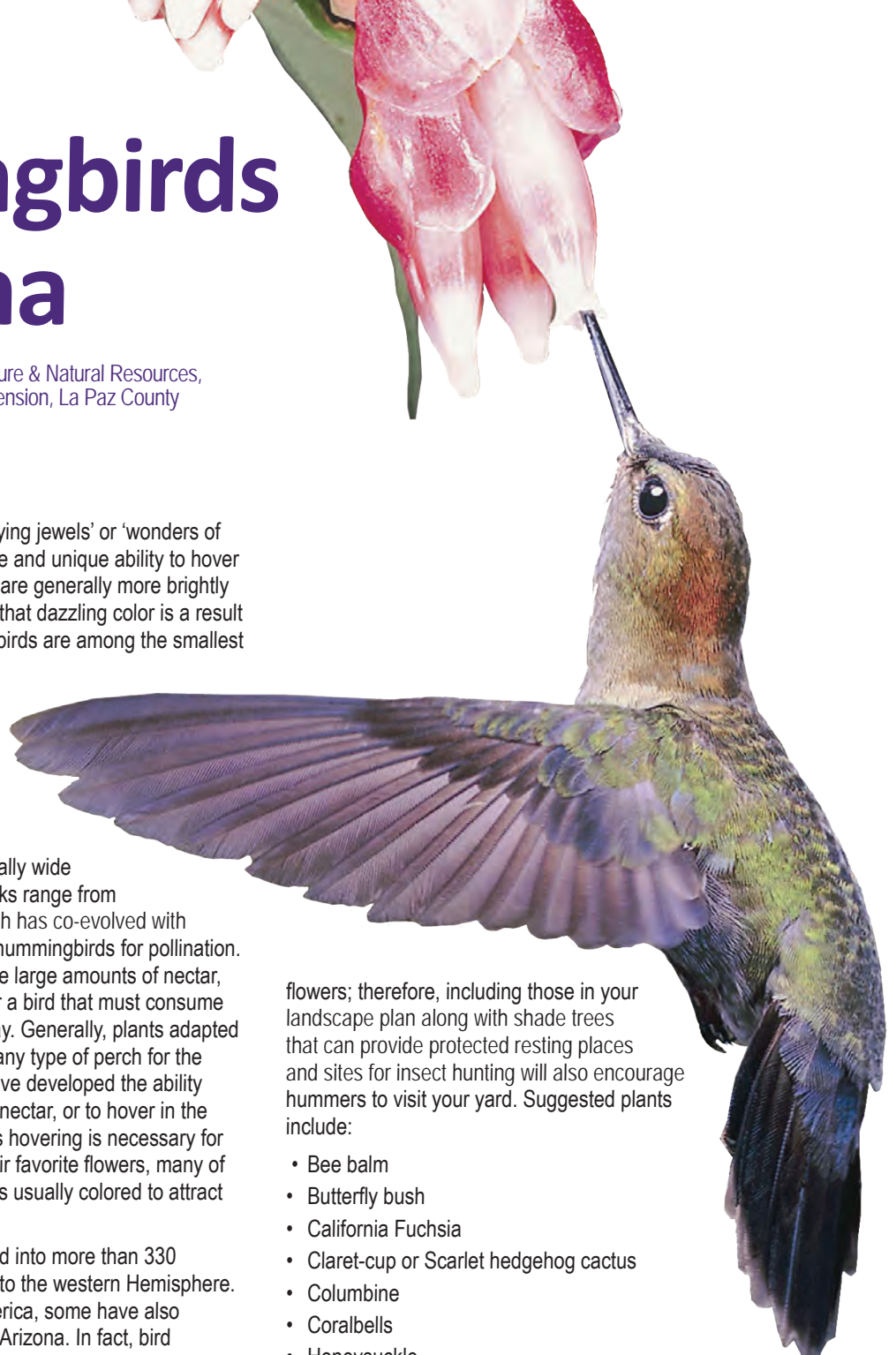
These amazing birds have been classified into more than 330 modern species whose habitat is restricted to the western Hemisphere. While most occur in South and Central America, some have also colonized parts of North America, including Arizona. In fact, bird watching groups have documented 18 different species within Arizona, more than any other state except Texas. The map shown is a combined overlay of the habitat ranges of hummingbirds that either call Arizona home or who pass through on their seasonal migrations. The 'hummers' that we see may come from as far away as Alaska or western Canada in the spring and then may migrate south to Mexico and Central America as winter approaches.

## Attracting Hummingbirds to Your Yard

Because hummingbirds find flowers by sight rather than smell, it follows that the best way to attract them to your yard is to select native plants that have brightly colored flowers: red, orange or dark pink are best. Many hummingbirds co-evolved with trumpet-shaped or tubular

flowers; therefore, including those in your landscape plan along with shade trees that can provide protected resting places and sites for insect hunting will also encourage hummers to visit your yard. Suggested plants include:

- Bee balm
- Butterfly bush
- California Fuchsia
- Claret-cup or Scarlet hedgehog cactus
- Columbine
- Coralbell
- Honeysuckle
- Impatiens
- Lantana
- Lupine
- Mimosa
- Palmer's agave
- Penstemons (red/pink)
- Petunia
- Salvia species (various)
- Trumpet creeper
- Trumpet vine
- Yucca



Check with your local Extension office or Master Gardener to determine which of these plants is best suited to your location and growing conditions.

If you don't have a green thumb, you can still enjoy hummingbirds in your yard by hanging a hummingbird feeder in a safe place away from the reach of local cats and other predators. As mentioned above, hummingbirds must eat more than their weight in food each day; therefore, they must constantly search for food sources and eat often. According to research presented by Hainsworth and Wolf in *Wildbird Magazine*, a hummingbird's "survival depends critically on eating more frequently than any other animal – because of this, they continually face the danger of starving. Within a very short time at a feeder, a small, hungry hummingbird can solve its immediate requirements for food."

## General Rules for Using a Hummingbird Feeder

Primary goals for backyard birders: (1) provide food to attract hummingbirds so they continue to visit, and (2) maintain feeding frequencies by altering feeder solution concentrations so that you have more birds, more often, at your feeders. If you live in an area that has distinct hummingbird seasons, you can start the season using a sweeter solution (1:3 ratio of sugar to water) in your feeder in order to encourage hummers to return to your feeder. Once you have developed a 'loyal' following, it is best to reduce that to a 1:4 or even 1:5 ratio which will encourage the birds to feed more often in order to satisfy their needs. The reduced ratio will increase your bird watching enjoyment and is better for the birds since stronger solutions may not meet the birds' water intake needs.

The color of the feeder is important. Hummingbirds are attracted by red. Do not use yellow colored feeders – you will attract bees instead.

It is true that flower nectar and table sugar contain little to no protein, or sodium and potassium salts. Not to worry; hummingbirds get most of their protein by eating small insects. Do not be fooled into using commercial "instant nectar" mixes or adding supplements. They are expensive and they may contain constituents harmful to hummingbirds. University of Arizona studies have shown that hummingbirds are unusually sensitive to dietary iron and suggest that hummingbird deaths may be due to supplements or commercial diets that didn't properly mimic the nectar found in flowers. Don't be fooled by statements that additives are approved by the Food and Drug Administration. The FDA regulates additives for human consumption: these additives have NOT been proven safe for hummingbirds.

## Additional Sources of information

For free downloadable posters, go to: <http://www.birds.cornell.edu/pfw/FreeDownloads.htm>

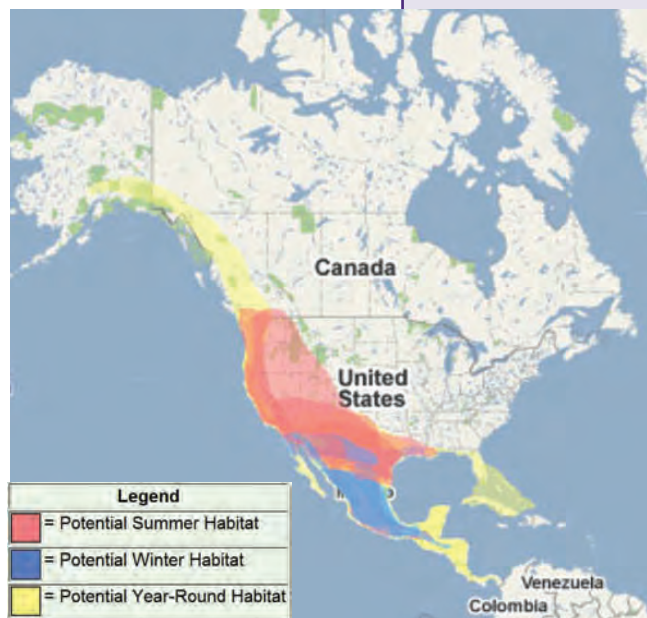
Find Habitat maps at: <http://www.worldofhummingbirds.com/habitatmap.php>

Check out the frequently asked questions (FAQ) at the Southeastern Arizona Bird Observatory site: <http://www.sabo.org/hbfaqs.htm>

## Hummingbird Nectar Recipe

Directions for making safe hummingbird food:

1. Mix 1 part sugar with 4 parts water and bring to a boil to kill any bacteria or mold present.
2. Cool the solution and fill the feeder.
3. Excess sugar water may be stored in the refrigerator.
4. Red dye should NOT be added.
5. Do NOT use honey, sugar substitutes or brown sugar – these are unnatural and unhealthy for hummingbirds.
6. Your feeder should be rinsed and refilled every 2 to 4 days. Use vinegar or a weak solution of chlorine bleach, if needed, to remove residues or mold. The feeder solution should always be changed if it become cloudy or smells fermented. This is another reason not to use dye – it will mask cloudiness.



A great video is available from PBS on their Nature page entitled: *Hummingbirds: Magic in the Air*. Click on the Video link at <http://www.pbs.org/wnet/nature/episodes/hummingbirds-magic-in-the-air/introduction/5424/> and you can watch this for free. If you love hummingbirds, don't miss this.

Two books to consider by Sheri Williamson:

Peterson Field Guide: *Hummingbirds of North America*. 2001. Houghton Mifflin Company.

*Attracting and Feeding Hummingbirds*. 2005. T.F.H. Publications, Inc.

## Literature cited:

Mayr, G. Fossil Hummingbirds in the Old World. *Biologist*. 2005; 52:12-16.

Hainsworth, R., and L. Wolf. Hummingbird Feeding. *WildBird*. May, 1993. Available at: <http://www.hummingbirds.net/hainsworth.html>. Accessed February 3, 2010.

Diagnostic Update - Wildlife. 2005. *Arizona Veterinary Diagnostic Laboratory Newsletter*. April, 2005. 10:1, pp. 6. Available at: <http://microvet.arizona.edu/AzVDL/newsletters/Apr05.pdf> Accessed January 23, 2010.

Hummingbird F.A.Q.s. Southwestern Arizona Bird Observatory Web site. 2008. Available at: <http://www.sabo.org/hbfaqs.htm>. Accessed January 11, 2010.