

Module 1 (2nd Edition): Introduction to Urban Ecology
Teacher Resource

Hummingbird Species Common to Southern California/Los Angeles Region

	Anna’s (Year-round)	Allen’s (Year-round)	Costa’s (Migratory)	Rufous (Migratory)	Black-chinned (Migratory)
IUCN+ Species Status	Least Concern	Least Concern	Least Concern	Least Concern	Least Concern
	<p>Note: Although these species are rated as “least concern” we should consider the following:</p> <ul style="list-style-type: none"> • Some species such as the Allen’s and Rufous hummingbirds have experienced a significant decline; thus we need to study the factors (e.g. urbanization, coastal expansion, climate, habitat loss) that contribute to this in order to mitigate further decrease/potential decrease. • As citizen scientists, we can do our part to help hummingbirds by planting flowers/plants in order to have a variety of feeding sources to allow for successful existence and migration. Feeders are a supplemental intervention. • Hummingbirds are key pollinators in our ecosystem. 				
Rating on Continental Concern Score	8 out of 20	15 out of 20	13 out of 20	13 out of 20	11 out of 20
% decrease or % increase	2% increase per yr	83% cumulative decline	slow decline	2% decline per yr 62% cumulative decline	populations increased
Years Measured	1966-2014	1966-2014	1966-2015	1966-2014	1966-2014
Estimated Global Population	5 million	700,000	3 million	11 million	5 million
*On 2014 State of the Birds Watch List?	NO	YES	-----	YES	NO
*On 2016 State of North America’s Bird Watch List?	-----	-----	NO	-----	-----
Possible reasons for decline	-----	see below	habitat loss (loss of coastal scrub & Sonoran desert scrub)	see below	-----
Possible reasons for increase	widespread backyard feeders; more eucalyptus trees	-----	-----	-----	hummingbird gardens, hummingbird feeders

+International Union for Conservation of Nature

*lists bird species that are at risk of becoming threatened, endangered, or at risk of extinction without conservation action

Sources:

- https://www.allaboutbirds.org/guide/Annas_Hummingbird/lifehistory
https://www.allaboutbirds.org/guide/Allens_Hummingbird/lifehistory
https://www.allaboutbirds.org/guide/Costas_Hummingbird/lifehistory
https://www.allaboutbirds.org/guide/Rufous_Hummingbird/lifehistory
https://www.allaboutbirds.org/guide/Black-chinned_Hummingbird/lifehistory

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General List of possible causes for declines across hummingbird species and other bird species:

- less precipitation / moisture
- drier conditions / general drying trend (drought)
- overall changes in general climate (climate change)
- use of pesticides in gardens
- less snow melt at higher elevations, leading to lower water levels
- changes in blooming period
- fewer flowers for nectar feeders
- habitat loss
- disturbance from forest fires
- land use changes due to logging and human development

Viability of studying hummingbirds as an indicator species:

- hummingbirds feed on flower nectar, insects, spiders, tree sap, and at hummingbird feeders
- if changes in ecosystems cause a decline in those ecosystem resources, hummingbirds cannot survive
- if we see a general trend in declining hummingbird species, this is a key indicator that something is going on in the ecosystem
- it is important for us to preserve habitats that will provide ample hummingbird flowers for nectar feeders like hummingbirds and insects, as they are also key pollinators

What can we do in our urban areas in Los Angeles (schools, backyards, parks, green spaces)?

- *plant hummingbird friendly flowers* – see list below
- *provide fresh water* (hummers love to splash around in a bird bath!)
- *maintain a variety of hummingbird-friendly habitats* such as a variety of trees, bushes, flowers, etc. to provide feeding, roosting and nesting opportunities
- *put up a hummingbird feeder* and they will find it! It may take a little while but once they do, they will remember it and return each year to/from their migration. Feeders are a supplemental intervention in the event that flowers are not available.

Hummingbird friendly flowers:

Source: <http://www.hummingbirdsociety.org/hummingbird-flowers/>

“Hummingbird favorites usually but not always have long, tubular blossoms that are red, orange, yellow or blue, especially blue Salvia species; the shape limits insect access to the nectar inside. Hummers like blossoms with lots of concentrated nectar, preferring sucrose.”

See below for photos and description of hummingbird favorites.

OUR FAVORITE FLOWERS FOR ATTRACTING HUMMINGBIRDS

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<http://www.hummingbirdsociety.org/hummingbird-flowers/>

Photo	Family	Common Names	Description
An asterisk (*) indicates warm climates. Our personal favorites are underlined.			
	<u>Abutilon*</u>	Chinese Bell Flower Chinese Lantern Indian Mallow Flowering Maple	Approximately 150 species of broadleaf plants in the mallow family.
	<u>Agastache*</u>	Cusick's Giant Hyssop Hummingbird Mint Threadleaf Hyssop	A genus of 9–12 species of aromatic flowering herbaceous perennial plants in the Lamiaceae family.
	<u>Aloe*</u>	Aloe Vera	A genus containing about 500 species of flowering succulent plants.
	<u>Anisacanthus*</u>	Desert Honeysuckle Flame Anisacanthus	A genus of flowering plants in the bear's breeches family native to tropical and subtropical regions of the Americas.
	<u>Aquilegia</u>	Sierra Columbine Crimson Columbine Fragrant Columbine	A genus of about 60-70 species of perennial plants that are found in meadows, woodlands and higher altitudes throughout the Northern Hemisphere.
	<u>Caesalpinia*</u>	Bird of Paradise Broadpad Nicker Yellow Peacock	A genus of flowering plants in the legume family with different publications including anywhere from 70 to 165 species.
	<u>Callistemon*</u>	Crimson Bottlebrush	A genus of 34 species of shrubs in the family

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Weeping Bottlebrush Myrtaceae, all of which are endemic to Australia.
 Red Bottlebrush



Chilopsis Desert Willow A genus of flowering plant containing a single species, *Chilopsis linearis*.



Fuchsia Fuchsia A genus of flowering plants that contains almost 110 recognized species.



Hamelia Firebush A genus of flowering plants in the coffee family.



Justicia Water Willow Shrimp Plant A genus of flowering plants native to tropical and warm temperate regions of the Americas, with two species occurring north into temperate zones.



Kniphofia Red Hot Poker Torch Lily Knofflers A genus of flowering plants that includes 70 or more species native to Africa.

Lobelia Indian Tobacco Fool's Bane Vomitwort A genus of flowering plants comprising 360–400 species, with distribution primarily in tropical to warm temperate regions of the world and a few species extending into cooler temperate regions.

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Lonicera

Honeysuckle

There are about 180 species of honeysuckle, 100 of which occur in China; Europe, India and North America, with about 20 native species each.



Monarda

Bee Balm
Oswego Tea
Bergamot

A genus of roughly 16 species of flowering plants endemic to North America.



Penstemon*

Beard-Tongue

A large genus of North American and East Asian flowering plants with partly tube-shaped, and two-lipped flowers.



Salvia*

Sage

The largest genus of plants in the mint family with approximately 700–900 species of shrubs, herbaceous perennials, and annuals.



Tecoma /
Tecomaria

Yellow Trumpetbush

A genus of 14 species of shrubs or small trees in the trumpet vine family. Twelve species are from the Americas, while the other two species are African.

