

URBAN WILDLIFE MONITORING

San Bernardino Valley College

Last Update Apr 16, 2022

Biology Dept at SBVC

Brief Background

The campus vegetation sustains a diversity of macro- and micro- habitats visited temporarily or permanently by several wildlife. Though in some areas the vegetation is mostly monocultural, in other areas such as the Living Lab Garden (LLG) and the Oak Garden (OG), the contained vegetation is representative of a [California Floristic Province](#).

Thus, our campus Living Lab Garden and Oak Garden are highly biodiverse even though we are on a very urbanized setting. Biodiversity has been documented via direct and indirect monitoring conducted by faculty, students, and classified staff on walk surveys, laboratory experiences, and unanticipated sightings.

Biological accounts pertaining to the Gardens have been conducted after installation of the plant palette created in 2014-15 in collaboration with the District's project management, SBVC Administrative Services, and thereafter additional plant cultivation and planting conducted by Biology faculty and student volunteers.

Below are the species accounts of different animal groups: Birds, Mammals, Reptiles, and Arthropods (hyperlinks are used below for easy sampling of our campus biodiversity).

BIRDS

California Seagull(?)

Mallard Duck

Turkey Vulture

Cooper's Hawk (*nesting 25Mar2022, resident*)

Swainson's Hawk

Red-tailed Hawk

American Kestrel

Merlin

Mourning Dove

[Greater Roadrunner](#)

Great-horned Owl

Costa's Hummingbird (*nesting, resident*)

Anna's Hummingbird (*nesting, resident*)

Northern Flicker (*local migrant*)

[Acorn Woodpecker](#) (*nesting, residents (6;2)**)

[Western Kingbird](#)

Western Flycatcher

Black Phoebe (*nesting, resident*)

[Cedar Waxwing](#) (*local migrant*)

Cliff Swallow

Scrub Jay (*nesting 25Mar2022, resident*)

Bushtit

Common Raven (*nesting, resident*)

American Crow

House Wren

Mockingbird

American Robin

[Kinglet, Ruby Crowned](#)

Phainopepla

European Starling (*invasive*)

Yellow-rumped Warbler

Myrtle Warbler

Northern Oriole

[Scott's Oriole](#)

Brewers Blackbird

[Western Tanager](#)

House Finch

Pine Siskin

Lesser Goldfinch

California Towhee

[Dark eyed Junco \(Oregon\)](#) (*local migrant*)

*Week prior to Mar 22, 2022, resident numbers were at 6. Palm tree, and Oak tree removal thereafter, modified presence to fewer individuals and behaviors.

MAMMALS

Different species of mammals are found in the various plant communities

Coyote (*Canis latrans*)

Western Gray Squirrel (*Sciurus griseus*)

REPTILES

Western Fence Lizard

Western Spiny Lizard

White crowned Sparrow

House Sparrow

Lark Sparrow (*migrant*)

Song Sparrow

[Western Side blotched Lizard](#)

[Southern Alligator Lizard](#)

ARTHROPODS

[California Dogface](#) butterfly (State butterfly)

Cabbage white butterfly

[Western Tiger Swallowtail](#) butterfly

[Blues](#) (Polyommatainae)

Painted Lady butterfly

Monarch butterfly

Skipper butterfly

[Sphinx moth](#)

[Flame Skimmer](#) dragonfly

Vivid Dancer or [Bluet](#) damselfly

Mining bees

Carpenter bees

[Halictid](#) bees

Ground beetles

Chrysomelid beetles

Curculionidae beetles

Observation and experimental studies continue to be conducted this Spring 2022, particularly for Bio 207, Evolutionary Ecology from March thru May. Student projects are conducted individually or in groups of two.

The Spring 2022 Spring survey conducted by Biology faculty on March 25th, revealed two nesting birds. The California Scrub Jay nesting on a Toyon, near a Canary Island Pine of the Living Lab garden (subjected for removal on demolition plans for Summer 2022) and a Cooper's Hawk on a Sycamore Tree in the Oak Garden.

Please note a GIS mapping class practice was conducted by Bio 207 students on Friday March 4, 2022. The resulting map and bird accounts are found in attachment #3 or p5 of this doc. Three of the palm trees documented on this map were removed on the week of March 14th 2022. Thus, this lab will no longer contain the same classroom experience next year.

Here are a few examples of Spring 2021 campus studies:

Correlation between plant coverage and nectar volume in the coral aloe, Aloe striata by Natthinee Sutjaitham

Water retention and stem height based on sun exposure and water distance by Ashley Alberto

Visitation frequency of bees to plants based on plant species by Jordan Darsow

Vegetative and reproductive differences between two subpopulations of Mahonia sp. by Alexander Fermin

Correlation between flower shape and the number of honeybees they attract by Vanessa Garcia-Munoz

Group and Individual Behaviors of goldfish from two separate ponds by Madison Gill

Hummingbird gazing: A search for a hummingbird's favorite spot by Maria Gonzalez

Do carpenter bees favor taller plants? by Ariyana Martinez

Soil moisture and arthropods in leaf litter by Moises Rivera-Alfaro

Study of macroorganisms compared between two freshwater ponds by Holden Sparrow

Hummingbird parental care strategies by Stephanie Lomeli

ADDENDUM A, BIRD BIODIVERSITY COMPARISON

Observations, since 1990 and prior to the establishment of the native vegetation

Turkey Vulture

Red-tailed Hawk

Mourning Dove

Costa's Hummingbird

Black Phoebe

Cliff Swallow (uncommon)

Scrub Jay

Common Raven

Mockingbird

European Starling

Yellow-rumped Warbler (uncommon)

House Finch

ADDENDUM B, LIVING LAB GARDEN VEGETATION

This is a representative list of the Living Lab Garden with direct evidence of wildlife occurrence and/or outdoor laboratory utilization:

Oak Woodland Zone:

- Toyon
- Coast Live Oak
- Sugar bush
- White Alder
- California Lilac
- Canary Island Pine
- Orchid Tree (purple and white variants)



Chaparral Zone:

- California Fuchsia
- Purple Sage
- Toyon
- Coast Live Oak



Desert Zone:

- Palo Verde 'Desert Museum'
- Desert Willow
- Narrow-leaf milkweed
- Desert globemallow
- Joshua tree



Fossil Garden Zone:

- Scarlet Monkeyflower (natural recruit)
- Common Yarrow
- Cleveland Sage
- Incense Cedar
- Dawn Redwood
- California Redwood

Coastal Sage Scrub Zone:

- White Sage
- California Sagebrush
- California Brittlebush



Photo Credits: Allicia Dean; Film, sbvc student graduate 2021

Photos taken on Spring 2021

Class Practice, GIS Mapping of Campus Birds

Mar 4 2022 Map Results

