

Module 10: Garden Ecology

**Urban EcoLab** 

May 2021

# **Hummingbird Resource for Teachers**

Center for Urban Resilience

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### Module 1 (2<sup>nd</sup> Edition): Introduction to Urban Ecology Teacher Resource

### **Hummingbird Species Common to Southern California/Los Angeles Region**

	Anna's	Allen's	Costa's	Rufous	Black-chinned			
	(Year-round)	(Year-round)	(Migratory)	(Migratory)	(Migratory)			
IUCN+	Least Concern	Least Concern	Least Concern	Least Concern	Least Concern			
Species								
Status	<ul> <li>Note: Although these species are rated as "least concern" we should consider the following:</li> <li>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.</li> <li>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.</li> <li>Hummingbirds are key pollinators in our ecosystem.</li> </ul>							
Rating on	8 out of 20	15 out of 20	13 out of 20	13 out of 20	11 out of 20			
Continental Concern Score								
% 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			

<sup>+</sup>International Union for Conversation of Nature

### **Sources:**

 $\underline{https://www.allaboutbirds.org/guide/Annas\_Hummingbird/lifehistory}$ 

 $\underline{https://www.allaboutbirds.org/guide/Allens\_Hummingbird/lifehistory}$ 

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

<sup>\*</sup>lists bird species that are at risk of becoming threatened, endangered, or at risk of extinction without conservation action

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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.						
	Abutilon*	Chinese Bell Flower Chinese Lantern Indian Mallow Flowering Maple	Approximately 150 species of broadleaf plants in the mallow family.			
	Agastache*	Cusick's Giant Hyssop Hummingbird Mint Threadleaf Hyssop	A genus of 9–12 species of aromatic flowering herbaceous perennial plants in the Lamiaceae family.			
	Aloe*	Aloe Vera	A genus containing about 500 species of flowering succulent plants.			
	Anisacanthus*	Desert Honeysuckle Flame Anisacanthus	A genus of flowering plants in the bear's breeches family native to tropical and subtropical regions of the Americas.			
	Aquilegia	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.			
	Caesalpinia*	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.			
	Callistemon*	Crimson Bottlebrush	A genus of 34 species of shrubs in the family			

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	Weeping Bottlebrush Red Bottlebrush	Myrtaceae, all of which are endemic to Australia.
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.
<u>Lobelia</u>	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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Z C	<u>Lonicera</u>	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.