



Using Plants to Attract Hummingbirds to Your Yard

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Hummingbirds only occur in the western hemisphere (Mayr, 2005). While most of these species live in tropical climates, there are many that migrate into the U.S. during the summer months. Several species breed and spend their summers in Utah and the southwest U.S. The black-chinned (*Archilochus alexandri*), broad-tailed (*Selasphorus platycercus*), and calliope (*Stellula calliope*) hummingbirds are commonly found in Utah in summer months (www.birds.cornell.edu). Anna's (*Calypte anna*) and Costa's (*Calypte costae*) hummingbirds are found in the southwest, but are rare in Utah (Baltosser and Scott, 1996); magnificent (*Eugenes fulgens*) and blue throated (*Lampornis clemenciae*) hummingbirds sometimes breed in the southwest, but do not spend time in Utah (www.birds.cornell.edu).



Figure 1. The divided tip of the tongue and the lamellae.

How Hummingbirds Eat

Hummingbirds' primary food is flower nectar, a sugary liquid created by plants to attract pollinators (Hainsworth & Wolf, 1976), but they will also eat small insects and spiders in order to get the protein that they need. They have some special characteristics that allow them to drink nectar while hovering next to flowers. Hummingbird tongues are split on the end (Figure 1) and lined with lamellae (small hair-like structures). This creates two grooves in the tongue that trap nectar inside when the lamellae close over the top of the grooves. The movement of the tongue from the nectar into the air triggers the lamellae to close. The tongue is then pulled back into the mouth by special muscles (Rico-Guevara & Rubega, 2011). The structure and movement of the tongue into flowers is specialized to improve their ability to harvest nectar.

Special Flight

Hummingbirds are able to move their shoulders 180 degrees this allows the wings to move in a sideways figure eight pattern (Warrick et al., 2005). The ability of hummingbirds to move their wings 180 degrees creates almost continuous lift while the bird is hovering. This also allows hummingbirds to fly forward and backward (Warrick et al., 2005).

Attracting Hummingbirds

Hummingbirds choose flowers with high nectar production made up of high concentrations of sucrose, a type of sugar (Hainsworth & Wolf, 1976). Independent of nectar production and concentration, hummingbirds always choose the highest energy food source (Stiles, 1976). Flower colors with long wavelengths that contrast with the background are easily visible to hummingbirds, for example, red or orange flowers against dark green

vegetation or yellow flowers against a blue vegetative background (Barker, 1961). There are many species of plants that you can choose for your landscape and garden that will naturally attract hummingbirds. Planting a variety of these plants, choosing those that flower at different times

throughout the summer, will ensure that you attract hummingbirds all summer long. Once they are in your yard, you will have the pleasure of watching their natural behaviors such as mating displays, defending a favorite shrub, and maybe even feeding their young!

Table 1: A few native plants that will attract hummingbirds*.

Common Name	Scientific Name	Plant Type	Flower color
Twinberry honeysuckle	<i>Lonicera involucrata</i>	Shrub/vine	Yellow
Golden current	<i>Ribes aureum</i>	Shrub	Yellow
Desert snowberry	<i>Symphoricarpos longiflorus</i>	Shrub	Light pink to purple
Colorado blue columbine	<i>Aquilegia coerulea</i>	Forb	Blue
Pineywoods geranium	<i>Geranium caespitosum</i>	Forb	White, pink, purple
Scarlet gilia	<i>Ipomopsis aggregata</i>	Forb	Red
Rydberg's penstemon	<i>Penstemon rydbergii</i>	Forb	Blue to purple
Royal penstemon	<i>Penstemon speciosus</i>	Forb	Blue to purple
Whipple's penstemon	<i>Penstemon whippleanus</i>	Forb	Maroon
Firecracker penstemon	<i>Penstemon eatonii</i>	Forb	Red
Indian paintbrush	<i>Castilleja angustifolia</i> var. <i>dubia</i>	Forb	Red
Wavyleaf Indian paintbrush	<i>Castilleja applegatei</i>	Forb	Orange to red
Wild bergamot	<i>Monarda fistulosa</i>	Forb	Light purple
Hummingbird trumpet	<i>Epilobium canum</i>	Forb	Red
Cardinalflower	<i>Lobelia cardinalis</i>	Forb	Red
Trumpet creeper	<i>Campsis radicans</i>	Vine	Orange to red
Butterfly milkweed	<i>Asclepias tuberosa</i>	Forb	Orange
Coralbells	<i>Heuchera sanguinea</i>	Forb	Red
Wyoming Indian paintbrush	<i>Castilleja linariifolia</i>	Forb	Orange to red

* more information on each of these plants can be found at <http://plants.usda.gov>.

Concerns of Hummingbird Gardens

One concern of biologists regarding planting a hummingbird garden is the ability of non-native plants to cross-pollinate (pollen of one plant species is deposited on a different plant species) with native plants. Pollen from related species often competes and decreases seed set of native plants (Brown & Mitchell, 2001), eventually reducing the number of native plants in the area. For example, in wetlands, the invasive purple loosestrife competes with the native winged loosestrife (Brown & Mitchell, 2001). The pollen from purple loosestrife has been shown prevent pollination by other winged loosestrife flowers (Brown & Mitchell, 2001).

This reduces the number of seeds made by the native loosestrife and reduces the number plants the next year (Brown & Mitchell, 2001). Pollen from similar species of invasive plants has also been

shown to have allelopathic (chemicals produced by some plants that limit or stop natural processes in other plants) effect on the pollen of the native plant. Invasive pollen could fertilize the native plants causing hybridization (Brown & Mitchell, 2001). This is important because invasive species are one of the leading causes of habitat disturbance and loss of native diversity (Brown & Mitchell, 2001). The loss of diversity impacts our native beneficial insects, including native bee species, which are declining worldwide. Therefore, please select your landscaping responsibly; with such a great diversity of native seeds and plants available in today's market, there is no need to spread non-native plants in order to attract hummingbirds. Please visit this link ([native plant nurseries](#)) provided by Utah State University Extension to find a distributor near you.

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