UCLA | MILDRED E. MATHIAS BOTANICAL GARDEN UCLA College | Life Sciences Ecology & Evolutionary Biology

Insects Neighbors in L.A.

In Los Angeles, over 3,000 species of insects have been observed on the iNaturalist/Seek apps, and new species are still being discovered today! Anyone can add observations to these apps and become a community scientist. This visual guide offers a sample of insects you may find living in the city. As you can see from these photos, plants provide important habitat for many insects including food and shelter. In return, many insects help pollinate flowering plants. Look high and low and see if you can find some of the species featured here. These photos are of the adult stage of the insect's life. Treat all living beings with respect and observe insects with your eyes, not your hands. *Special thanks to Amanda Klingler, Sean O'Fallon, Eva Horna Lowell, Alejandra Gamboa, & Noa Pinter-Wollman for their contributions to this guide.*

Hemiptera | **True Bugs**

Large Milkweed Bug
Oncopeltus fasciatus
Summer/Fall
Leaves of tropical milkweed
15-20 mm body
Photo by Jesse Rorabaugh

Oleander Aphid
Aphis neri
Summer/ Fall
Stems of milkweed, oleander, and periwinkle
1-2 mm body
Photo by Jesse Rorabaugh

Diptera | **Flies, Mosquitos**

Mexican Cactus Fly
Copestylum mexicanum
Year-round
Larvae feed on rotting cactus and adults hover around flowers.
~2cm black body
Photo by James Maley

Lepidoptera | **Butterflies, Moths**

Painted Lady Butterfly
Vanessa cardui
Year round, mostly Summer/Fall
Open, sunny areas with flowers, especially thistle
5-7.5 cm wingspan
Photo by Jules Cooch

Western Tiger Swallowtail
Papilio rutulus
Spring
Urban parks and gardens, rural woodlands
7-10 cm wingspan
Photo by James Maley

White-lined Sphinx
Hyles lineata
Spring/Summer
Commonly found at dusk hovering above larkspurs, thistles, & petunias
5-7.5 cm wingspan
Photo by Robb Hannawacker

Mourning Cloak Butterfly
Nymphalis antiopa
Spring/Summer
Adults found on willow & elm trees as well as other plants
7-10 cm wingspan
Photo by Robb Hannawacker

Mantodea | **Mantids**

Arizona Mantis
Stagmomantis limbata
Summer/Fall
Shrubs and trees
Body up to 7.5 cm long. Females are usually green but may be grey, brown, or yellow.
Photo by James Maley

Hymenoptera | **Wasps, Bees, Ants**

Valley Carpenter Bee
Xylocopa sonorina
Spring / Early Summer
Build nests by burrowing into wood or foraging for nectar on flowers
2.5cm long fuzzy body

Argentine Ant
Linepithema humile
Spring / Summer / Fall
Build nests in the ground and forage for food in large groups
1-3 mm body
Photo by Jesse Rorabaugh

Guinea paper wasp
Polistes exclamans
Spring / Summer
Forage on flowering plants and build paper nests that hang off trees and human structures.
12-16mm body with unique yellow stripes

Western Honey Bee
Apis mellifera
Spring/Summer/Fall
Live in nests built in trees or buildings & forage on flowers
10-15mm fuzzy yellow body with black stripes
Photo by Noa Pinter-Wollman

Honey-tailed Striped Sweat Bee
Agapostemon melliventris
Spring / Summer / Fall
Found visiting flowers
6-9mm body. Head and thorax are bright green, abdomen pale yellow with brown/black stripes.
Photo by Terry Huang

Orthoptera | **Crickets, Grasshoppers**

Gray Bird Grasshopper
Schistocerca nitens
Spring/Summer
Ground or stems of plants
4-7 cm body
Photo by James Maley

Coleoptera | **Beetles**

Figeater Beetle
Cotinis mutabilis
Common
Spring / Summer
Prefer shady, damp areas and in mulch
3 cm iridescent body
Photo by Jesse Rorabaugh

Red Shouldered Leaf Beetle
Saxinis saucia
Spring / Summer
Larvae feed on roots. Adults found on leaves.
6 mm body with red spots
Photo by Jesse Rorabaugh

Odonata | **Dragonflies, Damselflies**

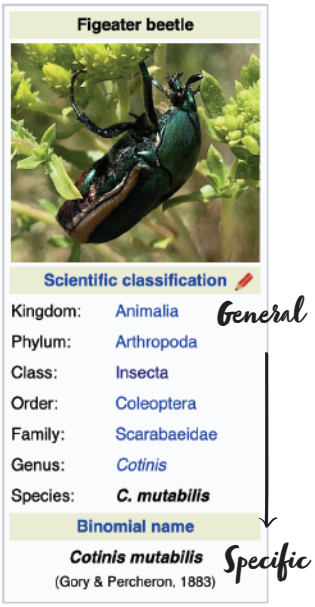
Flame Skimmer
Libellula saturata
Spring/Summer
Ponds, streams, & pools
5-6 cm wingspan
Photo by Robb Hannawacker

Vivid Dancer
Argia vivida
Spring/Summer
Ponds, streams, & pools
3-4 cm long body that is vibrant blue

Key to Insects

Why do we organize living things?

We organize things into categories to make sense of our world. Scientists study the similarities and differences in organisms to better understand how they evolved over time and are related to each other. Check out this example from Wikipedia of how a species is classified from broad groups like kingdoms (Animalia = Animals) to a unique species (Figeater beetle).



What is an insect?

Insects are small arthropod animals that have six legs and generally one or two pairs of wings. Arthropods are a broader group that includes spiders, millipedes, and other animals that we may think of as insects, but aren't in this more specific category. Insects are the most diverse group of animals on Earth, with over 800,000 described species—this is more than half of all known living organisms!

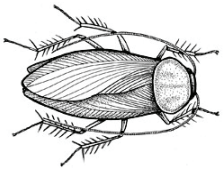
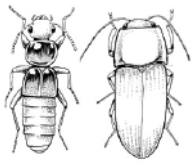
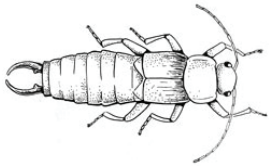
Ready to explore more?

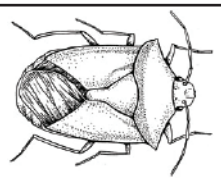
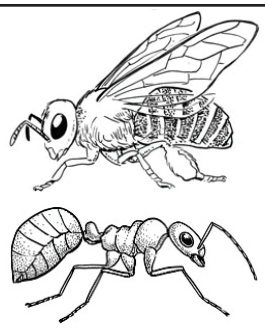
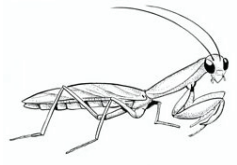
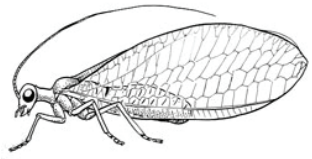
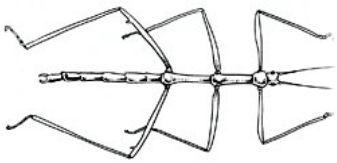
Become a community scientist and start making observations on the iNaturalist and Seek apps! These are free, easy to use, and can help us study what lives in our city.

iNaturalist is an online community that allows you to share observations to discuss, identify, and create research-quality community science data for science and conservation. **Seek** allows curious naturalists of all ages to earn badges and participate in challenges to observe organisms with on-screen identifications based on data from iNaturalist.

INATURALIST

SEEK BY INATURALIST

Class	Order	Common Name	Description	Depiction
Insecta (6 legs)	Blattodea	Cockroaches	Broad, flattened body Head usually concealed	 ‡
	Coleoptera	Beetles	Hard elytra	 ‡
	Dermaptera	Earwigs	"Pincer"-like cerci	 ‡
	Diptera	Flies, mosquitos	Only order with 2 wings	 ‡
	Ephemeroptera	Mayflies	3 "tail-like" filaments Wings very different in size	 ‡

Class	Order	Common Name	Description	Depiction
Insecta (6 legs)	Hemiptera	True bugs (aphids, leafhoppers)	Sucking mouthparts Wings half hard, half membranous or all membranous	 ‡
	Hymenoptera	Wasps, bees, ants	Usually with a constricted "waist"	 ‡
	Lepidoptera	Butterflies, moths	Scale-covered wings	 ‡
	Mantodea	Mantids (praying mantis)	Grasping, spiked forelegs for catching prey	 ‡
	Neuroptera	Lacewings	Clear, vein-filled wings	 ‡
	Odonata	Dragonflies, Damselflies	Long body, hind and front wings of similar size	 ‡
	Orthoptera	Grasshoppers, crickets	Long hind legs for jumping	 ‡
	Phasmida	Walkingsticks	Looks like a twig or leaf	 ‡

* Andrew Howells § Thomas Weissling ¶ Pearson Scott Foresman ' http://www.livingwithbugs.com/springtails.html ' http://biokeys.berkeley.edu/inverts/index.html

Special thanks to Dr. Shannon Murphy of the University of Denver for sharing this helpful key to insect orders.

Use this ruler to measure insects you find! 10mm = 1cm