



Arizona Native Plant Society

# Arizona Plants: What's Not To Like?





**The Mission of the Green Valley Gardeners shall be to promote gardening education and related environmental issues to its membership and the gardening public through educational and charitable means.**

*Calochortus kennedyi* – desert mariposa lily



*Allionia incarata* – trailing windmills

**The Arizona Native Plant Society is a statewide nonprofit organization devoted to Arizona's native plants. Its mission is to promote knowledge, appreciation, conservation, and restoration of Arizona native plants and their habitats.**



To plant a garden  
is to  
believe in tomorrow

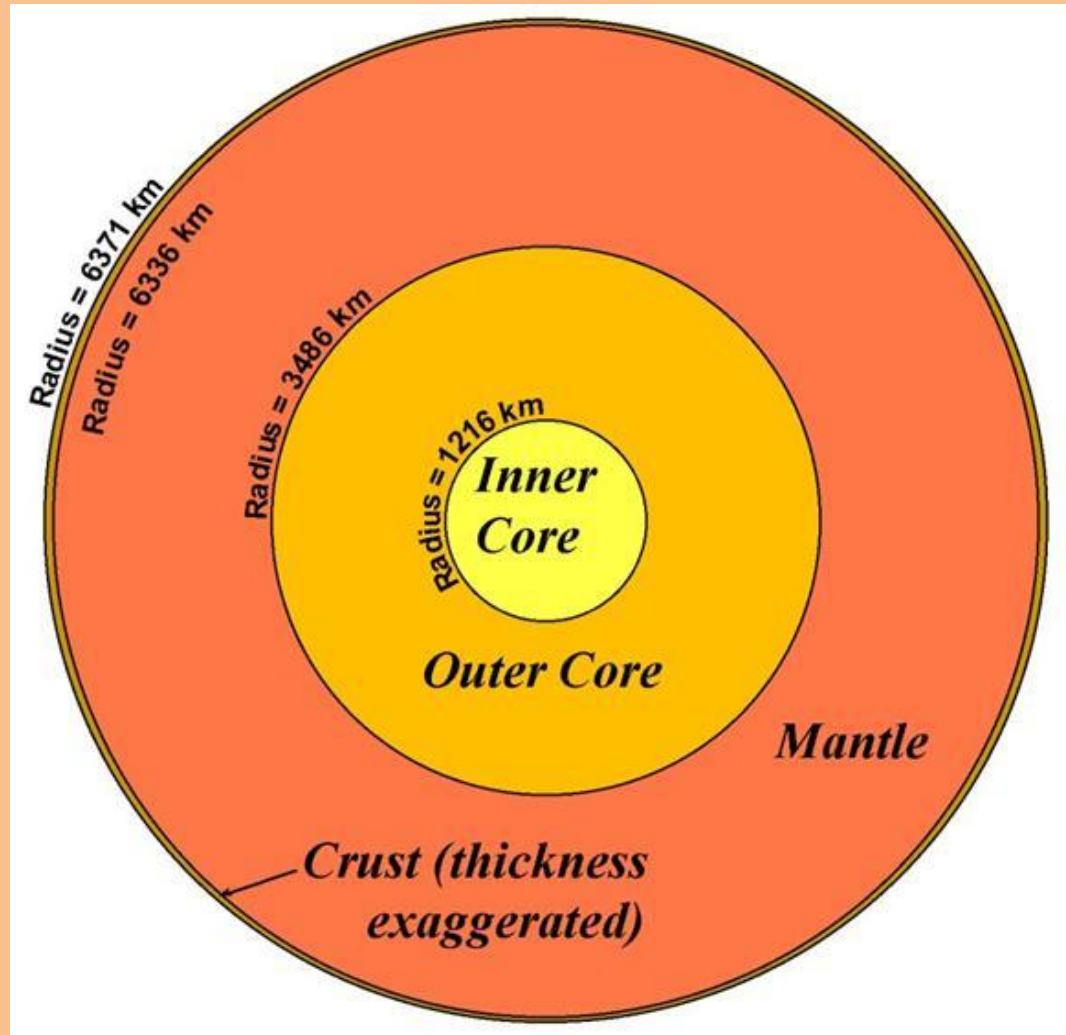




# Arizona's Diversity, Let's Start at the Beginning

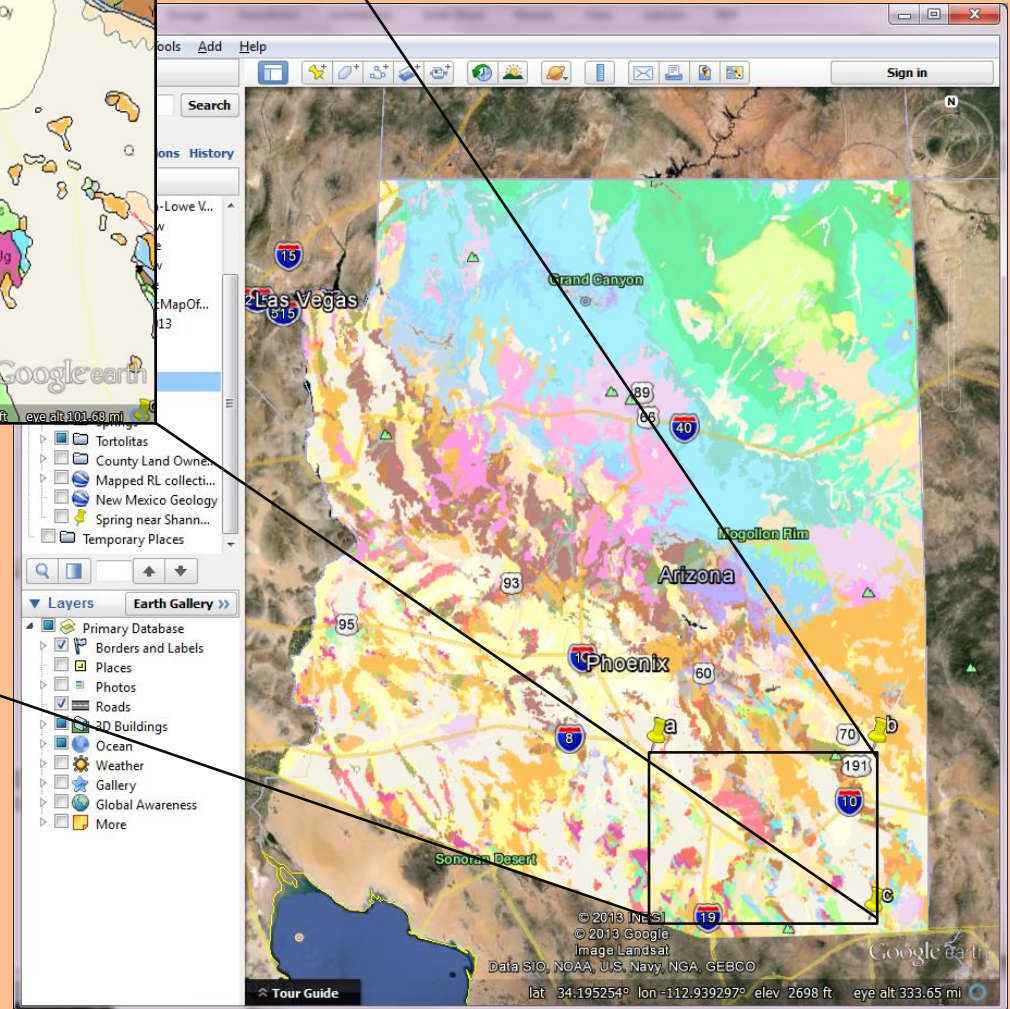
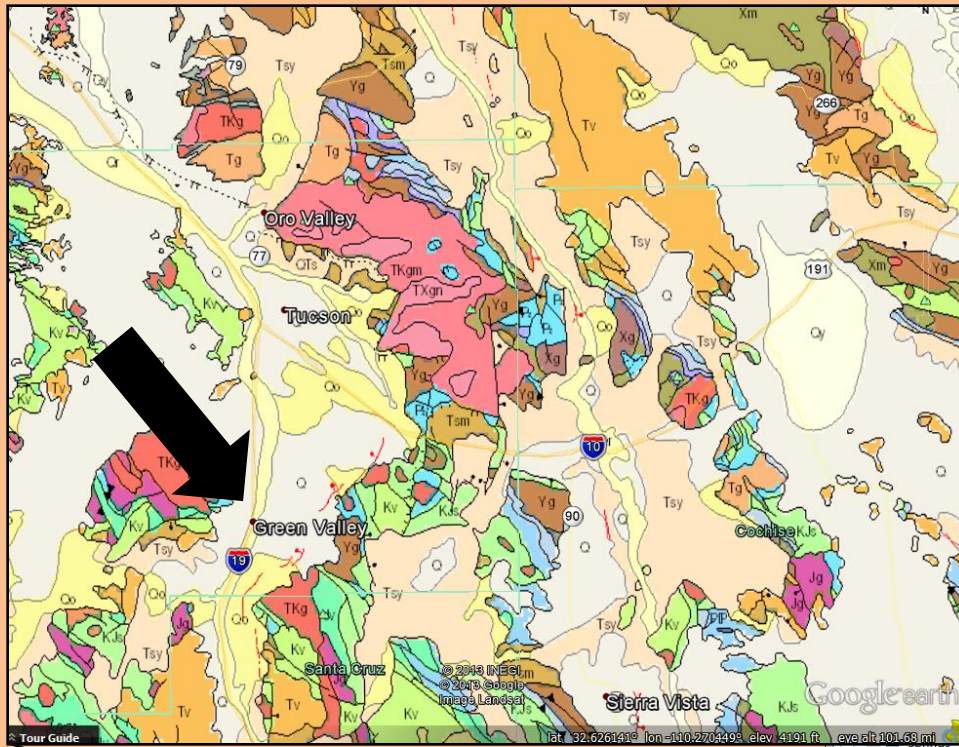


Aquilegia desertorum – desert columbind





# Arizona Has Plenty of Geological Diversity . . .



. . . Even Locally



## Arizona Plant Climate Zones



*Cirsium arizonicum* –Arizona thistle



University of Arizona  
College of Agriculture and Life Sciences



# What Does the Web Soil Survey Say?



Area of Interest (AOI) | Soil Map | **Soil Data Explorer** | Download Soils Data | Shopping Cart (Free)

View Soil Information By Use: All Uses

Intro to Soils | **Suitabilities and Limitations for Use** | Soil Properties and Qualities | Ecological Site Assessment | Soil Reports

**Search**

**Suitabilities and Limitations Ratings**

Open All | Close All

Building Site Development	?	⌵
Construction Materials	?	⌵
Disaster Recovery Planning	?	⌵
Land Classifications	?	⌵
Land Management	?	⌵
Military Operations	?	⌵
Recreational Development	?	⌵
Sanitary Facilities	?	⌵
Vegetative Productivity	?	⌵
Waste Management	?	⌵
Water Management	?	⌵

**Soil Map**

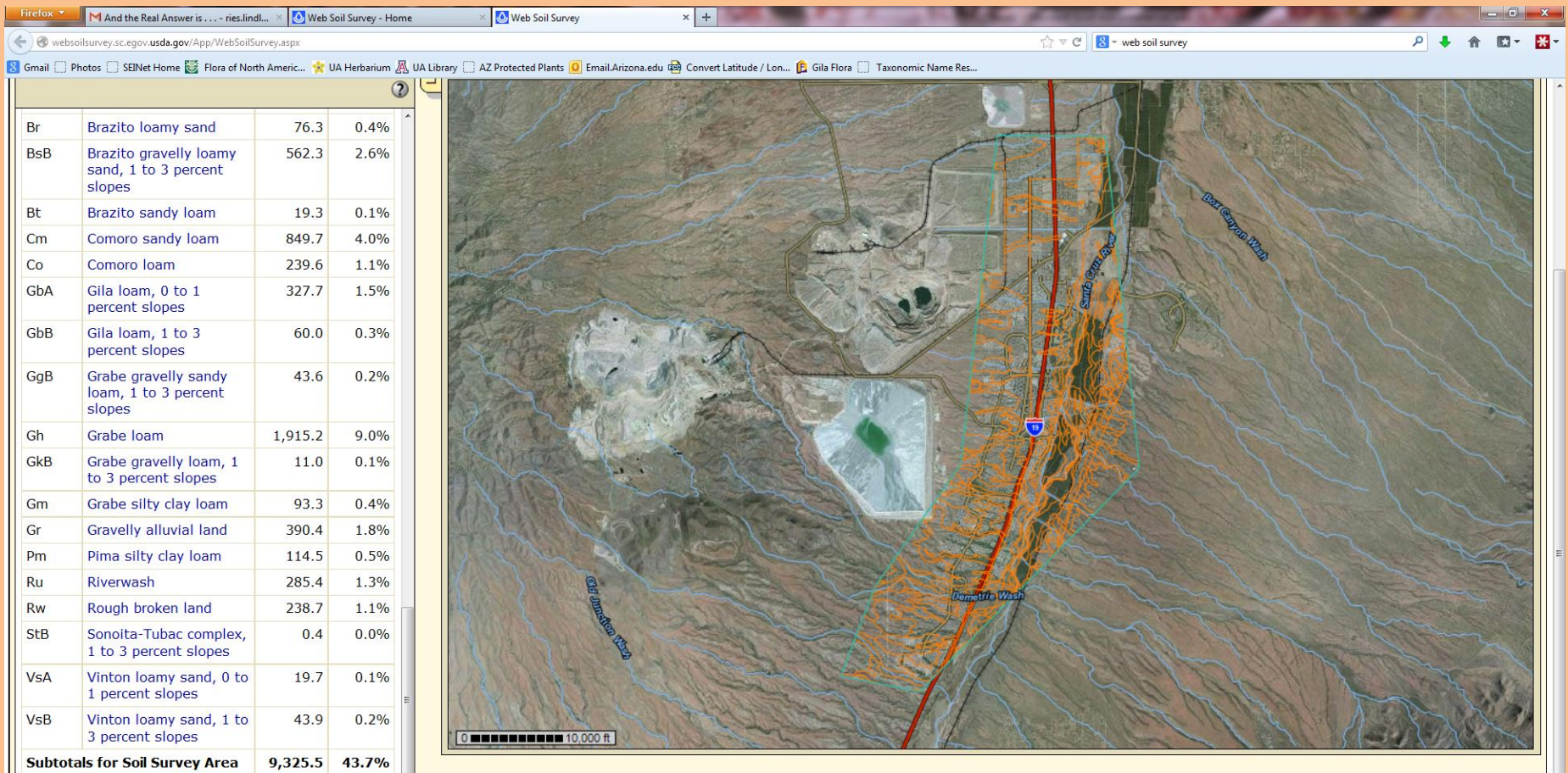
Legend | Scale (not to scale)

A satellite-style map showing a landscape with a river, fields, and a road. A red vertical line and an orange boundary outline a specific area of interest (AOI) on the right side of the map.

<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>



# Even in the urban area alone, there are lots of soil types





# Plenty of Ecological Sites



Firefox | And the Real Answer is... - ries.lindl... | Web Soil Survey - Home | Web Soil Survey | Insert PDF file content into a PowerP... | powerpoint insert pdf

websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Gmail | Photos | SEINet Home | Flora of North Americ... | UA Herbarium | UA Library | AZ Protected Plants | Email.Arizona.edu | Convert Latitude / Lon... | Gila Flora | Taxonomic Name Res...

### Ecological Sites

Open All Close All

#### All Ecological Sites

View All Ecological Sites Info

#### View Options

Dominant Ecological Site Map

Ecological Sites by Map Unit Component Table

#### Basic Options

Ecological Site Type Rangeland

View All Ecological Sites Info

#### R040XA106AZ — Limy Upland 10-13" p.z. Deep

This Ecological Site

- Exotic annuals and fire
- Exotic perennial grasses and fire
- Exotic perennial grasses with natives
- HCPC 2 - Saguaro state
- Historical Climax Plant Community
- Native plant community with exotic annuals
- Native trees, cacti, shrubs and fire

- R040XA108AZ — Limy Fan 10-13" p.z.
- R040XA110AZ — Limy Slopes 10-13" p.z.
- R040XA111AZ — Limy Upland 10-13" p.z.
- R040XA112AZ — Loamy Swale 10-13" p.z.
- R040XA113AZ — Loamy Slopes 10-13" p.z.
- R040XA114AZ — Loamy Upland 10-13" p.z.
- R040XA115AZ — Sandy Wash 10-13" p.z.
- R040XA116AZ — Sandy Upland 10-13" p.z.

Scale (not to scale)

0 10,000 ft

#### Table — Ecological Sites by Map Unit Component — Rangeland

Pima County, Arizona, Eastern Part

Map unit	Map unit name	Component name	Ecological site	Acres in	Percent of
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# 13 Pages of Historical Climax Plant Community



HistoricalPlantCommunity.pdf - Adobe Reader

File Edit View Window Help

2 / 13 143%

Tools Sign Comment

Page Thumbnails

9

10

11

12

13

Plant Species Composition (Lbs/Acre)				
Grass/Grasslike				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
1: Suffrutescent grasses			5	50
	black grama	<i>Bouteloua eriopoda</i>	0	15
	bush muhly	<i>Muhlenbergia porteri</i>	5	50
2: Subdominant perennial grasses			5	50
	purple threeawn	<i>Aristida purpurea</i>	0	20
	blue threeawn	<i>Aristida purpurea</i> var. <i>nealleyi</i>	0	20
	red grama	<i>Bouteloua trifida</i>	0	10
	fluffgrass	<i>Dasyochloa pulchella</i>	1	25
	spike pappusgrass	<i>Enneapogon desvauxii</i>	0	10
	hall panicgrass	<i>Panicum hallii</i>	0	5
	big galleta	<i>Pleuraphis rigida</i>	0	15
	slim tridens	<i>Tridens muticus</i>	0	10
3: Misc. perennial grasses			0	20
	desert needlegrass	<i>Achnatherum speciosum</i>	0	7
	parish threeawn	<i>Aristida purpurea</i> var. <i>parishii</i>	0	10
	spidergrass	<i>Aristida temipes</i>	0	20
	mesa threeawn	<i>Aristida temipes</i> var. <i>gentilis</i>	0	15

1:20 PM 3/12/2014

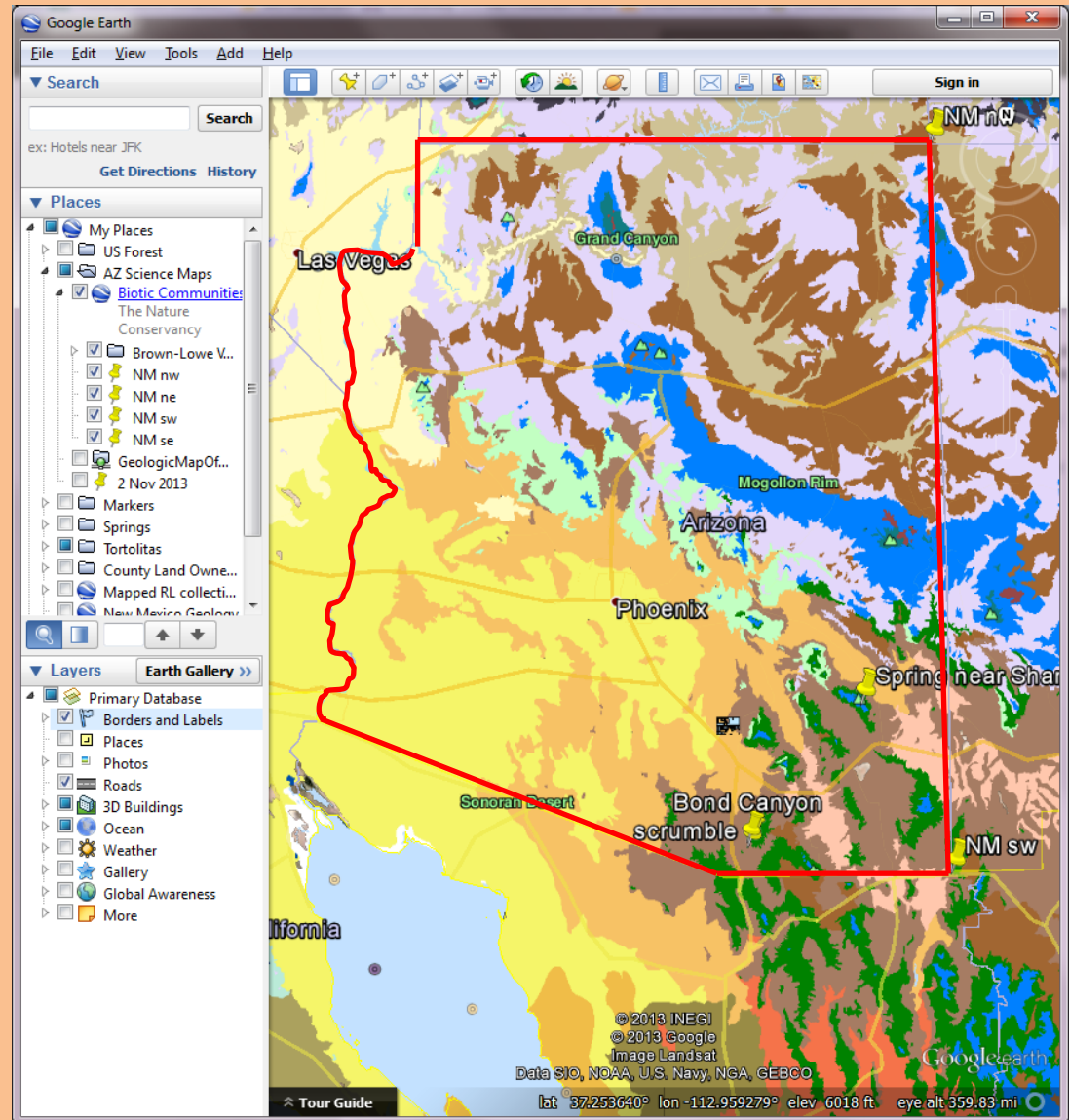


# Arizona is home to 4200 species of plants

There are about 18,700 species of plants in the US



- SONORAN DESERTSCRUB
- SEMIDESERT GRASSLAND
- CHIHUAHUAN DESERTSCRUB
- MOHAVE DESERTSCRUB
- GREAT BASIN DESERTSCUB
- INTERIOR CHAPPARAL
- MADREAN EVERGREEN WOODLAND
- PETRAN MONTANE CONIFER FOREST
- PETRAN SUBALPINE CONIFER FOREST
- GREAT BASIN CONIFER WOODLAND
- PLAINS AND GREAT BASIN GRASSLAND
- ALPINE TUNDRAS



<http://azconservation.org/downloads/category/gis>



# Welcome to SEINet

swbiodiversity.org/seinet/

SEINet is more than just a web site - it is a suite of data access technologies and a distributed network of departments, museums and agencies that provide environmental information. Initially created to integrate databases within the Arizona State University, SEINet is growing to extend this network to other partners within the Southwest.

Symphotrichium – prairie aster



Firefox | Slate Magazine - Politics, Business, Te... | SEINet Research Checklist: Arizona | SEINet - Proboscidea parviflora

swbiodiversity.org/seinet/taxa/index.php?taxauthid=1&taxon=1487&cl=1

Gmail | Photos | SEINet Home | Flora of North Americ... | UA Herbarium | UA Library | AZ Protected Plants | Email.Arizona.edu | Converter

## SEINet

Southwest Environmental Information Network

***Proboscidea parviflora*** (Woot.) Woot. & Standl. [↗](#)

Go to [Encyclopedia of Life...](#)

Family: Martyniaceae


doubleclaw, more...

[*Martynia parviflora* Woot., more]


VPAP treatment

**CANOTIA 3(2)**


**PLANT:** Erect or spreading annual to 2.5 m across and 1 m high. **LEAVES:** simple; petioles to 25 cm long or more; blades broadly triangular-ovate to subobicular-ovate, cordate or inequilateral, rounded to obtuse at apex, to 25 cm long and nearly as broad, the margins entire to shallowly 3- to 7-lobed, the sinuses obtuse, denticulate. **INFLORESCENCE:** slender racemes to 2.5 dm long at maturity. **FLOWERS:** 5-15 per inflorescence; pedicels 1.5-3 cm long in anthesis, lengthening in fruit to about 45 mm; pedicel bract obovate to oblanceolate, 3-5 mm long; calyx bracts ovate to elliptic 3-5 mm wide; calyx 1-1.5 cm long, the lobes unequally cut one fourth to one half its length; corolla tubular-campanulate, only slightly ventricose, 2.5-4 cm long, viscidglandular without and slightly so within; corolla tube reddish-purple, pink, or white, with a bright yellow band extending along the lower portion of tube and out onto lower lobe; corolla lobes the same color as the tube but the upper lobes frequently with a single large purple or reddish-purple blotch.




Max Licher




Max Licher




Max Licher



Frankie Coburn



Frank Rose



[Open Interactive Map](#)

[More Images](#) | [Web Links](#) | [View Parent Taxon](#) | [Close window](#)



SEINet - Coordinate Mapper - Mozilla Firefox

swbiodiversity.org/seinet/collections/mapboundingbox.php

Click once to start drawing and again to finish rectangle. Click on the Submit button to transfer Coordinates.

Northern Lat:  Eastern Long:

Southern Lat:  Western Long:



Home >> Collections >> Search Criteria >> Specimen Records

Species List    Specimens    Maps

Taxonomic Filter: Raw Data

**Taxa Count: 1103**

**ACANTHACEAE**

- Anisacanthus thurberi*
- Carlwrightia arizonica*
- Elytraria imbricata*
- Ruellia nudiflora*
- Tetramerium hispidum*
- Tetramerium nervosum*

**ADOXACEAE**

- Sambucus nigra ssp. caerulea*

**AIZOACEAE**

- Trianthema portulacastrum*

**AMARANTHACEAE**

- Amaranthus biitoides*
- Amaranthus firmbratus*
- Amaranthus hybridus*
- Amaranthus palmeri*
- Amaranthus torreyi*
- Amaranthus x tucsonensis*
- Atriplex*
- Atriplex canescens*
- Atriplex elegans*
- Atriplex fasciculata*
- Atriplex polycarpa*
- Atriplex rosea*
- Atriplex thornberi*
- Brayulinea densa*
- Chenopodium*
- Chenopodium berlandieri var. sinuatum*
- Chenopodium fremontii*
- Chenopodium graveolens*
- Chenopodium incanum*
- Chenopodium palmeri*
- Chenopodium pratericola*
- Froelichia arizonica*
- Gomphrena caespitosa*
- Gomphrena nitida*
- Gomphrena sonora*
- Guilleminea densa*
- Guilleminea densa var. densa*
- Iresine heterophylla*
- Monolepis nuttalliana*
- Salsola iberica*
- Salsola kali*
- Tidestromia lanuginosa*



Parry penstemon

1103 species of plants have been collected and documented within a few miles of Green Valley



With all this diversity, why do we buy plants outside our biotic community?



*Asclepias asperula*

Spider milkweed

Is it because non-natives just have some certain *je nais se quoi*?



Derek Ramsey Wikimedia Commons



# Expectations: having them is good, keeping them real is even better

What you're sold



What you get





**Which grass is native and which is an invasive exotic?**





# Bull Muhly

*Muhlenbergia emersleyi*

According to High Country Gardens: “It thrives in most any soil as long as the drainage is good. It loves a full sun position in the garden but will do well in partial shade if it gets a half day of sun.”

<http://www.waterwisegardening.com/archives/1186>





# Deer Grass

*Muhlenbergia rigens*

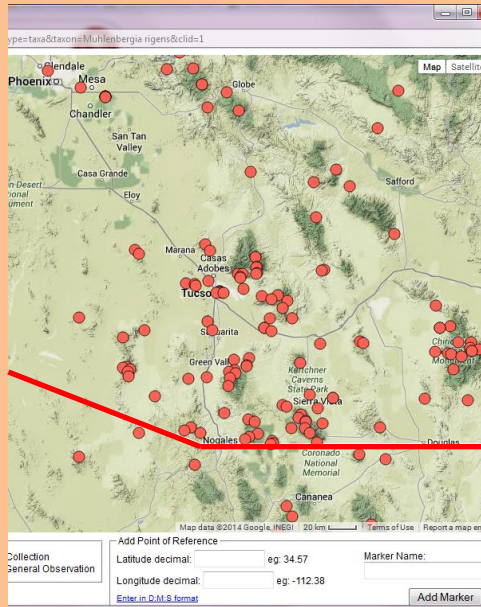


Photo by Max Licher



# Spike Dropseed

*Sporobolus contractus*

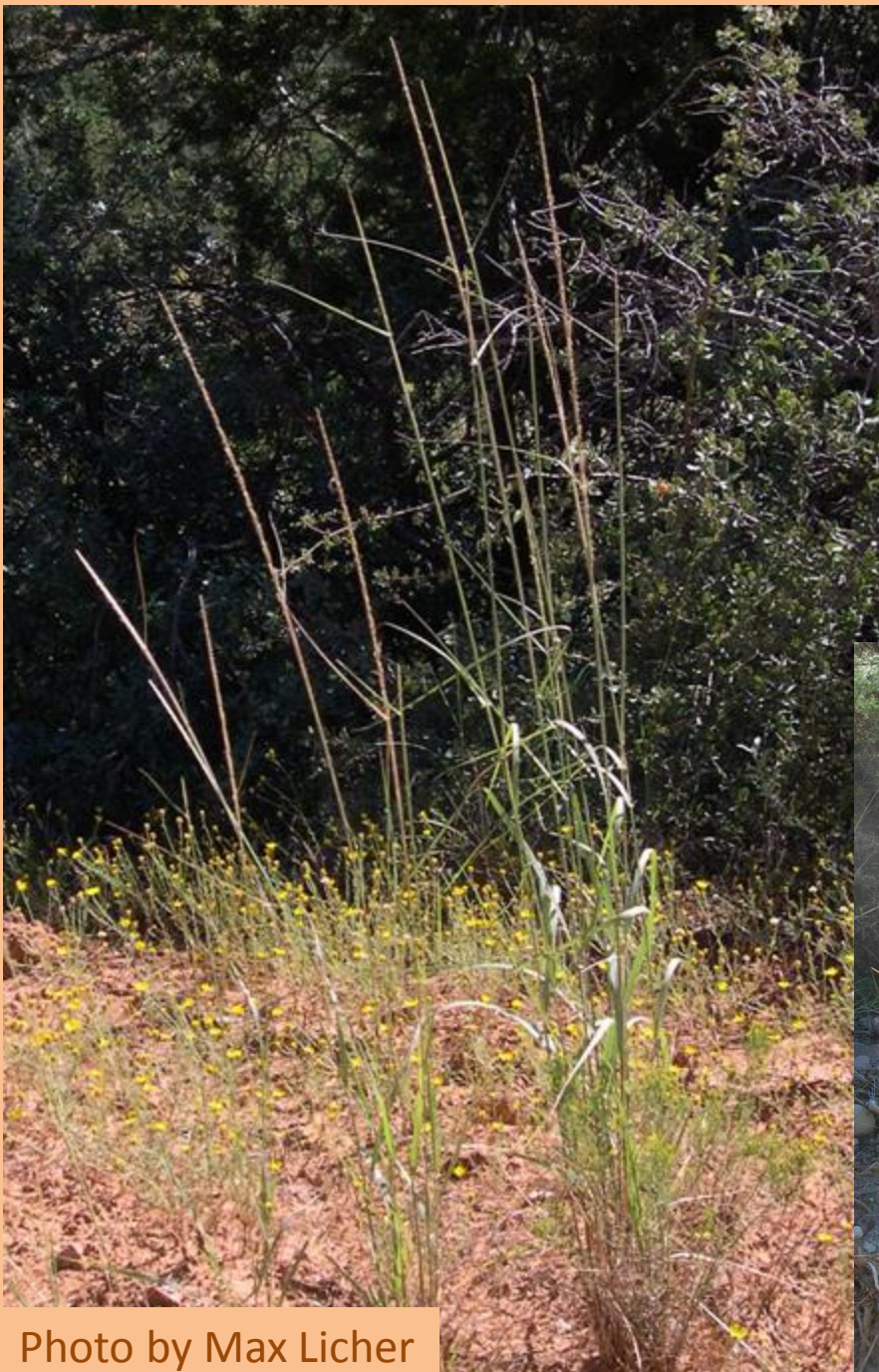
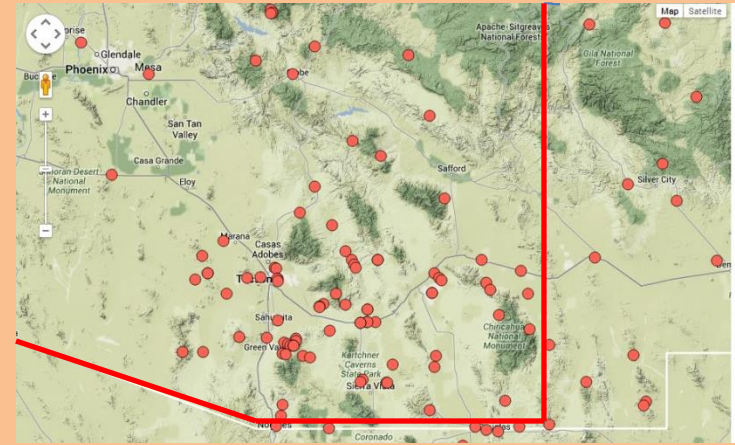


Photo by Max Licher







So what's the problem?  
Are natives boring?  
Not enough color?  
Not enough variety?



Arizona claret cup



Scarlet hedgehog

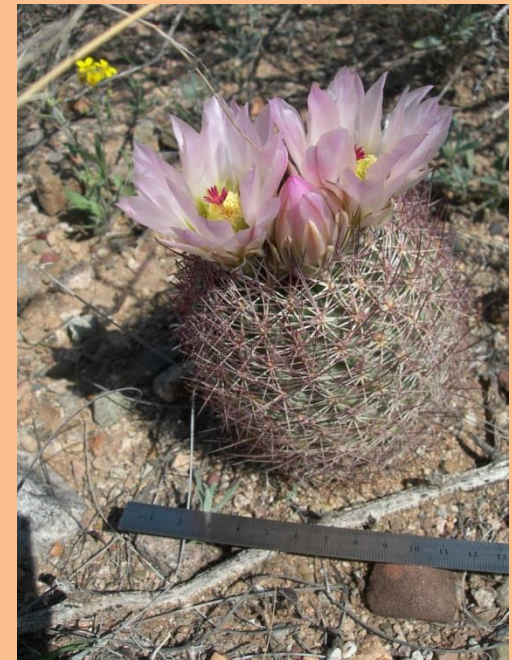


pinkflower hedgehog





Are there any stumpy  
cactus in other colors?  
Too white?  
Too yellow?



Doesn't bloom enough?



# Need it to bloom all year?

## We have that too



Hibiscus coulteri – desert rosemallow

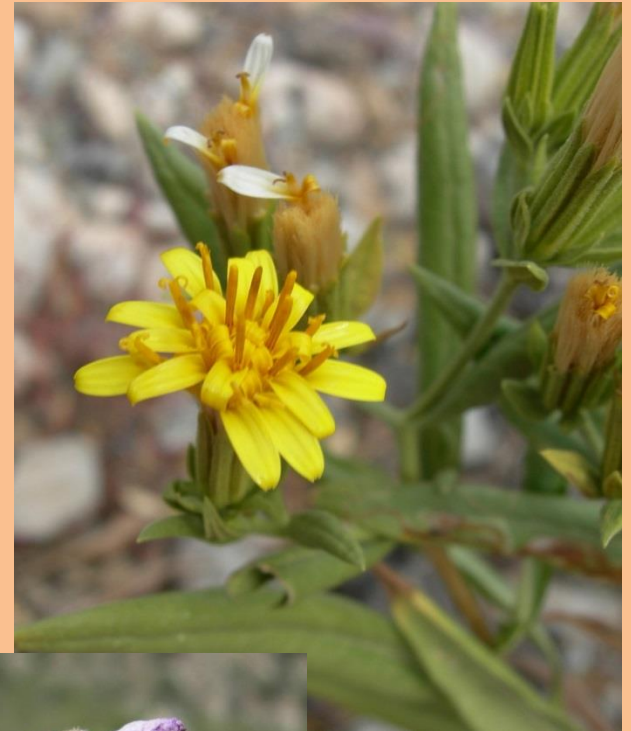


Glandularia gooddingii – goodding verbena

Eriogonum brachypodum  
Eriogonum deflexum  
Eriogonum trichopes  
Castilleja lanata  
Nicotiana glauca  
Glandularia gooddingii  
Larrea tridentata  
Eleocharis radicans  
Argemone polyanthemus  
Stellaria media  
Lobularia maritima  
Bidens pilosa  
Eleocharis flavescens  
Eleocharis montana  
Loeselia glandulosa  
Barkleyanthus salicifolius  
Ricinus communis  
Cerastium fontanum  
Cerastium glomeratum  
Coreopsis tinctoria  
Waltheria indica  
Sphaeralcea ambigua  
Lagascea decipiens

Justicia californica  
Mesembryanthemum crystallinum  
Froelichia arizonica  
Tidestromia suffruticosa  
Cynanchum arizonicum  
Baccharis sergiloides  
Bebbia juncea  
Calyptocarpus vialis  
Conyza bonariensis  
Psathyrotes ramosissima  
Psilostrophe cooperi  
Stephanomeria pauciflora  
Trixis californica  
Heliotropium curassavicum  
Bulbostylis juncoides  
Chamaesyce melanadenia  
Chamaesyce pediculifera  
Chamaesyce polycarpa  
Phaseolus filiformis  
Hyptis emoryi  
Hibiscus coulteri  
Argemone gracilentia  
Pleuraphis mutica

*Trixis californica* – American threefold



## More all-year bloomers



*Bebbia juncea* - sweetbush



*Sphaeralcea ambigua* – desert globemallow



# Gardening is elementary

Some of the elements are:

- Light
- Contrast
- Texture
- Pattern
- Rhythm
- Form
- Scale
- Beauty
- Perception



*Datura discolor* – desert thorn-apple



# Light: let nature do the work



Scarlet hedgehog



# Contrast



*Fraxinus velutina* – velvet ash



# Texture, pattern, and rhythm



*Echinocereus arizonicus* – Arizona claret cup



# Texture, pattern, and rhythm



Arctostaphylos - manzanita



Opuntia phaeacantha – brownspine prickly pear



# Form may be provided by the landscape



marble, a metamorphic limestone





granite



shale



# Or by plants



*Populus fremontii* – Fremont cottonwood



*Acacia greggii* – catclaw acacia



*Yucca schidigera* – Mohave yucca





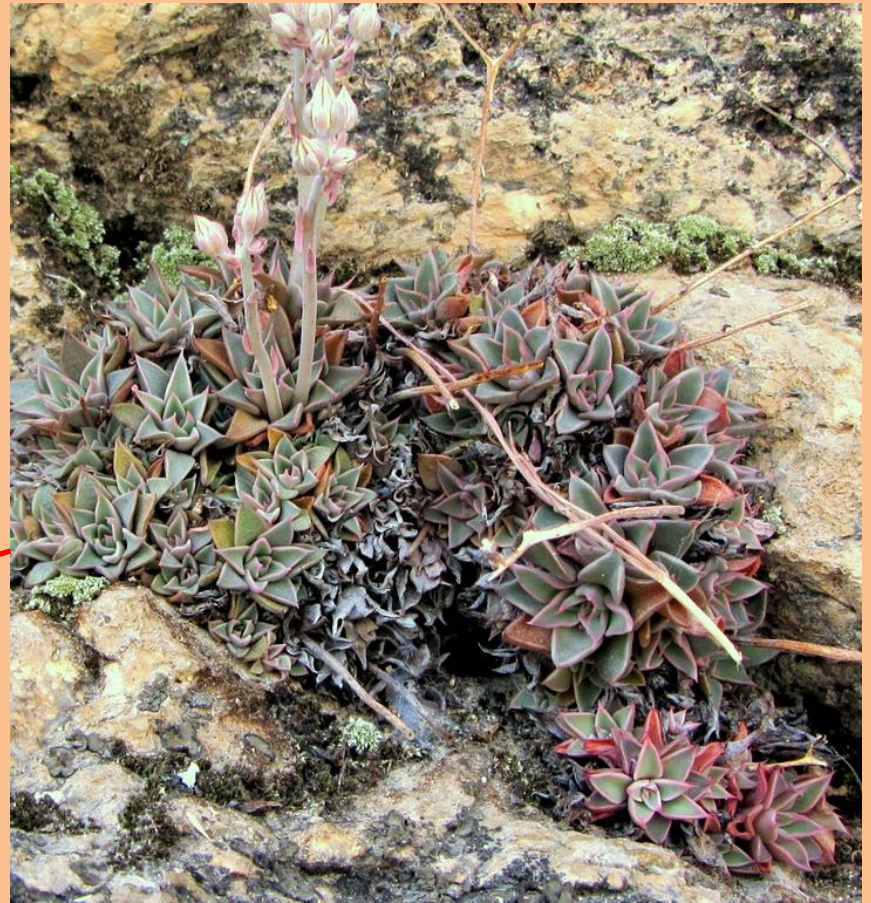
## Scale







**One form for a big garden**



**The same for a smaller garden**

San Francisco River leatherpetal





Portulaca unbraticola

**Flowers don't  
need to be big  
to be beautiful**



Bouteloua chondrosioides - Sprucetop gramma



# Things to remember

**There are plants without flowers, and they are still beautiful**







**All that grows is  
not a plant**



**Beauty is where  
you find it**





# Is it really native?

## A few squishy rules to live by

1. Find out the scientific name
2. Look it up in SEINet
3. Look it up in the USDA Plants Database
4. Make the call



**Honey Mesquite**

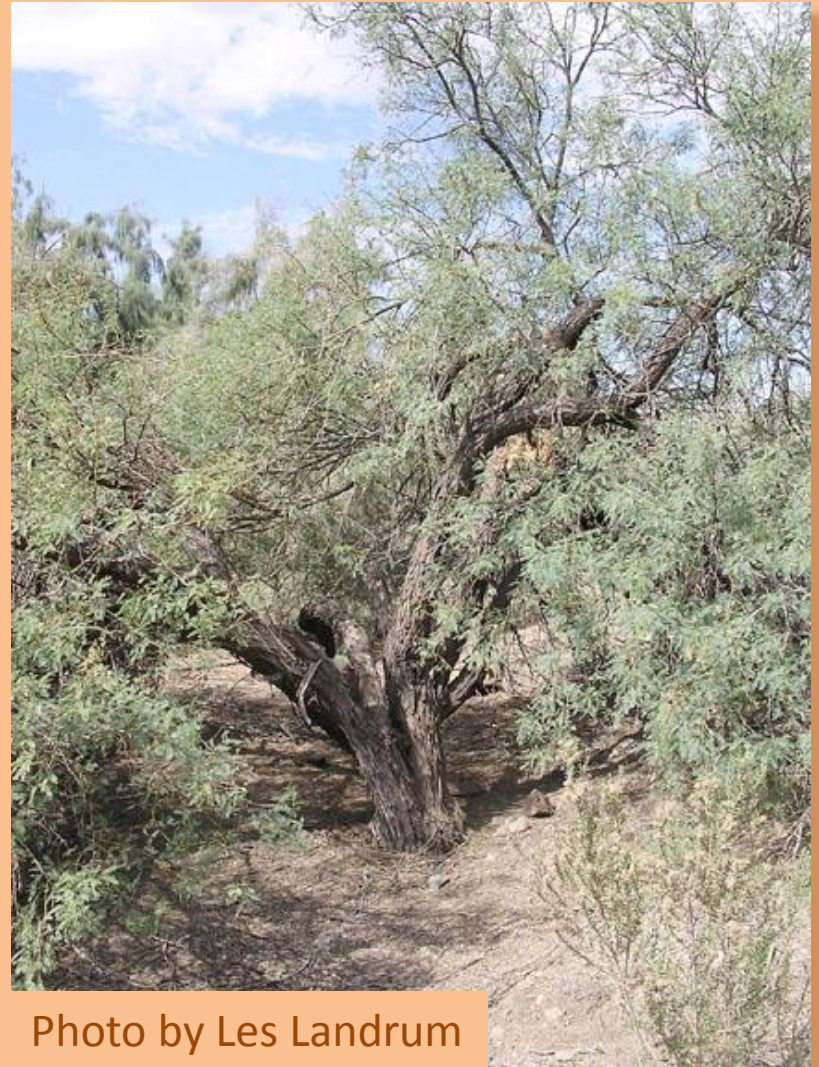


Photo by Les Landrum



[Home](#) > [Arizona Flora](#) > [Arizona](#)

## Arizona Games

### Authors:

**Publication:** Compilation of Vascular Plants of Arizona Project, Flora of North America, and information found Arizona Collection Herbaria

[More Details](#)

Families: 1

Genera: 1

Species: 1 (species rank)

Total Taxa: 1 (including ssp. and var.)

### FABACEAE

*Prosopis glandulosa* var. *torreyana* - western honey mesquite

#### Options

Search: honey mesquite

- Common Names
- Synonyms

#### Filter:

Original Checklist

- Common Names
- Display as Images
- Notes & Vouchers
- Taxon Authors

Rebuild List



Check the box for “Common Names”

Then type in the common name







***Prosopis juliflora* var. *torreyana*** L. Benson (redirected from: *Prosopis glandulosa* var. *torreyana*)

Go to [Encyclopedia of Life...](#)

Family: Fabaceae

Western Honey Mesquite, [more...](#)

[*Prosopis glandulosa* ssp. *torreyana*  
(L.D.Benson) E.Murray, [more](#)]

Plants of Gila Wild

Western New Mexico University Department of Botany  
the Dale A. Zimmerman Herbarium

: The flowers are light yellow in drooping spikes and somewhat constricted fruits. The fruits consist of an outer covering (hull or exocarp) with somewhat a waxy material (called the mesocarp) coating a white to yellow covering around a brown seed. The leaves are usually bipinnate each having up to 30 leaflets. At the base of each pinnae can be found a small extra floral nectary. *Prosopis glandulosa* var. *torreyana* grows at lower to middle elevations in any habitat.



L. R. Landrum



L. R. Landrum



L. R. Landrum



Robert Sivinski



[Open Interactive Map](#)

Click here . . . and here to expand all the common names as well as the scientific names





**Search**  
Name Search  
**prosopis glandulosa**  
Scientific Name

- State Search
- Advanced Search
- Search Help

**PLANTS Topics**

- Alternative Crops
- Characteristics
- Classification
- Cover Crops
- Culturally Significant
- Distribution Update
- Documentation
- Fact Sheets & Plant Guides
- Introduced, Invasive, and Noxious Plants
- Threatened & Endangered
- Wetland Indicator Status

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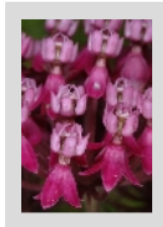
**Download**

- Complete PLANTS Checklist
- State PLANTS Checklist
- Advanced Search Download
- Symbols for Unknown Plants
- NRCS State GSAT Lists

You are here: Home/

The PLANTS Database provides standardized information about the vascular plants, mosses, liverworts, hornworts, and lichens of the U.S. and its territories.

### Plant of the Week



swamp milkweed  
*Asclepias incarnata* L.

Click on the photo for a full plant profile.

### Spotlights

You are here: Home/

**GENERAL**

**Carex chero**

**Redesigned profile pages: Tabs**  
PLANTS has redesigned its profile pages for species and genera, now presented in tabs instead of across one large page. Your feedback has helped us improve our new design, and we welcome your additional input.



**2013 National Wetland Plant List**  
The wetland indicator status ratings from the 2013 National Wetland Plant List (NWPL) are now on our species profile pages and are fully searchable.



**Pocket Guide to Sagebrush**  
Funded partly by NRCS, a new guide to sagebrush is available. Written by Leila Shultz and produced by SageSTEP, this guide covers the characteristics, distribution, and habitats of 18

### I Want To...

- See a list of the plants in my state
- Learn about the wetland plants in my region
- Learn about all the endangered plants of the U.S.
- Learn about noxious and invasive plants
- Search for and view images of plants
- Read and print abstracts about important conservation plants
- Download data or posters
- Contribute plant distribution information to PLANTS
- Get ecological descriptions of sites from around the country
- View the USDA Plant Hardiness Zone Map

### I Want Help

- Introduction to PLANTS
- Frequently Asked Questions
- Citing the PLANTS Database
- Conditions of Image and Data Use



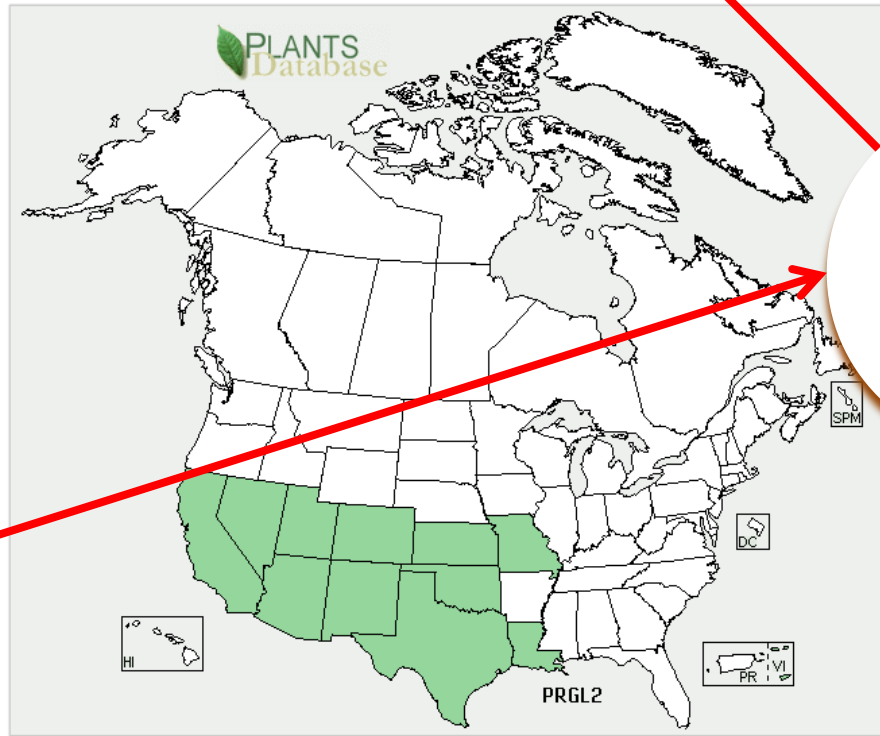
This plant is native in the lower 48 and introduced in Hawaii and the Virgin Islands

You are here: Home / Plant Profile

*Prosopis glandulosa* Torr.  
honey mesquite



General Information	
Symbol:	PRGL2
Group:	Dicot
Family:	Fabaceae
Duration:	Perennial
Growth Habit:	Tree Shrub
Native Status:	VI I HI I L48 N
Plant Guide (pdf) (doc)	
<a href="#">Data Source and Documentation</a>	



Show Tabs

VI I  
HI I  
L48 N

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  - NRCS State GSAT Lists
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  - Crop Nutrient Tool
  - Ecological Site Information

Present  Absent/Unreported



# Arizona Native Plant Society



- Visit us on facebook
- Get on the email list
- Come to a meeting
- Get involved

**Grow Native!**  
aznps.com

