

Growing Nature's Garden

A Garden Guide to Coastal Dune Natives for Landscaping and Wildlife



with the
**Partners for the Conservation
of the Los Osos Coastal Dunes**

Photos: Marlin Harms, Dennis Sheridan

Ask for Los Osos local plants and seeds!

The native species of Los Osos are especially adapted to our local environment. **Do not use plants of the same species gathered from far away.** They could be significantly different and transmit troublesome genetic traits to the local plants through cross-pollination.

- Local growers sell native plants at the **Baywood Farmers Market** every Monday.
- The **California Native Plant Society** hosts an Annual Native Plant Sale on the first Saturday in November at the Heritage Oaks Bank, Madonna Plaza, San Luis Obispo.
- The **SLO Botanic Garden** (805-546-3501 or www.slobg.org) holds periodic plant sales featuring many dune natives. Sales are held every Tuesday morning at El Chorro Park in San Luis Obispo (weather permitting).
- Local wholesale growers **Dagmar Collins** (805-528-7533) and **John Sawyer** (805-234-3751) have natives available for sale by appointment.
- **TNK Yard Services** (805-528-2707) and **John Nowak** (805-464-0717) specialize in native landscaping.

The following local nurseries carry native seeds and plants, including Yarrow, Poppy, Sage, Manzanita, Lupines and Ceanothus. Call or visit them for more information:

- **Las Pilitas Nursery:** 805-438-5992
3232 Las Pilitas Road, Santa Margarita
www.laspilitas.com
- **Native Sons Nursery:** 805-481-9636
379 West El Campo, Arroyo Grande
www.nativeson.com
- **Los Osos Valley Nursery:** 805-528-5300
301 Los Osos Valley Road, Los Osos
www.lovnursery.com
- **Sheltered Acre Nursery:** 805-528-1800
1188 Los Osos Valley Road, Los Osos

Volunteer to Learn More about the Coastal Dunes

- **Morro Coast Audubon Society:** 805-528-0540. Sponsors volunteer workdays at the Sweet Springs Reserve on the 2nd Saturday of each month.
- **Small Wilderness Area Preservation (SWAP):** 805-528-0392. Sponsors volunteer workdays at the Elfin Forest Preserve on the 1st Saturday of each month.
- **California Department of Parks & Recreation:** 916-653-9069
- **Morro Bay Natural History Association Docents:** 805-772-7129
- **Morro Estuary Greenbelt Alliance (MEGA):** 805-528-5708

Wildscaping and Gardening Books

Wonderful books available from the Theodore Payne Foundation (www.theodorepayne.org):

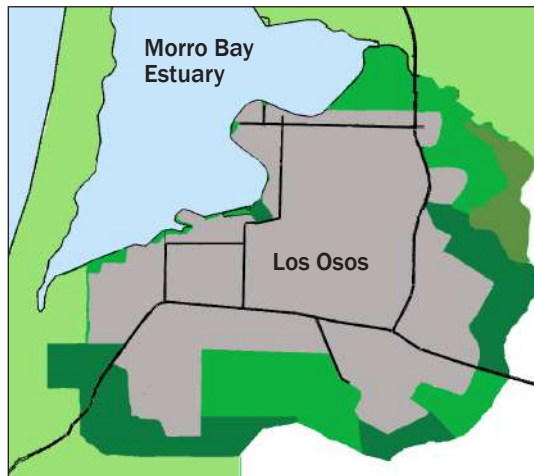
- *Gardening With a Wild Heart* by Judith Larner Lowry
- *Growing California Native Plants* by Marjorie Schmidt
- *Gardener's Guide to California Wildflowers* by Kevin Connolly
- *Seed Propagation of Native California Plants* by Dara E. Emery
- *Propagation Secrets for California Native Plants* by Jeanine De Hart



Native Gardens Extend Critical Habitat

Native gardens provide crucial links between sections of the Los Osos Wildlife Corridor (losososwildlifecorridor.org) by bridging the gaps between conserved areas. The corridors for movement that these gardens provide are essential to maintaining healthy natural wildlife populations.

Native gardens protect the beauty of the bay and water quality downstream in our estuary.



**Morro Bay Estuary &
Los Osos Wildlife Corridor**

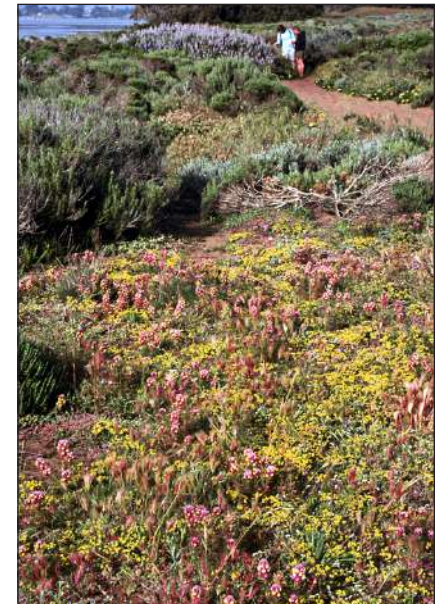
Growing Nature's Garden



Photos: Marlin Harms (top), Dennis Sheridan (bottom)

Wildscaping: Gardening with Mother Nature

A new idea in the California garden is **WILDSCAPING**, or *gardening in a way that combines beauty and the needs of native wildlife*. The Morro Bay and Los Osos coastal dunes are ideal for planting a wildscaped garden. Native plants have a long and extended flowering season in the dunes. Natives are well adapted to the tough job of growing in shifting sands. When you wildscape, you provide a home for native animals and insects too. Development pressure on the coast means many native animals have no choice but to find their homes within our human landscape.



Wildscaping with Coastal Dune Natives

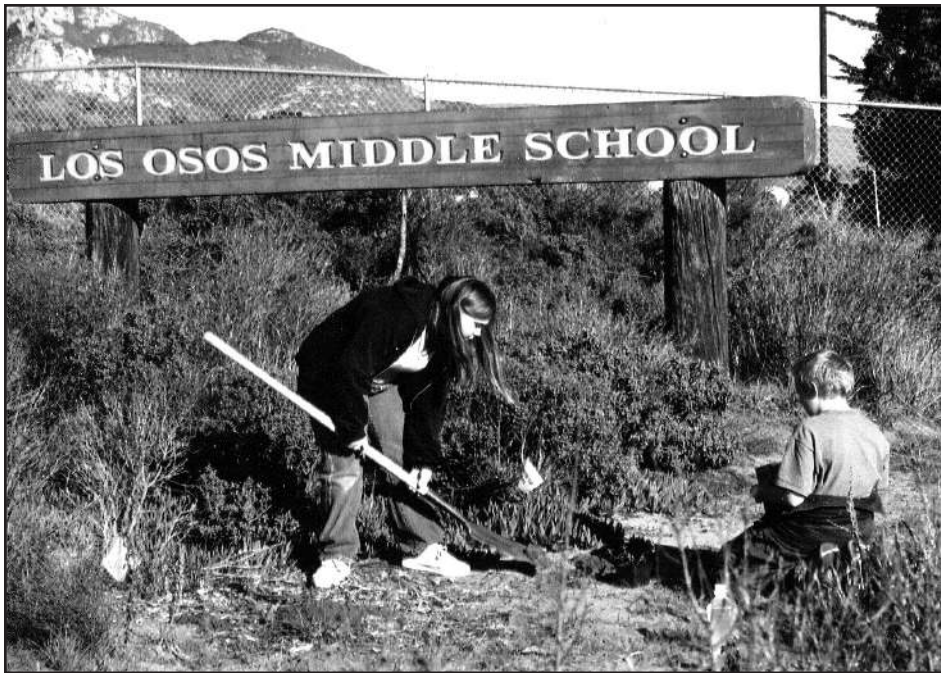


Photo: Monica Hunter

Students are Leading the Way

Students in Los Osos Middle School Science classes have contributed to the restoration of the Native Garden through their exploration of dune ecology and discovery of techniques in planting and growing native plants adapted to our local dunes.

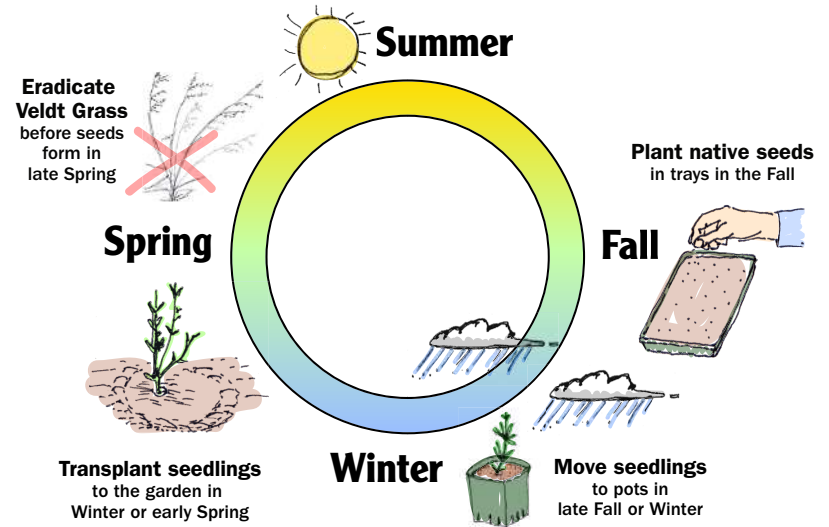
These students are leading the way in restoring our native landscape. Their experience in growing native plants for native wildlife can be our guide throughout the Morro Bay watershed.

The Coastal Dune Greenbelt and the habitat we create in our yards brings us closer to nature.



Growing Nature's Garden

Maintaining Your Native Garden



Veldt Grass: a Threat to Our Dunes

Veldt grass makes fine forage for herds of Zebras in its native South Africa. In our dunes, Veldt grass destroys the ecosystem. This greedy perennial grass outcompetes native shrubs for water. It provides no nectar, and its light, windblown seeds have little value to the native birds and animals.

The exotic grass was introduced in the 1940s as a range improvement for cattle. It now dominates sandy open areas and expands along disturbances in the dune sand.

You should control veldt grass before planting your garden. Veldt can be dug out with a shovel. Be sure to weed often as new seedlings emerge. Veldt can also be treated with standard concentrations of Roundup and grass-only herbicide. The best time for herbicide application is early Spring when the grass is growing quickly and before seed stalks mature. By Fall, the dormant clumps are virtually immune to herbicide.

A healthy garden of native Sage or Lupine resists veldt grass invasion. Mulching with a heavy layer of wood chips in the open ground between new plantings reduces weeds establishing in the disturbed sand.



More Native Plants For Your Garden

More than 350 species of plants are found growing in the Morro Bay coastal dunes. Some grow nowhere else in the world and all have important relationships with the wild inhabitants of the dunes.

The yellow flowered Deerweed (*Lotus scoparius*) thrives in the dunes, and is attractive all spring. Deerweed is considered the best all-around butterfly plant for the dunes. Deerweed, like its relative Lupine, must be soaked in hot water prior to germination.

Blochman's Leafy Daisy (*Erigeron blochaniae*) produces sprays of pale aster-like flowers in the late summer. It is a rare plant, restricted to our coastal dunes.

The spiny-stemmed Fuschia-Flowered Gooseberry (*Ribes speciosum*), and the Redberry (*Rhamnus crocea*) are important animal foods found on shady dunes slopes and hollows. Nurseries sometimes carry these plants.

Islay or Holly Leaf Cherry (*Prunus ilicifolia*) is an important fruit for birds and animals, just as it was for the Chumash in former times. Its dark, glossy foliage complements many landscapes. Seedlings are usually available at native plant sales.

Our native Live-Forever (*Dudleya lanceolata*) is easy to grow, and attractive to hummingbirds.

Kids can't resist a plant with a name like Firecracker. Hummingbirds can't either. The bright red flowers of this perennial herb (*Russelia equisetiformis*) brighten the dune scrub in May. Firecracker plants can be started from seeds collected from mature capsules in summer.



Live-Forever



Firecracker Plant



Deerweed



Leafy Daisy



Redberry



Fuschia-Flowered Gooseberry



Islay

Growing Your Native Garden

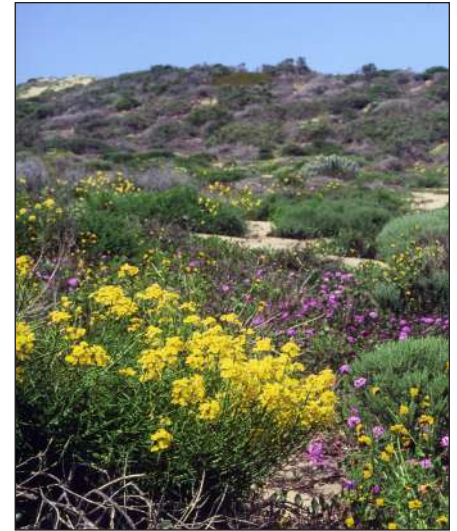
The Native Garden of Morro Bay and Los Osos blooms exuberantly year round. Summer mist and winter sun contribute to a flowering season that spans many months.

Growing a native garden is rewarding. The task is made easier by following these simple guidelines:

- Plant early in the fall to take advantage of winter rains. Plan on watering new plants twice monthly for the first two years.
- Avoid over-fertilizing. Native sand or soil is preferred by dune native plants.
- Avoid over-watering; especially for sensitive plants like the Dune Lupine. Avoid overhead sprinkling.
- Adapt planting to the local micro-climate. Shade-tolerant plants like Hummingbird Sage should be protected from full sun and wind.
- Exotic Veldt grass must be controlled for native plantings to succeed. Mulch open areas while plants establish.
- Prune dead wood from the native garden. Sage, buckwheat and others flower best when pruned. Vigorous young growth is fire resistant.

Gardening for wildlife is an exciting expansion of the native garden idea. Here, a rare Morro Blue Butterfly finds its host plant, the native Silver Dune Lupine. Other animals need the nectar and seed that the constantly blooming native dunes provide. A successful wildlife garden should:

- Include host plants. The biggest reason our butterflies are vanishing is loss of the caterpillar host plant.
- Have variety. This extends the period of flowering and fruiting. Our dune natives flower throughout the year, and our wildlife depends on this extended season.
- Provide shelter and protection. Even butterflies need a safe refuge for rest and sleep.



Wildscaping with Coastal Dune Natives

Attract Wildlife with Native Flowering Shrubs



Silver Dune Lupine

Lupinus chamissonis



Dramatic silver foliage and a profusion of lavender spikes make large Lupines a native beauty. This plant hosts the rare Morro Blue Butterfly. Lupines start best in sterile sand plus potting mix. Seeds will germinate after soaking in very hot water overnight. Transplant to native sand. Avoid compost or mulch, and don't overwater—this encourages stem rot. Mature plants are 4-5 feet tall, and form spreading clumps.



Sun Cups

Camissonia cheiranthifolia



The dune Sun Cups are showy, trailing perennials. The pure yellow blooms are renewed daily, flowering for much of the summer, they are favorite butterfly plants. Seeds germinate after soaking in hot water. Plants should be seeded in place, or grown in very deep pots or tubes to accommodate the long delicate taproot.



Horkelia

Horkelia cuneata



This easily established and attractive ground cover with strawberry-like white flowers provides important butterfly nectar. Kangaroo Rats prune and gather seed heads. Horkelia forms low compact mounds from spreading roots. Horkelia will tolerate damp sands with poor drainage.



Black Sage

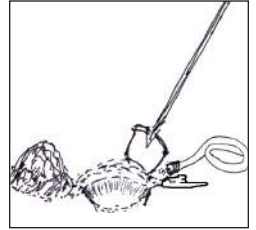
Salvia mellifera



Sage honey is a beekeeper's favorite, and many nectar drinkers depend on its March bloom. Sage is a tough native that transplants and establishes easily. Deer won't touch Sage, and it will outcompete even Veldt grass. Nurseries frequently have gallon pots. Seeds must be soaked in strong black coffee or a dilute acid to break dormancy. Plants grow to 5 feet, but can be pruned to maintain size and shape.

Transplanting to Your Garden

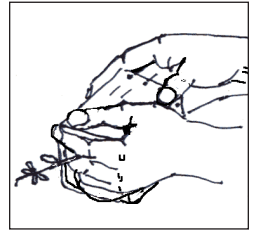
Transplant your shrubs to the garden when the stem looks sturdy and roots are showing at the bottom of the pot. Buckwheat may be ready in just a couple weeks, but some slow growing shrubs require a year.



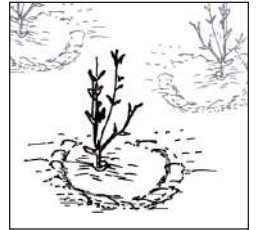
Plants are best placed in the garden in the late winter or early spring. The garden soil must be damp. Just after a good soaking rain is perfect. Or fill the planting hole with water and let it soak in before planting.

Dune natives prefer dune sand. Rich garden soil encourages disease, especially in Lupine and Ceanothus. Yarrow and Horkelia will tolerate a richer soil.

Remove the plants from their pots by tipping them over carefully and tapping them gently. Remember, don't bury the stem too deep to prevent destructive stem fungus. Tamp soil around the plant to eliminate air pockets around the roots that will dry the plant out.



Only water your plants a little in their first year. Infrequent water is best to promote deep root growth. Too much water will attract gophers to the plants. Shape the sand into a shallow basin to make summer watering easier. Overhead sprinklers will encourage weeds and stem fungus. Weekly deep watering or drip irrigation is a better option.



Buckwheat, Yarrow and Wallflower are tolerant of extra irrigation. Lupine is very sensitive to overwatering.

You can mulch planted areas with wood chips to help suppress weeds. Mulch can be obtained from local tree services. Keep the mulch out of the basin, especially Eucalyptus chips which can leach acids into the soil.

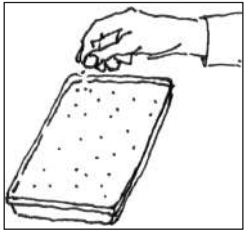
Buckwheat may flower the first fall after seeding, and will live for several years. Birds will learn its location and come to feed on its seed.



Gathering and Starting Native Seeds



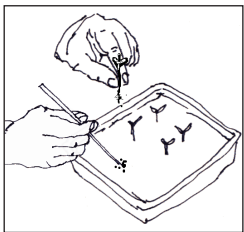
Buckwheat is an excellent first choice for the novice native gardener. Buckwheat germinates freely with no treatment, and is easy to grow. It's also a favorite of the quails and towhee, and is the host plant of hairstreak and metalmark butterflies. Buckwheat seeds can be easily collected from its flower heads in the fall. A single powderpuff head will produce a gardenful of seedlings from the tiny teardrop shaped seeds. Native seeds may also be purchased from the sources listed inside the back cover of this pamphlet.



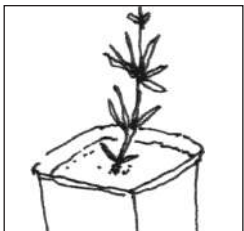
Sow your seeds in the autumn and early winter. Most dune shrub plants are best started in flats or pots, rather than directly seeded to the garden. Delicate seedlings can be more easily protected from slugs and earwigs in flats and small pots.

Fungus is the enemy of native seedlings. Wash pots thoroughly with hydrogen peroxide prior to using, use clean sand, and avoid overwatering flats after germination.

Sow seeds on the surface of a flat containing a mix of sand and cactus soil with vermiculite. Seeds can be mixed with fine dry sand to aid sowing them evenly. Cover the flat with a damp paper towel or coffee filter to keep the surface evenly moist while the seed germinates. Keep flats warm to encourage germination. Expect seedlings to emerge about two weeks after planting. Buckwheat will sprout in about a week, while Sage may take more than a month.



Move seedlings into a larger home after the first four to six leaves have formed. Seeds can be carefully lifted out of starting flats with the aid of a bamboo skewer.



Transplant the seedlings to pots. Two- or four-inch seeding pots are large enough to hold Buckwheat seedlings. Larger shrubs do better when grown in gallon pots. A mix of half clean sand and half potting soil makes a good growing medium. Stem rot is the greatest danger, so avoid overwatering the seedlings, or burying the stem too deeply when transplanting.

Buckwheat

Eriogonum fasciculatum



In the coastal dunes, buckwheat will bloom white in September, while the rest of California is dry and brown. Buckwheat provides nectar and seeds to the dune animals when little else is available. Hairstreak and Metalmark butterflies feed on it. Buckwheat grows easily from fresh, untreated seed, transplants without problems, and withstands drought. The low (2–3 feet) shrubs can be pruned back to remove dead twigs.



Coastal Golden Yarrow

Eriophyllum confertiflorum



These low shrubs with distinct silvery foliage explode into bloom in the late summer. Expect to see many insects visiting the flower clusters. Bushtits and towhees are drawn to these plants. Plants require extra water in the first year for establishment. Seeds germinate without pretreatment.



Mock Heather

Ericameria ericoides



Mock heather is the dominant shrub in the Los Osos dunes. Its showy yellow flowers brighten the end of summer. Fallen leaves accumulating under its canopy are the favorite haunt of the endangered Shoulderband Snail. Windblown seed are abundant and easily germinated in packed sand flats. These evergreen shrubs reach 4–5 feet and can be pruned to shape in the garden.



Buckbrush

Ceanothus cuneatus



Lilac-scented blooms appear in early spring. The sprays of fruits are a favorite food for the California quail. Look for bird nests in the forks of the stiff branches. Many cultivated varieties of *Ceanothus* are for sale in local nurseries. *Ceanothus* are very sensitive to overwatering or poor drainage, so avoid planting near lawns or heavily watered areas. Buckbrush forms large (5–7 feet) shrubs.





Blue Stars

Eriastrum densifolium

Mounds of sky blue flowers and unique spikey foliage cover this low plant. Once abundant, Blue Stars have nearly vanished from the Morro Bay dunes. This dune perennial makes an attractive spreading mound, and blooms freely starting in late spring. Seeds will start easily in sandy flats.



Yarrow

Achillea millefolium

This attractive ground cover is a butterfly magnet. Tall sprays of flat-topped blooms provide an easy landing for butterflies. Native throughout California, the local dune variety spreads vigorously. Pony paks or small pots can be purchased locally.



Wallflower

Erysimum insulare

Wallflowers are found in the early spring with dramatic lemon yellow spikes. This wallflower is restricted to the dunes of the central coast and provides a crucial early nectar and seed source for native animals. Seeds will germinate freely after soaking. Plant into small pots or flats for later transplanting. Flowering plants reach 2 feet tall.



Monkeyflower

Mimulus aurantiacus

Hummingbirds are drawn to a garden of Monkeyflower. This tough, drought-resistant shrub will bloom continuously with little irrigation. The seeds are tiny, smaller than grains of sand. Sprinkle on the surface of a firmly packed mix of sand and potting soil. Cover to keep moist. Local nurseries sell selected forms in gallon pots. Stem cuttings can be propagated in damp sand. Plants can be pruned in the fall to renew foliage.



Hummingbird Sage

Salvia spathecea

A deep pink sage that grows in trailing patches of deep shade under native Coast Live Oak and Manzanita. It adapts to shady gardens beautifully, drawing hummingbirds for daily visits. Sage blooms freely for an extended season. Seeds need to be soaked in very hot water overnight to break dormancy.



Sand Verbena

Abronia umbellata

Verbena is a spectacular magenta ground cover. This dune native is an important seed source for dune native birds. Verbena has a deep tap root, and is difficult to transplant. Seed directly into the garden, or transplant by cutting the bottom off the pot, and sinking the pot into the planting hole. Plants can spread more than 10 feet to create a showy carpet of color.



California Seaside Poppy

Eschscholzia californica

A local perennial form of the state flower is found on the dunes. The dune poppy has an attractive yellow fringe on the orange petals. Poppies are best grown directly from seed, on account of their deep taproot. Plants can be mowed after flowering to encourage regrowth. Plants will reseed freely in the garden if left to mature.




Morro Manzanita

Arctostaphylos morroensis

Large shrubs have pink cascades of flowers in early spring. In past times, grizzly bears feeding on berries helped propagate this shrub. Starting Manzanita from seed is challenging, because berries are slow to break dormancy. Ripen the fruits in a bag of mild compost and scratch the seed coat with sandpaper before seeding to 4-inch pots. Manzanitas are slow-growing, drought-tolerant and trouble-free, and can reach 7 feet.



Silver Dune Lupine and the Morro Blue Butterfly



The rare Morro Blue Butterfly depends for its survival on the nectar and foliage of the Silver Dune Lupine. Planting Dune Lupine in our yards brings beauty and extends a welcome to nature.

Photo: Dennis Sheridan

Funding for this project has been provided in part by:

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- Morro Bay National Estuary Program
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- Los Osos Community Volunteers
- PG&E Corporation
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