



An established landscape mixing California natives with plants from other mediterranean climates. Author's photographs

Landscaping with Natives in San Diego

GREG RUBIN

Throughout California, interest in native plants has experienced peaks and valleys over the years. Unfortunately, each spike in appeal has been followed by a precipitous drop as the landscapes would fail for various reasons. With increasing concern over water supplies, disappearing habitat, and reduced time for maintenance, it appears that natives are once again becoming popular. However, even this movement might ultimately fail unless a realistic horticultural approach is adopted.

California natives have earned a dubious reputation among landscape professionals in Southern California. With significant mortality rates, disease problems, and gardens that look like tumbleweeds in autumn, is it any wonder that

these professionals are discouraged, especially when one considers the liabilities involved?

Yet, there is an underlying contradiction here. Should not regional plants be easier? One would expect native plants to flourish: they should grow like weeds—but not look like them. After all, the public is not flocking to places like Torrey Pines State Park, Idyllwild, Julian, or Yosemite National Park to see exotic palms and 'Red Apple' aptenia (*Aptenia cordifolia* hybrid).

Creating a landscape with California native plants can present a number of horticultural challenges. Taking a standardized, ornamental horticulture approach with the state's indigenous flora often leads to disaster. In addition, coastal San Diego County has a number of

unique characteristics that further complicate the endeavor.

To landscape successfully with native plants requires a different approach—not necessarily more difficult, but different. California’s plants are precisely adapted to the precarious conditions presented by little rainfall and nutrient-poor soils. The perceived need to *overcome* these conditions is exactly what kills them. The secret to success lies in emulating our natural ecosystems as best we can.

The web of relationships within each of California’s finely tuned plant communities is astonishingly complex and poorly understood. More goes on underground than above. We have only scratched the surface in identifying all the interdependent variables. Rather than worry about the specifics, a better approach is simply not to introduce unnatural factors, such as organic soil amendments, fertilizers, landscape fabric, drip emitters, dump-yard mulch, non-native mycorrhizal inoculants, or the wrong plants (especially weeds). These alien additions may cause an already incredibly complex system to become unstable and collapse; this appears to be the root of most failed native plant landscapes.

Right Plant/Right Place

In reality, the creation of successful native landscapes emphasizes observation, restraint, and thoughtful plant selection. Combining the right plants is fundamental. Hiking in nature and observing plant relationships can be helpful, but plant communities seldom need be that specific. For instance, plants from chaparral, coastal sage scrub, and oak woodland communities usually work well together, giving the designer thousands of species to work with. Five or more species from within a plant community usually provide enough diversity to keep it stable. The mistake would be to mix desert or wetland species into a scrubland planting. Plants from these communities should be clustered in separate “theme” gardens. Matching natural soil types, as well as rainfall patterns and quantities, can also be useful. Mediterranean plants such as rosemary, rockrose (*Cistus*), or lavender usually work well with coastal natives like ‘Pigeon Point’

coyote brush (*Baccharis pilularis* ‘Pigeon Point’) and ‘Yankee Point’ ceanothus (*Ceanothus thyrsiflorus* var. *griseus* ‘Yankee Point’). Coastal species are accustomed to receiving a modest but fairly even precipitation from fog drip during the summer months.

Exotic weeds, on the other hand, are highly damaging to natives. Huge ancient oaks have been felled as the result of a low covering of non-native grasses at their base. Weeds disrupt the symbiotic relationships between native plants, often stealing moisture and nutrition from the supportive mycorrhizal grid and, thus, collapsing the ecology. Whereas native plant communities are cooperative, weeds are competitive.

San Diego County has some special challenges, in that precipitation is low (only nine to twelve inches annually), yet the humidity is high, and the temperature swings moderate. We probably have more in common with northern Baja California than with Santa Barbara. Desert species, such as Mohave yucca (*Yucca schidigera*), jojoba (*Simmondsia chinensis*), and bladderpod (*Isomeris arborea*) naturally occur all the way to the coast in San Diego; they may even appear within sight of Torrey pines (*Pinus torreyana*). Many of the desert species do well in coastal San Diego, but so do the scrubland communities. Mountain plants such as redbud (*Cercis occidentalis*) or black oak (*Quercus kelloggii*), on the other hand, struggle near the coast. The key is to pay attention to plant selection, mulch, and watering. Desert species are best with inorganic mulches of gravel or rock. Scrubland species prefer to have six- to twelve-inch rocks placed directly on their root balls and a three- to four-inch layer of shredded redwood mulch in between. Because of the higher humidity and moderate temperatures, care must be taken to allow plants some drying time between waterings.

Throughout California, a basic tenet of landscape design is often ignored in native plant installations: the value of a strong foundation of massed, *evergreen* plants. Possibly because of a lack of familiarity with available plants, or because we are so taken by the springtime riot of color associated with native herbaceous perennials, many native gardens look completely dried up or dead by late summer’s dormant period. This can be entirely avoided by grouping several

of the many evergreen species such as manzanita (*Arctostaphylos* spp.), wild lilac (*Ceanothus* spp.), coffeeberry (*Rhamnus* spp.), and even some of the

sages (*Salvia* spp.) to create backbone plantings that support the landscape through the year. Some specific examples that have proven adapt-

Great Native Plants for San Diego

Recommended by Greg Rubin

Large Trees

Acer negundo subsp. *californicum*
box elder
Fraxinus velutina
velvet ash
Platanus racemosa
Western sycamore
Populus fremontii
Fremont cottonwood
Quercus agrifolia
coast live oak

Small Trees

Arctostaphylos manzanita 'Dr Hurd'
Ceanothus arboreus
island ceanothus
Cercis occidentalis
Western redbud
Chilopsis linearis
desert willow
Garrya elliptica
coast silk tassel
Sambucus mexicana
Blue elderberry
×*Parkincidium* 'Desert Museum'
(syn. *Cercidium* 'Desert Museum')
Desert Museum palo verde

Large Shrubs & Screening Plants

Arctostaphylos 'Austin Griffith'
A. 'Sentinel'
Ceanothus cyaneus
Lakeside ceanothus
C. 'Frosty Blue'
C. 'Mountain Haze'
C. 'Ray Hartman'
C. 'Tassajara Blue'
Cercocarpus montanus var. *blanchae*
island mountain mahogany
Cupressus forbesii
Tecate cypress
C. goveniana
Gowen's cypress
Dendromecon harfordii
island tree poppy
Fremontodendron 'California Glory'
flannel bush
Heteromeles arbutifolia
toyon
Lavatera assurgentiflora
island mallow
Rhamnus californica 'Eve Case'
coffeeberry

Medium Shrubs

Arctostaphylos 'Howard McMinn'
A. 'Sunset'
Ceanothus 'Celestial Blue'
C. 'Concha'
C. 'Julia Phelps'
C. 'Remote Blue'
C. 'Skylark'
Malacothamnus palmeri var. *involutus*
Carmel Valley bush mallow
Rhamnus californica 'Mound San Bruno'
dwarf coffeeberry
Sphaeralcea ambigua
apricot mallow

Groundcovers

Arctostaphylos edmundsii 'Carmel Sur'
A. 'Harmony'
A. hookeri subsp. *franciscana*
Franciscan manzanita
A. uva-ursi 'Radiant'
Baccharis pilularis 'Pigeon Point'
dwarf coyote brush
Ceanothus gloriosus var. *gloriosus* 'Heart's Desire'
C. 'Joyce Coulter'
C. thyrsiflorus var. *thyrsiflorus*
creeping blue blossom
C. thyrsiflorus var. *griseus* 'Yankee Point'
Erigeron glaucus 'Cape Sebastian'
seaside daisy
Salvia 'Bee's Bliss'
S. 'Dara's Choice'
S. mellifera 'Terra Seca'
prostrate black sage

Perennials

Epilobium canum (syn. *Zauschneria californica*)
California fuchsia
E. septentrionale (syn. *Z. septentrionalis*)
Humboldt County fuchsia
Erigeron 'Wayne Roderick'
seaside daisy
Mimulus aurantiacus
sticky monkeyflower
Penstemon centranthifolius
scarlet bugler
P. heterophyllus 'Margarita BOP'
foothill penstemon
P. pseudospectabilis
pink showy penstemon
P. spectabilis
royal penstemon
Solidago canadensis subsp. *elongata*
Canada goldenrod



A softly formal landscape of California natives and other water conserving plants

able to a wide range of conditions (including San Diego) are *Arctostaphylos* 'Sunset', 'Howard McMinn', 'Louis Edmunds', 'John Dourley', 'Dr. Hurd', 'Carmel Sur', and 'Radiant'; *Ceanothus* 'Yankee Point', 'Joyce Coulter', 'Ray Hartman', 'Snow Flurry', 'Mountain Haze', 'Concha', 'Remote Blue', and 'Sierra Blue'; *Rhamnus californica* 'Mound San Bruno', 'Eve Case', and 'Little Sur'; and *Salvia* 'Bee's Bliss', 'Poza Blue', and *S. mellifera* var. *repens*. Colorful perennial genera such as *Penstemon*, *Mimulus*, and *Epilobium* can be sited at the front of borders, along pathways, and next to sitting areas, where their colorful flowers can be enjoyed and the plants can be easily maintained. Selecting perennials with different flowering times assures nearly year round color.

Installation

Installation protocols also need to be adjusted for natives. We begin a project by cleaning the site to bare ground, removing all exotic weeds and any non-native plants that do not fit with the intended plant community. We avoid organic soil amendments, having found it better to match the plants to the soil type rather than to

alter the soil medium. Organic amendments incorporated into the soil are simply unnecessary, and usually result in an unstable, weed-ridden planting. We prefer to put that part of the budget into a high-quality topdressing such as shredded redwood bark mulch.

We may try to tweak the soil chemistry in certain situations in San Diego, as our coastal subsoils, whether clay or sandstone, may exhibit a surprisingly low (acidic) pH, often in the range of 4.5 to 6.5. Most plants will just sit there, stunted and chlorotic, and drainage can become an issue. To combat this condition, we add a 3:1 mixture of gypsum and an iron-rich amendment (such as Ironite) to the planting hole and over the surface of the soil, and then water it in thoroughly. This acts as a pH buffer and helps open up these closed-off subsoils. We usually do not till the soil, in order to minimize disturbance. Nutrition is not a concern, except to provide some iron and urea to the new plants for a "kick-start."

Planting involves simply digging a hole, sticking the plants in, and adding the gypsum mixture to the backfill, when required. We set the plants one-half- to three-fourths-inch high,



A variety of sages (*Salvia* species) highlight the summer landscape in this small garden; a flannel bush (*Fremontodendron* species) brightens the far corner

to ensure good drainage, and place a few rocks on the root balls, if available. Then we water with ten to thirty gallons for each one-gallon plant to remove air pockets. We usually apply a granular pre-emergent at this time to help control annual weeds, and then cover the planting area with three to four inches of shredded redwood bark. Finally, we apply as much overhead irrigation as the site can tolerate, in order to saturate the soil, dissolve the pre-emergent, and settle the mulch. Our experience has shown that planting can occur any time of the year, not just during the autumn months.

Irrigate to Mimic the Rain

Irrigating a native landscape has its own challenges. Drip emitters can create localized hyper-saturation zones surrounded by bone-dry soil at the base of each plant. These zones can become quite anaerobic-bacterial and may not support mycorrhizal colonization. This tends to substan-

tially shorten the life of drought-adapted natives, although wetland species and exotics seem tolerant. Plantings in moderate, sandy coastal areas of San Diego have also shown more tolerance for drip. Existing drip systems can easily be modified to micro-sprays, although maintenance on these systems is relatively high.

The best approach, however, appears to be low-volume overhead sprays that produce roughly one-half inch of precipitation per hour. Irrigation scheduling is simple: try matching the winter precipitation needs of the plant community, providing supplemental irrigation during the cool months when the natural rainfall is less than normal. Then provide light watering during the summer months: every seven days for the first year, and at ten-day to two-week intervals thereafter. This amount of watering mimics occasional summer thunderstorms or coastal fog drip and should keep the plants nicely hydrated without compromising their ecology. 🌿

The author will be a featured speaker at the Gardening Under Mediterranean Skies V symposium in San Diego. See page one.