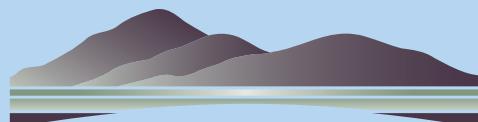
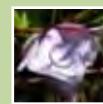


# **ESTERO AMERICANO PRESERVE**

## Herbarium Book

JANUARY, 2011



**SONOMA LAND TRUST**

*...to protect the land forever*

# ESTERO AMERICANO PRESERVE

## Herbarium Book Introduction

### SUMMARY

This herbarium book contains scanned plant specimens collected from the Estero Americano Preserve, which is located near the town of Bodega, California. This project arose out of the grassland monitoring project designed to evaluate the effectiveness of cattle grazing for coastal grassland enhancement. During the spring to summer months of 2009 and 2010 specimens were collected, pressed, verified for identification, labeled, and scanned, so that future participants working on the monitoring project will have a helpful aid for noting species present at the Preserve.



The Estero Americano is a scenic tidal estuary that stretches from Valley Ford to the Pacific Ocean. Photo by Stephen Joseph Photography.

### ESTERO AMERICANO PRESERVE

The Sonoma Land Trust's Estero Americano Preserve is a scenic and biologically diverse 127-acre property located near the town of Bodega along the Estero Americano, a tidal estuary that extends from Valley Ford to the Pacific Ocean. The Preserve was acquired in 1997 and 2001 in partnership with California State Coastal Conservancy and the Sonoma County Agricultural Preservation and Open Space District. The Preserve was purchased with the goal of protecting the coastal estuary, upland environments and other sensitive resources; allowing for restoration of habitat areas; and providing limited public access.



The Estero Americano. Photo by Stephen Joseph Photography.

## COASTAL GRASSLAND ASSESSMENT

A 2007 coastal grassland assessment by local consulting botanists identified much of the grassland area of the Preserve as coastal prairie. Coastal prairie is a perennial-grass dominated community with at least 10-15% relative cover of native grasses and forbs. Some of the native plant species found on the Preserve include: California oatgrass, purple needlegrass, tufted hairgrass, june-grass, lupine, harlequin lotus, early blue violet, Douglas's iris, and California blackberry. These plant species persist among non-native annual and perennial grasses and forbs that arrived in the area some years ago.

## CATTLE GRAZING FOR COASTAL PRAIRIE ENHANCEMENT

Coastal grassland systems are threatened by shrub and tree encroachment, invasion and dominance by non-native annual and perennial grasses, and habitat loss due to housing development. Management activities such as mowing, grazing and prescribed burning can mimic beneficial disturbance regimes, control brush encroachment and the negative impacts of non-native species as well as promote native species. Grazing is often the most economical, practical and reliable method for managing grasslands at a large scale.

Drawing on previous research across California grassland ecosystems, SLT is working under the assumption that livestock grazing will benefit native flora found in the Estero grasslands by reducing the biomass and cover of exotic grasses, such as wild oats and brome grasses. Central to this management assumption is that native species are limited by competition with exotic grasses, and that properly-timed grazing will decrease exotic grass cover and biomass and correspondingly increase the abundance of native species.



Douglas's iris; blue wildrye; harlequin lotus. Photos by Shanti Wright.

## PARTNERSHIPS

To better understand the role of livestock grazing and other management activities at the Estero, SLT is working with multiple partners to assess the coastal grasslands, improve grazing infrastructure, and develop plans for grazing management and ecological monitoring for the coastal prairie grassland found on the property. The State Coastal Conservancy (SCC), Gold Ridge Resource Conservation District (RCD) the Natural Resources Conservation Service (NRCS), and the U.S. Fish and Wildlife Service (USFWS) have provided funding and technical assistance for coastal grassland management and water quality enhancement projects. SLT is also collaborating with the Coastal Prairie Enhancement Feasibility Study (CPEFS) to utilize grazing exclosures for the study the cattle grazing impacts on invasive velvetgrass (*holcus lanatus*).

## GRAZING PLAN AND GRASSLAND MONITORING PLAN

Gold Ridge RCD has generously supported SLT with the development of both a grazing management plan and a grassland monitoring plan to guide and track livestock management activities at the Estero Americano Preserve for years to come. Certified Rangeland Manager Lisa Bush assessed the Preserve to determine grassland production values and appropriate stocking levels for the grazing management plan and Dr. Caroline Christian developed the



grassland monitoring plan to evaluate the effectiveness of cattle grazing in achieving SLT's conservation goals for the Preserve. Livestock are managed by local operator Joe Pozzi, recently honored with the Farm Bureau's first Luther Burbank Conservation Award for his efforts to protect the county's natural resources.

These plans set clear management goals and provide an opportunity to manage the property adaptively based on information from the monitoring program. The grazing management and monitoring plans are aimed at highlighting conservation values, such as the preservation of native species, healthy soils, and water quality, while at the same time supporting a working landscape that promotes historical uses of the land.

## GRASSLAND MONITORING PROJECT

Each spring, SLT works with volunteers and Sonoma State University interns to measure various aspects of the grassland vegetation at 29 permanent one square meter monitoring plots throughout the preserve. Examples of the variables monitored include: percent cover and frequency and richness (number) of all native and exotic plant species. Measurement of these variables helps to provide a more complete picture about the health of the grasslands through time and help SLT staff determine if invasive plant species like velvet grass are increasing or decreasing in abundance.



Gold Ridge Resource Conservation District staff Brittany Heck and Noelle Johnson (left) and Sonoma State University interns Connor Ross and Kara Doolin (right) provided assistance with data collection; Dr. Caroline Christian leading the grass identification training (center). Photos by Shanti Wright.

## EXOTIC SPECIES

As with all grasslands found throughout California, exotic grasses – both perennial and exotic dominate the Estero grasslands. Overall, 80% of the grassland is covered by exotic species, mostly annual grasses. Although this number may seem high to those unfamiliar with grasslands, grassland ecosystems have been hit hard by invasive species, leaving little room for native plant species to thrive. The monitoring program is designed to look at several noxious grassland weeds and to detect the arrival of new exotic species.

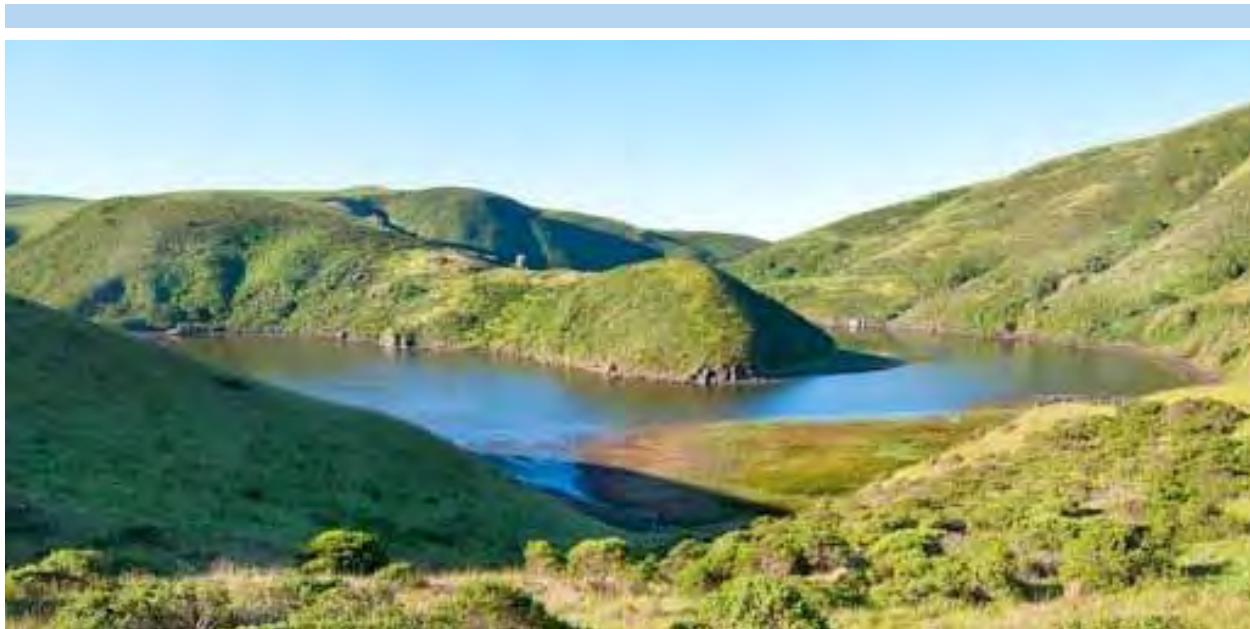
## NOTABLE NATIVES

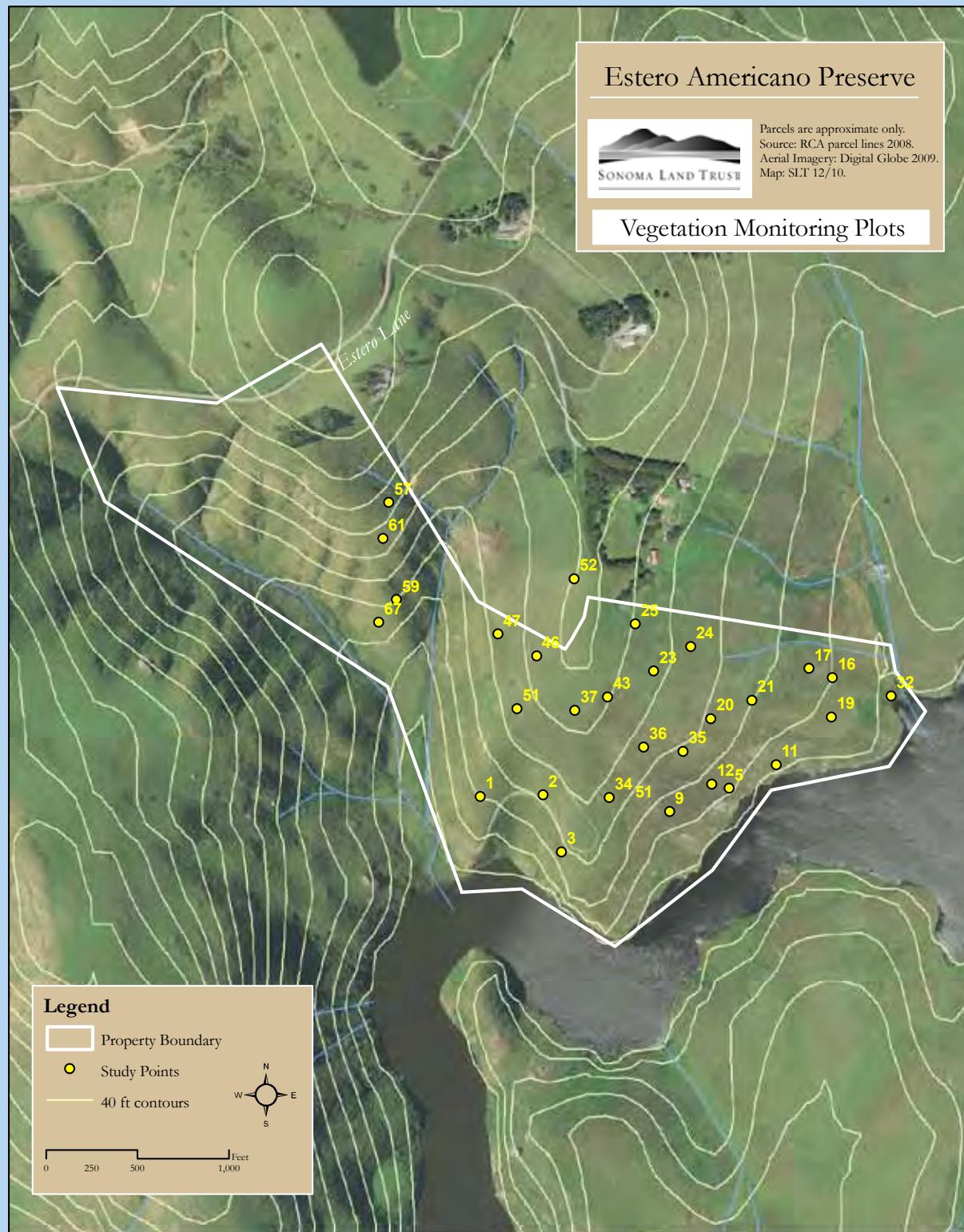
Given the dominance of invasive grasses, the team was pleased to learn that the Preserve has a phenomenal amount of native perennial grass, rush and sedge species, which together comprise on average over 20% of the vegetation cover in the grasslands. During the spring, tall stands of California hairgrass, purple needlegrass, and California brome undulate across the hillsides as coastal breezes sweep in from the Estero. Some notable native wildflowers also found in the spring include bulbs, such as ground brodiaea, blue-eyed grass, and Ithuriel's spear, and forbs, such as California acaena, lupine, and a multitude of clovers.

## **ACKNOWLEDGEMENTS**

Many individuals contributed to the success of the grassland monitoring project and herbarium book. Special thanks go to Dr. Caroline Christian of Sonoma State University whose vision and guidance made these efforts possible. Dr. Christian authored the monitoring plan and continues to provide direction for its implementation. Gold Ridge Resource Conservation District generously supported the development of the grazing management and grassland monitoring plans, and RCD staff Noelle Johnson, Brittany Heck, and Sierra Cantor assisted with data and plant specimen collection. Liz Parsons and Michael Hogan of the CNPS Milo Baker Chapter helped identify plant species during the 2009 monitoring and Peter Warner, botanical consultant, identified specimens in 2010 and verified all of the samples within the herbarium. Sonoma State University interns Karissa Westphal and Tammie Lindstrom and volunteer April Owens spent many hours preparing the plant specimens for this book. The monitoring project and herbarium book effort was coordinated by Shanti Wright, Sonoma Land Trust's Stewardship Project Manager for the Estero Americano Preserve.

The herbarium book introduction was prepared by Dr. Caroline Christian, faculty with the Environmental Studies and Planning Department at Sonoma State University, in collaboration with Shanti Wright. The herbarium book is a work in progress that will expand over time. For updates to this document, or for additional information about vegetation management activities occurring at the Estero Americano Preserve, please contact Sonoma Land Trust at: (707) 526-6930 or visit [www.sonomalandtrust.org](http://www.sonomalandtrust.org).





# ESTERO AMERICANO PRESERVE PLANT LIST

Prepared by: Linda Esposito and Kathleen Kraft, 2007.

Plant list additions and Jepson name changes provided by Peter Warner, 2010.

GROUP	FAMILY	SCIENTIFIC NAME	COMMON NAME	Former Family or Latin Binomial	NATIVE	Page #
<b>FERNS AND ALLIES</b>						
FERNS AND ALLIES	Blechnaceae	<i>Woodwardia fimbriata</i>	giant chain fern		yes	12
	Dennstaedtiaceae	<i>Pteridium aquilinum</i>	bracken fern	<i>Pteridium aquilinum</i> -var. <i>pubescens</i>	yes	13
	Dryopteridaceae	<i>Polystichum munitum</i>	western sword fern		yes	14
	Equisetaceae	<i>Equisetum telmateia</i> ssp. <i>braunii</i>	giant horsetail		yes	15
	Woodsiaceae	<i>Athyrium filix-femina</i>	common lady fern	<i>Dryopteridaceae</i>	yes	16
<b>GYMNOSPERMS</b>						
GYMNOSPERMS	Cupressaceae	<i>Hesperocyparis macrocarpa</i>	Monterey cypress	<i>Cupressus macrocarpa</i>	no	
	Pinaceae	<i>Pinus radiata</i>	Monterey pine		no	
<b>ANGIOSPERMS/DICOTS</b>						
ANGIOSPERMS/DICOTS	Anacardiaceae	<i>Toxicodendron diversilobum</i>	western poison oak		yes	
	Apiaceae	<i>Conium maculatum</i>	poison hemlock		no	17
		<i>Daucus pusillus</i>	rattlesnake weed		yes	18
		<i>Eryngium armatum</i>	armed coyote thistle		yes	19
		<i>Heracleum lanatum</i>	cow parsnip		yes	
		<i>Ligusticum apiifolium</i>	celeryleaf licorice-root		yes	
		<i>Lomatium utriculatum</i>	spring gold lomatium		yes	20
		<i>Sanicula crassicaulis</i>	Pacific sanicle		yes	
		<i>Torilis nodosa</i>	knotted hedge parsley		no	
	Asteraceae	<i>Achillea millefolium</i>	yarrow		yes	21
		<i>Anaphalis margaritacea</i>	pearly everlasting		yes	
		<i>Artemisia douglasiana</i>	Douglas's mugwort		yes	22
		<i>Baccharis pilularis</i>	coyote brush		yes	23
		<i>Bellis perennis</i>	English daisy		no	24
		<i>Carduus pycnocephalus</i>	Italian thistle		no	25
		<i>Cirsium quercetorum</i>	brownie thistle		yes	26
		<i>Cirsium vulgare</i>	bull thistle		no	27
		<i>Cotula coronopifolia</i>	brass buttons		no	28
		<i>Logfia gallica</i>	narrowleaf cottonrose	<i>Filago gallica</i>	no	29
		<i>Gamochaeta purpurea</i>	purple cudweed	<i>Gnaphalium purpureum</i>	yes	30
		<i>Grindelia stricta</i>	gumplant		yes	31
		<i>Hemizonia congesta</i> ssp. <i>lutescens</i>	hayfield tarweed	<i>H. congesta</i> ssp. <i>congesta</i>	yes	
		<i>Helenium puberulum</i>	sneeze-weed		yes	32
		<i>Hypochoeris glabra</i>	smooth cat's-ear		no	
		<i>Hypochoeris radicata</i>	rough cat's-ear		no	33
		<i>Jaumea carnosa</i>	marsh jaumea		yes	34
		<i>Madia gracilis</i>	slender tarweed		yes	35
		<i>Madia sativa</i>	coast tarweed		yes	36

GROUP	FAMILY	SCIENTIFIC NAME	COMMON NAME	Former Family or Latin Binomial	NATIVE	Page #
ANGIOSPERMS/DICOTS	Asteraceae (continued)	<i>Matricaria matricarioides</i>	pineapple weed	<i>Chamomilla suaveolens</i>	no	37
		<i>Microseris acuminata</i>	silverpuffs		yes	38
		<i>Microseris bigelovii</i>	coastal silverpuffs		yes	
		<i>Psilocarphus tenellus</i> var. <i>tenellus</i>	woolly marbles		yes	
		<i>Psuedognaphalium ramosissimum</i>	pink cudweed	<i>Gnaphalium ramosissimum</i>	yes	39
		<i>Sonchus asper</i> ssp. <i>asper</i>	prickly sow thistle		no	
		<i>Symphyotrichum chilense</i>	creeping aster	<i>Aster chilensis</i>	yes	
		<i>Wyethia augustifolia</i>	mules ears		yes	
	Boraginaceae	<i>Heliotropium curassavicum</i>	salt heliotrope		yes	40
		<i>Myosotis discolor</i>	changing forget-me-not		no	41
	Brassicaceae	<i>Nasturtium officinale</i>	watercress	<i>Rorippa nasturtium-aquaticum</i>	yes	42
	Caprifoliaceae	<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	snowberry		yes	43
	Caryophyllaceae	<i>Cerastium glomeratum</i>	mouse-ear chickweed		no	
		<i>Silene gallica</i>	windmill pink		no	44
		<i>Spergularia rubra</i>	red sand-spurrey		no	45
	Chenopodiaceae	<i>Atriplex triangularis</i>	fat hen		yes	46
		<i>Salicornia virginica</i>	pickleweed		yes	47
	Convolvulaceae	<i>Calystegia collina</i> ssp. <i>collina</i>	Coast Range false bindweed		yes	
		<i>Calystegia purpurata</i> ssp. <i>purpurata</i>	purple western morning-glory		yes	
		<i>Calystegia subacaulis</i>	short-stemmed morning-glory		yes	48
		<i>Convolvulus arvensis</i>	bindweed		no	49
	Crassulaceae	<i>Dudleya farinosa</i>	powdery live-forever		yes	50
	Cucurbitaceae	<i>Marah oreganus</i>	coast man-root		yes	51
	Fabaceae	<i>Acmonispon parviflorus</i>	miniature lotus	<i>Lotus micranthus</i>	yes	52
		<i>Acmonispon americanus</i> var. <i>americanus</i>	Spanish clover	<i>Lotus purshianus</i> var. <i>purshianus</i>	yes	53
		<i>Acmonispon wrangelianus</i>	calf lotus	<i>Lotus wrangelianus</i>	yes	
		<i>Hosackia gracilis</i>	harlequin lotus	<i>Lotus formosissimus</i>	yes	54
		<i>Lathyrus hirsutus</i>	Caley pea		no	55
		<i>Lotus angustissimus</i>	slender lotus		no	56
		<i>Lotus corniculatus</i>	bird's-foot trefoil		no	57
		<i>Lupinus bicolor</i>	miniature lupine		yes	58
		<i>Lupinus variicolor</i>	variable-colored lupine		yes	59
		<i>Lupinus microcarpus</i> var. <i>microcarpus</i>	chick lupine		yes	
		<i>Trifolium albopurpureum</i>	rancheria clover		yes	
		<i>Trifolium barbigerum</i> var. <i>barbigerum</i>	bearded clover		yes	

GROUP	FAMILY	SCIENTIFIC NAME	COMMON NAME	Former Family or Latin Binomial	NATIVE	Page #
ANGIOSPERMS/DICOTS	Fabaceae (continued)	<i>Trifolium campestre</i>	hop clover		no	
		<i>Trifolium dubium</i>	little hop clover shamrock		no	60
		<i>Trifolium glomeratum</i>	clustered clover		no	
		<i>Trifolium gracilentum</i>	pinpoint clover		yes	
		<i>Trifolium macraei</i>	Macrae's clover		yes	61
		<i>Trifolium subterraneum</i>	subterranean clover		no	62
		<i>Trifolium striatum</i>	knotted clover		no	63
		<i>Trifolium wormskjoldii</i>	cow clover		yes	64
		<i>Vicia hirsuta</i>	tiny vetch		no	65
		<i>Vicia sativa</i>	spring vetch		no	66
		<i>Vicia tetrasperma</i>	lentil vetch		no	67
	Frankeniaceae	<i>Frankenia salina</i>	alkalie sea-heath		yes	68
	Gentianaceae	<i>Zeltnera muehlenbergii</i>	Muhlenberg's centaury	<i>Centaurium muehlenbergii</i>	yes	69
	Geraniaceae	<i>Erodium cicutarium</i>	red-stemmed filaree		no	
		<i>Erodium moschatum</i>	musky stork's-bill		no	
		<i>Geranium dissectum</i>	cutleaf geranium		no	70
	Grossulariaceae	<i>Ribes divaricatum</i> var. <i>pubiflorum</i>	coast black gooseberry		yes	71
	Lamiaceae	<i>Mentha pulegium</i>	pennyroyal		no	72
		<i>Monardella villosa</i> spp. <i>franciscana</i>	coyote mint		yes	73
		<i>Prunella vulgaris</i> var. <i>lanceolata</i>	self-heal		yes	
		<i>Stachys rigida</i> var. <i>rigida</i>	hedge-nettle	<i>Stachys ajugoides</i> var. <i>rigida</i>	yes	74
	Linaceae	<i>Linum bienne</i>	pale flax		no	75
	Lythraceae	<i>Lythrum hyssopifolia</i>	hyssop loosestrife		no	
	Malvaceae	<i>Sidalcea malviflora</i> ssp. <i>malviflora</i>	checker mallow		yes	
	Montiaceae	<i>Calandrinia ciliata</i>	red maid	Portulacaceae	yes	
	Myricaceae	<i>Morella californica</i>	California wax myrtle	<i>Myrica californica</i>	yes	76
	Myrsinaceae	<i>Anagallis arvensis</i>	scarlet pimpernel	Primulaceae	no	
	Onagraceae	<i>Clarkia amoena</i>	farewell-to-spring		yes	77
		<i>Epilobium ciliatum</i>	fringed willowherb		yes	78
		<i>Camissonia ovata</i>	sun cup		yes	
	Orobanchaceae	<i>Castilleja affinis</i> ssp. <i>affinis</i>	Marin coast paint-brush	Scrophulariaceae	yes	
		<i>Parentucellia viscosa</i>	yellow glandweed	Scrophulariaceae	no	
	Papaveraceae	<i>Eschscholzia californica</i>	California poppy		yes	79
	Phrymaceae	<i>Mimulus aurantiacus</i>	bush monkeyflower	Scrophulariaceae	yes	80
		<i>Mimulus guttatus</i>	large monkeyflower	Scrophulariaceae	yes	81
	Plantaginaceae	<i>Plantago erecta</i>	California plantain		yes	82
		<i>Plantago lanceolata</i>	English plantain		no	83
		<i>Plantago subnuda</i>	tall coastal plantain		yes	84

GROUP	FAMILY	SCIENTIFIC NAME	COMMON NAME	Former Family or Latin Binomial	NATIVE	Page #
	Plantaginaceae	<i>Veronica americana</i>	American speedwell	Scrophulariaceae	yes	85
	Polemoniaceae	<i>Navarretia squarrosa</i>	skunkweed		no	
	Polygonaceae	<i>Eriogonum latifolium</i>	coast buckwheat		yes	86
		<i>Eriogonum nudum</i>	nude buckwheat		yes	
		<i>Rumex acetosella</i>	sheep sorrel		no	87
		<i>Rumex pulcher</i>	fiddle dock		no	88
		<i>Rumex conglomeratus</i>	clustered dock		no	89
	Ranunculaceae	<i>Ranunculus californicus</i>	California buttercup		yes	90
	Rosaceae	<i>Acaena pinnatifida</i> var. <i>californica</i>	California acaena		yes	91
		<i>Fragaria vesca</i>	wood strawberry		yes	
		<i>Horkelia californica</i>	California horkelia		yes	92
		<i>Physocarpus capitatus</i>	ninebark		yes	93
		<i>Potentilla anserina</i> spp. <i>pacifica</i>	silverweed cinquefoil		yes	94
		<i>Rosa eglanteria</i>	eglantine rose		no	
	Rubiaceae	<i>Rubus ursinus</i>	California blackberry		yes	95
	Scrophulariaceae	<i>Sherardia arvensis</i>	field madder		no	96
	Violaceae	<i>Scrophularia californica</i>	bee plant		yes	97
		<i>Viola adunca</i>	early blue violet		yes	98

ANGIOSPERMS/MONOCOTS	Agavaceae	<i>Chlorogalum pomeridianum</i>	soap plant	Liliaceae	yes	99
	Cyperaceae	<i>Carex barbarae</i>	Santa Barbara sedge		yes	100
		<i>Carex densa</i>	dense sedge		yes	101
		<i>Carex gynodynama</i>	Olney's hairy sedge		yes	102
		<i>Carex harfordii</i>	Harford's sedge		yes	
		<i>Carex obnupta</i>	slough sedge		yes	103
		<i>Carex subbracteata</i>	smallbract sedge		yes	104
		<i>Carex tumulicola</i>	foothill sedge		yes	105
	Iridaceae	<i>Iris douglasiana</i>	Douglas's iris		yes	106
		<i>Sisyrinchium bellum</i>	blue-eyed grass		yes	107
	Juncaceae	<i>Juncus bolanderi</i>	Bolander's rush		yes	
		<i>Juncus bufonius</i> var. <i>bufonius</i>	toad rush		yes	108
		<i>Juncus capitatus</i>	leafybract dwarf rush		no	
		<i>Juncus effusus</i> var. <i>brunneus</i>	soft rush		yes	109
		<i>Juncus occidentalis</i>	western rush		yes	110
		<i>Juncus patens</i>	spreading rush		yes	111
		<i>Juncus phaeocephalus</i>	brownhead rush		yes	112
		<i>Luzula comosa</i>	hairy wood rush		yes	113
	Liliaceae	<i>Calochortus tolmiei</i>	pussy ears		yes	
	Poaceae	<i>Agrostis gigantea</i>	redtop bentgrass		no	114
		<i>Agrostis</i> sp.	bentgrass		?	
		<i>Agrostis hallii</i>	Hall's bentgrass		yes	115

GROUP	FAMILY	SCIENTIFIC NAME	COMMON NAME	Former Family or Latin Binomial	NATIVE	Page #
ANGIOSPERMS/MONOCOTS	Poaceae (continued)	<i>Aira caryophyllea</i>	silver European hairgrass		no	116
		<i>Anthoxanthum odoratum</i>	sweet vernal grass		no	117
		<i>Avena barbata</i>	slender wild oat		no	118
		<i>Brachypodium distachyon</i>	false brome		no	119
		<i>Briza maxima</i>	rattlesnake grass		no	120
		<i>Briza minor</i>	little quaking grass		no	121
		<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome		yes	122
		<i>Bromus diandrus</i>	ripgut brome		no	123
		<i>Bromus hordeaceus</i>	soft chess		no	124
		<i>Bromus madritensis</i> ssp. <i>madritensis</i>	foxtail chess		no	
		<i>Cynosurus echinatus</i>	hedgehog dogtail		no	125
		<i>Dactylis glomerata</i>	orchard grass		no	126
		<i>Danthonia californica</i> var. <i>californica</i>	California oatgrass		yes	127
		<i>Deschampsia cespitosa</i> ssp.	tufted hairgrass		yes	128
		<i>Deschampsia cespitosa</i> ssp. <i>holciformis</i>	tufted hairgrass		yes	
		<i>Distichlis spicata</i>	saltgrass		yes	129
		<i>Elymus glaucus</i> ssp. <i>glaucus</i>	blue wildrye		yes	130
		<i>Ehrharta erecta</i>	panic veldtgrass		no	131
		<i>Festuca idahoensis</i>	Idaho fescue		yes	
		<i>Holcus lanatus</i>	velvet grass		no	132
		<i>Hordeum brachyantherum</i> ssp. <i>brachyantherum</i>	meadow barley		yes	133
		<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley		no	134
		<i>Hordeum murinum</i>	mouse barley		no	135
		<i>Koeleria macrantha</i>	Junegrass		yes	136
		<i>Lolium multiflorum</i>	Italian ryegrass		no	
		<i>Lolium perenne</i>	perennial ryegrass		no	137
		<i>Nassella lepida</i>	foothill needlegrass		yes	
		<i>Nassella pulchra</i>	purple needlegrass		yes	138
		<i>Poa annua</i>	annual bluegrass		no	
		<i>Poa pratensis</i> ssp. <i>pratensis</i>	Kentucky bluegrass		no	139
		<i>Poa unilateralis</i>	ocean-bluff bluegrass		yes	
		<i>Polypogon monspeliensis</i>	annual beard grass		no	140
		<i>Rytidosperma penicillatum</i>	hairy oatgrass		no	141-142
		<i>Schedonorus arundinaceus</i>	tall fescue		no	
		<i>Taeniatherum caput-medusae</i>	Medusahead		no	
		<i>Vulpia bromoides</i>	six-week's fescue		no	143
	Themidaceae	<i>Brodiaea terrestris</i> ssp. <i>terrestris</i>	ground brodiaea	Liliaceae	yes	144
		<i>Triteleia laxa</i>	Ithuriel's spear	Liliaceae	yes	145

**FAMILY**  
Blechnaceae

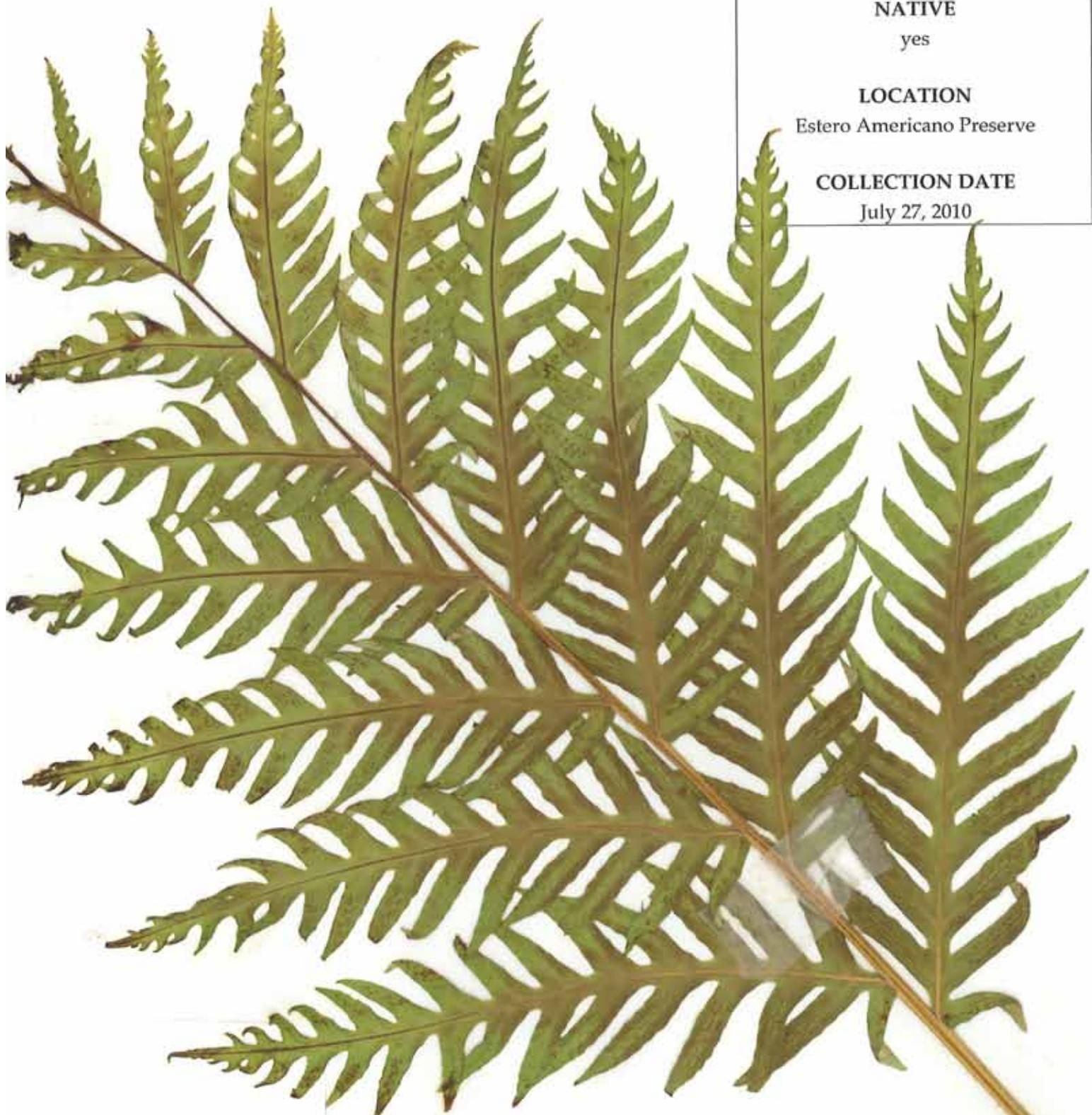
**SCIENTIFIC NAME**  
*Woodwardia fimbriata*

**COMMON NAME**  
giant chain fern

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Dennstaedtiaceae

**SCIENTIFIC NAME**  
*Pteridium aquilinum*

**COMMON NAME**  
bracken

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Dryopteridaceae

**SCIENTIFIC NAME**  
*Polystichum munitum*

**COMMON NAME**  
western sword fern

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Equisetaceae

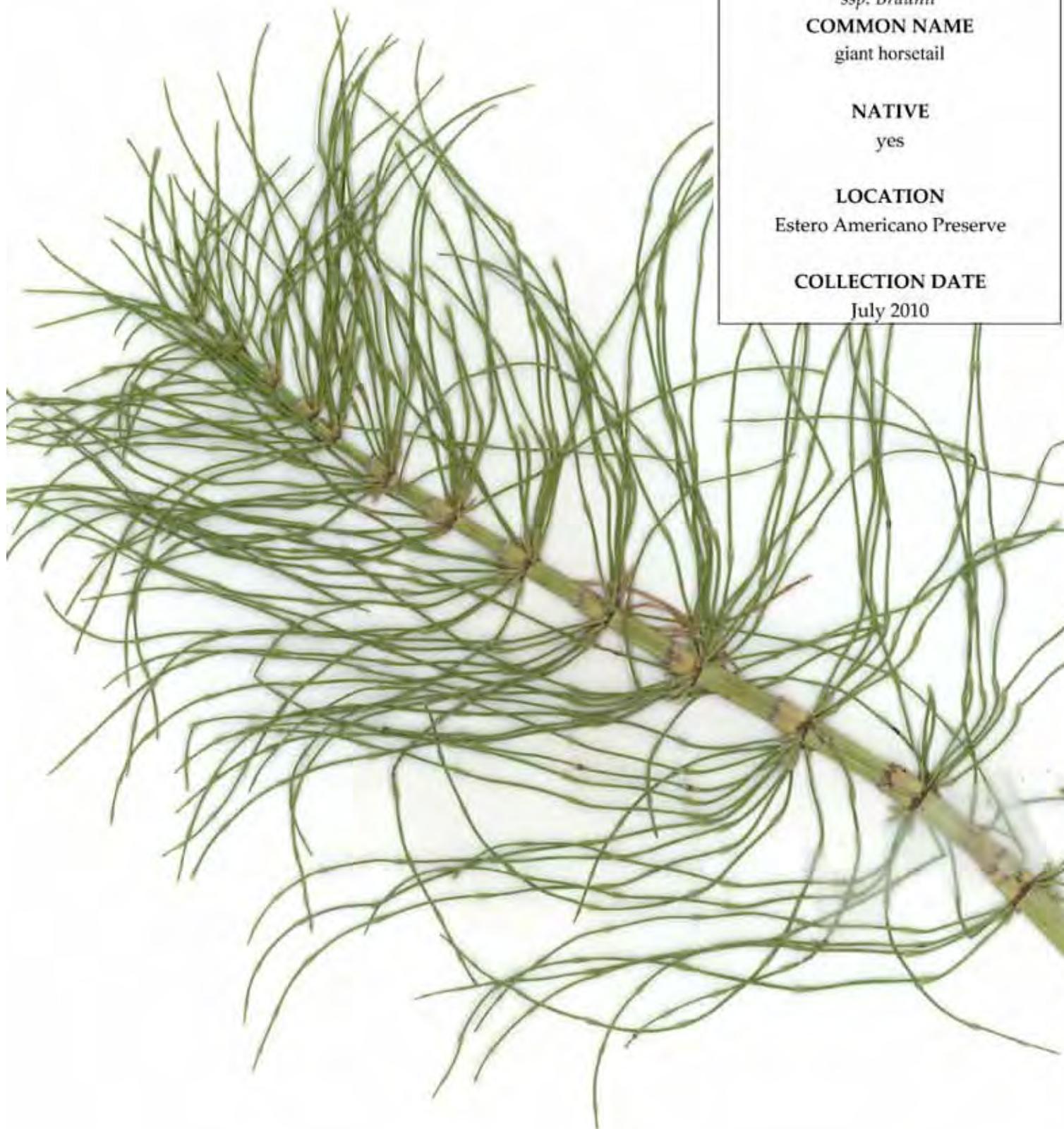
**SCIENTIFIC NAME**  
*Equisetum telmateia*  
ssp. *Braunii*

**COMMON NAME**  
giant horsetail

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010





**FAMILY**

Woodsiaceae

**SCIENTIFIC NAME**

*Athyrium filix-femina*  
*var. cylosorum*

**COMMON NAME**

common lady fern

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July 2010

**FAMILY**  
Apiaceae

**SCIENTIFIC NAME**  
*Conium maculatum*

**COMMON NAME**  
poison hemlock

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Apiaceae

**SCIENTIFIC NAME**  
*Daucus pusillus*

**COMMON NAME**  
rattlesnake weed

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**

Apiaceae

**SCIENTIFIC NAME**

*Eryngium armatum*

**COMMON NAME**

armed coyote thistle

**NATIVE**

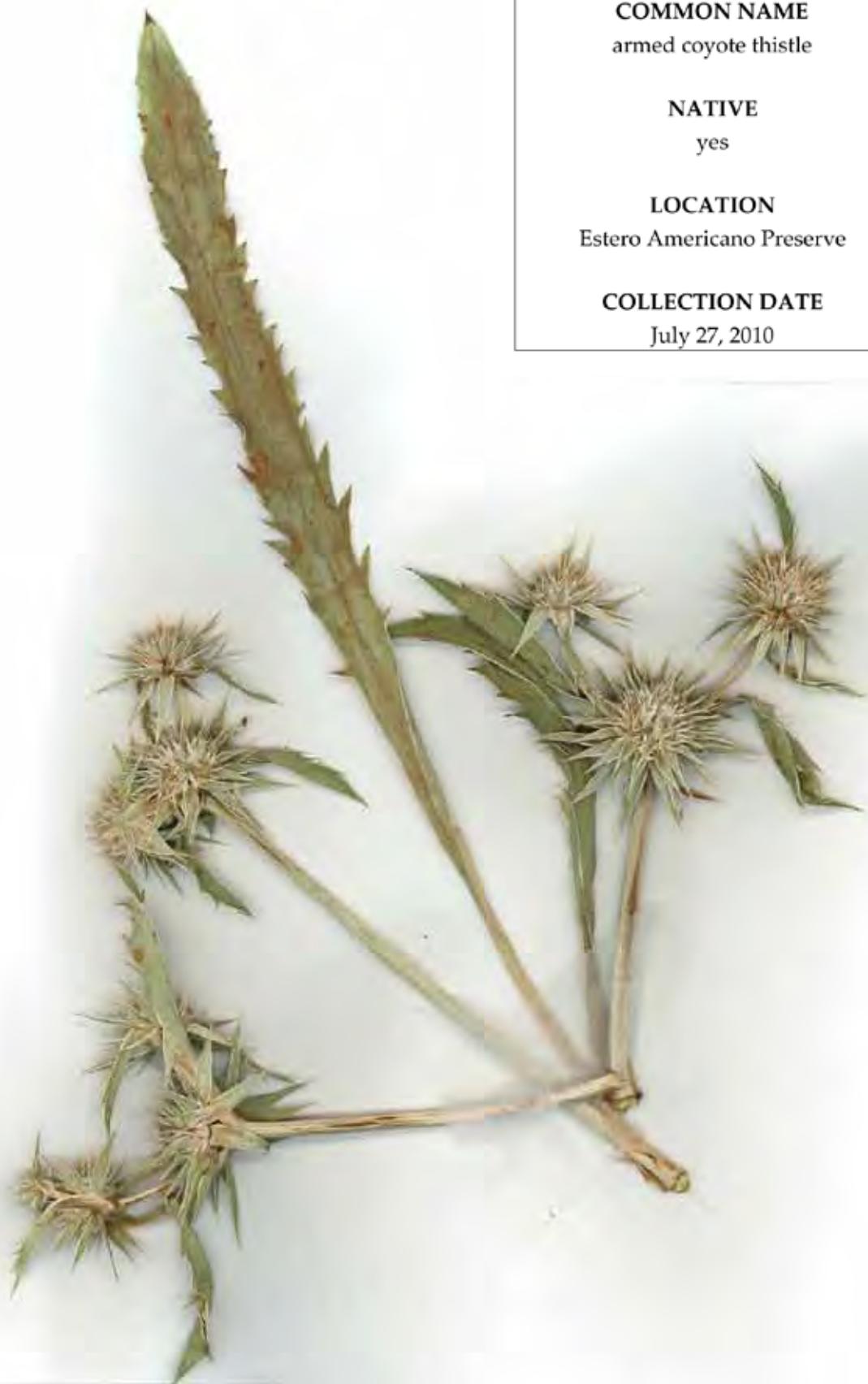
yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July 27, 2010



**FAMILY**

Apiaceae

**SCIENTIFIC NAME**

*Lomatium utriculatum*

**COMMON NAME**

spring gold lomatium

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2010



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Achillea millefolium*

**COMMON NAME**  
yarrow

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**

Asteraceae

**SCIENTIFIC NAME**

*Atremisia douglasiana*

**COMMON NAME**

Douglas's mugwort

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July 2010



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Baccharis pilularis*

**COMMON NAME**  
coyote brush

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Bellis perennis*

**COMMON NAME**  
English daisy

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**

Asteraceae

**SCIENTIFIC NAME**

*Carduus pycnocephalus*

**COMMON NAME**

Italian thistle

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009

**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Cirsium quercetorum*

**COMMON NAME**  
brownie thistle

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Cirsium vulgare*

**COMMON NAME**  
bull thistle

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Cotula coronopifolia*

**COMMON NAME**  
brass buttons

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Logfia gallica*

**COMMON NAME**  
narrowleaf cottonrose

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Gamochoeta purpurea*

**COMMON NAME**  
purple cudweed

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Grindelia stricta*

**COMMON NAME**  
gumplant

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Helenium puberulum*

**COMMON NAME**  
sneeze-weed

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**

Asteraceae

**SCIENTIFIC NAME**

*Hypochaeris radicata*

**COMMON NAME**

rough cat's ear

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

May-Early June 2009



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Jaumea carnosa*

**COMMON NAME**  
marsh jaumea

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Madia gracilis*

**COMMON NAME**  
slender tarweed  
grassy tarweed  
**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Madia sativa*

**COMMON NAME**  
coast tarweed

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Matricaria matricarioides*

**COMMON NAME**  
pineapple weed

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Asteraceae

**SCIENTIFIC NAME**  
*Microseris bigelovii*

**COMMON NAME**  
silver puffs

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009





FAMILY

Asteraceae

SCIENTIFIC NAME

*Pseudognaphalium ramosissimum*

COMMON NAME

pink cudweed

NATIVE

yes

LOCATION

Estero Americano Preserve

COLLECTION DATE

July 27, 2010

**FAMILY**  
Boraginaceae

**SCIENTIFIC NAME**  
*Heliotropium curassavicum*

**COMMON NAME**  
salt heliotrope

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Boraginaceae

**SCIENTIFIC NAME**  
*Myosotis discolor*

**COMMON NAME**  
changing forget-me-not

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2010



**FAMILY**  
Brassicaceae

**SCIENTIFIC NAME**  
*Nasturtium officinale*

**COMMON NAME**  
watercress

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Caprifoliaceae

**SCIENTIFIC NAME**

*symporicarpos albus*  
*var. laevigatus*

**COMMON NAME**  
common snowberry

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Caryophyllaceae

**SCIENTIFIC NAME**  
*Silene gallica*

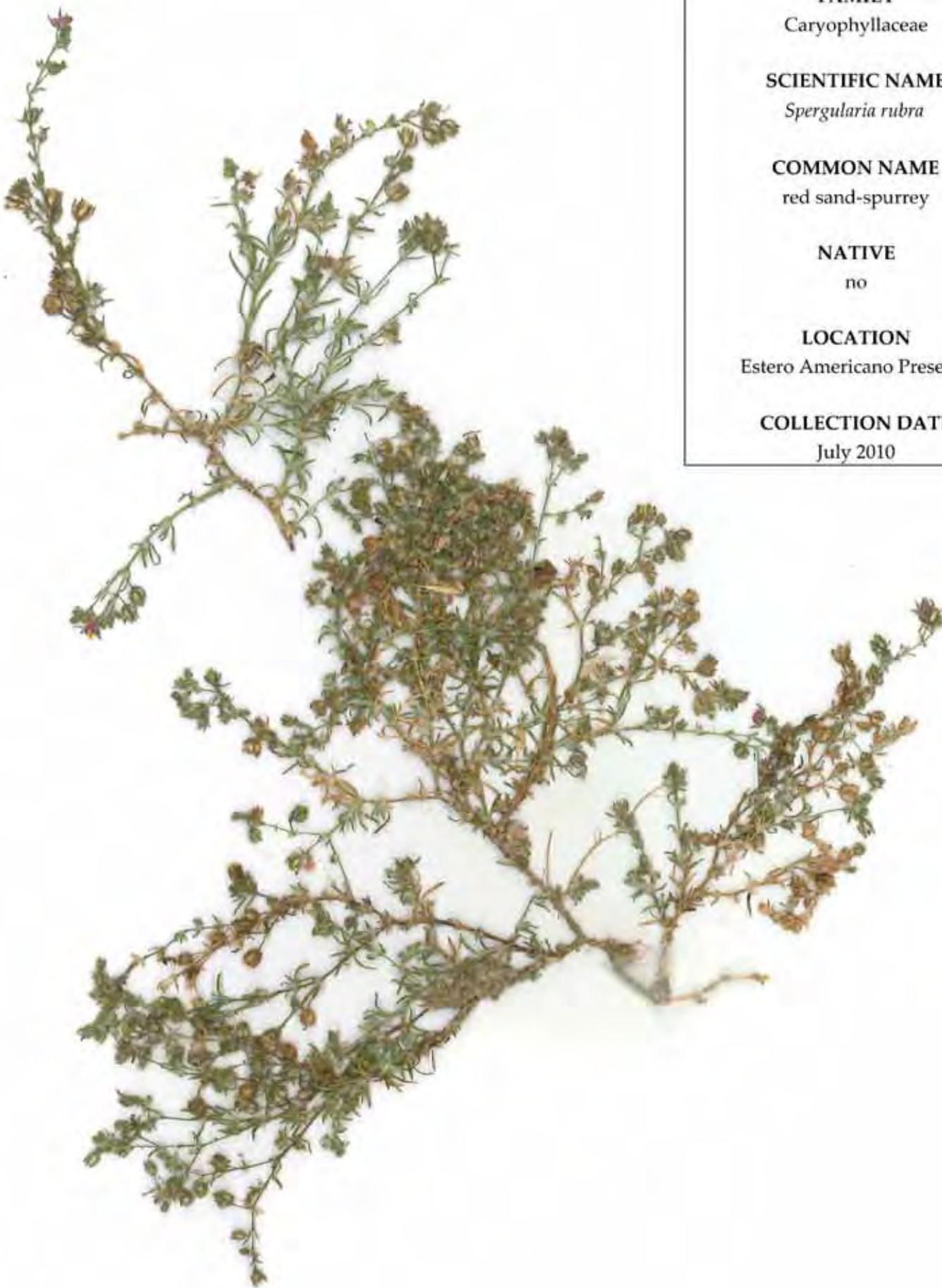
**COMMON NAME**  
windmill pink

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009





**FAMILY**  
*Caryophyllaceae*

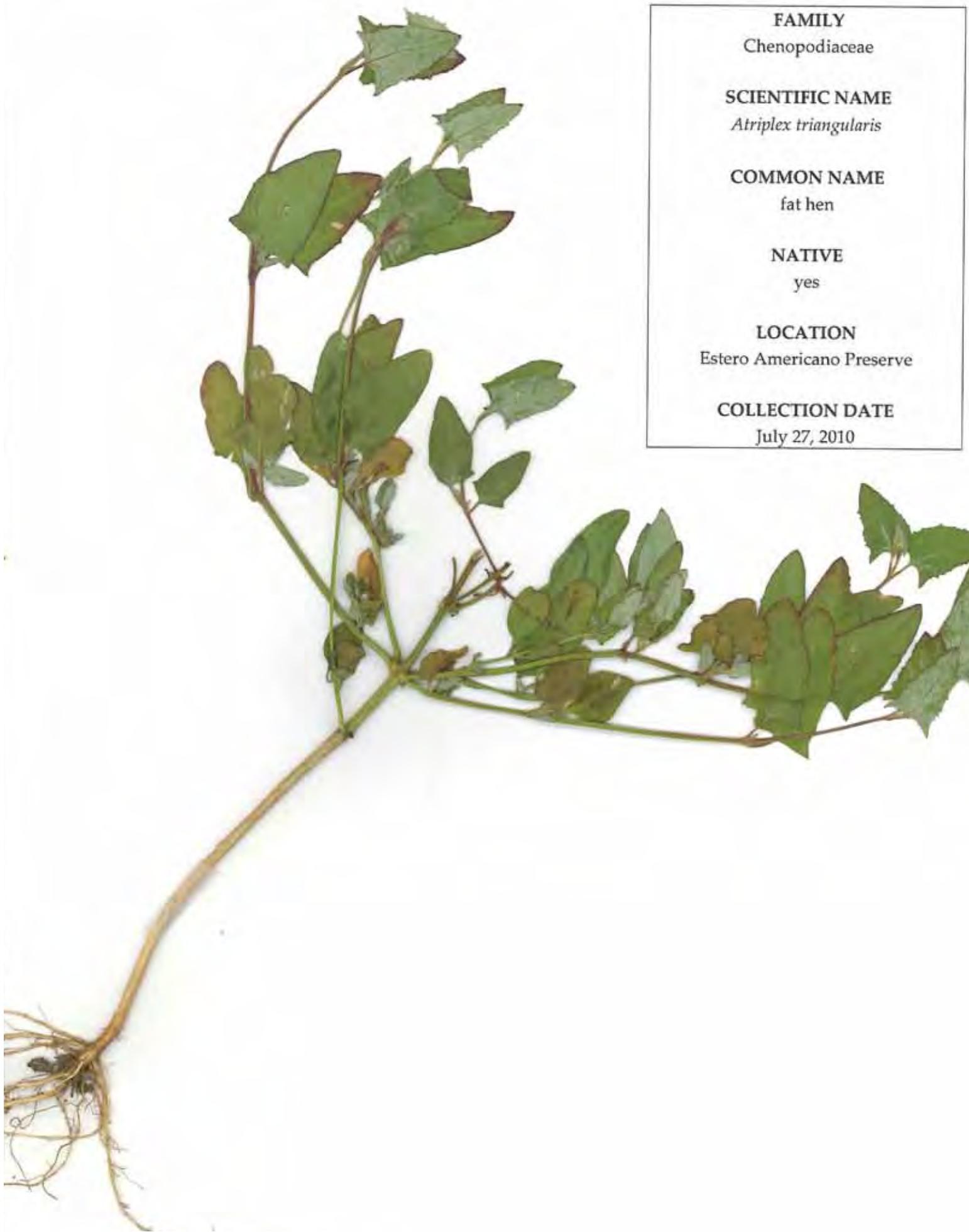
**SCIENTIFIC NAME**  
*Spergularia rubra*

**COMMON NAME**  
red sand-spurrey

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



FAMILY  
Chenopodiaceae

SCIENTIFIC NAME  
*Atriplex triangularis*

COMMON NAME  
fat hen

NATIVE  
yes

LOCATION  
Estero Americano Preserve

COLLECTION DATE  
July 27, 2010

**FAMILY**  
Chenopodiaceae

**SCIENTIFIC NAME**  
*Salicornia virginica*

**COMMON NAME**  
pickleweed

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Convulvulaceae

**SCIENTIFIC NAME**  
*Calystegia subacaulis*

**COMMON NAME**  
coast range false bindweed

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Convolvulaceae

**SCIENTIFIC NAME**  
*Convolvulus arvensis*

**COMMON NAME**  
bindweed

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Crassulaceae

**SCIENTIFIC NAME**  
*Dudleya farinosa*

**COMMON NAME**  
powdery live-forever

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Cucurbitaceae

**SCIENTIFIC NAME**  
*Marah oreganus*

**COMMON NAME**  
coast man-root

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Acmispon parviflorus*

**COMMON NAME**

miniature lotus

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July 2010



**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Acmispon americanus*

**COMMON NAME**

Pursh's lotus

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July, 2010



**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Hosackia gracilis*

**COMMON NAME**

harlequin lotus

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2010



**FAMILY**  
Fabaceae

**SCIENTIFIC NAME**  
*Lathyrus hirsutus*

**COMMON NAME**  
Caley pea

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Lotus angustissimus*

**COMMON NAME**

slender lotus

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2010





FAMILY

Fabaceae

SCIENTIFIC NAME

*Lotus corniculatus*

COMMON NAME

bird's-foot trefoil

NATIVE

no

LOCATION

Estero Americano Preserve

COLLECTION DATE

End of May-Early June 2009

**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Lupinus bicolor*

**COMMON NAME**

miniature lupine

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009



**FAMILY**  
Fabaceae

**SCIENTIFIC NAME**  
*Lupinus variicolor*

**COMMON NAME**  
varied lupine

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
May 26, 2010



**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Trifolium dubium*

**COMMON NAME**

little hop clover

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009



**FAMILY**  
Fabaceae

**SCIENTIFIC NAME**  
*Trifolium macraei*

**COMMON NAME**  
Macrae's clover

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2010



**FAMILY**  
Fabaceae

**SCIENTIFIC NAME**  
*Trifolium subterraneum*

**COMMON NAME**  
subterranean clover

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



FAMILY

Fabaceae

SCIENTIFIC NAME

*Trifolium striatum*

COMMON NAME

knotted clover

NATIVE

no

LOCATION

Estero Americano Preserve

COLLECTION DATE

End of May-Early June 2010



**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Trifolium wormskioldii*

**COMMON NAME**

cow clover

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July 27, 2010



**FAMILY**

Fabaceae

**SCIENTIFIC NAME**

*Vicia hirsuta*

**COMMON NAME**

tiny purple vetch

hirsute vetch

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2010





FAMILY  
Fabaceae

SCIENTIFIC NAME  
*Vicia sativa*

COMMON NAME  
vetch

NATIVE  
no

LOCATION  
Estero Americano Preserve

COLLECTION DATE  
End of May-Early June 2009



FAMILY  
Fabaceae

SCIENTIFIC NAME  
*Vicia tetrasperma*

COMMON NAME  
lentil vetch

NATIVE  
no

LOCATION  
Estero Americano Preserve

COLLECTION DATE  
July 2010

**FAMILY**  
Frankeniaceae

**SCIENTIFIC NAME**  
*Frankenia salina*

**COMMON NAME**  
alkali seaheath

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Gentianaceae

**SCIENTIFIC NAME**  
*Zeltnera muehlenbergii*

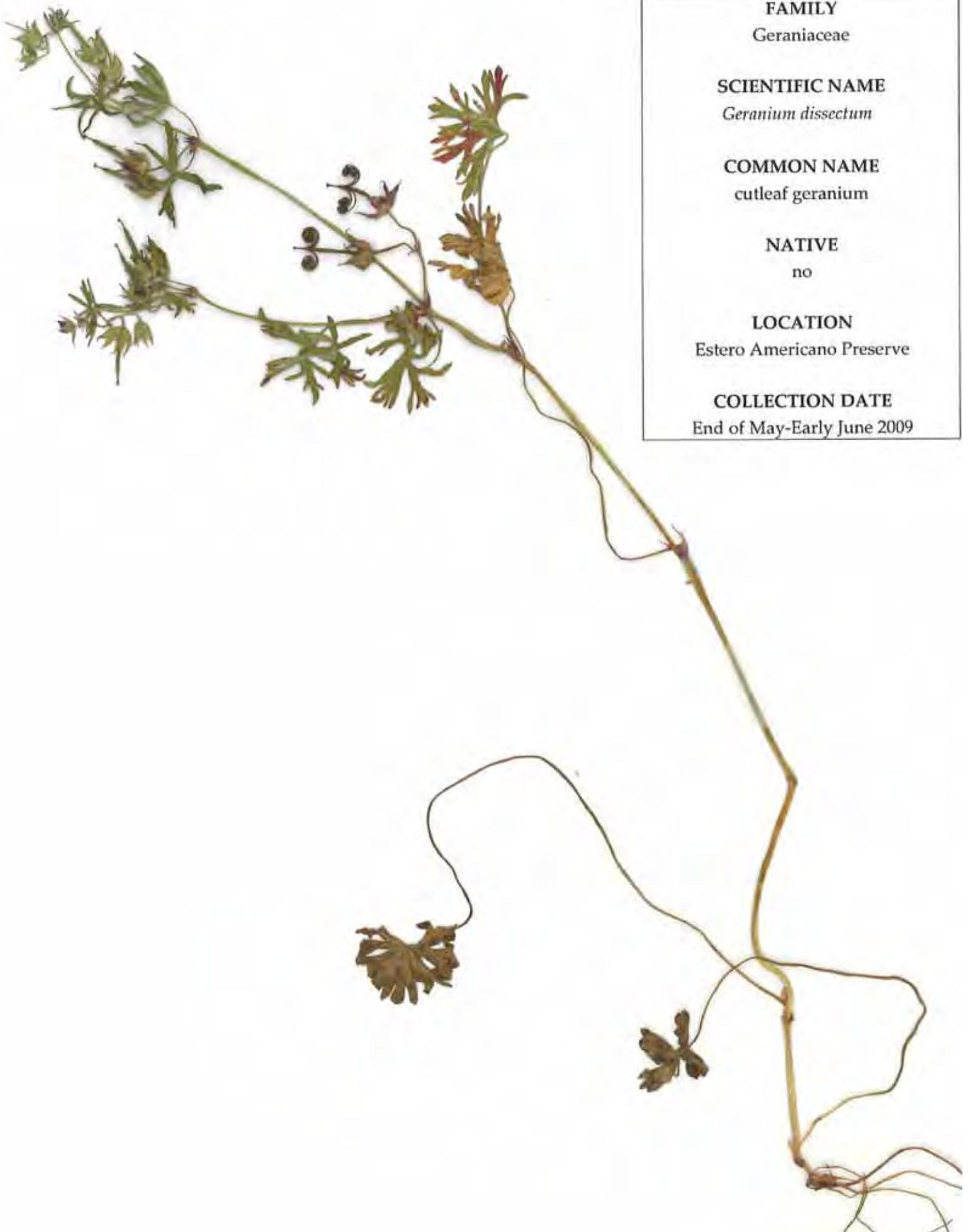
**COMMON NAME**  
Muhlenberg's centaury

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010





**FAMILY**  
Geraniaceae

**SCIENTIFIC NAME**  
*Geranium dissectum*

**COMMON NAME**  
cutleaf geranium

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009

**FAMILY**  
Grossulariaceae

**SCIENTIFIC NAME**  
*Ribes divaricatum*

**COMMON NAME**  
coast black gooseberry

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Lamiaceae

**SCIENTIFIC NAME**  
*Mentha pulegium*

**COMMON NAME**  
pennyroyal

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**

Lamiaceae

**SCIENTIFIC NAME**

*Monardella villosa* spp. *Franciscana*

**COMMON NAME**

coyote mint

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2010



**FAMILY**  
Lamiaceae

**SCIENTIFIC NAME**  
*Stachys rigida* var. *rigida*

**COMMON NAME**  
rigid hedge-nettle

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009





**FAMILY**

Linaceae

**SCIENTIFIC NAME**

*Linum bienne*

**COMMON NAME**

pale flax

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

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**FAMILY**  
Myricaceae

**SCIENTIFIC NAME**  
*Morella californica*

**COMMON NAME**  
California wax-myrtle

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Onagraceae

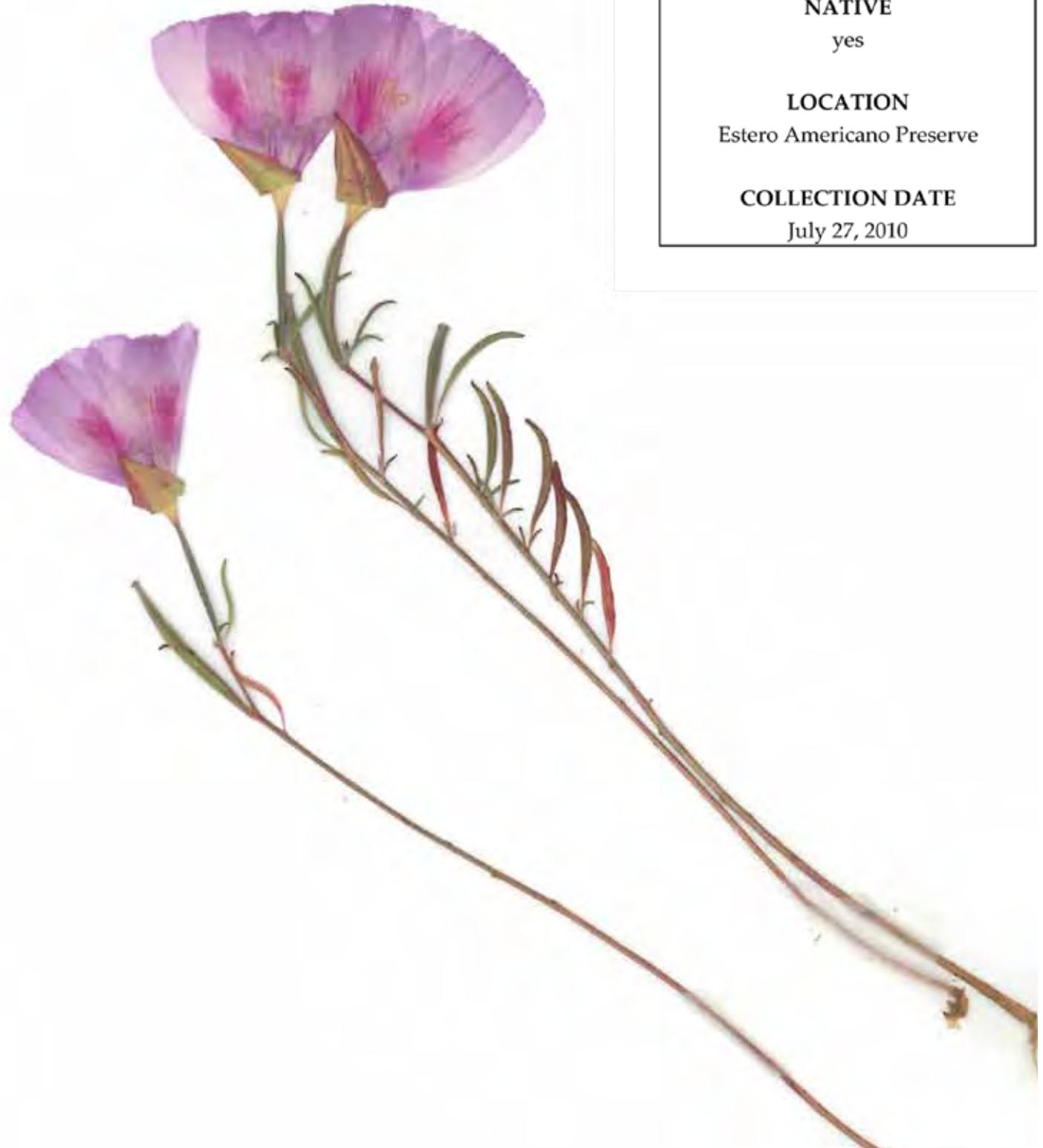
**SCIENTIFIC NAME**  
*Clarkia amoena*

**COMMON NAME**  
farewell-to-spring

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Onagraceae

**SCIENTIFIC NAME**  
*Epilobium ciliatum*

**COMMON NAME**  
fringed willowherb

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Papaveraceae

**SCIENTIFIC NAME**  
*Eschscholzia californica*

**COMMON NAME**  
California poppy

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Phrymaceae

**SCIENTIFIC NAME**  
*Mimulus aurantiacus*

**COMMON NAME**  
sticky bush monkeyflower

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Phrymaceae

**SCIENTIFIC NAME**  
*Mimulus guttatus*

**COMMON NAME**  
common monkeyflower

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Papaveraceae

**SCIENTIFIC NAME**  
*Plantago erecta*

**COMMON NAME**  
California plantain

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009





**FAMILY**  
Plantaginaceae

**SCIENTIFIC NAME**  
*Plantago lanceolata*

**COMMON NAME**  
English plantain

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009

**FAMILY**  
Plantaginaceae

**SCIENTIFIC NAME**  
*Plantago subnuda*

**COMMON NAME**  
tall coastal plantain

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Plantaginaceae

**SCIENTIFIC NAME**  
*Veronica americana*

**COMMON NAME**  
American speedwell

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Polygonaceae

**SCIENTIFIC NAME**  
*Eriogonum latifolium*

**COMMON NAME**  
coast buckwheat

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
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**FAMILY**  
Polygonaceae

**SCIENTIFIC NAME**  
*Rumex acetosella*

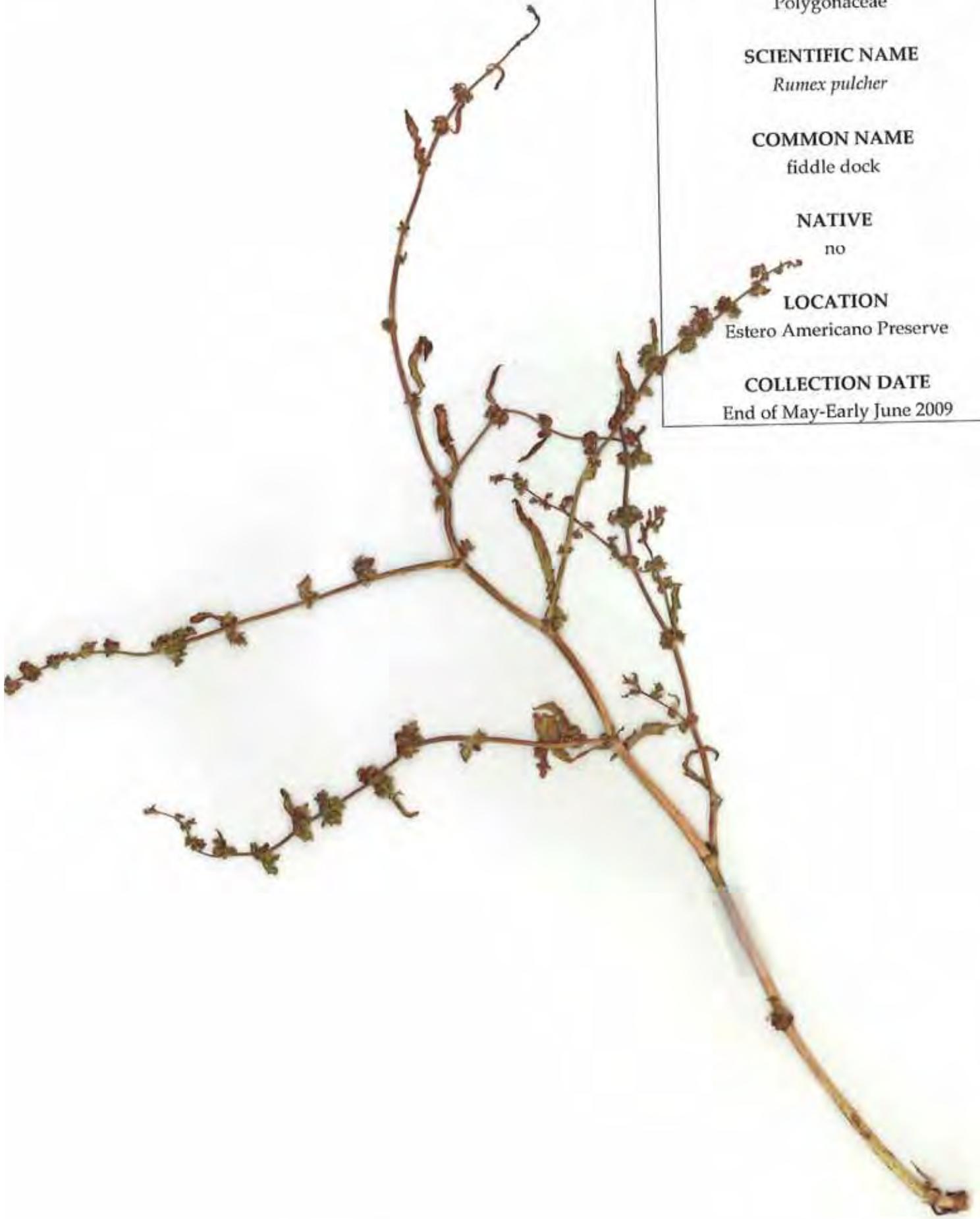
**COMMON NAME**  
sheep sorrel

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009





**FAMILY**  
Polygonaceae

**SCIENTIFIC NAME**  
*Rumex pulcher*

**COMMON NAME**  
fiddle dock

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009

**FAMILY**  
Polygonaceae

**SCIENTIFIC NAME**  
*Rumex conglomeratus*

**COMMON NAME**  
clustered dock

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Ranunculaceae

**SCIENTIFIC NAME**  
*Ranunculus californicus*

**COMMON NAME**  
california buttercup

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2010



**FAMILY**

Rosaceae

**SCIENTIFIC NAME**

*Acaena pinnatifida* var. *californica*

**COMMON NAME**

California acaena

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009



**FAMILY**

Rosaceae

**SCIENTIFIC NAME**

*Horkelia californica*

**COMMON NAME**

California horkelia

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July 27, 2010



FAMILY  
Rosaceae

SCIENTIFIC NAME  
*Physocarpus capitatus*

COMMON NAME  
ninebark

NATIVE  
yes

LOCATION  
Estero Americano Preserve

COLLECTION DATE  
July 27, 2010



**FAMILY**  
Rosaceae

**SCIENTIFIC NAME**  
*Potentilla anserina ssp. pacifica*

**COMMON NAME**  
silverweed cinquefoil

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2010



**FAMILY**

Rosaceae

**SCIENTIFIC NAME**

*Rubus ursinus*

**COMMON NAME**

California blackberry

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009



**FAMILY**

Rubiaceae

**SCIENTIFIC NAME**

*Sherardia arvensis*

**COMMON NAME**

field madder

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009





FAMILY  
Scrophulariaceae

SCIENTIFIC NAME  
*Scrophularia californica*

COMMON NAME  
bee plant

NATIVE  
yes

LOCATION  
Estero Americano Preserve

COLLECTION DATE  
End of May-Early June 2009

**FAMILY**  
Violaceae

**SCIENTIFIC NAME**  
*Viola adunca*

**COMMON NAME**  
early blue violet

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**

Agavaceae

**SCIENTIFIC NAME**

*Chlorogalum pomeridianum*

**COMMON NAME**

soap plant

**NATIVE**

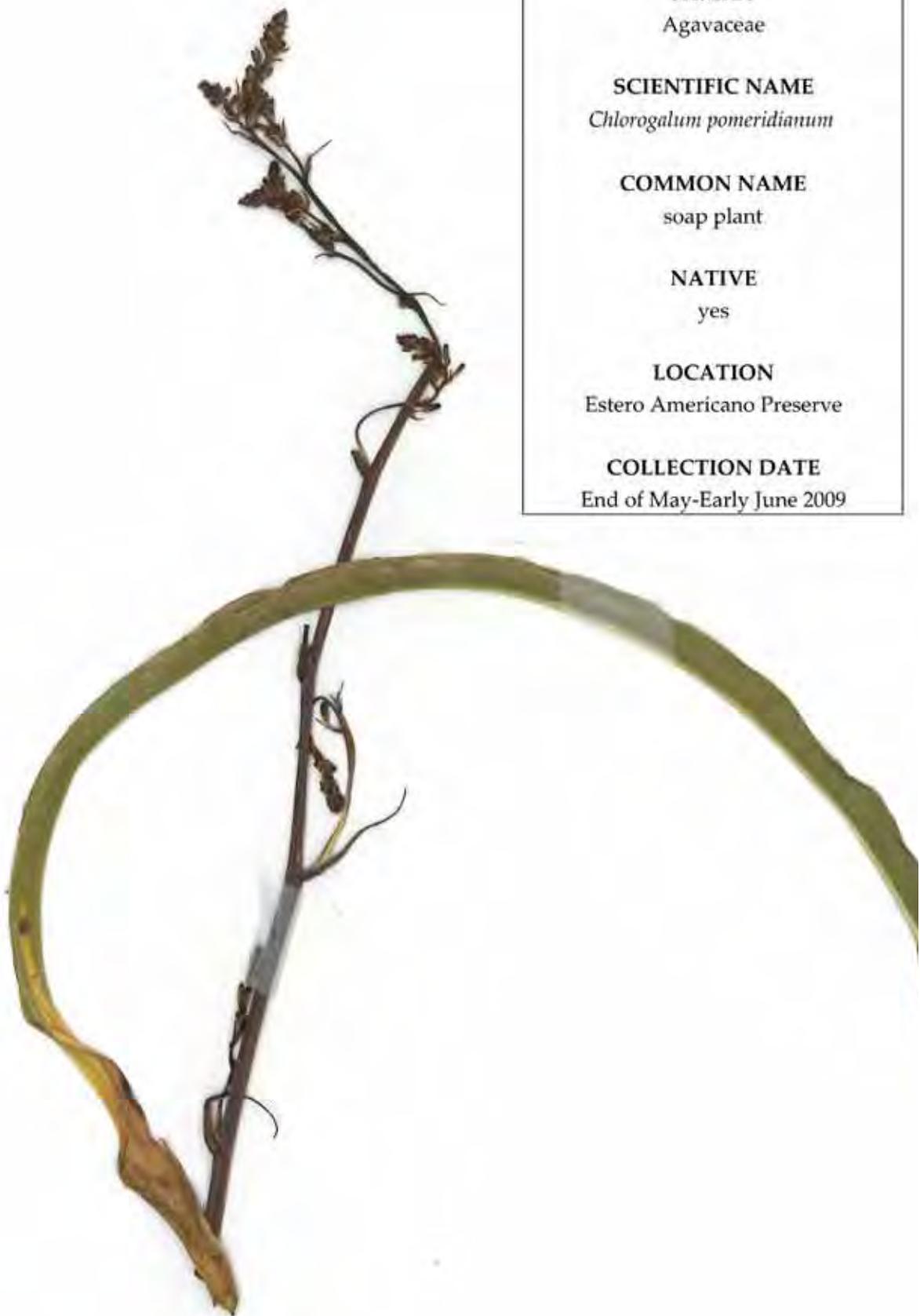
yes

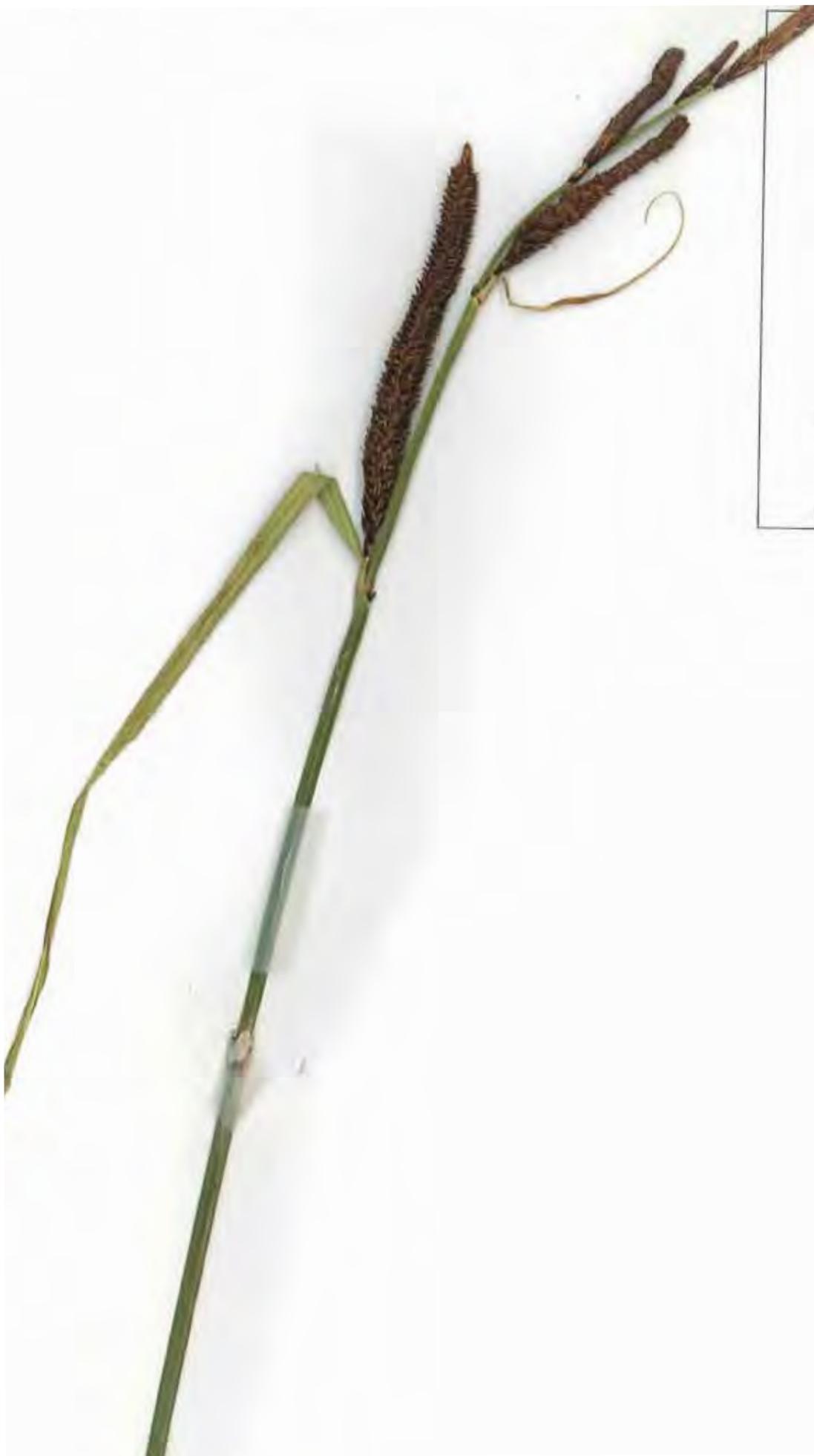
**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

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A detailed botanical illustration of a Carex barbara sedge plant. It features a single culm with a long, slender green leaf. At the top of the culm are two dark brown, elongated spikelets. A small, thin, curved awl-like structure, likely a perianth or awl, is visible near the base of the spikelets.

**FAMILY**  
Cyperaceae

**SCIENTIFIC NAME**  
*Carex barbara*

**COMMON NAME**  
Santa Barbara sedge

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009

**FAMILY**  
Cyperaceae

**SCIENTIFIC NAME**  
*Carex densa*

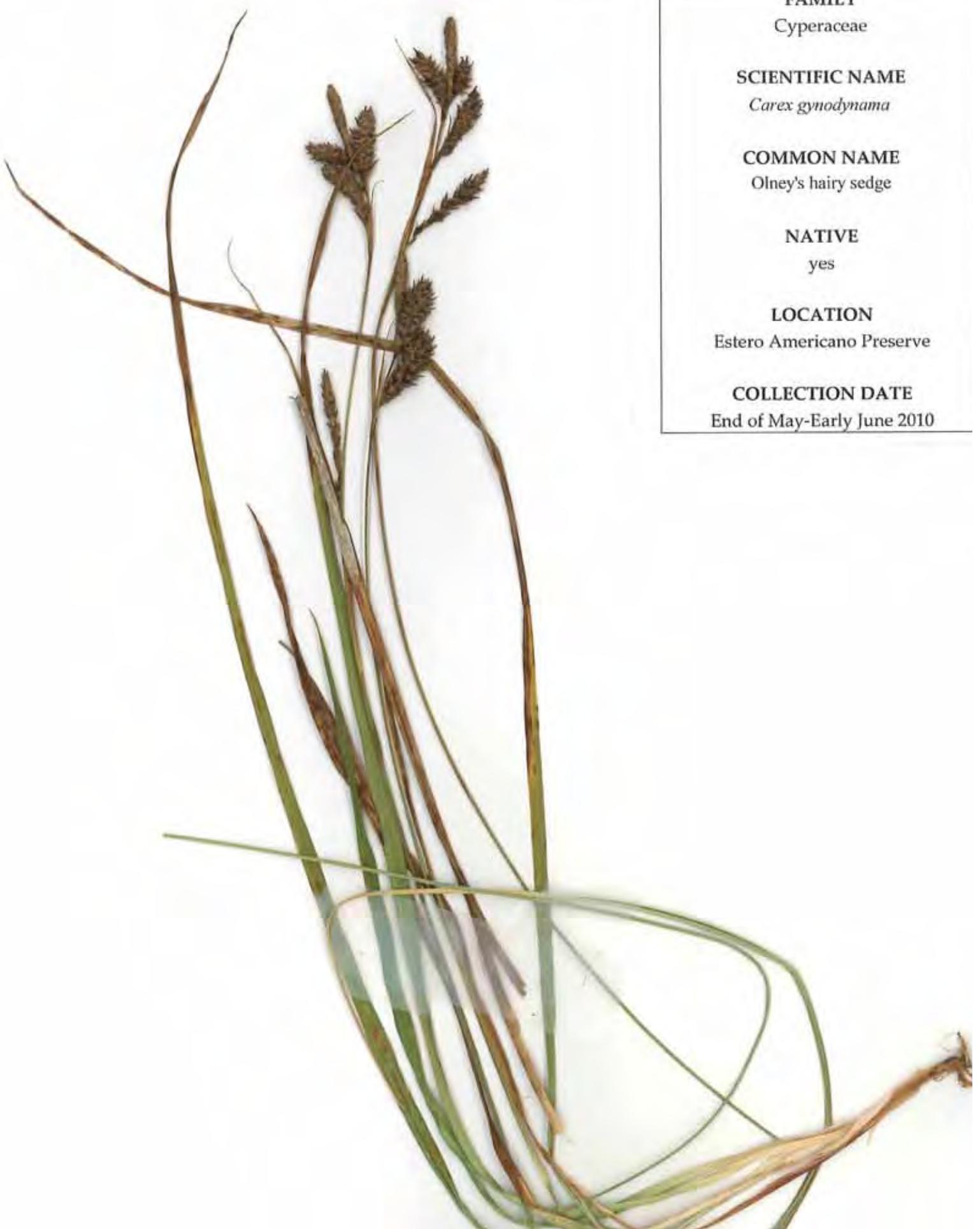
**COMMON NAME**  
dense sedge

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009





FAMILY  
Cyperaceae

SCIENTIFIC NAME  
*Carex gynodynama*

COMMON NAME  
Olney's hairy sedge

NATIVE  
yes

LOCATION  
Estero Americano Preserve

COLLECTION DATE  
End of May-Early June 2010

**FAMILY**  
Cyperaceae

**SCIENTIFIC NAME**  
*Carex obnupta*

**COMMON NAME**  
slough sedge

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 2010



**FAMILY**  
Cyperaceae

**SCIENTIFIC NAME**  
*Carex subbracteata*

**COMMON NAME**  
smallbract sedge

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009



**FAMILY**  
Cyperaceae

**SCIENTIFIC NAME**  
*Carex tumulicola*

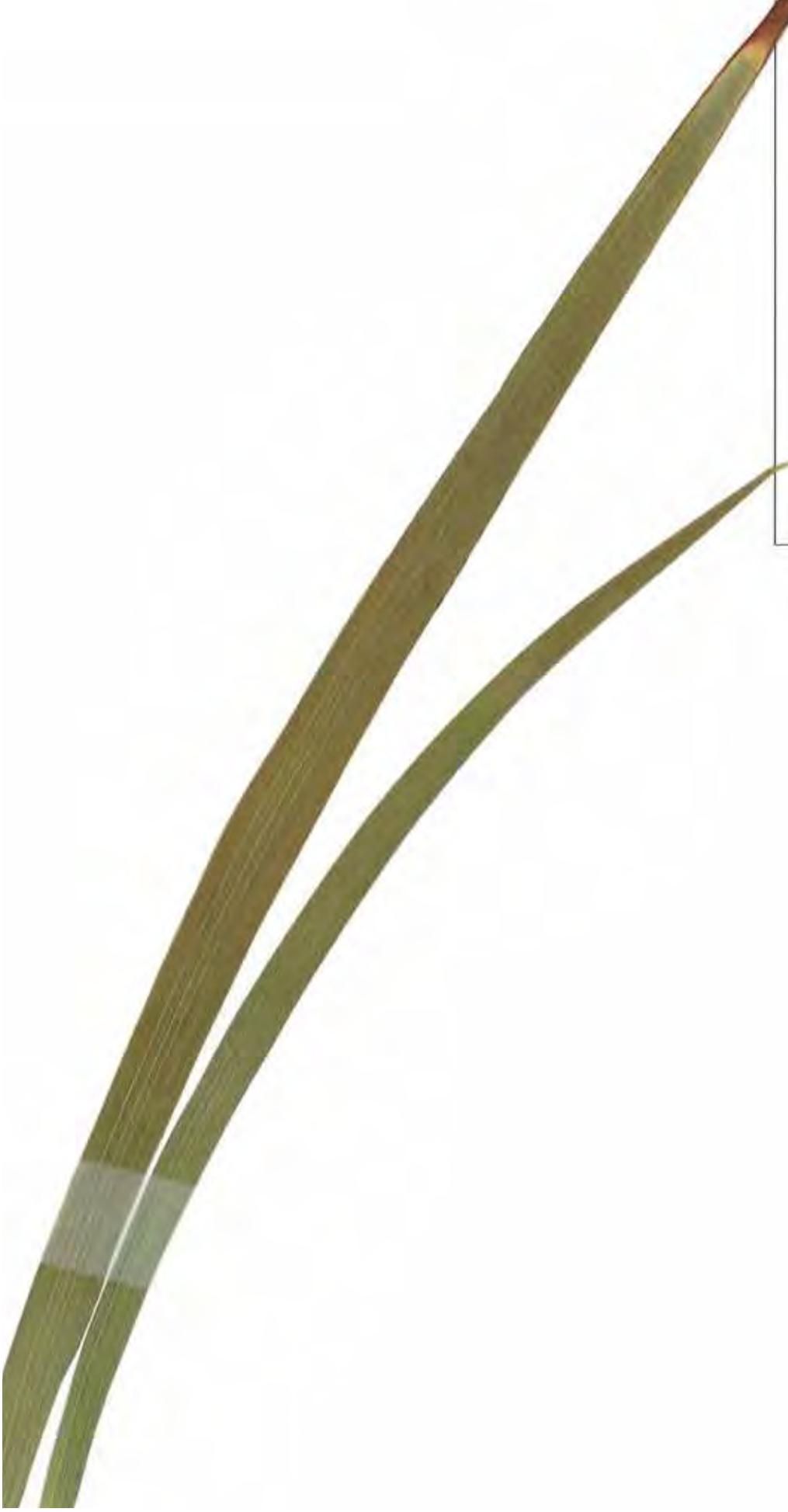
**COMMON NAME**  
foothill sedge

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2009





**FAMILY**  
Iridaceae

**SCIENTIFIC NAME**  
*Iris douglasiana*

**COMMON NAME**  
douglas's iris

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
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FAMILY

Iridaceae

SCIENTIFIC NAME

*Sisyrinchium bellum*

COMMON NAME

blue-eyed grass

NATIVE

yes

LOCATION

Estero Americano Preserve

COLLECTION DATE

July 27, 2010



**FAMILY**  
Juncaceae

**SCIENTIFIC NAME**  
*Juncus bufonius*

**COMMON NAME**  
toad rush

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
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FAMILY

Juncaceae

SCIENTIFIC NAME

*Juncus effusus* var. *brunneus*

COMMON NAME

soft rush

NATIVE

yes

LOCATION

Estero Americano Preserve

COLLECTION DATE

End of May-Early June 2009

**FAMILY**

Juncaceae

**SCIENTIFIC NAME**

*Juncus occidentalis*

**COMMON NAME**

western rush

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**



**FAMILY**

Juncaceae

**SCIENTIFIC NAME**

*Juncus patens*

**COMMON NAME**

spreading rush

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

July 27, 2010



**FAMILY**  
Juncaceae

**SCIENTIFIC NAME**  
*Juncus phaeocephalus*

**COMMON NAME**  
brownhead rush

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
July 27, 2010



**FAMILY**  
Juncaceae

**SCIENTIFIC NAME**  
*Luzula comosa*

**COMMON NAME**  
hairy wood rush

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Agrostis gigantea*

**COMMON NAME**

redtop bentgrass

**NATIVE**

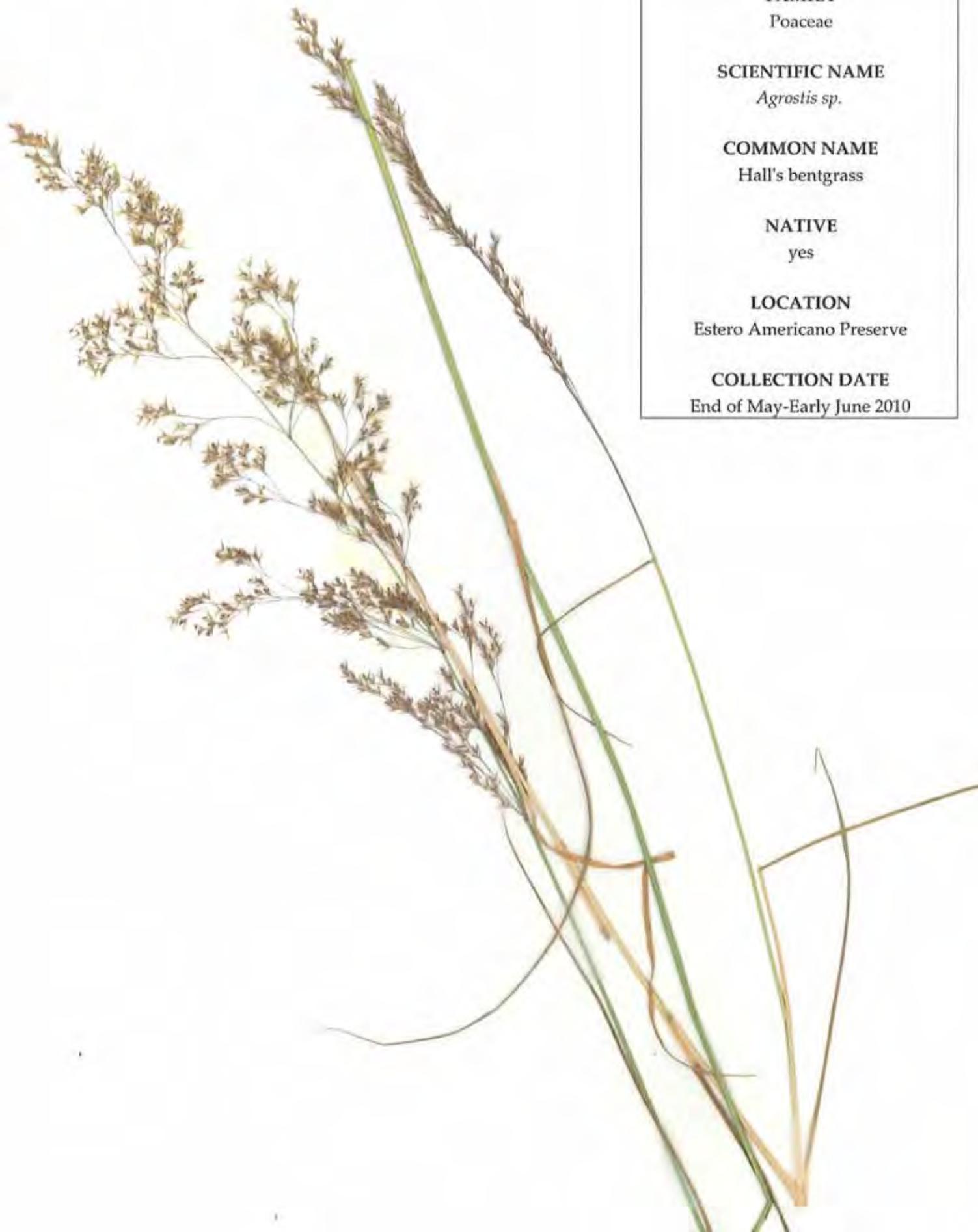
no

**LOCATION**

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**COLLECTION DATE**

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FAMILY

Poaceae

SCIENTIFIC NAME

*Agrostis* sp.

COMMON NAME

Hall's bentgrass

NATIVE

yes

LOCATION

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Aira caryophyllea*

**COMMON NAME**

silver European hairgrass

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**



**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Anthoxanthum odoratum*

**COMMON NAME**

sweet vernal grass

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

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FAMILY

Poaceae

SCIENTIFIC NAME

*Avena barbata*

COMMON NAME

slender wild oat

NATIVE

no

LOCATION

Estero Americano Preserve

COLLECTION DATE

**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Brachypodium distachyon*

**COMMON NAME**

false brome

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

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**FAMILY**  
Poaceae

**SCIENTIFIC NAME**  
*Briza maxima*

**COMMON NAME**  
rattlesnake grass

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
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FAMILY

Poaceae

SCIENTIFIC NAME

*Briza minor*

COMMON NAME

little quaking grass

NATIVE

no

LOCATION

Estero Americano Preserve

COLLECTION DATE

End of May-Early June 2009



FAMILY

Poaceae

SCIENTIFIC NAME

*Bromus carinatus var. carinatus*

COMMON NAME

California brome

NATIVE

yes

LOCATION

Estero Americano Preserve

COLLECTION DATE

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Bromus diandrus*

**COMMON NAME**

ripgut brome

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Bromus hordeaceus*

**COMMON NAME**

soft chess

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

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FAMILY

Poaceae

SCIENTIFIC NAME

*Cynosurus echinatus*

COMMON NAME

hedgehog dogtail

NATIVE

no

LOCATION

Estero Americano Preserve

COLLECTION DATE

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Dactylis glomerata*

**COMMON NAME**

orchard grass

**NATIVE**

no

**LOCATION**

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Danthonia californica* var. *californica*

**COMMON NAME**

california oatgrass

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009

**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Deschampsia cespitosa* ssp. *cespitosus*

**COMMON NAME**

tufted hairgrass

**NATIVE**

yes

**LOCATION**

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FAMILY

Poaceae

SCIENTIFIC NAME

*Distichlis spicata*

COMMON NAME

saltgrass

NATIVE

yes

LOCATION

Estero Americano Preserve

COLLECTION DATE

July 2010





**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Elymus glaucus* ssp. *glaucus*

**COMMON NAME**

blue wildrye

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

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FAMILY

Poaceae

SCIENTIFIC NAME

*Ehrharta erecta*

COMMON NAME

panic veldtgrass

NATIVE

no

LOCATION

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Holcus lanatus*

**COMMON NAME**

velvet grass

**NATIVE**

no

**LOCATION**

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i

**FAMILY**

Poaceae

**SCIENTIFIC NAME***Hordeum brachyantherum***COMMON NAME**

meadow barley

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

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**FAMILY**  
Poaceae

**SCIENTIFIC NAME**  
*Hordeum marinum* ssp. *gussoneanum*

**COMMON NAME**  
barley

**NATIVE**  
no

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**



**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Hordeum murinum*

**COMMON NAME**

mouse barley

**NATIVE**

no

**LOCATION**

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Koeleria macrantha*

**COMMON NAME**

junegrass

**NATIVE**

yes

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Lolium perenne*

**COMMON NAME**

perennial ryegrass

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

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**FAMILY**  
Poaceae

**SCIENTIFIC NAME**  
*Nassella pulchra*

**COMMON NAME**  
purple needlegrass

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

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**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Poa pratensis ssp. pratensis*

**COMMON NAME**

Kentucky bluegrass

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

End of May-Early June 2009



A detailed botanical illustration of a grass plant, identified as Polypogon monspeliensis. The drawing shows several culms (stems) with long, narrow leaves. At the top of each culm is a dense, cylindrical panicle inflorescence. The upper part of the panicle is covered in long, light brown or tan awns, while the lower part is more compact and greenish-yellow.

**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Polypogon monspeliensis*

**COMMON NAME**

annual beardgrass

**NATIVE**

no

**LOCATION**

Estero Americano Preserve

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July 2010



**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Rytidosperma penicillatum*

**COMMON NAME**

hairy oatgrass

**NATIVE**

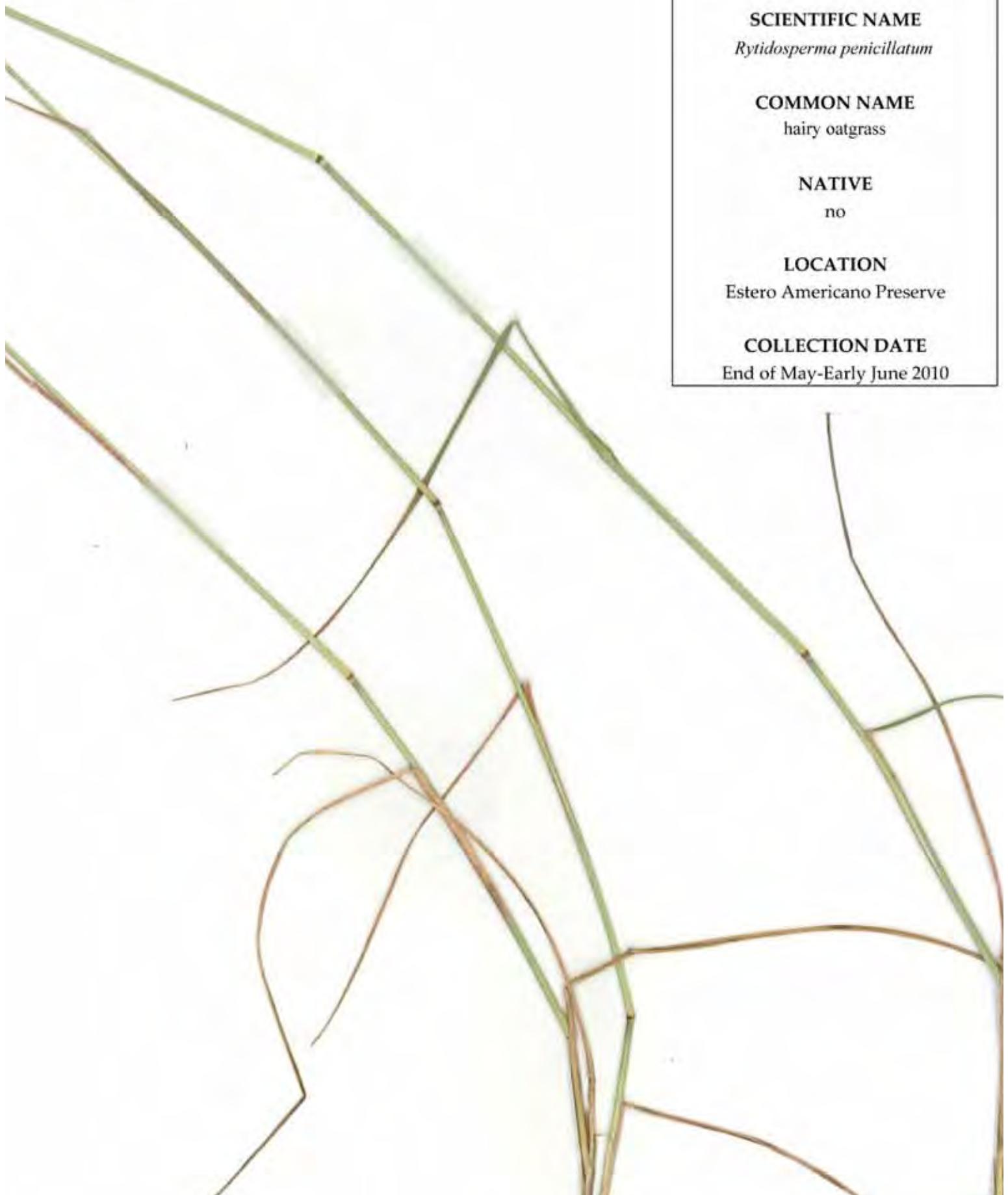
no

**LOCATION**

Estero Americano Preserve

**COLLECTION DATE**

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FAMILY

Poaceae

SCIENTIFIC NAME

*Rytidosperma penicillatum*

COMMON NAME

hairy oatgrass

NATIVE

no

LOCATION

Estero Americano Preserve

COLLECTION DATE

End of May-Early June 2010

**FAMILY**

Poaceae

**SCIENTIFIC NAME**

*Vulpia bromoides*

**COMMON NAME**

six-week's fescue

**NATIVE**

no

**LOCATION**

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**FAMILY**  
Themidaceae

**SCIENTIFIC NAME**  
*Brodiaea terrestris ssp. terrestris*

**COMMON NAME**  
ground brodiaea

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
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**FAMILY**  
Themidaceae

**SCIENTIFIC NAME**  
*Triteleia laxa*

**COMMON NAME**  
Ithuriel's spear

**NATIVE**  
yes

**LOCATION**  
Estero Americano Preserve

**COLLECTION DATE**  
End of May-Early June 2010



# Sonoma Land Trust

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