

DUNE PLANTS FOR 2011 RARE PLANT SURVEY  
Last Updated 2/28/2011

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### **\*\*\**Chaenactis glabruiscula* var. *orcuttiana***

Orcutt's pincushion (Asteraceae)



Michael Charters

**Form:** annual herb

**Status:** List 1B.1, S1/G5T1

**Habitat:** Coastal bluff scrub(sandy), Coastal dunes. This annual grows in open Diegan Coastal Sage Scrub; typically in proximity to moist ocean breezes. Soils at Torrey Pines State Reserve supporting Orcutt's Pincushion are mapped as Marina loamy coarse sand and Terrace Escarpments. Possible Associates: *Opuntia littoralis*, *Camissonia lewisii*, *Yucca schidigera*.

**Blooming Period:** Jan-Aug (Mar-Jul)

**Jepson Description:**

Plants branched above and below middle, thinly grayish cobwebby

**Stems** < 30 cm, ± spreading

**Leaves** < 7 cm; lowest strongly fleshy; basal rosette withering; largest blades generally 2-pinnately lobed, 1° lobes 2–7 pairs, ± crowded, tips flat to ± curled

**Inflorescence:** heads few per stem; peduncles < 4.5 cm; involucre hemispheric; longest phyllaries 4.5–6.5 mm, < 2 mm wide, greenish, generally glandular-hairy

**Flowers:** inner corollas 4.5–5.5 mm

**Fruit** :4–5 mm; pappus scales 4 in 1 series, longest 1–2.5 mm

**Notes:** *C. glabruiscula* is an extremely variable species with a number of described forms, only some of which are recognized in the Jepson Manual. As a result, this coastal subspecies has not been the focus of much botanical interest in the past. Traits which appear distinctive along the coast such as the pronounced fat, fleshy basal leaves which are 2-pinnately lobed rather than 1-pinnately lobed, may merge into intermediate characteristics with the very common *C. g. ssp. glabruiscula* as one progresses to more inland locales. Typical San Diego County populations of *ssp. glabruiscula*, a few miles inland, are usually much less robust annuals with thin, less hairy leaves.

## *Corethrogyne filaginifolia* var. *incana*

San Diego sand aster (Asteraceae)



**Form:** Perennial herb

**Status:** List 1B.1, S1.1/G4T1

**Habitat:** Coastal bluff scrub, Chaparral, Coastal scrub. Coastal chaparral, primarily in sandy openings between Chamise, is a typical microhabitat utilized at Point Loma. Carlsbad gravelly loamy sand is the soil type mapped for the ridgeline at Point Loma, with Gaviota fine sandy loam downslope. Possible Associates: *Ceanothus verrucosus*, *Adenostoma fasciculatum*, *Cneoridium dumosum*.

**Blooming Period:** Jun-Sep (Jun-Aug)

**Variety linifolia vs. var. virgata (Vince Scheidt)**

**Munz So. Cal Description:**

### **VARIETY INCANA**

Stout, erect, 5-8 dm tall, with tomentum deciduous from upper parts

**Lvs:** Linear to narrowly lanceolate or oblanceolate, mostly entire, to 7 or 8 cm long.

**Infl:** an open panicle with **Very Large Heads**.

**Involucre:** 10-12 mm high, densely beset with stout-stalked prominent glands.

### **VARIETY LINIFOLIA**

Erect, 2-4 dm. high, permanent hoary even on the involucre (see above)

**Lvs.** Narrow, 1-2 (-5) mm. wide

**Involucre** 8-10 mm high, 6-7 serrate; rays lavender, 6-7 mm. long.

**\*\*\**Heterotheca sessiliflora* ssp. *sessiliflora***

**Beach goldenaster (Asteraceae)**



Vince Scheidt



Vince Scheidt

**Form:** perennial herb

**Status:** List 1B.1,S2.1?/G4T2T3

**Blooming Period:** Mar-Dec (Mar-Jul)

**Elevation:**0-1225 m

The San Diego County populations of Beach Golden-Aster are almost extirpated. This subspecies appears quite distinct from other subspecies of golden-aster with its typically large leafy bracts subtending the single flowering head.

**Jepson Manual Description**

Perennial 1–13 dm, ± bristly to woolly, ± glandular above

**Leaves:** lower tapered; upper ± sessile, 1–5 cm, wavy-margined; upper not stiff, green, hairs generally ± 1 mm

**Inflorescence:** involucre 8–14 mm, heads few, subtended by leaf-like bracts, ± hairy and glandular

Ray flowers 3–30; ligules 3–10 mm

Disk flowers 00–50; corollas 3–10 mm; corolla lobes (sub)glabrous

**\*\*\**Phacelia ramosissima* var. *austrolitoralis***

South coast branching phacelia (Boraginaceae)



Aaron Arthur

**Form:** perennial herb  
**Status:** List 4.2 S3.2/G5?T3  
**Habitat:** Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt)/sandy, sometimes rocky. This herbaceous perennial grows on sandy substrates in sage scrub near the beach, salt marshes, and coastal bluffs. Corralitos loamy sand is present at the Penasquitos Lagoon site. Possible Associates: *Camissonia lewisii*, *Croton californicus*, *Lotus heermannii*.  
**Blooming Period:** Mar-Aug (Apr-Aug)

**Stem** prostrate to ascending, many-branched, hairy not glandular below inflorescence; hairs coarse, long, stiff, spreading, bulb-based

**Leaf:** blade 40–200 mm, generally > petiole, oblong to widely ovate, compound; leaflets ± sessile, elliptic to oblong, coarsely toothed or lobed, lobes often toothed

**Flower** ± sessile; calyx lobes 4–6 mm, not generally longer in fruit, oblanceolate to ± spoon-shaped; corolla 5–8 mm, funnel- to bell-shaped, white to lavender, scales ovate; stamens 7–10 mm, exserted, glabrous; style 7–10 mm, exserted

**Fruit** 3–4 mm, ovoid, sharply bristly

**Seeds** 2–4, 2–3 mm, pitted

### \*\*\**Phacelia stellaris*

Brand's star phacelia (Boraginaceae)



Vince Scheidt



Carolyn Martus

**Form:** annual herb

**Status:** List 1B.1, S1/G2?, ---/FC

**Habitat:** Coastal dunes, Coastal scrub. This annual grows in sandy openings in Diegan Coastal Sage Scrub near the coast. At Border Field the soils are mapped as Marina loamy coarse sand. In Los Angeles, this species once thrived on pre-Flandrian stabilized dunes situated behind the active back dunes on the beach. Possible Associates: *Dudleya attenuata*, *Camissonia lewisii*, *Agave shawii*.

**Blooming Period:** Mar-Jun

**Notes:** Brand's Phacelia when mature is a smaller plant than others in its genus growing near the beaches of San Diego County. This annual is reminiscent of a *Nemophila* to some extent, and has a small (3-5mm), widely bell-shaped, light blue to purplish corolla. Small-flowered forms of *Nemophila menziesii*, however, have distinctive reflexed appendages between the calyx lobes.

#### Jepson Manual 2 Description

Ann 6–25 cm. **ST:** spreading to ascending, gen branched at base, puberulent. **LF:** ± basal, 5–70 mm; blade gen > petiole, oblanceolate to ovate, deeply lobed to compound, segments rounded to obtuse. **INFL:** pedicel 2–8 mm, curved. **FL:** calyx lobes 2–5 mm, 4–8 mm in fr, oblanceolate, short-stiff-hairy, glandular; corolla deciduous in fr, 3–5(7) mm, bell-shaped, light blue to ± purple; stamens 2–4 mm, gen glabrous; style 1–3 mm, puberulent. **FR:** 4.5–6 mm, ovoid, sparsely short-hairy. **SEED:** 8–20, 0.5–1 mm, pitted

## \*\*\**Aphanisma blitoides*

*Aphanisma* (Chenopodiaceae)



Larry Sward

**Form:** annual herb

**Status:** List 1B.2,S3/G3G4

**Habitat:** Coastal bluff scrub, Coastal dunes, Coastal scrub/sandy. Coastal bluffs near the ocean and beach dunes were the historical mainland habitat of *Aphanisma*. Soils at the Newport Back Bay site are mapped as Myford and Cieneba sandy loams. Possible Associates: *Eriogonum parvifolium*, *Atriplex californica*, *Calandrinia maritima*.

**Blooming Period:** Mar-Jun (Apr-May)

**Elevation:** 1-305 m

**Notes:** *Aphanisma* is a relatively nondescript and easily overlooked species. It has small sessile triangulate leaves alternating up a narrow stem and microscopic flowers - but a distinctive black spheric seed tucked into the base of the leaf.

### Jepson Manual 2 Description

Ann, glabrous. ST: 1–6 dm, decumbent to erect, branched from base, fleshy. LF: alternate, gradually reduced distally on st; proximal sessile; distal cordate-clasping; blade 2–5 cm, elliptic to ovate, entire. INFL: axillary, sessile; fls 1–3(5). FL: bisexual; calyx parts 3(5),  $\pm$  1 mm,  $\pm$  equal, concave; stamen 1; style branches 3. FR: 1.2–2 mm, depressed-spheric; equatorial margin  $\pm$  thick, ring-like. SEED: 1–1.5 mm, round, horizontal, black.

### **\*\*\**Atriplex coulteri***

Coulter's saltbush (Chenopodiaceae)



Vince Scheidt

**Form:** perennial herb

**Status:** List 1B.2, S2.2/G2

**Habitat:** Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland/alkaline or clay. Historical records indicate sea-bluff habitat is preferred. Presumed Associates: *Atriplex pacifica*, *Eriogonum parvifolium*, *Amblyopappus pusillus*.

**Blooming Period:** Mar-Oct

**Elevation:** 3-460 m

**Notes:** Coulter's Saltbush has sharply dentate bracts (entire bract 2-3 mm) unlike the minutely toothed bracts of *Atriplex pacifica* (entire bract 1-1.5mm) with which it is sometimes confused. The bract shapes of the two species are quite different.

#### **Jepson Manual 2 Description**

Per < 5 dm; monoecious. **ST:** 1—several from base, decumbent to erect, branches gen many, spreading to ascending. **LF:** blade 7–20 mm, narrowly elliptic to lanceolate, gray-scaly esp abaxially. **STAMINATE INFL:** gen spike, terminal. **PISTILLATE INFL:** bracts in fr 2–3 mm, fused proximally, obovate, sharply dentate distally, smooth or few-tubercled. **SEED:** 1–1.5 mm, brown.

Within this area of erosive steep slopes to the west, and typical coastal sage scrub/chaparral to the east, an unusual and distinctive bluff floral association still persists. This zone may be only a few yards wide in some areas; nevertheless, a micro-flora including species of saltbushes such as *Atriplex pacifica* thrive under the influence of salt spray and a lack of competition for light from taller shielding shrubs. Salt marsh subshrubs may also occupy this corridor. This narrow zone has been almost completely lost in San Diego County; often due to the construction of viewshed homes almost to the edge of the sea bluffs, and the subsequent planting of horticultural vegetation in the intervening areas.



## *Atriplex pacifica*

South Coast Saltscale (Chenopodiaceae)



Vince Scheidt

**Form:** annual herb

**Status:** List 1B.2, S2.2/G3G4,

**Habitat:** Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas. This wiry little herb grows in xeric, often mildly disturbed locales. Soils are mapped as Linne clay loam at the Rice Canyon site and Huerhuero-urban land complex in Imperial Beach. Usually the surrounding vegetation is an open Diegan Coastal Sage Scrub; although, near the Bernasconi Hills it was found on alkaline flats in an area devoid of taller shrubs. Possible Associates: *Filago californica*, *Ferocactus viridescens*, *Stylocline gnaphaliodes*.

**Blooming Period:** Mar-Oct

**Elevation:** 0-140 m

**Notes:** *Atriplex coulteri* has sharply dentate bracts (entire bract 2-3 mm) unlike the minutely toothed bracts of South Coast Saltscale (entire bract 1-1.5mm) with which it is sometimes confused. The bract shapes of the two species are quite different.

### Jepson Manual 2 Description

Ann, prostrate to decumbent, gen 1–4 dm, mat-like. **ST:** branches ascending, scaly, ± glabrous in age. **LF:** blade 4–18(25) mm, elliptic to oblanceolate or obovate, gray- to white-scaly abaxially, ± green adaxially, base tapered. **STAMINATE INFL:** spike, terminal. **PISTILLATE INFL:** bracts in fr 1–1.5 mm, fused proximally, wedge-shaped to obovate or ± spheric, minutely 3–5-dentate distally, smooth to few-tubercled. **SEED:** ± 0.8 mm, brown.

## *Suaeda taxifolia*

Woolly seablite (Chenopodiaceae)



**Form:** perennial evergreen shrub

**Status:** List 4.2 S2S3/G3?

**Habitat:** Coastal bluff scrub, Coastal dunes, Marshes and swamps (margins of coastal salt). This herbaceous perennial is usually restricted to Coastal Salt Marsh; rarely it grows in peripheral scrublands adjacent to salt marshes or as isolated plants along beaches. Possible Associates: *Salicornia virginica*, *Batis maritima*, *Jaumea carnosa*.

**Blooming Period:** Jan-Dec

**Elevation:** 0-50m

**Notes:** *Suaeda taxifolia* has hairs on the leaves unlike *Suaeda esteroa*, and generally grows at higher elevations in the salt marsh.

### Jepson Manual 2 Description

Subshrub or shrub, < 15 dm, glabrous to gen densely hairy, glaucous. **ST:** spreading to erect, several from base, dull, gray-brown, old lf scars knobby; branches spreading, herbaceous branches pale green to red. **LF:** ascending to wide-spreading,  $\pm$  sessile; blades < 30 mm, lanceolate to short-elliptic,  $\pm$  cylindric or adaxial surface flat, blue-green, yellow-green, or red. **INFL:** clusters gen throughout; branches thick, 2–4 mm diam; fls gen 1–3 per cluster; bracts gen = lvs, overlapping. **FL:** bisexual or lateral pistillate, radial, 1–3 mm; calyx lobes rounded to hooded, gen hairy; ovary pear-shaped, stigmas 3–4, hairy-papillate. **SEED:** horizontal or vertical, 1–2 mm, lenticular, shiny, black or brown.

**\*\*\**Astragalus tener* var. *titi***

Coastal dunes milk-vetch (Fabaceae)



Bob Huettmann

**Form:** Annual herb

**Status:** List 1B.1, S1.1/G1T1, FE/CE

**Habitat:** Coastal bluff scrub(sandy), Coastal dunes, Coastal prairie(mesic)/often vernal mesic areas. Coastal dunes are the preferred habitat based on historical records. The high degree of vegetation disturbance to virtually the entire southern California coastal strand accounts for the likely local extirpation of this species. In Monterey County the population is subject to repeated, dense fogs. Presumed Associates: *Abronia maritima*, *Nemacladus denudata*, *Camissonia cheiranthifolia*.

**Blooming Period:** Mar-May

Ann, delicate;  $\pm$  sparsely strigose to  $\pm$  glabrous.

**ST:** erect or ascending, 2–12 cm..

**LF:** 2–9 cm; lflets 7–13,  $\pm$  spaced, 3–16 mm, lanceolate to obovate, glabrous adaxially, tip notched or pointed.

**INFL:** dense; fls 2–7, spreading.

**FL:** petals pink-purple, banner 5.2–6 mm, recurved 35–40°, keel 3.4–3.9 mm,

**FR:** reflexed, 6–14 mm, 1.7–3.5 mm wide,  $\pm$  narrowly lanceolate, straight or outcurved, openly grooved on lower side, glabrous, stiff-papery; base not stalk-like; chambers  $\pm$  2, ovules 5–11.

**SEED:** smooth.

## \*\*\**Lotus nuttallianus*

Nuttall's lotus (Fabaceae)



Vince Scheidt

**Form:** annual herb

**Status:** List 1B.1,S1.1/G1

**Habitat:** Coastal dunes, Coastal scrub(sandy). Coastal Dunes, particularly well protected back dunes with minimal human foot traffic, are the preferred habitat of Nuttall's Lotus. Soils are mapped as beach sands and riverwash. Possible Associates: *Nemacaulis denudata* var. *denudata*, *Camissonia cheiranthifolia*, *Abronia maritima*.

**Blooming Period:** Mar-Jun

**Elevation:** 0-10 m

**Notes:** Aside from its prostrate growth habit and its presence along only the immediate beaches, Nuttall's Lotus has conspicuously peduncled flowers 1-3cm in length (unlike *Lotus hamatus*). *Lotus heermannii* also has a prostrate growth habit but is a much more robust perennial rather than annual plant, has very hairy leaves, and the leaves are not usually so well (almost "neatly") spaced apart as they are with Nuttall's Lotus.

### Jepson Manual Description

Annual, glabrous or strigose

**Stem** prostrate or ascending

**Leaves** pinnate or palmate, well spaced; stipules gland-like; leaflets 3–6, 4–10 mm, oblanceolate to obovate

**Inflorescence** 3–8-flowered; peduncle 1–3 cm, bracted

**Flower:** calyx 2–3 mm, lobes << tube; corolla 5–7 mm

**Fruit** indehiscent, widely spreading or reflexed, exserted 1–1.5 cm, linear, curved; beak tapered

**Seeds** 2

## *Frankenia palmeri*

Palmer's frankenia (Frankeniaceae)



**Form:** perennial herb

**Status:** List 2.1, S1.1/G3G4

**Habitat:** Coastal dunes, Marshes and swamps (coastal salt), Playas. This low-growing shrub occurs on the periphery of Salt Marsh. Generally, peripheral salt marsh habitat has been developed in San Diego County, with urban growth typically extending up to the very edge of the tidally inundated marshlands. At Gunpowder Point the Palmer's Frankenia grows on distinctive mounds that rise above the surrounding terrain; soils here are mapped as Huerhuero loam. Possible Associates: *Salicornia subterminalis*, *Suaeda esteroa*, *Distichlis spicata*.

**Blooming Period:** May-Jul

**Elevation:** 0-10 m

**Notes:** Unlike the locally common *Frankenia salina*, Palmer's Frankenia has smaller leaves (2-7mm versus 4-15mm), white flowers versus predominantly pink flowers, and leaf surfaces tightly rolled under versus mildly rolled under.

Shrub 10–100 cm diam, rhizome 0. **ST:** prostrate, 10–30 cm, gen with scattered hairs. **LF:** blade 2–7 mm, gen < 1 mm wide, ± fleshy, margins strongly thickened, tightly rolled under, abaxial surface densely hairy. **INFL:** few-fl'd in distal axils. **FL:** calyx tube 3–5 mm, petals 3–7 mm, white, lower 1/2 gen ± pink; stamens gen 4, 4–9 mm; styles (1)2. **FR:** 2–2.5 mm. **SEED:** 1, 1.5–2 mm, ovoid-conic. Apr–Sep

## *Juncus acutus* ssp. *leopoldii*

Southwestern spiny rush (Juncaceae)



Vince Scheidt

**Form:** perennial rhizomatous herb

**Status:** List 4.2 S3.2/G5T5

**Habitat:** Coastal dunes(mesic), Meadows and seeps(alkaline seeps), Marshes and swamps(coastal salt). Coastal Salt Marsh at brackish locales, Alkaline Meadows, and Riparian Marshes are all utilized by this rush. At mid-elevations this species may occur in limited numbers along drainages with willow riparian vegetation or sycamore woodland. Wherever water can pond along substantial seasonal drainages, this rush has potential habitat. Possible Associates: *Baccharis salicifolia*, *Anemopsis californica*, *Salicornia virginica*.

**Blooming Period:** May-Jun

**Elevation:** 3-900m

**Notes:**

Southwestern Spiny Rush is indeed quite large (<140cm), and is spiny-tipped on the cylindrical leaves; bearing little resemblance to other native plants west of the deserts.

Per, cespitose, 50–140 cm; rhizome many-branched. **ST:** rigid, hardened, cylindrical. **LF:** basal, 40–120 cm, rigid; tip stiff, sharp; sheath appendages firm. **INFL:** appearing lateral, gen ± open; lowest bract cylindrical, resembling st, <= infl; branches uneven; clusters 2–4-fld, each subtended by 1 obvious, clasping bract; bractlets 0. **FL:** perianth 2–4 mm, margins membranous, sepals thin, obtuse, petals ± rounded; anthers 6, >> filaments, ± red-brown. **FR:** gen >> perianth, ± spheric to elliptic, shiny brown. **SEED:** irregular, occ narrowly winged; appendages <= 0.3 mm.

## *Abronia maritima*

Red sand-verbena (Nyctaginaceae)



Vince Scheidt



**Form:** perennial herb

**Status:** List 4.2 S3?/G4?

**Habitat:** Coastal dunes. This fleshy herbaceous perennial grows in prostrate mats on well developed beach dunes. It occurs optimally on semi-stabilized dunes away from the heavy foot traffic of humans which has severely degraded habitat on most of the southern California beaches. Possible Associates: *Abronia umbellata*, *Camissonia cheiranthifolia*, *Ambrosia chamissonis*. A few sensitive invertebrates such as the Globose Dune Beetle (*Coelus globosus*) may be associated with thickets of sand-verbena.

**Blooming Period:** Feb-Nov

**Elevation:** 0-100m

**Notes:** Munz notes that this deep red-purple flowering species hybridizes with both the pink-petaled *Abronia umbellata* and the yellow-petaled *Abronia latifolia*.

### Jepson Manual 2 Description

Per, densely glandular-hairy; roots spreading.

**ST:** prostrate, < 2 m; branches short, erect, forming thick horizontal mat.

**LF:** petiole 5–30 mm; blade 5–7 cm, fleshy, broadly elliptic to oblong.

**INFL:** peduncle 3–10 cm; bracts 7–11 mm, lanceolate or narrowly ovate; fls 10–18.

**FL:** perianth tube 6–10 mm, ± green to red, limb 7–10 mm wide, wine-red.

**FR:** 10–14 mm, glandular-hairy near top, wings 3–5, thick, truncate, widest at base, coarsely net-veined.

## *Cordylanthus maritimus* ssp. *maritimus*

Salt marsh bird's-beak (Orobanchaceae)



**Form:** annual herb hemiparasitic

**Status:** List 1B.2, S2.1/G4?T2, CE/FE

**Habitat:** Coastal dunes, Marshes and swamps (coastal salt). Salt Marsh habitat, particularly slightly raised hummocks, is the preferred habitat of this small annual. In Imperial Beach the colony grows at the edge of a salt pan. Tidal inundation of this area is occasional. In Newport Beach, a portion of the habitat is apparently shell and sand dredgings. Possible Associates: *Salicornia virginica*, *Cressa truxillensis*, *Suaeda esteroa*.

**Blooming Period:** May-Oct

**Elevation:** 0-30 m

**Notes:** Salt Marsh Bird's Beak is unlikely to be mistaken for other species within its salt marsh habitat; the native flora here is relatively restricted.

### Jepson Manual Treatment

Plant 10–40 cm, gray-green, glaucous, often tinged purple and salt-encrusted, generally ± short-hairy

**Leaf** 5–25 mm, ± linear-lanceolate, entire

**Stem:** branches generally many, decumbent to ascending, generally > central spike

**Inflorescence:** spike, 20–90 mm, many-flowered; outer bract leaf-like; inner bract 15–30 mm, generally notched.

**Flower:** calyx 15–25 mm; corolla 15–25 mm, white to cream, puberulent, lips pale to brownish or purplish red, middle lobe of lower lip erect; stamens 4, anther sacs 2 (lower pair) or 1 (upper pair)

**Seeds** 10–40, 1–3 mm, ± reniform, deeply netted, dark brown



## *Orobanche parishii* ssp. *brachyloba*

Short-lobed broomrape (Orobanchaceae)



Jim Andre

(NOTE this is ssp. parishii, not brachyloba)

**Form:** perennial herb, parasitic

**Status:** List 4.2 S3.2/G4?T3

**Habitat:** Coastal bluff scrub, Coastal dunes, Coastal scrub/sandy. Coastal Bluff Scrub and Coastal Dunes are the reported habitat for this species. On Point Loma the habitat (soils mapped as Terrace Escarpments) is a wind-swept, low-growing sage scrub with sandstone openings; at Torrey Pines this broomrape was reported at the edge of the pine canopy on a slope facing the ocean. Possible Associates: More information needed.

**Blooming Period:** Apr-Oct (May-Aug)

**Elevation:** 3-305m

**Notes:** Parasitic on shrubs such as *Isocoma menziesii*.

*Orobanche bulbosa* also grows occasionally near the coast, but has purplish flowers (not buff to pinkish), and often has a curious knobby shape (hence its common name).

### Jepson Manual 2 Description

Pl ± yellow-white, 5–18 cm.

**ST:** gen simple, stout, glandular-puberulent.

**INFL:** 3–8 cm, elongate, bracts narrowly ovate, with > 5 conspicuous, parallel veins, fls arranged in regular spiral along axis.

**FL:** calyx lobes gen 7–10 mm; corolla 15–24 mm, lips 4–6 mm, erect or slightly spreading; lobes 5, ± narrowly triangular, pale; corolla buff to ± pink, lobes rounded or obtuse, veins ± red. anthers gen glabrous; stigma lobes gen narrow, recurved.

## *Hordeum intercedens*

Vernal barley (Poaceae)



Steve Matson

**Form:** annual herb

**Status:** List 3.2, S3S4/G3G4

**Habitat:** Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools. This annual grass typically occurs in saline flats and depressions in grasslands or with vernal pool basins. Possible Associates: *Brodiaea* species, *Lythrum hyssopifolium*, *Eryngium aristulatum*.

**Blooming Period:** Mar-Jun

**Elevation:** 5-1000 m

**Notes:** This small grass is more common than the few collections indicate. If you closely examine a spikelet of Little Barley you will notice the lemma awns on the lateral spikelets are much shorter than those of *Hordeum murinum*, and the glumes of the central spikelet are distinctly flattened unlike *Hordeum depressum*. Aside from the last mentioned species in this complex genus, Little Barley often has a shorter appearance in terms of the spikelet lengths than typical spikelets of other barley species found in San Diego County (e.g., *Hordeum brachyantherum*, *H. jubatum*, *H. murinum*).

### Jepson Manual 2 description

Ann. **ST:** 0.5–4 dm, bent at base or erect, loosely tufted; nodes gen pubescent. **LF:** sheath hairs in vertical lines, auricles gen 0, occ < 2 mm; blade to 9 cm, to 4 mm wide, sparsely to densely long-spreading-hairy on both surfaces. **INFL:** 2.5–6.5 cm, pale green, gen ± enclosed at maturity.

**CENTRAL SPIKELET:** glumes 9–17 mm, gen straight with age, base flat; floret 4.5–7.5 mm; lemma awn 5.5–10 mm, gen slightly spreading with age. **LATERAL SPIKELET:** gen sterile; glumes < 18 mm, base flat; lemma 1.7–4.4 mm, tip obtuse to acute, awn gen 0 or < 1.2 mm.

## *Nemacaulis denudata* var. *denudata*

Coast woolly-heads (Polygonaceae)



Vince Scheidt

**Form:** annual herb

**Status:** List 1B.2,  
S2.2/G3G44T3?

**Habitat:** Coastal dunes. This prostrate annual is found in well developed coastal sand dunes along the beaches. The back dunes, in mildly protected locales, seem to be preferred. Possible Associates: *Abronia maritima*, *Camissonia cheiranthifolia*, *Lotus nuttallianus*.

**Blooming Period:** Apr.-Sep.

**Elevation:** 0-100 m

**Notes:** Several specimens of the desert dwelling ssp. *gracilis* (or a hybrid) are known from the coast (reported at Oceanside and the marine base on San Diego Bay) *N. denudata* ssp. *denudata* has red involucral bracts with white wool, unlike the brownish bracts with tawny wool of *N. denudata* ssp. *gracilis*; in addition there are 12-30 flowers per involucre in the former versus 5-12 in the latter

### Jepson Manual 2 Description

Ann, prostrate to decumbent, 0.4–2 dm, 0.2–8 dm diam, glabrous, glandular or hairy. **LF:** basal; blades blades 2–8 cm, 0.3–1.5 cm wide, linear to narrow; ocreae 0. **INFL:** terminal, cyme-like; awns 0; peduncles gen 0, 0.5–3 mm; involucre bracts many, in several whorls, gen dark red with white hairs 1.5–3.5 mm, 1–2 mm wide, awns 0. **FL:** (5)12–30, 1–1.5 mm, gen exposed in hairs.; perianth white to rose, lobes 6, entire; stamens 3. **FR:** 1 mm, brown to deep maroon or black, obconic, glabrous; embryo curved.