



It's a Matter of Taste

Sloat Seminar - Changing Your Aesthetic Preference
towards a Sustainable Garden

Green Desert

Goals: Learn to recognize the green desert, tantalizing superficially attractive but does nothing to sustain biodiversity or sustainability of nature. This is only one step up from forever plastic.

Leave that aesthetic to the last generation and move on



Celebrate Biodiversity in Your Garden

What makes your heart go pitter patter?

A magnificent oak with its fractal like branches.

Western Bluebirds feeding their young.



Western Bluebird
Nest box plans from
Cornell Lab of Ornithology



Quercus agrifolia
Coast Live Oak

California's Biodiversity is World Class

Did you know that California is home to more plant species than anywhere else in the United States? In fact, California is considered a biodiversity hotspot, an area with a large number of endemic species — those found nowhere else on the planet. California is home to:

6,578

2,295

2,422

plant taxa
endemic taxa
rare or endangered taxa

*Numbers as of today according to [Jepson eFlora](#) and [Rare Plant Inventory](#). "Taxa" includes plants at any rank, e.g. species, subspecies, and varieties.



Who am I to influence taste?

An enthusiastic gardener wants to influence taste, an audacious goal.

Not many would choose this chair for their family room:

Suspect most would prefer this:



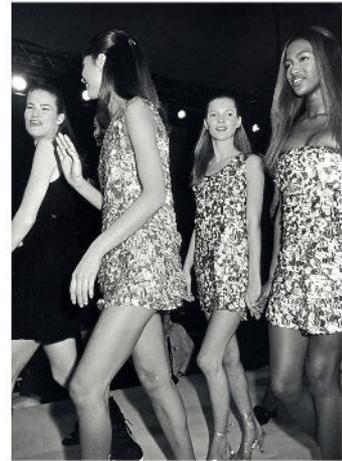
Which dress speaks to you?

Portrait of a family walk
in the park or

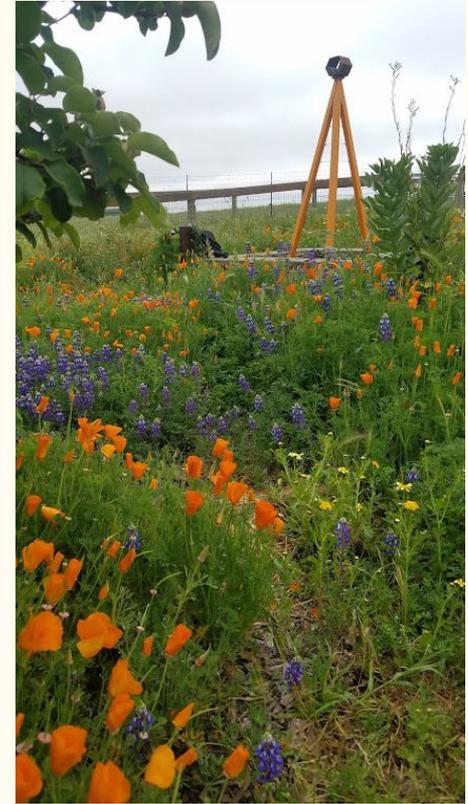
Isaac Mizrahi's Diet

7UP Can dresses

Tastes do change



Now to Gardens
Versailles versus
freeform chaos,
which actually takes
lots of cultivation,
namely pulling out
alien weeds



A or B?

Everyone has one of
these in their
neighborhood.

How about many of
these?



Don't just take it from me, References

Your local Sloat Nursery, knowledgeable staff!

Las Pilitas Nursery in Santa Margarita - great short videos and articles on gardening

<https://www.laspilitas.com/planting.htm>

California Native Plant Society, founded in 1965, even more important mission now

<https://www.cnps.org/>

California Landscaping website: <https://calscape.org/>

The California Native Landscape, by Greg Rubin

Nature's Best Hope, by Douglas Tallamy

Why consider Natives and mimicking native landscapes?

First: Drought

Second: Insects (as in support them)

Third: Mitigating land taken out of use (houses, driveways and streets)

Fourth: They're pretty



©Saxon Holt/PhotoBotanic

Self-Sustaining

Imagine a garden where

You water once a month during the summer

You might spritz the foliage before company but really you don't need to

Leaf fall creates a perfect “duff” protecting the soil - no forever plastic bags of mulch

Douglas Iris,
Phacelia campanularia
California Desert Bluebells



PhotoBotanic

Other Sustaining

Imagine a garden where

You can do your own bird count from
your kitchen window

The environment is so hospitable that
plants show up from the seed bank that
have not been seen for years

Caterpillars flourish to provide food for
chicks and (some) grow up to beautiful
butterflies



<https://www.laspilitas.com/planting.htm>

Real Bird Food

Chicks are confined to the nest for 14 days and vulnerable

Fastest growth rate measured

Mother songbird can make 500 trips in a day for caterpillars and other insects



Dikye Ariani. Mother's Love

Plant Life Cycle

Seed

Germination

Seedling

Growth

Flowers

New Seeds, the next generation



Arctostaphylos 'sunset'

Seeds: A Million to One Odds

Most seeds do not grow to mature plants

Some plants produce over a million seeds to ensure one successful reproduction!

Mistake? No. Another example of plants making food for everyone else



By Doris Dörfler-Asmus

Seeds: Dispersal

Wind powered like Dandelions,
Coyote Brush, Milkweed
(pictured)



By Petra Jung

Benzie Conservation District, Michigan

Germination: Not all at once

Vegetable seed packs: 90% germination

Some natives: 5% Germination!

Mistake? No. Sequential germination over several years just in case all the seedling were wiped out that spring

Birds and other munchers, drought, flood, frost, heat wave



Lupinus albus
Silver Lupine

Germination: Endosperm to the Rescue

Seed contains an embryonic plant plus endosperm.

When signalled to germinate, the plant sends down a root and forces up a shoot with 1 or 2 leaves (monocot or dicot).

Since this takes place before any photosynthesis, all energy required for growth is from the endosperm. Once the “solar panel” is in place, photosynthesis takes over food production,



Growth: Funny Looking Leaves are okay

Oak galls form when wasps lay eggs on oaks; the oak responds with forming bizarre enclosures

No apparent harm to the oak, a protective castle around the wasp larvae

Bay Nature, <https://baynature.org/>



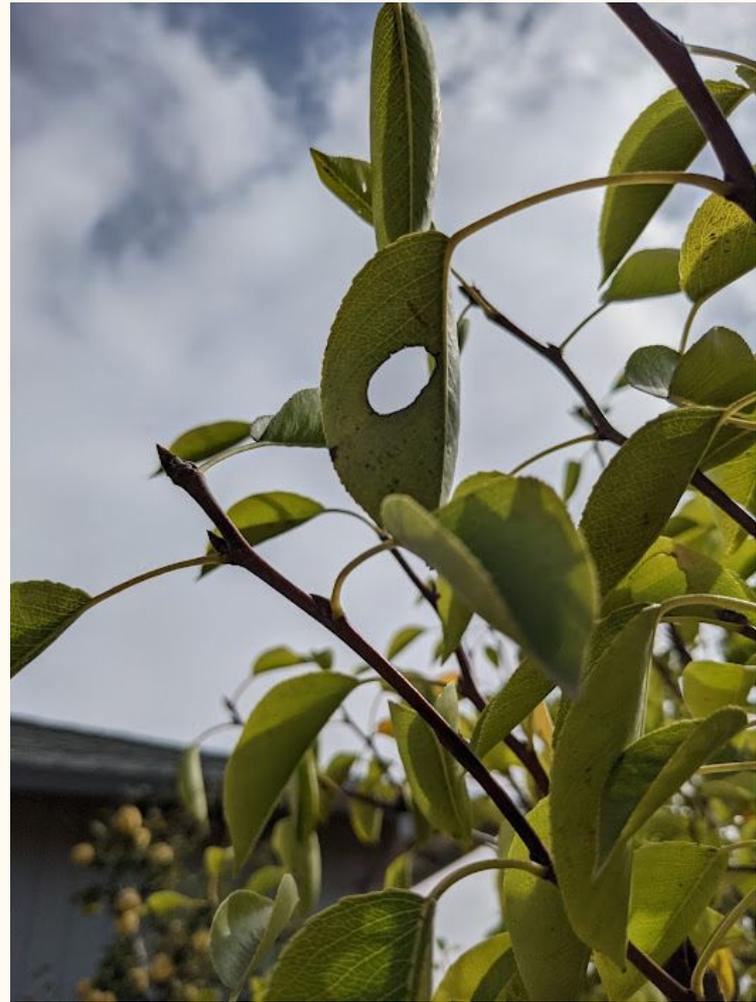
Urchin galls can cover blue oak leaves. (Photo by Ron Russo)

Growth: Holes in leaves are okay

Not a snail (they eat from the edge)

But carved out by cavity-nesting native
bee creating dividers for her eggs

<https://www.xerces.org/blog/5-ways-to-increase-nesting-habitat-for-bees>



Growth: Leave the Leaves

Deciduous leaves: lightweight and quickly decomposed

Evergreen leaves: still drop but not all at once, tough, makes a long lasting duff, free mulch!

Forms the top layer of soil, the litter layer or O horizon (O for organic and opposed to the rock derived or inorganic component of soil)



Fungi on forest floor, one of many decomposers
By RhinoMind - Own work, CC BY-SA 3.0,
<https://commons.wikimedia.org/w/index.php?curid=30578382>

Growth: A Little Surprise

Oaks from locally collected acorns have the best root system and are adapted to your area. They demonstrate better survival, even compared to the same species but collected further away.

If they are within reach of a mature tree's roots, they require no summer irrigation. In fact I accidentally knocked off one seedling by watering!

First few years, establishing root network, then takes off



Growth: A or B?

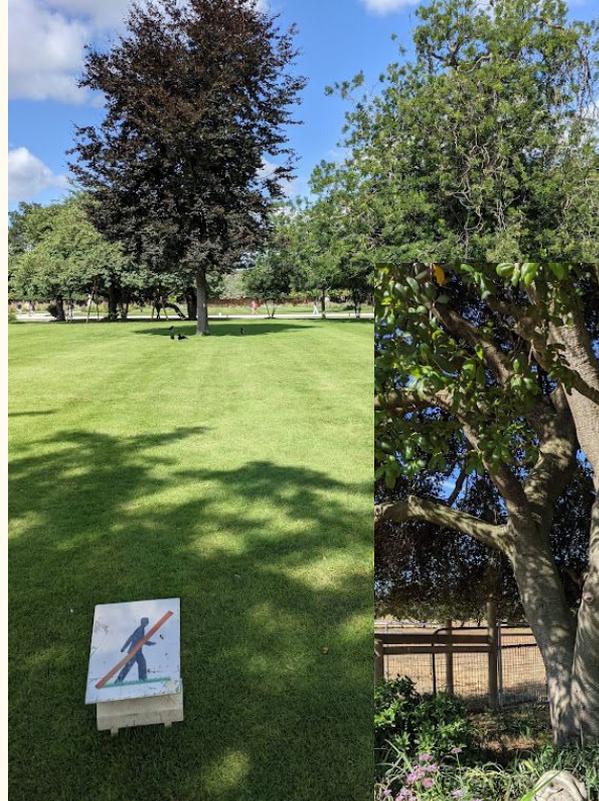
Don't mow under trees for a million reasons.

Caterpillars drop down to pupate and need a protected landing zone

Leaf litter decomposes to become enriched soil

Mowers and leaf blowers contribute to global warming

Who wants a lawn any way?



Coffeeberry, seas daisy, native iris and onions under oak



Flowers: Celebrate!

Pollen and nectar entice animals to cross pollinate

Nectar in different strengths:
nectar light for native bees, thicker
and more calories for
hummingbirds



Aquilegia formosa
Western Columbine

Flowers: Let them mature

Clarkias have stunning flowers, the last to bloom of the spring annuals

But I think the seed pods are pretty too

Perfectly designed seed capsules for bird feeders, multiplies your spring wildflowers for the following year



Clarkia amoena
Farewell to Spring

Flowers: Have some blooming every month of the year

Winter, spring, summer and fall - birds and insects rely on locally available protein-rich pollen, nectar, fruits and seeds for sustenance.

Fall: Coyote Brush

Winter: Manzanita, Ceanothus



Baccharis pilularis

Coyote Brush

Natural History of Orange County, California

Seeds: Mix up those Genes

Pollination ensures a unique mix of genes

Next generation may have individuals that are more tolerant to drought or disease

Or provide more flowers and fruit to local fauna

Seeds pack more calories per bite, for birds and mammals



Make your yard bee friendly
Minnesota Pollution Control Agency

Planning: Let plants tell you where they want to grow

Basic grid: sun/shade/dry/moist

Beyond that, some plants are healthier in one area of your yard, and struggling close by

Solution: try another type of plant in the second area



Epilobium canum
California fuchsia

The Big Changes

Rejoice when you see nibble marks on leaves and petals. You are mitigating the insect apocalypse

Create insect and bird habitats like pile of hollow stems, robust undergrowth, flowers seeds and fruit every month of the year just like your grocery store

Let leaves be to create a hospitable duff and further decomposed to refreshed soil

Native plants have survived droughts in the past

Cheapest option: plant oaks from local acorns. We have 22 species in California and some as small as shrubs - no excuse to include this keystone plant