

Creating Bird-Friendly Landscapes



Creation and design by
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All photographs by
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(unless otherwise noted)

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Why Garden for Wild Birds?



- You can get a better view of birds and see more species.
- You will have increased opportunities for photographing birds and other wildlife.
- You don't have to drive your car anywhere, as the birds are in your own backyard.
- Birds play vital roles in the balance of ecosystems. They:
 - Help control insects and other garden pests.
 - Disperse seeds and berries, pollinate many plants and distribute nutrients.
 - Provide food for a wide variety of predators such as hawks, reptiles mammals and sometimes humans.

Why Garden for Wild Birds?—*continued*



- You can introduce young people to the world of birds and nature appreciation- it is a family affair
- You will be creating much needed wild bird habitat which helps offset the huge habitat losses due to human activity.
 - Habitat loss – due to destruction, fragmentation or degradation of habitat—is the primary threat to the survival of wildlife in the United States.
 - 80% of wildlife habitat in USA is privately owned.
 - 2.1 million acres ‘per year’ of land in the USA is converted to residential use and is generally lost as usable wildlife habitat.

Why Garden for Wild Birds?—*continued*



- Birds bring a garden to life with their varied plumages, songs and calls, feeding habits, flight displays, territorial, mating, nesting and fledgling behaviors.
- Birds are important sentinels of nature and by observing and listening to them you will learn what is going on in your back yard or property.
 - Recommended reading for understanding bird behavior and language: Jon Young’s book, *“What the Robin Knows”*.

Bird Gardening: Some General Precautions



- Bird-friendly gardens can attract other wildlife (some of whom may be less welcome for you) such as raccoons, squirrels, rodents, skunks, hawks, and even bears or bobcats if you live rurally.
- If you own a cat, it is important that you keep it indoors. Domestic and feral cats kill between 1-3 billion birds in the U.S. every year.
- In your garden, eliminate predator ambush stations near feeders and water features.

Bird Gardening: Some General Precautions



- Windows in homes and offices kill as many as one billion birds each year. Glass is invisible to birds, and if it reflects the images of trees, bushes, the sky or other natural habitat, a bird may fly directly into it.
- Bird-friendly gardens can create conflicts if you grow fruit trees; you may need to protect fruit from birds with netting or other deterrents.



Essentials for Creating Good Bird Habitat:
*Food, water, protective cover and shelter, sentinel perches,
places and resources to rear young*



Essentials for Creating Good Bird Habitat:

Food



- Select and maintain plants to provide a wide variety of food types and sources over the 4 seasons:
 - Use plants that produce edible berries and fruits, nuts, seeds, sap and flowers rich in nectar and pollen.
 - Allow fruit and seed heads to remain on most plants rather than pruning and deadheading early in the season.

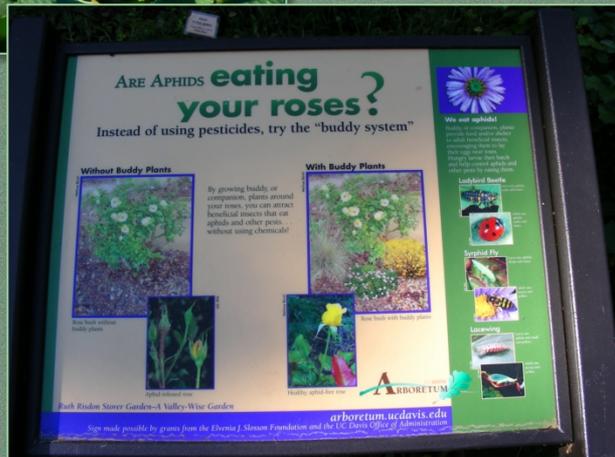


Essentials for Creating Good Bird Habitat:

Food



- Live with insects, spiders and invertebrates in the garden to provide the birds essential protein, especially during the breeding season.
- Strive for a pesticide-free garden!
 - Pesticides kill the insects most birds require in their diet.
 - Pesticides kill both beneficial and pest insects indiscriminately.
 - Pesticides can build up in birds bodies and negatively affect their health and reproduction.
 - Use only natural and safe products, such as Insecticidal soap and bacillus thuringiensis to help control insect pests.



Essentials for Creating Good Bird Habitat:

Food: Benefits of feeding wild birds



- Feeders attract a wide variety of wild birds and allow close-up viewing for enjoyment, education and photography.
- Feeding wild birds can provide a needed food source during bad weather such as snowstorms.
- Feeding birds helps adult birds provide food for their brooding mates and fledglings.
- Feeders often add an ornamental component to your garden.



Essentials for Creating Good Bird Habitat:

Food: Drawbacks of feeding wild birds



- Bird feeders require regular filling with fresh seed, cleaning and maintenance:
 - They must be kept clean and sanitary to avoid food contamination and spreading disease.
 - During the breeding season, you need to regularly fill feeders as birds have established feeding territories.
- Bird feeding concentrate birds in your yard, which has some negative consequences:
 - Attract bird predators such as cats, hawks, skunks, raccoons and foxes.
 - Attract unwanted seed eaters and scavengers, such as rodents, squirrels, and problem birds such as Starlings, Cowbirds and English Sparrows.
 - Promote the spread of disease, such as House Finch eye disease, in certain birds.

Essentials for Creating Good Bird Habitat:

Food: Basic guidelines for feeding wild birds



- Choose the right feeders for your local bird species, to avoid waste and deter unwanted visitors, such as tree squirrels and seed scavengers.
- If you want to stop feeding, don't stop suddenly, but cut back gradually over several weeks.
- Locate feeding stations and bird baths well away from windows.
 - Fish & Game estimate 900 million to 1 billion bird/window strikes per year, 65% being fatal.
 - If you position a feeder near a window, locate it no more than 1ft. away from glass.
 - Otherwise, provide netting over windows, close blinds/drapes, or utilize other effective anti-bird window strike strategies.



Essentials for Creating Good Bird Habitat:

Water



- Clean water for drinking and bathing is as vital to birds as food.
- Adding clean water sources to your garden is a major bird attractant and beautifies your garden.
- Birdbaths, shallow areas and fountains in ponds, water filled depressions in rocks and even overhead irrigation sprinklers can all provide drinking and bathing opportunities for birds.
- Adding a water feature to your garden is one of the easiest, most reliable and cost effective means of attracting birds.

Essentials for Creating Good Bird Habitat:

Water: Attracts many wildlife guests



Water in the landscape will attract a variety of both daytime and nocturnal visitors. They are not limited to birds, and some may be more welcome than others.

Essentials for Creating Good Bird Habitat:

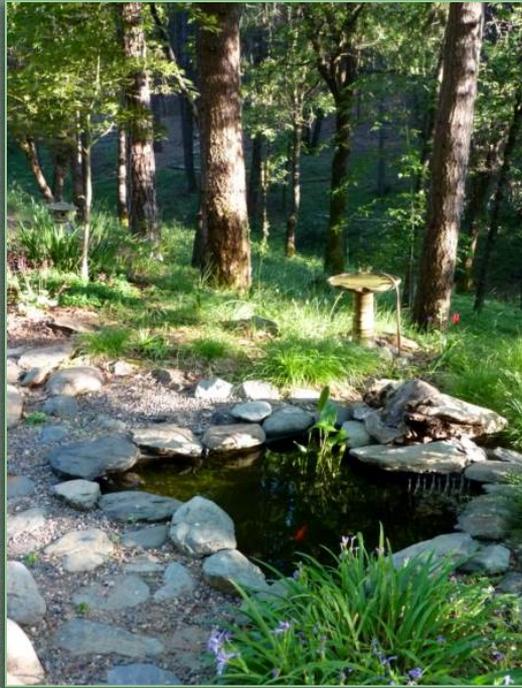
Water: Birdbath basics



- Most birds must bathe frequently to remove dust, dirt and parasites from their feathers.
- Birdbaths can be made of almost anything: plastic, stone, ceramic, metal, fiberglass, concrete and resin/concrete composites.
- Shallow is better—water depths of ½” to 2–1/2” with sloping sides is best. Can add sand, gravel or stones for better footing.
- Shady locations are preferred. It is cooler and there is less algae growth.
- You can locate at ground level or elevate them 2–3 ft. above the ground.

Essentials for Creating Good Bird Habitat:

Water: birdbath basics—continued



- Areas near birdbaths should be flat and open so lurking predators such as cats can't conceal themselves from view.
- Locate thick, protective shrubbery about 8–15 ft. away from birdbaths and water features to help birds escape predators.
- Position birdbaths so you have a good view of them.
- Change birdbath water frequently and remove any algae and bird droppings.
- Birds find dripping, misting or gently moving water irresistible. You can easily add drip misters and drippers to ponds and birdbaths.

Essentials for Creating Good Bird Habitat:

Water in the garden attracts birds



Essentials for Creating Good Bird Habitat:

Water in the garden attracts birds



Essentials for Creating Good Bird Habitat:

Water in the garden attracts birds



Essentials for Creating Good Bird Habitat:

Shelter and protective cover



- Plants provide shelter from heat/cold, rain, wind and snow as well as safe places to roost.
- Locate thickets of plants with spiny or prickly leaves and thorns in corners and out of the way areas of your garden for bird safe havens.
- Dense shrubbery provides protective cover to evade predators such as hawks, foxes and cats.



Essentials for Creating Good Bird Habitat:

Shelter and protective cover

You can build brush piles from branches and trimmings and then plant vines to ramble over them. Wrens, juncos, sparrows, towhees and other ground-feeding birds love them.



Dense plantings of bunchgrasses, evergreen groundcovers & large rock outcrops surrounded by vegetation and/or grasses provide good protective cover for ground-feeding birds.

Essentials for Creating Good Bird Habitat:

Sentinel perches



- Birds need and use perches with a good view for the following purposes:
 - To detect predators and other danger for a safe escape
 - To safeguard and defend their territories
 - To locate their food, especially if they are hunting insects, small reptiles and mammals or other birds.



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Essentials for Creating Good Bird Habitat:

Sentinel perches



- Birds need and use perches with a good view for the following purposes:
 - To preen their feathers, often after bathing in water or dust. Preening is essential in order for birds to keep their feathers in top condition and to reduce parasites.



Essentials for Creating Good Bird Habitat:

Sentinel perches



- Birds need and use perches with a view for the following purposes:
 - To preen their feathers, often after bathing in water or dust. Preening is essential in order for birds to keep their feathers in top condition and to reduce parasites.



Essentials for Creating Good Bird Habitat: *Places and resources to rear young*



Birds nesting sites and types are extremely varied, including: on bare ground or rocks, in grasses and under or between fallen logs.

Essentials for Creating Good Bird Habitat: *Places and resources to rear young*



Birds nesting sites and types are extremely varied, including: on tree branches and in tree tops, in tree cavities, shrubs and thickets, and on rock ledges.

Essentials for Creating Good Bird Habitat: *Places and resources to rear young*

Birds nesting sites and types are extremely varied, including: man-made structures such as bridges, house eaves, barns, chimneys, bird houses & nesting shelves.



Photo: Kelly Moulis



Essentials for Creating Good Bird Habitat: *Places and resources to rear young*



Allow standing tree snags to remain whenever possible, as they provide natural nesting cavities, places for food storage and excellent sentinel perches.

Essentials for Creating Good Bird Habitat:

Places and resources to rear young



- Birds utilize many different materials to construct their nests, such as lichens and mosses, small branches and twigs, grasses, animal and human hair, spider webbing, mud, thistle and milkweed down, etc.
- You can place nest building materials such as 5-6 in. lengths of string and yarn, pet and human hair, clothes dryer lint (**use no softeners*) and pillow down in shrubbery or in baskets where the birds will find them. Horse hair is especially valued for nest building.

Birdscaping Strategies:

Observation and research



- Observe and understand your yard or property's relationship with:
 - Your neighborhood landscaping/ plants/birds and other wildlife
 - Local ecological communities
 - Regional ecological communities
- Observe the birds, plants, wildlife and habitats on your property and visit nearby parks, gardens, nature centers, and arboretums.



Birdscaping Strategies:

Observation and research



- Educate yourself about local bird species and their habitat needs and preferences.
- Learn which bird species are year around residents and which are seasonal migrants.
- Access local resources:
 - Non-profits such as the Sierra Nevada Alliance, Audubon Society, Master Gardeners, California Native Plant Society, etc.
 - Government Agencies such as Natural Resource Conservation district offices, reading books and utilizing the internet (see end of slide show for list of resources).

Birdscaping Strategies:

Observation and research



- Learn about local wildlife species, their habitats and their habits. This includes not just mammals, but reptiles, amphibians, insects, etc.
 - Observe wildlife directly and with binoculars, cameras.
 - You can also use camera traps to discover the more elusive bird and wildlife species who share your property with you.



Birdscaping Strategies: *Camera trap photos*



Birdscaping Strategies:

Habitat diversity = wildlife diversity



- Edges are where two or more differing habitats and plant communities meet and converge.
- The greatest diversity of wildlife, including birds, occurs at or around edges, such as:
 - Meadow bordering shrubs, chaparral and/or transitioning into woodland.
 - Creek, pond or other wetland areas converging with riparian woodlands and dryer upland habitats.
 - Areas where the geology, soil, solar aspect and/or topography changes fairly abruptly, leading to distinct changes in plant and animal communities.

Birdscaping Strategies:

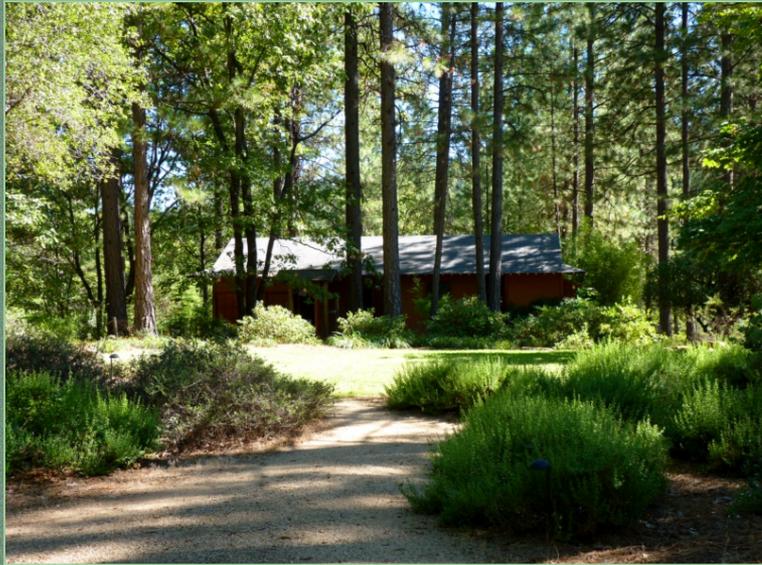
Habitat diversity = bird diversity



- Mimic these 'edges' in your landscape with structural, vertical and horizontal diversity.
 - Grade your site to create '*horizontal and structural diversity*' with retaining walls, rock outcrops, higher, dryer earth berms and lower, moister depressions.
 - Create meandering/ undulating perennial/shrub beds and borders for a mosaic effect.
 - Keep manicured lawn areas small and irregular in shape; border lawns with multi-tiered shrub/perennial beds.
 - Create both sunny and shadier areas in your landscape to optimize plant communities and varieties.

Birdscaping Strategies:

Habitat diversity = bird diversity



- Mimic these 'edges' in your landscape with structural, vertical and horizontal diversity.
 - Provide '*vertical diversity*' with '*vegetative layering*'. Plant a mix of larger canopy trees with an understory of varied types and sizes of shrubs, vines, grasses, perennials, and groundcovers.
 - Locate taller plants at the back of beds and borders.
 - This will allow many different species of birds to simultaneously and safely feed, nest and shelter in your garden.
 - This also allows you the best view of your plants and the birds that inhabit your landscape.

Birdscaping Strategies:

Habitat diversity = bird diversity

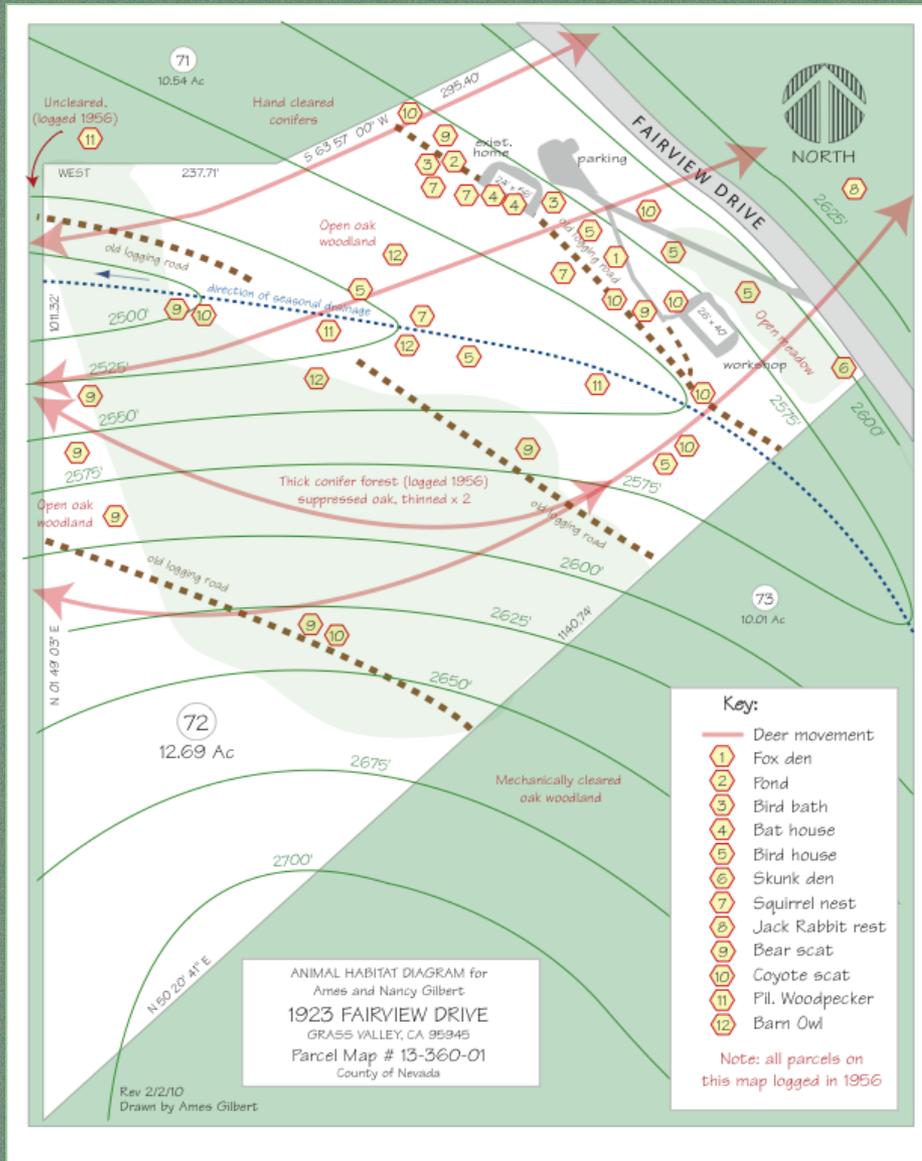


- Bird and other habitat gardens may sometimes look a bit messy:
 - Allow seed heads and fruits to remain on plants as seasonal food/nesting materials sources.
 - Artistically arrange fallen logs and branches on ground level.
 - Leave some bare patches of earth for birds to take dust baths which helps them control parasites.
 - Convert your lawn into a meadow of native grasses or sedges and add wildflowers for diversity.



Birdscaping Strategies:

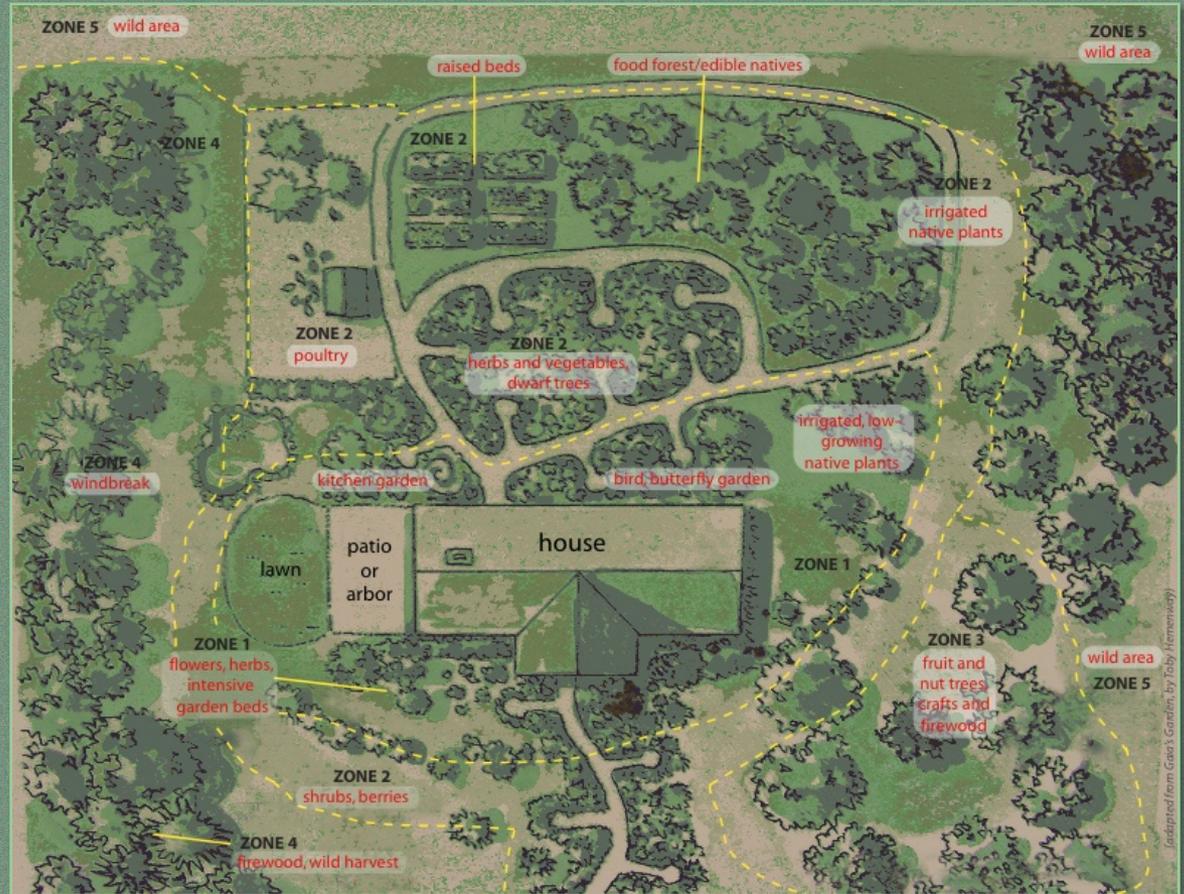
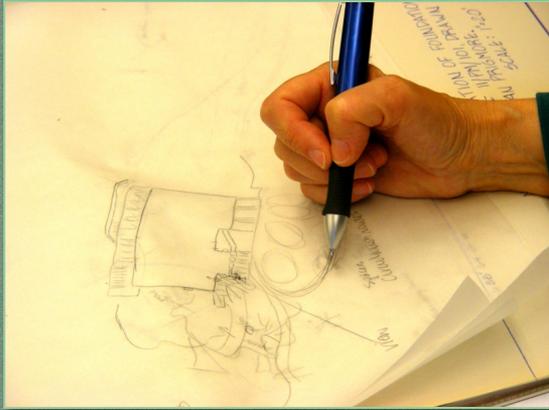
Designing your bird-friendly garden



- Do-It-Yourselfers: learn about the landscape design process in order to create your desired landscape/garden.
 - Take community college courses and local workshops.
 - Study books and websites on landscape design and habitat gardening.
 - Visit gardens, nature centers and arboretums.

- Or... hire a professional landscape designer/contractor or landscape architect as a consultant or to provide design drawings and/or install your landscape.

Birdscaping Strategies: *Designing and installing your garden*



- Do-It-Yourselfers: Your landscape plans may be as simple as a concept sketch penciled on tracing paper, more detailed and scaled drawings, or electronic drawings done in CAD or graphic/illustration programs.

Plants for Your Bird-Friendly Garden:

GO NATIVE!



- Plant only California native and locally adapted plants in your garden.
 - Native plants provide natural sources of food, shelter and nesting materials for birds.
 - Native plants are well-adapted to our climate and soils; they are low maintenance.
 - Most native plants are extremely drought and heat tolerant...they conserve valuable water.
 - Native plants have co-evolved with the native pollinators.
- Edge and mix native plants among veggie and herb gardens, orchards, and vineyards to provide habitat, improve pollination and reduce need for pesticides.

Plants for Your Bird-Friendly Garden:

GO NATIVE!



- **AVOID** planting any **INVASIVE SPECIES** such as Scotch, Spanish and French broom, pyracantha, tree-of heaven, English ivy, etc.
- The ‘*California Invasive Plant Inventory*’ categorizes non-native invasive plants that threaten the state's wildlands.
- California is home to 4,200 native plant species, and is recognized internationally as a "biodiversity hotspot."
- Approximately 1,800 non-native plants also grow in the wild in California. 200 of these are considered invasive.

Plants for Your Bird-Friendly Garden:

'Top Ten' bird-friendly native plant species



- Plant a diversity of plants and select species which are multi-taskers, i.e. they offer multiple benefits for birds.
- Aim to have a wide variety of deciduous and evergreen native plants of differing sizes, branching structures, foliage types and densities,
- You want to maximize the abundance of flowers, nuts, seeds, fruits, and protective cover throughout the 4 seasons.

Symbols Used in This Presentation:



Very drought tolerant; water deeply once per month during dry periods until established and not at all after that.



Low water use; water deeply every two weeks during the dry season.



Medium water use; water deeply once or twice per week during the dry season.



Full sunlight most of the day



Part shade; shade in the afternoon or dappled shade most of the day



Full shade; best if no direct sunlight in summer



10-15°F

Cold hardy within this temperature range



5-10°F

Cold hardy within this temperature range



0-5°F

Cold hardy within this temperature range



Flowers attract and benefit bees and other beneficial pollinating insects.

****Note: neonicotinoid pesticides kill bees. Do not use these, and purchase only neonicotinoid-free nursery stock***



Plant that attracts and benefits hummingbirds



Plant that benefits birds: flowers, fruit and seeds; provides nesting sites, materials or good cover



Plant that attracts and benefits butterflies with nectar, pollen or as larval food



Plant that 'usually' is NOT tasty to deer once established due to tough, bitter, toxic, waxy, spiny or scented foliage. Very few plant are 100% deer resistant, especially during drought years



Plant that is highly flammable. Such plants often have resins in their leaves and are aromatic. If irrigated occasionally, plants are more fire resistant. Best to locate flammable shrubs and trees at least 20–30 feet from structures; prune shrubs and limb up trees to reduce fire danger in this hydro-zone 1

Latin name: *Native Quercus species* — **Common name:** **Native Oaks**
Evergreen–deciduous trees/shrubs for full sun to partial shade locations



Features/Characteristics:

- Native to many habitats, including canyons, alluvial meadows, oak and mixed woodlands, and chaparral throughout most of California.
- Varies from shrub to large tree-sized. Local species include Blue Oak, Black Oak, Valley Oak, Interior and Canyon Live Oak, Semota Oak, Huckleberry Oak, etc.
- Provide food, shelter, and nesting sites for many birds and other wildlife. Larval food for many butterfly and moths species.



Cultural Requirements:

- None to occasional summer water and full sun to partly shady, depending on species
- Sunset zones 4–9, 14–24; clay or rocky soils, depending on species
- Most native oaks prefer no summer water once established. You usually kill them with frequent summer watering within the drip line of tree.
- Plant only low- water use plants under native oaks and use drip irrigation.



0-5°F

Latin name: *Frangula (Rhamnus) californica* — **Common name:** Calif. Coffeeberry
Evergreen–deciduous shrub for full sun to partial shade locations



Features/Characteristics:

- Native to dry slopes, open woodland, and chaparral of the coast ranges and Sierra
- To 3–10 ft tall by 8–10 ft wide
- Highly variable plant; green to gray green leaves, small cream flowers that attract pollinators are followed by black berries favored by birds

Problems/Pruning/Comments:

- Prune oldest canes to ground to maintain fuller, shrubbier form or prune to tree-like.
- Deer browse, but plant recovers



Cultural Requirements:

- None or occasional summer water and full sun to partly shady
- Sunset zones 4–9, 14–24; clay soil OK
- Dependable, attractive, moderate–growing plant
- Good cultivars: ‘Eve Case’, ‘Ed Holmes’ and ‘Leatherleaf’

Use in Landscape:

- Use in mixed dry borders, woodland gardens, on banks/hillsides, erosion control, as hedge, screen and barrier, along walkways and driveways, and in wildlife habitat gardens



0-5°F

Latin name: *Muhlenbergia rigens* — Common name: Deer Grass
Bunch grass for sunny to partly shady locations



Features/Characteristics:

- Found locally wild in moist meadows, small seeps, seasonal drainages
- Dramatic in groups
- To 4 ft tall by 4 ft wide

Problems/Pruning/Comments:

- Prune back old seed heads and remove old stalks and blades for fire prevention
- Cut severely back or burn to near ground level about every 3 yrs. to rejuvenate



Cultural Requirements:

- Best with occasional summer water
- Sunset zones 4–24
- Adaptable to many soil types; fast growing/easy

Use in Landscape:

- Grasslands/meadows/open woodlands/mixed borders/near riparian areas
- Provides wildlife habitat and seed source
- Good on banks and hillsides and in meadows; excellent erosion control



0-5°F



Latin name: *Epilobium canum/latifolium* – **Common name:** **California Fuchsia**
Perennial for full sun or light shade locations



Features/Characteristics:

- Grows throughout California; wild locally, usually on sunny, rocky banks, especially above streams and rivers
- Many named cultivars available that are highly variable in size and color of leaves and flowers
- Grows to 1–3 ft high and spreading
- *All-time best hummingbird magnet!*

Problems/Pruning/Comments:

- Cut back to ground early winter



Cultural Requirements:

- Tolerates clay soils but requires fast drainage and prefers lean soils
- None or occasional summer water
- Sunset zones 2–11, 14–24

Use in Landscape:

- Plant in rock gardens, in dry mixed borders, rocky banks/hillsides, edging along walkways, patio areas, in wildlife habitat gardens and in containers



5-10°F

Latin name: *Salvia spatheca* — Common name: Hummingbird Sage
Perennial/groundcover for full sun or partial shade locations



5-10°F



Features/Characteristics:

- Native to lightly wooded areas of Coast Range; adapts well to Sierra foothills
- Moderate growth to 2–3 ft high and spreading widely by rhizomes
- Leaves are fruity scented and attractive
- Very deer resistant; a *hummingbird favorite!*

Problems/Pruning/Comments:

- Watering occasionally increases fire resistance and improves appearance
- Remove old flower stalks at end of season

Cultural Requirements:

- Requires good drainage & prefers occasional summer watering
- Adaptable to many soil types and habitats
- Sunset zones 7–9, 14–24
- Best in dappled sun under shrubs and trees

Use in Landscape:

- Good groundcover under native shrubs/trees, erosion control, on banks and hillsides, in dry mixed borders, rock gardens, wildlife and bird habitat gardens, along pathways, entries

Latin name: *Berberis (Mahonia) aquifolium* — **Common name:** **Oregon Grape**
Evergreen shrub for full sun to partial shade locations



Features/Characteristics:

- Native in coast ranges (naturalized in Sierra foothills) in open woodlands
- Many other native *Berberis* species available
- To 4–6 ft tall by 5 ft wide; spreads by rhizomes
- Shiny, prickly, dark green leaves, yellow flowers in clusters followed by edible blue berries favored by birds

Problems/Pruning/Comments:

- Prune oldest canes to ground to maintain full, shrubby form

Cultural Requirements:

- Best with occasional summer water & partial shade
- Sunset zones 2–12, 14–24; adaptable
- Dependable, easy, moderate-growing plant

Use in Landscape:

- Use in mixed dry borders, woodland gardens, on banks/hillsides, erosion control, as hedge, screen and barrier, foundation planting, and in wildlife habitat gardens



0–5°F

Latin name: *Heteromeles arbutifolia* — **Common name:** Toyon
Evergreen shrub for full sun to partial shade locations



0-5°F

Features/Characteristics:

- Native in Sierra foothills and coast ranges in chaparral, open oak woodlands and on dry slopes
- To 6–15 ft tall by 8–12 ft wide; variable
- Thick, leathery green leaves, white flowers in clusters followed by bright red berries
- **Problems/Pruning/Comments:**
- Can prune into tree form or coppice in fall to maintain full, shrubby form
- Can get fire blight; deer browse sometimes

Cultural Requirements:

- None to occasional water; Full sun to part shade; more berries with more sun
- Sunset zones 5–9, 14–24; very adaptable
- On slopes and open woodlands in clay or rocky soils; tough, moderate-growing plant

Use in Landscape:

- Use in mixed dry borders, open oak woodlands, on banks/hillsides, large rock gardens, erosion control, screen, specimen, and in wildlife habitat gardens

Latin name: *Ribes sang. glutinosum* 'Claremont' **Common name:** Pink Flowering Currant
Deciduous shrub for partial shade locations



Features/Characteristics:

- Selected cultivar of species found growing in woodlands of north–central coast ranges
- Grows 8–10 ft tall by 8 ft wide; blooms early
- Dark green, fragrant, 3–5 lobed leaves; nodding panicles of pink flowers followed by blue fruits with white bloom

Problems/Pruning/Comments:

- Prune oldest canes to ground to maintain full, shrubby form
- Flowers attract pollinators; fruit relished by birds

Cultural Requirements:

- Prefers occasional summer water and partial shade; needs good drainage
- Sunset zones 4–9, 14–24; adaptable and easy
- Fast to moderate–growing

Use in Landscape:

- Use at back of in mixed borders, woodland gardens and near riparian areas, on banks/hillsides, erosion control, under oaks, along walkways and in wildlife habitat gardens



0-5°F

Latin name: *Vaccinium ovatum* — **Common name:** **Evergreen Huckleberry**
Evergreen shrub for partial shade locations



Features/Characteristics:

- Native only in coastal Redwood forests and coast range woodlands
- To 3–12 ft tall by 4–8 ft wide; variable
- Dark green, lustrous evergreen leaves; new growth bronzy; white–pink bell flowers are followed by blue–black edible berries

Problems/Pruning/Comments:

- Berries delicious raw or in syrups, pie, and jams or let the birds have 'em
- Slow growing but lovely at all sizes and times of year



Cultural Requirements:

- Best with occasional summer water, part shade, such as under tree canopies
- Sunset zones 4–7, 14–24;
- Needs acidic, well drained soil; amend clay soils

Use in Landscape:

- Use in back of mixed borders, open woodlands, on partially shaded banks/hillsides, under native oaks, near patios/entries, along pathways, as screen and in wildlife habitat gardens



5-10°F

Latin name: *Arctostaphylos species* — **Common name:** **Manzanitas**
Evergreen groundcovers, shrubs/trees for full sun to partial shade locations



Features/Characteristics:

- Native to many habitats, including dry, rocky slopes, open woodlands, coastal bluffs and chaparral throughout most of California.
- There are many species of diverse sizes and forms: groundcovers through many sizes of shrubs up to tree-like.
- Provides food, shelter, and nesting sites for many birds and other wildlife. Larval food for butterfly and moths species.



Cultural Requirements:

- None to occasional summer water and full sun to part shade, depending on species
- Sunset zones 4–9, 14–24; clay or rocky soil
- Most manzanitas prefer none to very little summer water once established. You usually kill them with frequent summer watering.
- Best if you use drip irrigation rather than overhead water



0-5°F



Latin name: *Arctostaphylos uva-ursi* — **Common name:** **Bearberry**
Evergreen groundcover for partly shady locations



Features/Characteristics:

- Native to sandy and grassy areas along California coast north to Alaska
- Moderate growth to 6–12” by 6 ft wide; spreads ‘slowly’ by rooting stems
- Many named cultivars: ‘Green Supreme’, ‘Pt. Reyes’, ‘Wood’s Compact’, ‘Massachusetts’, ‘Radiant’

Problems/Pruning/Comments:

- Edible red berries relished by birds

Cultural Requirements:

- Requires good drainage ;no water or looks better with occasional summer water
- Sunset zones 1–9, 14–24
- Best in partial shade, under trees and shrubs

Use in Landscape:

- Use in mixed borders, on banks/hillsides, large rock gardens, open woodland gardens, erosion control, draped over rocks/retaining walls, along walkways, wildlife habitat gardens



0-5°F

Latin name: *Arctostaphylos 'John Dourley'* – **Common name:** John Dourley Manzanita
Evergreen sub-shrub/groundcover for full sun locations



Features/Characteristics:

- Is of hybrid origin; low growing & tidy-looking
- Moderate growth to 3 ft by 8 ft wide;
- New leaves bronzy, older leaves gray-green; light pink flowers, brick red berries

Problems/Pruning/Comments:

- Edible red berries relished by birds

Cultural Requirements:

- No summer water required but looks and Grows better with occasional summer water
- Sunset zones 6–9, 14–24
- OK in clay soil with good drainage; adaptable

Use in Landscape:

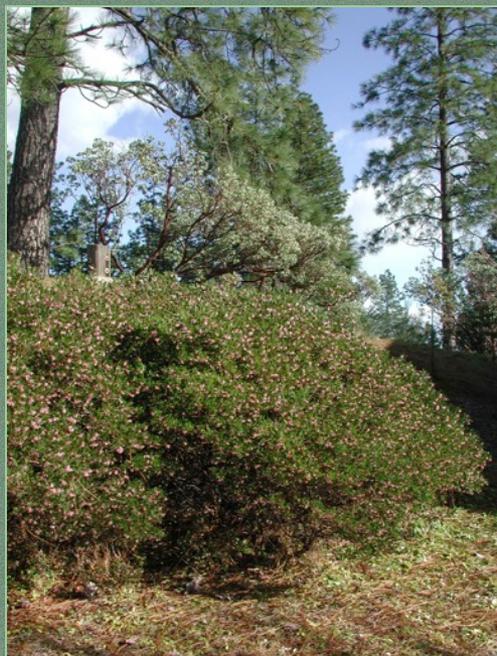
- Use in mixed borders, on banks/hillsides, large rock gardens, erosion control, along walkways, under oaks, at entries, draped over rocks/retaining walls, and in wildlife habitat gardens



5-10°F



Latin name: *Arctostaphylos 'Howard McMinn'* – **Common name:** Howard McMinn Manzanita
Evergreen shrub for full sun or light shade locations



Features/Characteristics:

- Is horticultural selection from Sonoma County species, *Arctostaphylos densiflora*
- To 6' high by 6' wide; moderate growth
- Attractive red bark; small pink flowers, brick red berries

Problems/Pruning/Comments:

- Prune back as needed to control height and to remove dead leaves/branches; can be sheared into a hedge

Cultural Requirements:

- Prefers occasional summer water & good drainage; easy to grow, readily available
- Sunset zones 7–9, 14–24
- OK in clay soil with good drainage; adaptable

Use in Landscape:

- Use in mixed borders, on banks/hillsides, large rock gardens, erosion control, along walkways, as screen or hedge, parking islands, and in wildlife habitat gardens



5-10°F



Latin name: *Arctostaphylos pajaroensis* — **Common name:** Pajaro Manzanita
Evergreen shrub for full sun locations



Features/Characteristics:

- Native to central Monterey County areas
- To 5–6 ft high by 6–10 ft wide
- Bronzy–red new leaves then blue–green, with small pink flowers, bright red berries
- ‘Paradise’ and ‘Warren Roberts’ excellent cultivars with bright pink flowers
- Long and early bloom period–3 months

Problems/Pruning/Comments:

- Can prune to open, tree–like form or to a dense shrub



Cultural Requirements:

- None to occasional summer water; full sun best but OK with light shade
- Sunset zones 7–9, 14–24
- OK in clay soil with good drainage; Prefers gritty or sandy soils

Use in Landscape:

- Use in mixed borders, on banks/hillsides, large rock gardens, erosion control, along walkways, as screen or hedge, windbreaks, and in wildlife habitat gardens



10–15°F



Latin name: *Arctostaphylos* 'Dr. Hurd' — **Common name:** 'Dr. Hurd' Manzanita
Evergreen shrub/tree for full sun locations



Features/Characteristics:

- Is a horticultural selection from native Sierra and coastal species: *Arctostaphylos manzanita*
- To 15' high by 15' wide
- Attractive purplish–red bark with twisted branches; dull green leaves, small pink flowers, deep red berries

Problems/Pruning/Comments:

- Can prune to tree–like form (above right)
- Outstanding wildlife plant with edible berries

Cultural Requirements:

- None to occasional summer water & good drainage; easy to grow
- Sunset zones 7–9, 14–24; widely adapted
- OK in clay soil with good drainage;

Use in Landscape:

- Use in mixed borders, on banks/hillsides, large rock gardens, erosion control, along walkways, as a screen or hedge, specimen, windbreaks, and in wildlife habitat gardens



0-5°F



That's all, folks!



Questions?

