

MOFD Regular Meeting 11/15/2023  
Item 3.1 Sandia & Anita Person vs. MOFD

To: Moraga Orinda Fire District Board  
Cc: Moraga Town Council  
Cc: Orinda City Council

Dear Board Members,

I share the community's concerns, as raised by Sandy Pearson, about the MOFD's Fuel Break Ordinance 23-08. This ordinance negatively impacts our native vegetation, wildlife habitats, hillside stability, and community character due to its focus on extensive vegetation removal and enforcement. Such practices overlook vital, science-based fire ecosystem management techniques, like careful, distance-limited thinning of vegetation, rather than wholesale clearing of most residential lots. It also misses the importance of understanding the natural hydration dynamics of native species, instead of making biased judgments based on oversimplified plant lists. Furthermore, this removal-centric approach risks creating spaces for invasive, highly flammable weeds, replacing native plants, and increases the risk of hillside erosion and landslides due to exposed soil. Therefore, a comprehensive revision of the ordinance is crucial to align it with effective, science-based fire management practices.

I recently became involved with the MOFD's Fuel Break Ordinance, 23-08, due to stressful interactions this year, including receiving a citation and a \$100 fine. While I have resolved part of my citation related to the 23-03 Hazardous Vegetation issue, this experience has been eye-opening about the potential challenges of the 23-08 ordinance enforcement.

A major issue with Ordinances 23-03 and 23-08 is the ambiguous and subjective definition of 'Hazardous Vegetation' detailed in Appendix A. This lack of clarity opens the door to arbitrary and possibly inconsistent enforcement by inspectors, an issue I've personally faced with my Coyote Bush. Moreover, this problem extends beyond my situation, potentially impacting a range of native plants such as shrubs, trees, perennial grasses, and small flowering plants.

Under Ordinance 23-03, I was fined for maintaining a hedge of Coyote Bush. Convincing the Fire Inspectors that this bush was not a fire hazard required several interactions. Initially, they expressed concerns about deadwood accumulation and the bush's potential flammability due to its oils. In response, I gathered academic and professional horticultural references (Appendices B through I) to demonstrate the Coyote Bush's benefits for wildlife habitat, erosion control, and its suitability for drought-tolerant residential landscaping, without any fire risk warnings. Notably, the U.S. Department of Agriculture recognized the fire-resistant properties of *Baccharis Pilularis* leaves, and the East Bay Municipal Utility District recommended it for water-wise landscapes. Armed with this evidence, I successfully argued for the plant's safety and got the fine dismissed.

However, the process was challenging, as I constantly had to defend the bush against the inspectors' authority and their insistence on legal mandates. This situation created unnecessary stress and made the discussions more difficult for everyone involved.

My experience with Ordinance 23-03 has led to worries about the impending reinstatement of 23-08. Although 23-08 marks an improvement over 23-04, particularly by permitting non-irrigated bushes that aid in habitat protection and erosion control, this progress is at risk. If inspectors continue to classify native plants as hazardous and insist on their complete removal—ignoring factors like their proximity to buildings, spacing, or irrigation status—these advancements might be effectively negated.

Two of my neighbors, who agreed to Fuel Break inspections, were directed to remove all Coyote Brush from their properties, extending beyond the required 100-foot Defensible Space zone. This action led to the displacement of a quail family and left a large hillside exposed, making it vulnerable to the upcoming winter rains. This situation prompts an important question: Will the non-irrigated clause in Ordinance 23-08 adequately protect Coyote Bush and other native plants on hillsides, or will similar removals persist?

While I understand the complexities faced by MOFD, I find it concerning when public objections and comments receive what seem like formulaic responses. It often gives the impression that environmental concerns, particularly regarding hillside erosion, might not be fully considered. For example, the idea of replacing native plants with invasive grass, despite the mitigation strategy of annual mowing, raises questions. I recognize the immense challenges MOFD faces in juggling fire risk management, erosion control, and habitat protection, alongside their commendable and primary duty of fighting fires. To support these efforts, a more comprehensive legal framework, coupled with community input, could prove invaluable in helping residents protect their properties effectively while considering environmental implications.

Sincerely,  
Mike Fedorov  
Moraga

**Appendix A.** Comparing the 'Hazardous Vegetation' sections in ordinances 23-03 and 23-08, both grant the Fire Inspector discretionary power to determine what constitutes hazardous vegetation. Under these terms, if a plant is classified as hazardous, it is subject to removal, irrespective of its irrigation status or spacing.

23-03 Defensible Space, Zone 2 Requirements	23-08 Fuel Break Requirements
<p>(3) Zone 2.</p> <p>(A) Remove all Hazardous Vegetation and Combustible Material capable of being ignited and endangering the Structure as determined by the Fire Code Official.</p> <p>(B) Annual grasses must be removed or cut to less than 3 inches no later than 1 June of each year.</p> <p>(C) Maintain trees to remove Ladder Fuels so that foliage, twigs, or branches are greater than 6 feet above the ground.</p> <p>(D) Non-irrigated brush is not permitted.</p> <p>(E) New trees shall be planted and maintained so that the tree's drip line at</p>	<p>(a) <u>Fuel Break Standards.</u></p> <p>(1) For the purpose of this Ordinance, a Fuel Break requires the removal or modification of fuel, maintained on an annual basis by June 1 of each year, or on a recurring basis as determined by the Fire Code Official, in a manner that will prevent the transmission of fire.</p> <p>Specifically:</p> <p>(A) Grasses cut to less than 3".</p> <p>(B) Removal of all Hazardous Vegetation.</p> <p>(C) Non-irrigated brush removed such that the minimum space between shrubs is as follows:</p> <ol style="list-style-type: none"> <li>a. On flat or mild slopes (less than 20%): Two times the height of the shrub</li> <li>b. On mild to moderate slopes (20-40%): Four times the height of the shrub</li> <li>c. On moderate to steep slopes (greater than 40%): Six times the height</li> </ol>
<p><b>HAZARDOUS VEGETATION.</b> Vegetation that is combustible and endangers the public safety by creating a Fire Hazard, including but not limited to bark, mulch, seasonal and recurrent grasses, weeds, stubble, non-irrigated brush, dry leaves, dry needles, dead, dying, and diseased trees, or any other vegetation identified by the Fire Code Official.</p>	<p><b><u>Hazardous Vegetation.</u></b> Vegetation that is combustible and endangers the public safety by creating a Fire Hazard, including but not limited to bark, mulch, seasonal and recurrent grasses, weeds, stubble, dry leaves, dry needles, or any other vegetation identified by the Fire Code Official. Hazardous Vegetation shall not include healthy, mature, scenic, trees.</p>

## Appendix B. Summary of References in support of Coyote Bush

- The U.S. Department of Agriculture plant guide on *Baccharis Pilularis* says that its “...leaves have fire resistant properties.” It then states that “Coyotebrush is an extremely important plant for pollinators, due to its abundant production of pollen and nectar and the bloom period, which occurs during the fall and winter. The plants maintain their green foliage year round providing excellent habitat for beneficial insects”. The plant is successfully used for hillside erosion control. See **Appendix C**.
- **Monarch Butterfly** Nectar Plant: many Monarch preservation sources emphasize critical value of *Baccharis* in providing flowers and nectar during winter months, when other Monarch food sources are absent. See **Appendix D**.
- “The California wildlife habitat garden” book says about Coyote Bush: Fall-blooming shrub attracts over 400 insects, highly valuable bird habitat plant for cover, nesting, and foraging... See **Appendix E**.
- The **Town of Moraga Design Guide** includes a dwarf variant of the Coyote Bush in the 'Oak Palette.' Maybe the critical issue is not a plant's placement on a hazard list, but rather factors like its location, hydration, separation, and maintenance? See **Appendix F**.
- Classic read on Coyote Bush from Judy Lowry, *Gardening with a wild heart*. See **Appendix G**.
- Coyote Bush in native garden. Bornstein, C., Fross, D., O'Brien, B. (2005). *California Native Plants for the Garden*. United States: Cachuma Press. See **Appendix H**.
- Coyote Bush for landscape. East Bay Municipal Utility District (EBMUD) book on water-wise gardening. I used this book to transition to native planting during the 2012-2016 drought. See **Appendix I**.

## Appendix C. U.S. Department of Agriculture on benefits of the Coyote Bush.

Note that the U.S. Department of Agriculture's brochure on the Coyote Bush features a mature specimen in the wild, surrounded by dead, dry invasive annual grass. **This image does not reflect the maintenance practices necessary for a fire-safe residential landscape.**

[https://plants.sc.egov.usda.gov/DocumentLibrary/plantguide/pdf/pg\\_bapi.pdf](https://plants.sc.egov.usda.gov/DocumentLibrary/plantguide/pdf/pg_bapi.pdf)



Natural Resources Conservation Service

Plant Guide

# COYOTE BRUSH

**MF: Mature specimen in the wild, surrounded by invasive grass. This is not fire-safe residential landscape.**

## *Baccharis pilularis* DC.

Plant Symbol = BAPI

### Common Names:

coyote brush, coyotebush, coyote bush, chaparral-broom, dwarf baccharis, dwarf chaparral false willow

*Scientific Subspecies Names:* *Baccharis pilularis* DC. ssp. *consanguinea* (DC.) C.B. Wolf, *Baccharis pilularis* DC. ssp. *pilularis* (DC.)

### Description

*General:* Coyotebrush is a native, perennial, evergreen shrub in the Asteraceae family with either an erect, rounded or procumbent



Figure 1. Coyotebrush, *Baccharis pilularis* ssp. *consanguinea*, mature shrub. Lockeford Plant Materials Center, August 2016.

### Uses

*Erosion Control and Habitat Restoration:* Coyotebrush has been successfully used for erosion control. For sloping areas, *B. pilularis* ssp. *pilularis*, is a good choice due to its low growing and spreading habit (Steinberg, 2002). In areas adjacent to established coyotebrush stands recruitment can be spontaneous from wind dispersed seeds. Coyotebrush habitat can act as a nurse crop for tree species and is useful for restoration of oak woodlands.

*Wildlife habitat:* Coyotebrush has low palatability and nutritional value for grazers and browsers, cattle will graze it if nothing else is available but will more likely trample the plants. It is great wildlife habitat providing cover for rabbits and other small mammals, who frequently graze out vegetation under the coyotebrush (Steinberg, 2002). Coyotebrush is an extremely important plant for pollinators, due to its abundant production of pollen and nectar and the bloom period, which occurs during the fall and winter. The plants maintain their green foliage year round providing excellent habitat for beneficial insects (Wilson, 2013). In addition to European honey bees, Steffan (1997) identified 54 insect species visiting male and female flowers in late September and early October, including several species of ants, bees and parasitic wasps

*Ornamental:* Coyotebrush is used as an ornamental plant in the Southwestern states due to several attributes. It is drought tolerant and maintains bright green foliage throughout the year, is unpalatable for deer, and the leaves have fire resistant properties. *B. pilularis* ssp. *consanguinea*, the upright coyotebrush, is a reliable choice for hedgerows as it is easy to establish from transplants and to manage by pruning. For erosion control on slopes and where low growing vegetation is required, cultivars of *B. pilularis* ssp. *pilularis*, the prostrate form are preferred. In the horticultural trade, these are all males and so will not form an expanding population (Wilson, 2013).

**Appendix D. Nectar Plant for Monarch Butterfly which flowers during Fall and Winter months**  
[https://www.xerces.org/sites/default/files/publications/18-003\\_02\\_Monarch-Nectar-Plant-Lists-FS\\_web%20-%20Jessa%20Kay%20Cruz.pdf](https://www.xerces.org/sites/default/files/publications/18-003_02_Monarch-Nectar-Plant-Lists-FS_web%20-%20Jessa%20Kay%20Cruz.pdf)

**CALIFORNIA**

**MONARCH BUTTERFLY NECTAR PLANTS**



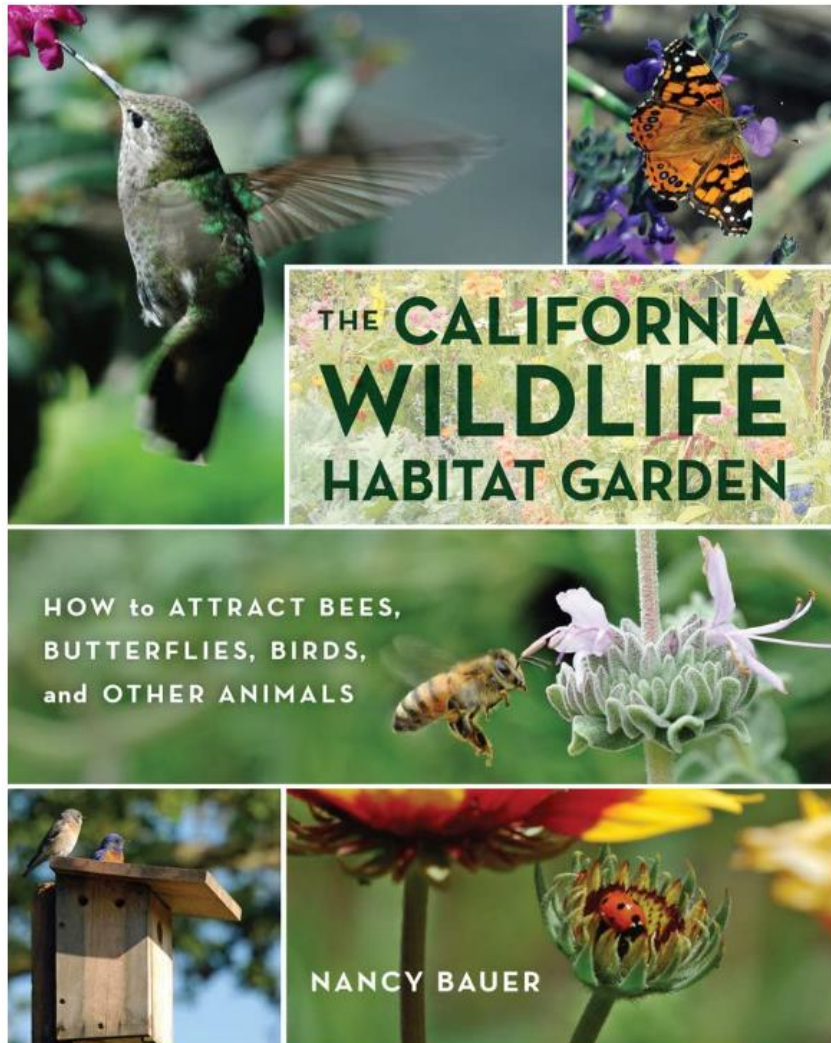
SCIENTIFIC NAME	COMMON NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	V	R	Y	ET	H	L	W	W	W	W	W	W	W	
<i>Abronia latifolia</i>	Coastal sand verbena			☼	☼	☼	☼	☼	☼	☼	☼			H	P	Y	0.5'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Achillea millefolium</i>	Yarrow				☼	☼	☼	☼	☼	☼				H	P	W	3'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Agastache urticifolia</i>	Nettleleaf giant hyssop					☼	☼							H	P	Px/R	2'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Apocynum cannabinum</i>	Indian hemp						☼	☼	☼					H	P	W	6'	M-H	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Arctostaphylos</i> 'Howard McMinn'	McMinn manzanita		☼	☼										S	P	Px/W	6'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Arctostaphylos glauca</i>	Bigberry manzanita		☼	☼										S	P	Px/W	30'	M	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Arctostaphylos patula</i>	Greenleaf manzanita		☼											S	P	Px/W	7'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Asclepias californica</i>	California milkweed				☼	☼	☼	☼						H	P	Px	3'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Asclepias cordifolia</i>	Heartleaf milkweed				☼	☼	☼	☼						H	P	Px/Pr	3'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Asclepias fascicularis</i>	Narrow-leaved milkweed					☼	☼	☼						H	P	Px/W	3'	M	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Asclepias speciosa</i>	Showy milkweed						☼	☼						H	P	Px/G/Pr	5'	M	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Baccharis pilularis</i>	Coyotebrush		☼							☼	☼	☼	☼	S	P	W/Y	10'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Baccharis salicifolia</i>	Mulefat		☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	S	P	W	7'	M-H	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Baccharis sarothroides</i>	Desertbroom		☼	☼										S	P	Px/W	10'	L	☼	☼	☼	☼	☼	☼	☼	☼	☼
<i>Bidens laevis</i>	Smooth beggartick							☼	☼					H	P	Y	3'	H	☼	☼	☼	☼	☼	☼	☼	☼	☼



A monarch butterfly on coyote brush. Photo by Mike Baird on Flickr.



**Appendix E.** Quote about Coyote Bush from: Bauer, Nancy. The California wildlife habitat garden: How to attract bees, butterflies, birds, and other animals. Univ of California Press, 2012.



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sun or part shade, drought tolerant. 'Mound San Bruno' has a rounded compact shape (4 feet), *R.* 'Eve Case' (5 feet).

Coyote bush (*Baccharis pilularis*). Fall-blooming shrub attracts over 400 insects, highly valuable bird habitat plant for cover, nesting, and foraging. Grow in sun, drought tolerant. For hedgerows, use *B. pilularis consanguinea* (to 8 feet). For groundcover, use dwarf coyote bush, such as *B. pilularis* 'Pigeon Point' or *B. pilularis* 'Twin Peaks', which grow 3-4 feet tall. The female plant is the most useful; the flowers attract insects and the seeds feed many bird species.

*Note:* See hedgerow combination of California lilac, coffeeberry, and coyote bush on pages 36-37.

Hollyleaf cherry (*Prunus ilicifolia*). Shiny, sharp-edged foliage resembles holly,

## *Habitat for Beneficial Insects*

Insects, the foundation of the food web, must be present if the beneficial insects—and birds, amphibians, and other insect predators—are to survive. Because aphids show up early in the year and because they reproduce so abundantly, aphid predators need early-blooming native trees and shrubs—ceanothus, hollyleaf cherry and other *Prunus* species, coffeeberry, elderberry, willow, manzanita—for shelter and food sources. Fall-blooming coyote bush is a magnet for insects and the predators that feed on them. Beneficial insects may supplement their diet with pollen, using many of the same plants that bees favor. Tiny pollinating flies and parasitic wasps are attracted to tiny flower clusters, such as thyme and mint flowers, or the commonly planted sweet alyssum. Native buckwheat species (*Eriogonum*) draw hoverflies, minute pirate bugs, lacewings, and many others. The umbels of carrot family members (Apiaceae) are especially appealing to beneficial insects and tiny polli-

**MF: The modern Defensible Space approach will further enhance protection by locating these plants farther away from the house and spacing them more.**



## Appendix F. Town of Moraga Design Guidelines

<https://www.moraga.ca.us/DocumentCenter/View/5789/Moraga-Design-Guidelines-PDF>

### Oak Palette

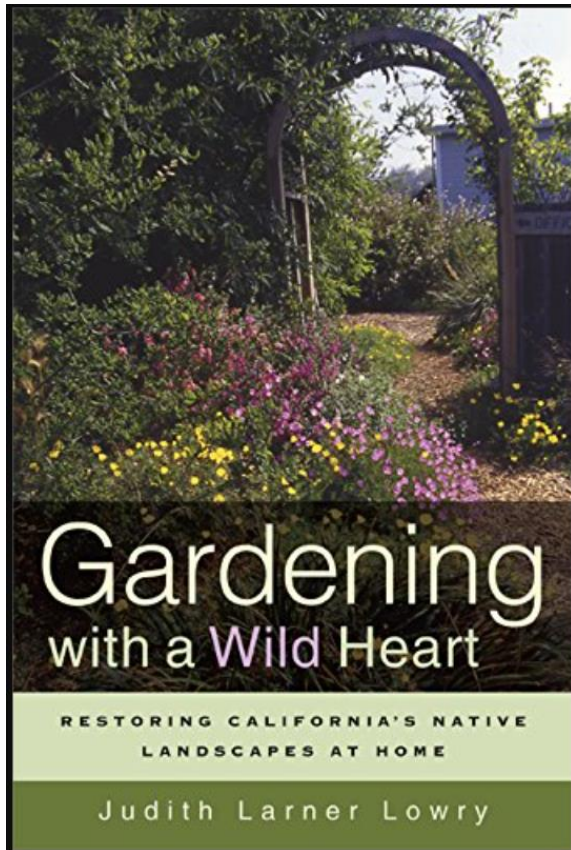
The oak palette is the predominant plant grouping which occurs naturally in the Moraga area. Plants from this group are appropriate on hillside locations, sunny open areas, and along the tops of stream banks. Excessive water during the normally dry summer periods may cause root fungus in oaks, so they should not be planted adjacent to lawns or other areas that will be watered regularly during summer months.

#### OAK PALETTE

Scientific Name	Common Name	Deer Resistant	Native Plant	Low Water	Maintenance
<b>Tree</b>					
<i>Aesculus californica</i>	California Buckeye	*	*	*	L*
<i>Cercis occidentalis</i>	Western redbud	*	*	*	L*
<i>Quercus agrifolia</i>	Coast Live Oak	*	*	*	L*
<i>Quercus ilex</i>	Holly Oak	*		*	L*
<i>Quercus suber</i>	Cork Oak	*		*	L*
<b>Shrubs</b>					
<i>Arbutus unedo</i> 'Compacta'	Strawberry Tree	*		*	L
<i>Arctostaphylos</i> spp.	Manzanita	*	*	*	L
<i>Arctostaphylos</i>	Vine Hill Manzanita		*	*	L
<i>Berberis</i> spp.		*	*	*	L
<i>Carpenteria californica</i>	Bush Anemone		*	*	L
<i>Ceanothus</i> spp.	Wild Lilac	*	*	*	L
<i>Cistus</i> sp.	Rockrose	*		*	L
<i>Correa</i> sp.	Australian Fuchsia	*		*	L
<i>Cotoneaster</i> 'Low Fast'	Bearberry Cotoneaster	*		*	L
<i>Dendromecon harfordii</i>	Island Bush Poppy		*	*	L
<i>Eriogonum</i> species	Wild Buckwheat	*	*	*	L
<i>Fragaria</i> spp.	Ornamental Strawberry	*	*		L
<i>Fremontodendron</i> cvs	Flannel Bush	*	*	*	L
<i>Garrya elliptica</i>	Coast Silktassel	*	*	*	L
<i>Heteromeles arbutifolia</i>	California Holly	*	*	*	L
<i>Myrica californica</i> 'Compacta'	Pacific Wax Myrtle	*	*	*	L
<i>Prunus ilicifolia</i>	Hollyleaf Cherry		*	*	L
<i>Prunus lyonii</i>	Catalina Cherry		*	*	L
<i>Rhamnus californica</i> 'Eve Care'	Coffeeberry	*	*	*	L
<i>Rhamnus crocea</i>	Redberry	*	*	*	L
<i>Rhus integrifolia</i>	Lemonade Berry	*	*	*	L
<i>Rhus ovata</i>	Sugar Bush	*	*	*	L
<i>Ribes indecorum</i>	White Flowering Currant	*	*	*	L
<i>Ribes malvaceum</i>	Chaparral Currant	*	*	*	L
<i>Ribes</i> spp.	Currant, Gooseberry	*	*	*	L
<i>Sarcococca ruscifolia</i>		*			L
<i>Salvia clevelandii</i>	California Blue Sage	*	*	*	L
<b>Low Shrubs</b>					
<i>Arctostaphylos edmundsii</i> & cvs	Little Sur Manzanita	*	*	*	L
<i>Arctostaphylos hookeri</i> & cvs	Monterey Manzanita	*	*	*	L
<i>Baccharis pilularis</i> cvs	Dwarf Coyote Brush	*	*	*	L
<i>Ceanothus griseus horizontalis</i>	Carmel Creeper	*	*	*	L
<i>Ceanothus</i>		*	*	*	L

<b>Low Shrubs</b>	
<i>Arctostaphylos edmundsii</i> & cvs	Little Sur Manzanita
<i>Arctostaphylos hookeri</i> & cvs	Monterey Manzanita
<i>Baccharis pilularis</i> cvs	Dwarf Coyote Brush
<i>Ceanothus griseus horizontalis</i>	Carmel Creeper
<i>Ceanothus</i>	

**Appendix G.** From: Lowry, Judith Larner. *Gardening with a Wild Heart: Restoring California's Native Landscapes at Home*. Univ of California Press, 2007.



### *Coyote Bush*

I began my own garden, juggling its creation with trips into the nearby wildlands for seed and idea collecting. Without quite knowing what I was doing, I began to try to work myself into my new home through gardening on my one-acre homesite with these plants. I never drew up a plan but depended on visions gained through explorations of the surrounding wildlands. I haven't been tied to these visions but have kept open to surprises; indeed, I have come to see surprises as the highest kind of gardening experience. Gardening with our local flora has allowed me to study and live with plants in such a way that I have discovered qualities of which I was previously unaware.

Take coyote bush ("coyote brush" to some).

On my flat, once heavily grazed, piece of land, the only species repre-

senting the northern coastal scrub plant community was coyote bush, *Baccharis pilularis consanguinea*, an undervalued species often removed when a garden is made. When we began the removal of weedy grasses, brambles, and French broom, we left islands of coyote bush, good places for mysterious rustlings in the early morning. I began to think about and appreciate coyote bush, and slowly I found others who had thoughts about this plant. As I talked to people about coyote bush, information began to emerge. What had begun as a solitary conversation expanded to include many talkers, and eventually a loose association formed, dedicated to protecting and restoring habitat in our town. At first jokingly and then as a matter of course, we called ourselves Friends of the Coyote Bush.

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SAGE LA PENA      *I asked Sage La Pena, an indigenous Californian of the Wintu tribe, how she learned about native plants, and how she began growing them. Sage is the manager of the native plant nursery at Ya-Ka-Ama Indian University in Forestville, California.*

*“It started when I was born,” said Sage. “I don’t know why I know how or when to collect seeds. I just absorbed it growing up.”*

*She told of trips down the Russian River with relatives, where conversation about the plants they were passing was the background of the trip.*

*“I didn’t think I really knew anything until I applied for a job as a naturalist; then I realized how much I had absorbed.”*

*“So,” I said, “you learned about native plants from your family.”*

*“That was one way.” she said, “But there’s a second way. Like my brother wakes up with a new song, I wake up knowing something about plants that I didn’t know before. I dream it.”*

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We learned that coyote bush, with its late bloom, is an indispensable source of nectar in the autumn, when hundreds of insects take advantage of its nectar, including *Paradejeania rutillioides*, the Tachina fly, whose larvae

are parasitic on numerous insect pests harmful to important agricultural crops. An electrician working on my house opened some buried electrical boxes to find soft deer mouse nests made of the fluffy pappus of coyote bush seeds. A local hiker, caught in a tight spot on a steep cliff, grabbed onto coyote bush, sturdily rooted into the cliff, and pulled himself to safety.

The soil under coyote bush is rich, good for growing vegetables or for sheltering native herbaceous plants like checkerbloom or brodiaea, native bunchgrasses like the blue fescue and coastal hairgrass. Its flowers when gone to seed cover the bush like white snow, gleaming in the winter sun.

Some birds, like wrentits and white-crowned sparrows, live their whole lives in coyote bush, finding there all they need for perching, nesting, breeding, eating, and resting. Creatures like the rare mountain beaver find homes and food where coyote bush is. Coyote bush is enough for them.

We pondered the mysteries of its many forms, from the graceful shrub-sized mounds, like clouds on a hillside, to the low-growing, ground-hugging form, to those individuals that unaccountably shoot up to tree size. As we learned more, one of us said, “It’s hard to remember that once I thought coyote bush was just . . . coyote bush.”

Some call it “tick bush” and hold it in low regard, considering it a mere interloper where there could be grasses and colorful wildflowers, but here on the coast, bunchgrasses and perennial wildflowers thrive in its gracious company. When the exotic grasses are dry and dormant in late summer, look near the skirts of *Baccharis pilularis* to find soft tufts of native grasses, still partly green, interspersed with late-blooming wildflowers like the tarweeds, both madias and hemizonias.

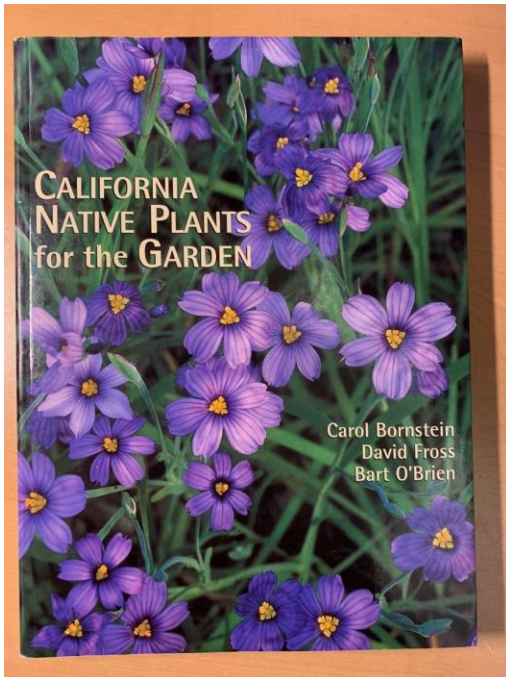
In the garden, its rich green foliage and neat mounding habit make a satisfying background plant for other, showier species. One gardener discovered that cutting coyote bush seedlings to the ground when they are small will cause them to sprout back shapely and round. In other situations, where competition causes it to grow in a distorted fashion, it can be pruned to enhance its sculptural qualities. After fires, we watch the new green shoots sprout from the crowns, under a burned hoopskirt of blackened branches. Galls form on its leaves; some of us think it is helpful to remove them, but we don’t know for sure. It is to coyote bush that I turn when dis-

couraged or in need of a reminder of all that is available to learn in my own back yard.

### *Visions*

I began to see the dim outlines of a vision of my home, nestled into the intricate earth, surrounded by those trees, shrubs, grasses, and wildflowers that at one time graced this land, and surrounded also by those birds, insects, rodents, and mammals that have slept in, eaten off, hidden in, bred in, and otherwise hung out in these plants for the past ten thousand years. Home was becoming more particularly defined, more specific, more tied to the details of smell, color, and form, as we searched out the clues and looked at the pieces. The white-crowned sparrow, famous for its different dialects, has a clear, sweet whistle, called the Palomarin, or clear dialect, heard only in the area reaching from my town to a lake three miles away. Along our coast, the California poppy occurs in a lemon yellow rather than crayon orange variety.

**Appendix H.** Bornstein, C., Fross, D., O'Brien, B. (2005). California Native Plants for the Garden. United States: Cachuma Press.



**Atriplex—Baccharis**

Open with Photo Editor

A more aggressive pruning every 5 to 7 years will remove old wood, rejuvenate the plant, and ensure continued fire resistance. Quail bush can be sheared into a formal hedge if desired. This requires more frequent pruning and results in fewer flowers. Monthly summer irrigation benefits coastal plantings and is essential to plants in hotter inland areas. Pests and diseases are insignificant.

*Baccharis pilularis*  
**COYOTE BRUSH**  
**Sunflower Family (Asteraceae)**

**Plant Type:** Evergreen shrub.  
**Geographic Zones:** All except high mountains and deserts.  
**Light:** Sun.  
**Soil:** Adaptable.  
**Water:** Drought tolerant to occasional.  
**Natural Habitat and Range:** Dunes and bluffs, dry slopes, and open woods in chaparral and coastal scrub communities below 2500 feet; northwestern Baja California to the Oregon coast.

Coyote brush can evoke a curious range of responses from gardeners. Many recognize its merits in the landscape and praise coyote brush (also known as

coyote bush) for its hardiness and reliability. Some, like Judith Lowry, author of *Gardening with a Wild Heart*, find in this humble shrub a deeper connection to the California landscape; these admirers even belong to a playful and loose affiliation called Friends of the Coyote Bush. Still others regard this “coyote” as a weed and cannot imagine using it in their gardens.

Like many wide-ranging species, coyote brush’s growth habit varies considerably. On windswept headlands it is commonly a prostrate shrub with a dense, congested habit, while in open fields it typically has a more spreading, erect form and can reach 8 feet in height. Its thick, resinous, green or olive green leaves measure up to  $\frac{3}{4}$  inch long and have coarsely serrated teeth. Fall-blooming male or female flowers are borne on separate plants and cover the stems with an abundance of cream-colored rayless flowers. The male flowers are quickly shed, but debris from the female plants’ fluffy fruits can be a nuisance. Most horticultural selections are male for this reason.

Even though it is well known as a tough and drought-tolerant species, coyote brush’s garden performance will improve greatly with moderate summer watering and occasional pruning. Prune coyote brush into a tight hedge, leave it in a natural condition as an informal screen, or even shear it as topiary. Coppicing will freshen both upright and groundcover forms.

Pruning is best accomplished in late winter before the flush of spring growth begins.

Coyote brush adds significant value in the habitat garden. It is frequently used in restoration projects because it spreads rapidly and quickly provides food and cover for a variety of birds, mammals, and insects. Some birds, like wrentits and white-crowned sparrows, may spend their entire lives among stands of coyote brush.

Coyote brush is prone to attacks by mites, leafhoppers, lace bugs, white fly, and occasionally flathead borers. Each requires treatment and can compromise the aesthetics of the planting. Coppicing will effectively break the cycle of heavy infestations, but in some cases removing infected plants is required. Vigorous, healthy plants suffer fewer infestations, and regular maintenance can help keep insects to a manageable level.

**Cultivars:** Two male selections of coyote brush are commonly grown in the nursery trade and are sometimes incorrectly labeled. 'Twin Peaks #2' is a spreading cultivar to 3 feet tall and 8 feet wide. Its bright green leaves are held tightly along the stems. It grows as a dense, mounding form that eventually becomes a sizeable shrub with age. 'Pigeon Point' is a smaller shrub with larger, bright green leaves. It has a lax, undulating habit and grows to 2 feet tall and 8 feet wide. Both selections can be sheared or even mowed as a lawn alternative. Some local agencies include them on lists for use in fire-prone regions because they demonstrate fire resistance as long as they are watered and pruned consistently to remove bulk and maintain a low form.

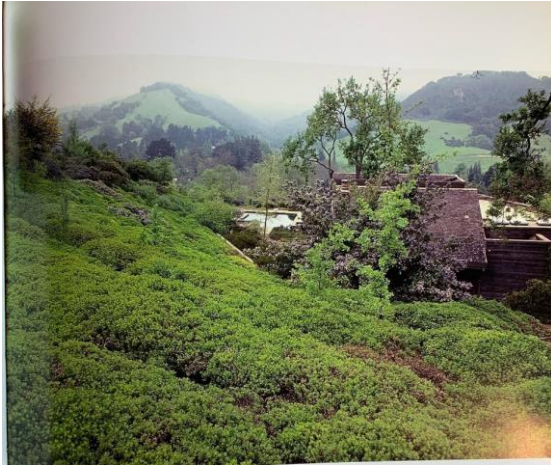
**MF: The modern Defensible Space approach will further enhance protection by locating these plants farther away from the house and spacing them more.**



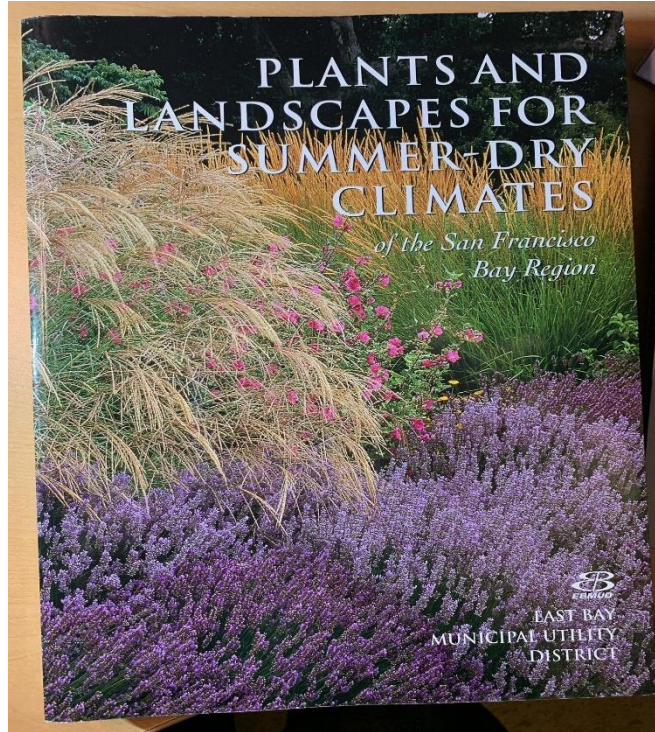
*Twin Peaks #2 coyote brush (both sides of path) and Pigeon Point coyote brush (bright green, low-spreading plant in lower right foreground), private garden, La Honda. STEPHEN INGRAM*




**Appendix I. The EBMUD book.** Harlow, N. (2004). Plants and Landscapes for Summer-dry Climates of the San Francisco Bay Region. United States: East Bay Municipal Utility District.




**MF: The modern Defensible Space approach will further enhance protection by locating these plants farther away from the house and spacing them more.**



*Baccharis pilularis* (coyote brush)

 ZONES 5-11, 14-24. EVERGREEN SHRUBS. SIZE VARIES.

 Adaptable shrub or groundcover for dry-summer climates. Small, shiny green leaves kept fresh and green with periodic cutting back in late winter. Upright forms are 3-5' x 4-5'; groundcover forms are 1-2' x 6'. Full sun, little or no water near coast; may benefit from monthly summer watering in hot interior gardens. Tolerant of drought, salt spray, alkaline soils. Native to coastal California and Oregon. Attractive to butterflies; good habitat plant. 'Pigeon Point' is a fast-spreading groundcover to 1' x 10-15'. 'Twin Peaks' has smaller, dark green leaves and grows more slowly.

