

## Chaparral Display

Chaparral is the most widespread native plant community in Southern California, forming dense impenetrable thickets of shrubs to 8 feet high. Shaped by a Mediterranean climate (mild, wet winters and hot, dry summers) and infrequent, high-intensity fire, most of the drought-tolerant plants have shallow horizontal roots and deep taproots to capture and hold as much water as possible.

Chamise, buckwheat, toyon, scrub oak, yucca and other tough-leaved plants comprise the Chaparral. Sun baked on south-facing slopes, these plants endure long hot summers, providing seeds, fruits and protective cover for birds and other small animals.



## Plants

### **Hairy-leaf Ceanothus** (*Ceanothus oliganthus*)



- Blue/purple dense flower head, blooming February to April. Can hear the seed capsule bursting open in the summer along the Hidden Trail
- Fertilizes the soil, nitrogen fixing roots
- Regrows from seed; seeds stimulated by fire
- Usually found on north-facing slopes

- This ceanothus, like all ceanothus' flower heads, fresh or dried, form a soapy lather when rubbed with water

### **Mountain Mahogany** (*Cercocarpus betuloides*)



- White flowers are small, clustered and mildly scented, blooming March to May
- Important fertilizer of chaparral soils
- Important food for deer

- Has monkey-tailed seeds that helicopter in the wind; in late summer, the monkey tails give a silvery cast to the plant that stands out in the chaparral
- The hard reddish wood was used by Native Americans for making digging sticks and for spear and arrow shafts

### **Sugar Bush** (*Rhus ovata*)



- Evergreen shrub to small tree with large leathery leaves folded like a taco shell
- Pinkish-white flowers March to May
- Quarter inch tart-tasting red seed capsule coated with a flesh that could be used to sweeten water for a drink

- Like most chaparral plants, photosynthesis in the summer goes to supporting new roots instead of new leaves; new leaves will grow only when water is abundant; unlike the shallow rooted stages, it is part of their adaptive strategy to retain their leaves through the summer

**Toyon** (*Heteromeles arbutifolia*)



- Common perennial shrub with white flowers blooming June and July
- Red berries important food source for birds, squirrels, foxes, coyotes, bears and Native Americans
- Usually found on north-facing slopes, or arroyo (stream)
- Once extensively used for holiday decorations, its collection is now illegal and punishable by a fine

- Deer will browse young growth

**California Sagebrush** (*Artemisia californica*)



- Very aromatic leaves
- Member of sunflower family
- Used by Native Americans to disguise human odor from deer when hunting; by miners to ward off fleas; by cowboys as well (aka Cowboy cologne)
- Loses many of its leaves in the summer
- Shallow rooted

**Chamise** (*Adenostoma fasciculatum*)



- Evergreen shrub with small, white tubular flowers blooming February to July; small leaves are shiny with flammable oils
- If chamise isn't present, it's not chaparral; without fire, chamise would eventually dominate chaparral
- Chamise lives much longer than ceanothus
- Can establish itself in drier and shallower soils

**Coyote Brush** (*Baccharis pilularis*)



- Native evergreen perennial shrub with succulent-looking leaves (to prevent loss of water via transpiration) and small flowers that bloom from August to December
- Has large, strong and wide root system which absorbs water after rain and facilitates survival

- Dioecious plant (each shrub produces either male or female flowers); male plants produce yellow flowers, female plants whitish flowers
- A 1951 study found over 221 species of insects living on coyote brush

### **Black Sage** (*Salvia mellifera*)



- Shrubby plant 3-6 feet high with dark, aromatic, green leaves that are narrow and wrinkled; light blue to lavender flowers grow in 3-9 whorls along the stem
- Flowers bloom early from March to June
- Native Americans used plant to protect acorns from insects and to mask the human scent when hunting; leaves were brewed into a tea
- Seeds were parched and made into meal by Native Americans also
- A favorite plant for nectar-gathering bees, other insects and hummingbirds; birds love the seeds too

### **California Buckwheat** (*Eriogonum fasciculatum*)



- A very common plant of the chaparral
- Medium-sized shrub to 3 feet high; tiny pinkish flowers April to October in dense terminal heads turn reddish brown which make California hillsides look brown in late summer/fall
- Tiny seeds were “desperation” food for Native Americans
- Wonderful plant to attract butterflies (Acmon Blue) and bees

### **Yucca** (*Hesperoyucca whipplei*)



- A drought-tolerant chaparral plant that takes about 5 years to mature and bloom, then dies; many offsets from the base replace parent plant
- Single inflorescence grows very fast to 4-8 feet with hundreds of bell-shaped white flowers April through July
- Pollinated by yucca moth, an example of symbiosis
- Sword-like leaves 1-3 feet long with needle-sharp leaf tips
- Native Americans used every part of this plant: flour from seed; leaf fibers for cordage, nets and baskets; young stalks baked (tasted like sweet potato); flowers eaten; roots used for soap and shampoo
- Also known as Our Lord’s Candle, Spanish Bayonet, Chaparral Yucca

## Yerba Santa (*Eriodictyon crassifolium*)



- Erect native shrub 3-12 feet with gray-green leaves of wooly hairs and bell-shaped flowers in clusters of blue to lavender that bloom April to June
- Abundant on Ecology Trail
- Native Americans and Spanish padres (named it Holy Herb) thought this plant had medicinal value as a tea and topical salve for respiratory infections and fevers; fresh leaves were chewed as thirst quencher

## Mammals

### Gray Fox (*Urocyon cinereoargenteus*)



- Life Span: 6-10 years
  - Mating season: Feb - Mar
  - Gestation Period: about 53 days
  - Litter Size: 1-7 kits
  - Litters per year: 1
  - Large fox with pointed ears, white on throat, reddish below and on sides of neck (lacks the “black stockings” of the Red Fox)
  - Skillful at climbing trees to feed on bird’s eggs and to escape predators (no other American canid can do this)
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- Monogamous, omnivorous, solitary hunter; primarily eats rodents, rabbits
  - Nocturnal or crepuscular
  - Size: 31-44” total length (males slightly smaller than females)
  - Habitat: forests, woodlands, and thickets



## Birds

### **California Scrub-Jay** (*Aphelocoma californica*; Painted on far left of wall)



- Distinguished by deep-blue above and brown back patch, white throat and long tail
- Common year-round resident
- Omnivore - eats insects, acorns, bird eggs, frogs, fruit, etc.; caches food; comes to bird feeders
- Very intelligent; found usually in pairs
- Flies low from tree to tree

### **California Towhee** (*Melospiza crissalis*; Taxidermy – on top of plant material)



- Distinguished by a rusty orange undertail (large, plain brown sparrow)
- Often seen at Nature Center's front door on steps foraging for food - common year-round resident
- Call is a sharp metallic *chink*
- Usually in pairs; scratches in leaf litter for seeds, insects

### **Phainopepla** (*Phainopepla nitens*; Model - male is glossy black, female gray)



- Distinguished by long tail, ragged crest above head and red eyes
- In wild, perches upright atop shrubs, trees. Sallies out after flying bugs; in winter, feeds on mistletoe, elderberries, etc. (new plants from their droppings)
- In flight, male shows large white patches in wings

### **California Thrasher** (*Toxostoma redivivum*; Taxidermy - on top of plant material)



- Distinguished by long, decurved bill, large brown body, long tail, white chin
- Terrestrial – scratches through leaf litter for seeds & wide variety of insects
- Year-round resident in chaparral
- Rarely seen higher than a shrub or low tree; runs in underbrush with tail elevated

**Wrenit** (*Chamaea fasciata*; Model - on a rock in front of bush)



- Distinguished by fluffy gray/brown body, whitish eyes, long tail held high
- A year-round resident, but seldom seen; flits about in dense brush in pairs, eating insects, small berries
- Song is descending notes similar to a ping-pong ball dropped on a table

**Turkey Vulture** (*Cathartes aura*; Painted on back wall)



- Distinguished by 66" wingspan, blackish-brown appearance, bare red head, whitish bill. Flight feathers silvery-looking from below.
- Keen sense of smell - feeds on decaying carcasses (especially road kills)

- Travels long distances searching for food, soaring on V-shaped wings - often rocking back and forth in flight but rarely flaps its wings
- Uses thermals of warm air and updrafts to stay aloft

**Red-tailed Hawk** (*Buteo jamaicensis*; Painted on back wall)



- Distinguished by 49" wingspan (think Lady Hawk), reddish-orange tail, chocolate bars\* and bellyband\*\*  
\*Distinct dark patch along leading edge of inner portion of underwing  
\*\*Streaked contrasting dark feathers across chest of bird

- Stocky with rounded wings and short tail (plumage can be variable)
- Most widespread and familiar large hawk in North America - commonly seen on roadside poles year-round
- Hunts mid-sized mammals, reptiles, birds - even snakes - grasping prey with its talons
- A down-slurred scream like "tseeearr" often heard to secure its territory and drive away intruders

## Reptiles

### **Southern Pacific Rattlesnake** (*Crotalus oreganus helleri*)



- One of nine subspecies of Western Diamondback Rattlesnake
  - Color highly variable among individuals; triangular head with narrow neck
  - Heat-sensing loreal pit on each side of head, between nostrils and eyes and is extremely sensitive
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- Paired fangs unfold from roof of mouth and extend as it strikes; 20-25% of bites are “dry” with no venom; venom contains neurotoxin which attacks victim’s nervous system and hemotoxin affecting blood cells
  - New rattle added with each shed which can happen several times a year; warning signs include rattling and hissing
  - Essentially deaf (no external ears) but very sensitive to vibrations; good vision and sense of smell
  - Usually corners or ambushes prey; eats every couple of weeks if food is available (can go 6 months or longer without food); diet includes small mammals, birds, reptiles and amphibians
  - Gives birth to live young; can live 10-20 years in the wild

### **Western Fence Lizard** (*Sceloporus occidentalis*; one on sand and one on rock under yucca)



- Common lizard that is mottled brown to black with black stripes on back and bright blue bellies (absent in females); change of color during thermoregulation
- Diurnal and commonly seen sunning themselves on rocks, etc.
- Eats spiders and insects such as beetles, mosquitoes, grasshoppers
- Hibernates during winter; emergence depends on climate; lifespan under optimal conditions is 5 years
- Females lay 1-3 clutches of 3-17 eggs (usually 8) between April and July; the eggs hatch in August