

# **Museum Displays**

## **Principal Concept: Communities of Life**

Three different communities converge in Placerita Canyon. Where they overlap (ecotones), there is added value for wildlife. Animals can have a variety of food sources and habitats without having to travel far.

### **Riparian Display**

Tall Sycamores and shrubs like the Wildrose and Mule Fat create a riparian habitat. Although Placerita Creek flows only seasonally, enough moisture collects in the soil to support these plants. They in turn attract insects, birds and small mammals.



## Plants

### **Miner's Lettuce** (*Claytonia perfoliata*)



- In a woodland it can cover acres like a dichondra lawn
- Used by Native Americans and miners as fresh salad herb and can be found commercially today
- Leaves have a succulent appearance; the flower stem appears to have the center of the leaf pierced
- An annual that can be found in the spring in any moist area

### **California Wildrose** (*Rosa californica*)



- Semi-deciduous, aromatic; flowers April to August
- Large thickets because it spreads by rhizome roots
- Impressive in the fall with its fruit - the rose hips
- Soft green leaves, not shiny like garden rose
- Found along the Canyon Trail

### **Arroyo Willow** (*Salix lasiolepis*)



- Host plant for the larvae of many butterflies
- Birds will eat the buds and catkins
- Can tolerate uprooting in the stream and re-root down-stream after a flood
- Can be seen in the stream across from the Oak of the Golden Dream
- It has a smooth gray bark and remains a shrub
- Willows were the original source of aspirin.

### **Mule Fat** (*Baccharis salicifolia*)



- Like most Southern California riparian trees, Mulefat has gender. Some plants will have only the male flowers with pollen and others only the female flower with seeds.
  - One of several plants whose stems were used for arrow shafts. Mulefat stems are fairly straight for this use.
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- Very common in any stream course.
  - Has sticky willow like leaves, 10 -12 ft. tall, evergreen, with multiple vertical branches.
  - Common name derives from placer miners whose donkeys would eat the leaves. The donkey's stomach would swell up due to toxins, but the miners originally thought they were getting fat on Mulefat.

### Yerba Santa (*Eriodictyon crassifolium*)



- Both the Native Americans and the Spanish thought this plant had medicinal value both as a tea and as topical salve. Native Americans might also use the leaves to abate the feeling of thirst.
- It was so highly prized, it was given the name Holy Herb - Yerba Santa by the Spanish Padres.
- On warm days when hiking, it is the source of the sweet aroma in the air.

- It is found in drier, sunnier areas. On the Ecology Trail it forms an avenue of blue flowers in the spring.
- Has hairy oblong leaves. Young leaves are greener and less hairy.

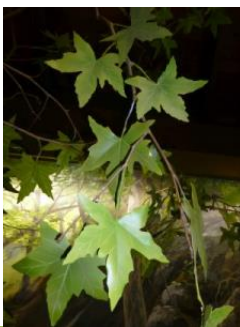
### Blackberry (*Rubus ursinus*)



- Blackberry has leaves of three like Poison Oak. But unlike Poison Oak, has green gray stems with thorns.
- In Southern California, the berries are rarely seen because all sorts of animals relish the berries.
- Parent plant of loganberry and boysenberry
- Stem tips can root

- Dioecious mostly - male and female plants
- Found on the Canyon and Waterfall Trail

### Sycamore (*Plantanus racemosa*)



- This tree is a sure sign of a shallow water source. Its broad leaves lose lots of water by evaporation and this tree requires a significant water source.
- In a densely vegetated riparian area this tree's trunk can become quite distorted in order to reach the sun, like near the Oak of the Golden Dream.

- The Sycamore is the preferred tree for the Acorn Woodpecker to chisel out a nest and set up an acorn granary. The tree grows fast and has a softer wood than the oaks.
- Its large leaves were probably used like a diaper for a Native American baby basket, and since the leaves have a furry underside a suitable toilet paper.

### Poison Oak (*Toxicodendron diversilobum*)



- Similar to Poison Ivy (which is not found in Southern California) but a different species. Both have the leaves of three, a sign to beware; all parts of the plants have urushiol that can bind to the skin and cause an allergy (contact allergy). Washing with soap (especially alcohol soap) may wash away urushiol if done immediately after exposure.
- Doesn't affect birds or animals, whom eat the white berries and the leaves (but keep your dog on a leash as you can get exposed to the urushiol oil from the fur of the dog when you pet him).
- Beware of brown leafless stems in the fall and winter as well, the plant drops its leaves, but the stems are just as allergenic.

### Juncus (Irishleaf Rush) (*Juncus Xiphioides*)



- Perennial with stout creeping rhizomes
- Rush is not a sedge like tule or a grass, but is a monocot
- Found only in wetlands or stream side
- Referring to the stems of these 3 plant families of monocots this old mnemonic is helpful but not always true: "Sedges have edges; rushes are round; grass is hollow right up from the ground."

### Creek Monkeyflower (*Mimulus guttatus*)



- Also called Seep Monkeyflower
- Most commonly found in the Placerita stream bed or seeps along Waterfall Trail
- Flowers April to June, flowers have red dots and hairy throat
- Annual or perennial herb (rhizomatous)
- Does well in well watered gardens

**Scarlet Monkeyflower** (*Mimulus cardinalis*)



- Most commonly found in the stream beds, 2-4 ft. high
- A perennial, flowers April to October
- Rhizome root
- Flower flattened vertically, upper petals erect and curved forward, lower petals curved back toward stem
- Sticky, wide, light green leaves
- Does well in watered garden along the edge of a lawn



## Birds

### **Hermit Thrush** (*Catharus guttatus*; Taxidermy - in tree)



- Distinguished by breast with blackish spots and thin white eye ring
- Difficult to see - often in shade and hops on ground for insects
- Usually seen singly. Flicks wings, raises & lowers tail when perched
- Has a beautiful song

### **Cooper's Hawk** (*Accipiter cooperii*; Painted on back wall)



- Distinguished by long rounded tail (white band at tip of tail) and reddish barring on chest (see one in classroom)
- Ambushes birds (often seen at bird feeders)
- Fairly common year-round resident
- Flies with quick wing-beats

- Confused sometimes with Sharp-shinned Hawk (shorter, square tail) – a winter visitor

### **Western Tanager** (*Piranga ludoviciana*; Taxidermy - male in breeding plumage - in tree)



- Distinguished by reddish/orange head, yellow body, black back, two wing bars (female lacks orange; head a dull olive color)
- Spring migrant (April/May); early fall migrant (Jul/Aug/Sept); found gleaning insects through foliage high in trees.
- Breeds above 4,000'

- Song is similar to American Robin, but shorter and more "hoarse"

## Mammals

### **Coyote** (*Canis latrans*)



- Life Span: 10-14 years (up to 20 in captivity)
- Mating season: Dec – Jun
- Gestation Period: 63-65 days
- Litter Size: 6-7 average
- Litters per year: one

- Due to the disappearing of its larger cousins, the wolves, range expanded now and is found in most of the country (before: western grassland and deserts).
- In some areas they can bring down a deer by hunting in packs.
- Usually preys on small mammals, reptiles, insects, fruit
- Well-known howling
- Size: 41.5-52” (male larger than female)
- Habitat: plains, prairies, woodlands, brushy areas

### **Western Gray Squirrel** (*Sciurus griseus*)



- Life Span: 7-8 years
- Mating season: Feb – Mar
- Gestation Period: 44 days
- Litter Size: 1-5
- Litters per year: one (southern part of its range sometimes second litter as late as August)

- The only gray tree squirrel in the oak and conifer forests along the Pacific Coast
- Eats acorns, nuts, berries, fungi, pine seeds; active all year
- Builds nest of leaves or twigs during warm months. In winter often moves into hollow trees.
- Bushy tail helps to maintain balance when jumping from limb to limb or running along tree limbs (compared to Ground Squirrel with relatively small tail).
- Size: 18-23”
- Habitat: forests, woodlands

Listed as extirpated in some California areas. Fox squirrels (*Sciurus niger*) were introduced to the Los Angeles area in about 1904. These aggressive cousins drove the more reclusive western grays back into the mountains, where competition was not so strong. This non-native species introduction appears to be the largest threat in the southern California area. (source: Wikipedia.org)

**Raccoon** (*Procyon lotor*)



- Life Span: 2-3 years (up to 14 in captivity)
- Mating season: Feb – Mar
- Gestation Period: 63 days
- Litter Size: 2-7
- Litters per year: one

- One of North America's most versatile and adaptable animal
- Expert climber and skilled swimmer
- Primarily nocturnal
- Often den in hollow trees
- Size: 26-40"
- Habitat: forests, woodlands, residential areas, especially near water



## Other

### **California Newt** (*Taricha torosa*; Water area front left on rock)



- A newt that lives under leaf litter, logs and rock crevasses
  - Breeds in ponds or slow moving water
  - Exudes a potent neurotoxin on its skin that is hundreds of times more toxic than cyanide
  - California newt is dangerous only when eaten
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- Very few predators. The most common predator is the Garter snake.
  - Eats worms, snails, slugs, mosquito larvae, crickets, and other invertebrates
  - Populations have been greatly reduced due to introduced invasive species.

### **Baja California Treefrog** (*Pseudacris hypochondriaca*; Adult on a rock in the center of the stream)



- Very small frog 3/4 to 2 inches
  - Range from Southern California to Baja California.
  - May be green, brown, cream or gray in color. Can change its color like a chameleon.
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- Makes the classic frog sound “ribbit”
  - Can be found high up a tree trunk
  - Has smooth moist skin
  - Eats a variety of invertebrates and a high percentage flying insects
  - Lays eggs in water attached to sticks or reeds

### **Baja California Treefrog Eggs and Tadpoles** (*Under water attached to sticks middle left side*)



- Eggs are laid in gelatinous clusters
  - Females lay eggs in gelatinous clusters of 10-80 eggs
  - Female lays a total of 400-750 eggs
  - Eggs deposited in winter and spring
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- Eggs hatch in 2-3 weeks
  - Large schools of tadpoles feed on bacteria, algae, protozoa and organic debris
  - Tadpoles enter metamorphosis in about two months

### **Damselfly** (*Zygoptera* family; Adults on Willow)



- Related to dragonflies but smaller overall
- Damselflies fold their wings over their bodies and along the side of their bodies when at rest.
- All damselflies are predators

- In contrast to a dragonfly, the damselfly has smaller eyes which are separated on a smaller rectangular head
- Female deposits eggs in plant tissues in Riparian area
- Some species live only a few days to a few weeks

### **Damselfly Nymph** (*Under water near back on a rock; model significantly enlarged*)



- Damselfly nymph is a voracious predator of mosquito larvae in ponds and slow moving water.
- The damselfly has an extendable lower jaw that unhinges to reach out and capture prey.
- Breathes through three external gills at its rear end

- May spend four years in this nymph stage under water
- As they grow they molt a dozen times in the water.
- When fully grown it climbs up a stick or reed out of the water to split its skin and emerge as an adult damselfly.

### **Blue-eyed Darner** (*Aeshna multicolor*; Adults on Blackberry canes, Willow and Sycamore)



- This is the “classic” dragonfly.
- Wings are held open at rest
- Ranges from British Columbia to Northern Mexico
- Only found where there is water
- A predator that catches prey on the fly

- May live for only a few weeks as an adult
- Spends most of its life as a nymph under the water
- Each of its large compound eyes is made up of 40,000 individual eyes.
- Female touches the water surface to lay eggs
- Ancient species flew over dinosaurs but were three feet across at that time

**Blue-eyed Darner Nymph** (*in front of rock in the sand at the rear right water exhibit*)



- Voracious predator
- Breathes by means of gills at its rear and expels water through it to propel forward
- When fully grown it climbs a stick or reed and “morphs” into a dragonfly.

**Water Strider** (*Gerridae family; on the water surface center of the stream*)



- Also called “pond skaters”
- May live several months
- Lives in ponds or slow moving water
- Appears to walk on water because of widely spread legs that are “waterproof” and don’t absorb water

- Eats living and dead insects on the water’s surface
- During mating season they communicate by making ripples on the water’s surface.
- Prefers shaded places

**Giant Water Bug** (*Belostomatidae family; two bugs, one male with eggs middle right under surface and a female middle of stream under the surface*)



- As large as 2”
- Also called “toe biter” or “water wasp” because of painful, but not dangerous, bite
- Fierce predator that stalks and strikes its prey injecting enzymes that liquefy the prey’s soft insides
- Lives in stagnant or slow moving water

- Flies at night from one water source to another
- May be attracted to light at night
- Male carries the eggs on its back which hatch in about four days
- May live a year or longer
- When it needs to breathe it sticks a “snorkel” above the surface

**Diving Beetle** (*Dytiscidae* family; several under water surface center of stream)



- Also called Predacious Diving Beetle
- Found throughout the US
- Predaceous insect feeds on a variety of aquatic insects
- Injected enzymes liquefy soft tissues to be suctioned out

- Adults breath air underwater by bringing an air bubble with them from the surface
- About 1-1½” long

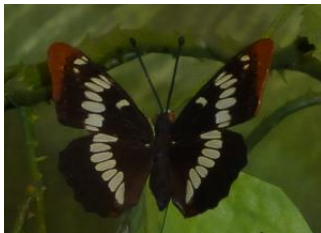
**Water Boatman Beetle** (*Corixidae* family; under water surface lower left)



- Over 120 species in North America
- Smaller than half inch
- Mostly vegetarian
- Has oar like back legs that are fringed with fine hairs that are used for propulsion

- Can fly at night between water sources
- Carries a bubble of air under a wing covering for breathing
- Male attracts mate by making a “chirping” sound as it rubs forelegs against its head

**Lorquin’s Admiral** (*Limenitis lorquini*; on Blackberry)



- Usually flies around April to October
- Wingspan 47-71mm, females generally larger than males
- Feeds on California Buckeye, Yerba Santa, bird droppings, and dung
- Common trees that larvae feed on include Willows and Cottonwood

- Named after a French naturalist who came to California during the gold rush
- Extremely territorial and will attack any intruders into their habitat, including large birds