



Native Hawaiian Plants as Ground Covers

by Gregory A. Koob

Many native Hawaiian plants can serve well as ground covers. They work well in a variety of environments, from oceanfront gardens to landscapes up in the mountains and anywhere inbetween. Almost any place a nonnative plant works as a ground cover, there is a native plant that will work just as well. The only ground cover that cannot be replaced with a native plant is lawn grass. And with a little research, that may change some day as well.

When choosing native plants for ground covers, take into consideration the natural environment that plant normally occurs in. But don't let that restrict your thinking. There are many native plants that work as ground covers that come from beach environments that work very well in the oceanside landscape, often better than non-natives. But many of those plants also work well away from the ocean.

I'm not a big fan of using commercial fertilizers with native plants. After all, our native plants evolved with our native soils. But, if your landscape plants are showing signs of nutrient deficiencies, and your soil test recommends adding fertilizers (using ornamental plants as surrogates for fertilizer rates) then add fertilizer at about half the recommended rates. I've seen many native plants that have been "beefed up" with too much nitrogen, at the expense of flowering and resistance to pests, drought and diseases.

Native plants provide habitat for our native insects. A mixed native landscape will provide the life-history needs of many of our native pollinators. But if you want to grow native plants for pollinator habitat, make sure to limit your use of nonspecific pesticides.

Hinahina, 'ilima, pōhinahina and pā'ūohi'iaka are beach plants that all work well in valley and lower-elevation landscapes. 'Ilima also works well up to mid-elevation landscapes. Use the following list as a guide to increasing your use of native plants in the landscape. This is just a starter list. There are many more native plants that work well as ground covers.

Learn more about gardening and plants in Hawai'i at Greg's blog, [Hawaii Horticulture](http://hihort.blogspot.com/), <http://hihort.blogspot.com/>

'Ilima papa

Sida fallax

Growth Type: Spreading shrub.

Height: 2 to 4 inches.

Spread: 3 to 4 feet.

Flowers: Yellow, nickel- to quarter-sized, flat, hibiscus-like.

Foliage: Rounded dark to dull green leaves with scalloped edges.

Light: Full sun to part shade.

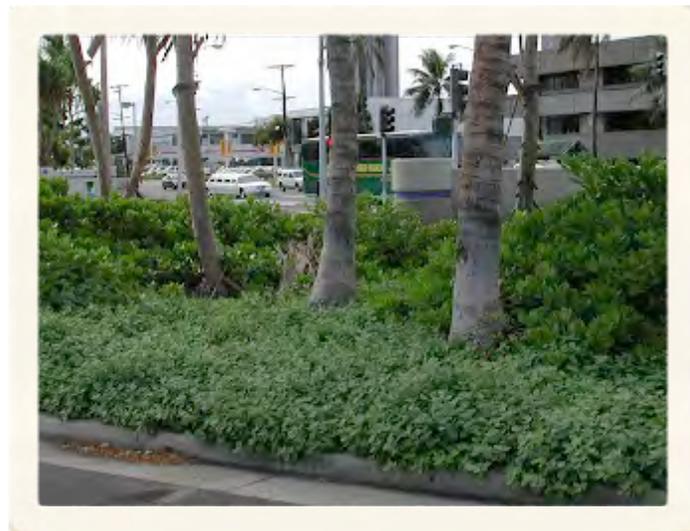
Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind and drought.

Planting Distance: 12 to 18 inches.

Trimming requirements: Trim growing point occasionally to encourage branching and to keep the plants confined to the growing area.

Notes: There is also a taller growing form of the same species. Use the low-growing type for ground cover. 'Ilima flowers are strung into lei that were in pre-contact times restricted to the ali'i class.



Above: 'Ilima may be best known for the lei made from its flowers, but it makes a perfectly good ground cover as well.

Right --> Pā'ūohi'iaka does well in full sun or in partial shade. Its creeping habit makes it a good choice to use around stepping stones.

Pā'ūohi'iaka

Jacquemontia ovalifolia* ssp. *sandwicensis

Growth Type: Sprawling, non-twining vine.

Height: 2 to 4 inches.

Spread: 3 to 5 feet.

Flowers: Small, sky-blue, cup-shaped.

Foliage: Medium-green, egg-shaped leaves with smooth or slightly ruffled edges.

Light: Full sun to part shade.

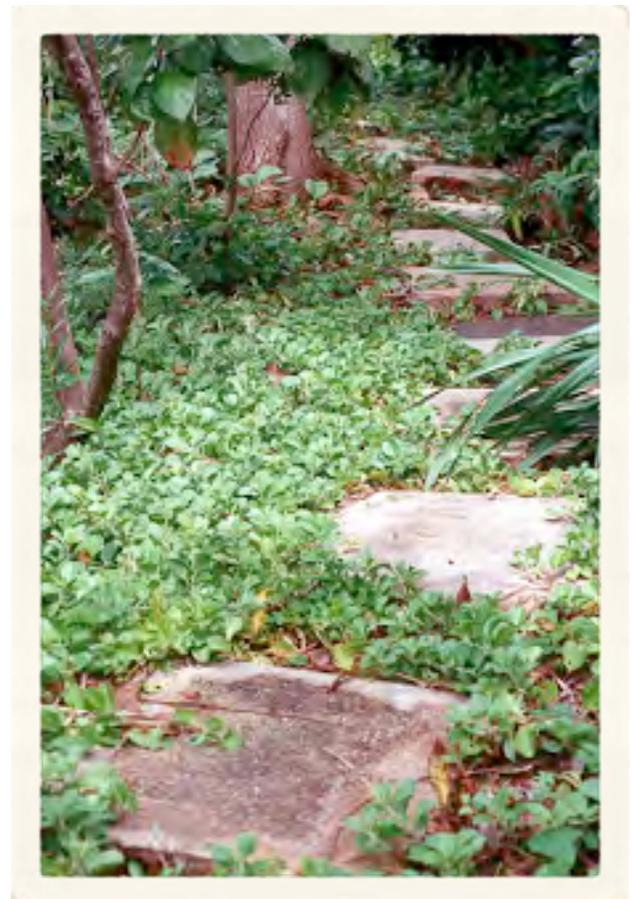
Moisture: Allow to dry between waterings.

Tolerances: Tolerant of wind and salt and mild droughts.

Planting Distance: 12 to 18 inches.

Trimming requirements: Trim growing points to encourage branching and to keep the plants confined to the growing area.

Notes: Pā'ūohi'iaka means Hi'iaka's skirt and plays a central role in a story about Pele and her sister Hi'iaka.



Ākia

Wikstroemia uva-ursi

Growth Type: Short, spreading shrub.

Height: 6 to 36 inches.

Spread: 2 to 5 feet.

Flowers: Small, greenish yellow, trumpet-shaped.

Foliage: Small, dark to olive-green, rounded leaves on very short petioles.

Light: Full sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind and drought.

Planting Distance: 12 to 24 inches.

Trimming requirements: Trim only to shape or encourage more branching.

Notes: The flowers are sometimes followed by orange or red, round fruits. Some people consider this plant poisonous and it should not be planted where children may put its parts in their mouths, though there have been no reported poisonings from this plant. Some people object to the flowers' smell. This is a very popular landscape plant. There are several growth habits, from very prostrate to moderately upright. Cultivar selection is being done by some nurseries.



Ākia is the most commonly used native ground cover in Hawaii landscapes today.

Pōhinahina

Vitex rotundifolia

Growth Type: Spreading shrub.

Height: 2 to 4 feet.

Spread: 3 to 6 feet.

Flowers: Small, light-blue to purple flowers.

Foliage: Silvery to green, rounded leaves that give off a spicy odor when crushed or brushed up against.

Light: Full sun to part shade.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of wind, salt and drought.

Planting Distance: 12 to 24 inches.

Trimming requirements: Trim to shape or encourage branching.

Notes: The flowers, fruit (small, round, silvery or purple balls) and foliage are all used in lei-making. In a mass planting this works well as a ground cover but it can also be planted as a border or a short hedge.



*Pōhinahina works as either a tall ground cover, a border planting or a short hedge.
(Queen Liliuokalani Garden, Honolulu)*

'Uki'uki

Dianella sandwicensis

Growth Type: Clumping herb.

Height: 1 to 3 feet.

Spread: 2 to 3 feet.

Flowers: Small white to blue flowers on branched spikes followed by very ornamental blue fruit.

Foliage: Lily- or iris-like, light to dark green, strap-shaped leaves

Light: Full sun to part shade.

Moisture: Wet or dry.

Tolerances: Tolerant of standing water, drought and wind.

Planting Distance: 1 to 2 feet.

Trimming requirements: None.

Notes: Because of its familiar lily-like foliage and blue flowers and fruit, this plant should prove to be a popular ground cover as professionals and homeowners become familiar with it. It is tolerant of a wide range of growing conditions from wet to dry and full sun to shade. Once it starts to flower, it does so all year long and there are always flowers and fruit on established plants.



Hinahina

Heliotropium anomalum* var. *argenteum

Growth Type: Spreading herb.

Height: 2 to 6 inches.

Spread: 2 to 4 feet.

Flowers: Fragrant, small white flowers in clumps on upright stalks.

Foliage: Silvery or white, small, lance-shaped leaves in rosettes.

Light: Full sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of wind, salt, heat and drought.

Planting Distance: 6 to 12 inches.

Trimming requirements: None.

Notes: This plant does best in sandy, beach plantings but will perform well in other areas if it has well-drained soil, plenty of sun and is kept on the dry side.



Above: Hinahina works well in very sunny areas with good drainage. It's perfect for xeriscape gardens.

<-- Left: 'Uki'uki has the potential to be a popular ground cover. Its blue flowers and fruit and lily-like leaves combined with its ability to thrive in varied habitats make it ideal for most landscapes.

I'lie'e

Plumbago zeylanica

Growth Type: Spreading, vining shrub.

Height: 6 to 18 inches.

Spread: 3 to 6 feet.

Flowers: Star-shaped white flowers at the ends of branches.

Foliage: Soft, thin, medium-green leaves with scalloped edges.

Light: Full sun to part shade.

Moisture: Looks best with regular irrigation.

Tolerances: Tolerant of salt, drought and wind.

Planting Distance: 1 to 3 feet.

Trimming requirements: Trim to keep confined to the planting area and to encourage branching.

Notes: 'Ilie'e can be used wherever the invasive wedelia is used. It looks best with regular irrigation during the summer but will tolerate moderate drought. It will survive severe droughts but may look ragged until the rains return.



Use 'ilie'e wherever you would use wedelia. With regular irrigating, 'ilie'e thrives in full sun or partial shade.

Nanea

Vigna marina

Growth Type: Sprawling vine.

Height: 6 to 8 inches.

Spread: 4 to 8 feet.

Flowers: Yellow, pea-like flowers.

Foliage: Large leaves with three main segments, like a bean leaf.

Light: Full sun to part shade.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of wind, salt, heat and drought.

Planting Distance: 1 to 3 feet.

Trimming requirements: Needs regular trimming to keep confined to a planting area.

Notes: Nanea will grow up trellises as well as work as a ground cover. It can be aggressive so ample growing area should be given to it.



Nanea is an aggressive ground cover perfect for quickly covering large areas.

'Ae'ae

Bacopa monnieri

Growth Type: Spreading herb.

Height: 2 to 4 inches.

Spread: 1 to 4 feet.

Flowers: Small, blue flowers.

Foliage: Small, light green shiny leaves.

Light: Full sun to part shade.

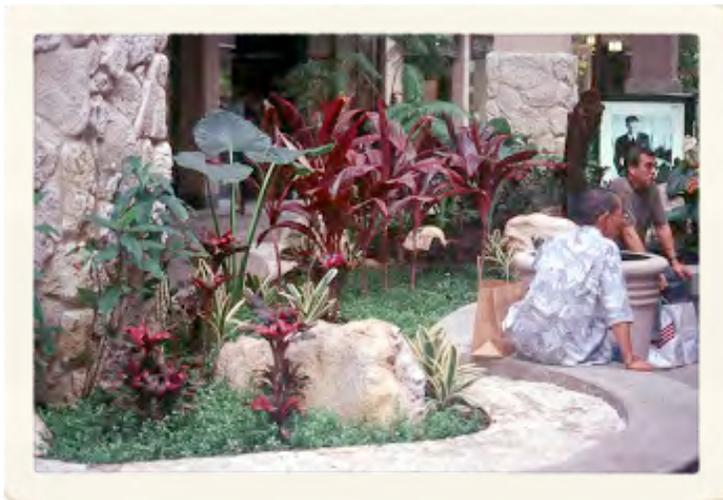
Moisture: Prefers to be kept constantly moist or wet. It will grow in standing water and ponds or streams.

Tolerances: Tolerant of wet areas and salt.

Planting Distance: 6 to 18 inches.

Trimming requirements: Trim to keep confined to a planting area. Will tolerate mowing or string trimming.

Notes: 'Ae'ae is the ideal plant for sunny, wet areas in the garden. It tolerates brackish water as well as fresh water.



'Ae'ae is one of the few ground covers that thrives in very wet areas. Here it is a ground cover in a planter at Ala Moana Shopping Center

'Ākulikuli

Sesuvium portulacastrum

Growth Type: Spreading, succulent herb.

Height: 2 to 5 inches.

Spread: 1 to 2 feet.

Flowers: Small, pink to light purple, star-shaped flowers.

Foliage: Light green to tinged red, small succulent leaves.

Light: Full sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of wind, heat, salt and drought.

Planting Distance: 6 to 12 inches.

Trimming requirements: None.

Notes: A very good ground cover for beach areas.



The real 'ākulikuli is a succulent ground cover ideal for sunny, dry areas and beach plantings.

Nehe

Melanthera integrifolia

Growth Type: Spreading herb.

Height: 2 to 5 inches.

Spread: 2 to 5 feet.

Flowers: Daisy-like, small yellow flowers.

Foliage: Small, light to olive green leaves.

Light: Full sun to part shade.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of wind, salt, drought and heat.

Planting Distance: 6 to 12 inches.

Trimming requirements: Trim to keep confined to planting area and to encourage branching.

Notes: Rejuvenate the planting every year with a thorough trimming to encourage new growth. Slugs and spittle bugs may attack the foliage. May be sensitive to some slug and snail poisons.



Nehe is another native ground cover that works well in hot, sunny and dry areas and beach plantings.

'Ūlei

Osteomeles anthyllidifolia

Growth type: Sprawling shrub.

Height: 2 to 4 feet.

Spread: 4 to 6 feet.

Flowers: Showy, white, wild-rose-like flowers in clumps.

Foliage: Shiny to dull green, compound leaves with small leaflets.

Light: Part shade to full sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind, heat and drought.

Planting distance: 1 to 3 feet.

Trimming requirements: Trim to encourage branching when young and to keep confined when older.

Notes: There are upright-growing forms of this species. Use the low-growing types for ground covers. The showy flowers are followed by cranberry-sized, white fruit that is sometimes rather sweet-tasting and sometimes insipid tasting.



'Ūlei flowers are followed by ornamental, fleshy, white fruit. This plant stays green and attractive even in droughts.

Nehe

Melanthera tenuifolia

Growth type: Spreading herb.

Height: 1 to 3 feet.

Spread: 2 to 5 feet.

Flowers: Small, yellow, daisy-like flowers.

Foliage: Very fine, fernlike leaves.

Light: Full sun to part shade.

Moisture: Moderate.

Tolerances: Tolerant of moderate drought.

Planting distance: 1 to 3 feet.

Trimming requirements: Trim to keep confined to the planting area and to encourage branching.

Notes: This is a federally listed endangered species and should only be purchased (or sold) with an endangered species label from the Department of Land and Natural Resources.



This type of nehe is an endangered species but it makes a very fine ground cover. It also works well in hanging baskets. The yellow, daisylike flowers contrast very nicely with the finely divided, fernlike leaves.

‘Ōhelo kai

Lycium sandwicense

Growth type: Spreading shrub.

Height: 1 to 3 feet.

Spread: 2 to 5 feet.

Flowers: Small, white, star-shaped flowers followed by red fruit.

Foliage: Olive-green, small leaves.

Light: Full sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of wind, salt, drought and heat.

Planting distance: 12 to 24 inches.

Trimming requirements: Trim to encourage branching.

Notes: Some small branches lose their leaves and act as thorns (though they are really short, sharp, branches). This makes ohelo kai a good barrier plant. Regular trimming is needed to encourage many side branches, otherwise the plants tend to be sparse and sprawling.



‘Ōhelo kai gets its name from the red berries that follow the white flowers on this sprawling beach shrub. With regular pruning, the ohelo kai makes a very good ground cover for dry areas and beach plantings.

Pili grass

Heteropogon contortus

Growth type: Upright, clumping grass.

Height: 2 to 4 feet.

Spread: 1 to 2 feet.

Flowers: Insignificant flowers followed by distinctive, twisting seed heads.

Foliage: Light green grassy leaves growing upright from a central base.

Light: Full sun to part shade.

Moisture: Moderate.

Tolerances: Tolerant of wind, salt, heat and drought.

Planting distance: 1 to 2 feet.

Trimming requirements: None. Plantings can be rejuvenated by yearly or bi-yearly trimming to 6 inches tall.

Notes: Pili grass was used as a thatching material for traditional Hawaiian houses. It makes a good, tall ground cover and should be used in place of fountain grass (an illegal plant in Hawaii).



When planted close together, pili grass makes a good, tall ground cover. It also works well as a specimen plant wherever fountain grass would be used.

Mau'u 'aki'aki

Fimbristylis cymosa

Growth type: Clumping herb (sedge).

Height: 4 to 8 inches.

Spread: 4 to 8 inches.

Flowers: Insignificant flowers in tan clumps on long spikes held above the foliage.

Foliage: Thin, stiff, upright or smoothly arching leaves arising from a central stem.

Light: Partial shade to full sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind, heat and drought.

Planting distance: 4 to 6 inches.

Trimming requirements: None.

Notes: Plants grown in full sun will be shorter than those grown in partial shade. The flower spikes can be removed to make this plant look more like mondo grass or be left on as an added feature.



Mau'u 'aki'aki looks like a stiff mondo grass but is really a sedge (mondo grass is a lily relative). Use this small, clumping sedge any place you would use mondo grass. It performs better than mondo grass in hot, sunny, dry areas and in seaside gardens.

'Ena'ena

Pseudognaphalium sandwicense

Growth type: Creeping herb.

Height: 4 to 6 inches (with taller flower spikes).

Spread: 6 to 12 inches.

Flowers: Yellow flowers on spikes 6 to 10 inches tall.

Foliage: Very fuzzy and light green to bright white.

Light: Full sun to partial shade.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind, heat and moderate drought.

Planting distance: 4 to 8 inches.

Trimming requirements: Trim off flower spikes to prolong season.

Notes: Plants grown in full sun have a brighter white fuzz on them. These plants should be grown as annuals, replaced as they die. To prolong the usefulness of these plants, remove the flower spike. The seeds are on little parachutes and will blow around in the wind, making it only somewhat likely that seedlings will come up where last year's plants were.



The short-lived 'ena'ena is a fun plant to use as a ground cover. The bright white, fuzzy leaves are reminiscent of lamb's ears and feel good to the touch. Keep the flowers trimmed off to extend the growing season.

Nehe

Melanthera micrantha

Growth type: Sprawling herb.

Height: 1 to 1.5 feet.

Spread: 3 to 6 feet.

Flowers: Insignificant yellow flowers barely visible among the leaves.

Foliage: Finely divided leaves that have a fern-like appearance. Not as finely divided as *M. tenuifolia*.

Light: Full sun to partial shade.

Moisture: Keep moist.

Tolerances: Tolerant of mild drought once established.

Planting distance: 1.5 to 3 feet.

Trimming requirements: Keep growing points trimmed to encourage side shoots. This can be an aggressive grower and should be trimmed to keep it confined to a planting area.

Notes: This is an endangered species. This nehe also works well in hanging baskets, if the soil is kept moist.



*Another nehe with finely divided leaves, *Melanthera micrantha* is also an endangered species. This nehe doesn't have the attractive yellow flowers of *M. tenuifolia*, but it works just as well as a ground cover.*

Pōhuehue

Ipomoea pes-caprae

Growth type: Sprawling vine.

Height: 8 to 12 inches.

Spread: 7 to 15 feet.

Flowers: Very showy, purple to white morning-glory flowers that last only one day.

Foliage: Rounded, two-lobed light to dark green leaves.

Light: Full sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind, heat and drought.

Planting distance: 2 to 4 feet.

Trimming requirements: Trim to keep confined to its growing area.

Notes: This can be an aggressive plant when it is actively growing. It grows fastest and best in the summer. This is an ideal plant for beach plantings and does a good job at stabilizing beaches. Long stems can be pruned or easily wound back toward the main growing area.



One of Hawaii's better-known native plants, pōhuehue makes a good ground cover in drier areas of the state. The flowers are an added bonus.

'Aki'aki

Sporobolus virginicus

Growth type: Creeping grass.

Height: 8 to 16 inches.

Spread: 2 to 4 feet.

Flowers: Insignificant on stiff spikes.

Foliage: Thin, light-green leaves on skinny stems.

Light: Full sun to part shade.

Moisture: Keep moist or allow to dry between waterings.

Tolerances: Tolerant of salt, wind, heat, drought and standing water.

Planting distance: 4 to 6 inches for quick coverage, 8 to 12 inches for thinner coverage.

Trimming requirements: None needed.

Notes: This grass does not take mowing well but can be trimmed occasionally by a string trimmer. It works well in areas that are hard to access or don't need a "finished" look, such as the "rough" of golf courses. It is very versatile in its growth requirements and can spread by runners that root and send out new stems.



The ability of 'aki'aki to grow under most environmental conditions makes it an ideal ground cover for hard-to-maintain areas of a yard or garden.

'Akoko

Euphorbia degeneri

Growth type: Prostrate shrub.

Height: 4 to 8 inches.

Spread: 8 to 16 inches.

Flowers: Insignificant.

Foliage: Coin-shaped and sized round leaves, light green to tinged red in color.

Light: Full sun to part shade.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind, heat and drought.

Planting distance: 10 to 16 inches.

Trimming requirements: None.

Notes: Leaves turn red when the plant is overly stressed.



'Akoko is happiest in beach plantings but will grow quite well away from salt spray. Well-drained soil that is allowed to dry between waterings will assure its health.

Palapalai

Microlepia strigosa

Growth type: Spreading fern.

Height: 2 to 5 feet.

Spread: 3 to 5 feet.

Flowers: None.

Foliage: Triangle-shaped, soft fronds, light to dark green.

Light: Full shade to full sun.

Moisture: Keep moist.

Tolerances: Tolerant of shade and occasional drought.

Planting distance: 1 to 2 feet.

Trimming requirements: None needed. May have to occasionally remove dead fronds.

Notes: The fronds are used to make lei. Plants in full sun need higher amounts of water than those in shade. Those in shade can tolerate drying out slightly between waterings. Lei makers have their favorite sources for fronds. Not all palapalai are created equal when it comes to making lei.



Palapalai is a nice native fern to use in the garden. The rhizomes crawl along the soil, sending up new fronds every couple of inches. Fronds can be harvested for making lei without being missed in an established planting.

Pala‘ā

Sphenomeris chinensis

Growth type: Spreading fern.

Height: 1 to 1.5 feet.

Spread: 1 to 2 feet.

Flowers: None.

Foliage: Lacy, light green fronds with dark stems. The fronds sometimes blacken if damaged or stressed.

Light: Full shade to full sun. Prefers partial sun.

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of occasional drought.

Planting distance: 8 to 12 inches.

Trimming requirements: Remove old fronds as they blacken.

Notes: The fronds are used for making lei. This fern does very well on slopes with partial shade or full sun and will start spreading by spores once it is established in an area. A dye was made from this fern to color kapa.



Pala‘ā is one of the better choices for ground covers on steep slopes. Once established it will start spreading by spores as well as by rhizomes, helping to control erosion. Remove old fronds to keep your planting nice and green.

Rock’s Tetramolopium

Tetramolopium rockii

Growth type: Slightly spreading herb.

Height: 6 to 8 inches.

Spread: 6 to 12 inches.

Flowers: Small daisy- or aster-like white flowers.

Foliage: Slightly sticky and fuzzy, light green, spoon-shaped leaves.

Light: Part shade to full sun (prefers full sun).

Moisture: Allow to dry between waterings.

Tolerances: Tolerant of salt, wind, heat and drought.

Planting distance: 4 to 8 inches.

Trimming requirements: None.

Notes: This is a fairly short-lived perennial and should be rejuvenated with new plants every year or two. This is an endangered species. Seeds are on little parachutes.



Rock’s tetramolopium has small, white, asterlike flowers held above its light green, fuzzy leaves. This endangered species works very well in hot, dry, sunny areas.