

Botany 2020 Symposium Agenda

1. Keynote: Major Arizona Eco-regions/ Biotic Communities
Wendy Hodgson

2. Blurring the Borders: Cool Plants of the Arizona–Sonora Frontera
Sue Carnahan

3. Floristic Diversity in the Sky Islands of Southern Arizona
Jack Dash

4. Woody Plants of the Mogollon Highlands
Carl & Joan Tomoff

5. Living the Vida Flora on Arizona's West Coast
Karen Reichhardt
and Val Morrill



6. The Sacred and the Beautiful: Portraits of a Few Iconic Northern Arizona Plants
Andrea Hazelton

7. The Sonoran Desert: Land of Tall Cacti and Small Trees
Philip Brown

8. Partnerships and Betrayal: Plant/Insect Interactions
Jillian Cowles

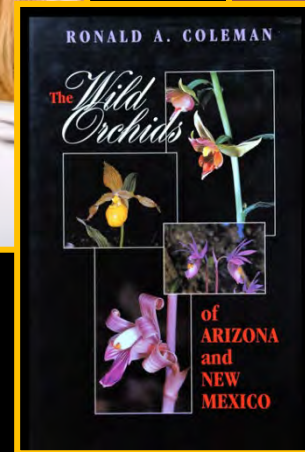
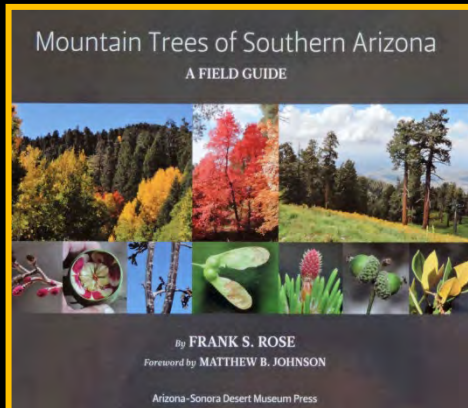
9. Birds and Native Plant Relationships
Rich Hoyer

10. Summary of Symposium and Short Summary of Arizona Native Plant References
Doug Ripley

11. Activities and Contacts for AZNPS Chapters
Chapter Representatives

Arizona Native Plant Society Botany 2020 Symposium

**Where Can I Find Good Information to Identify Arizona Native Plants?
A summary of Some Arizona Native Plant References and Field Guides**



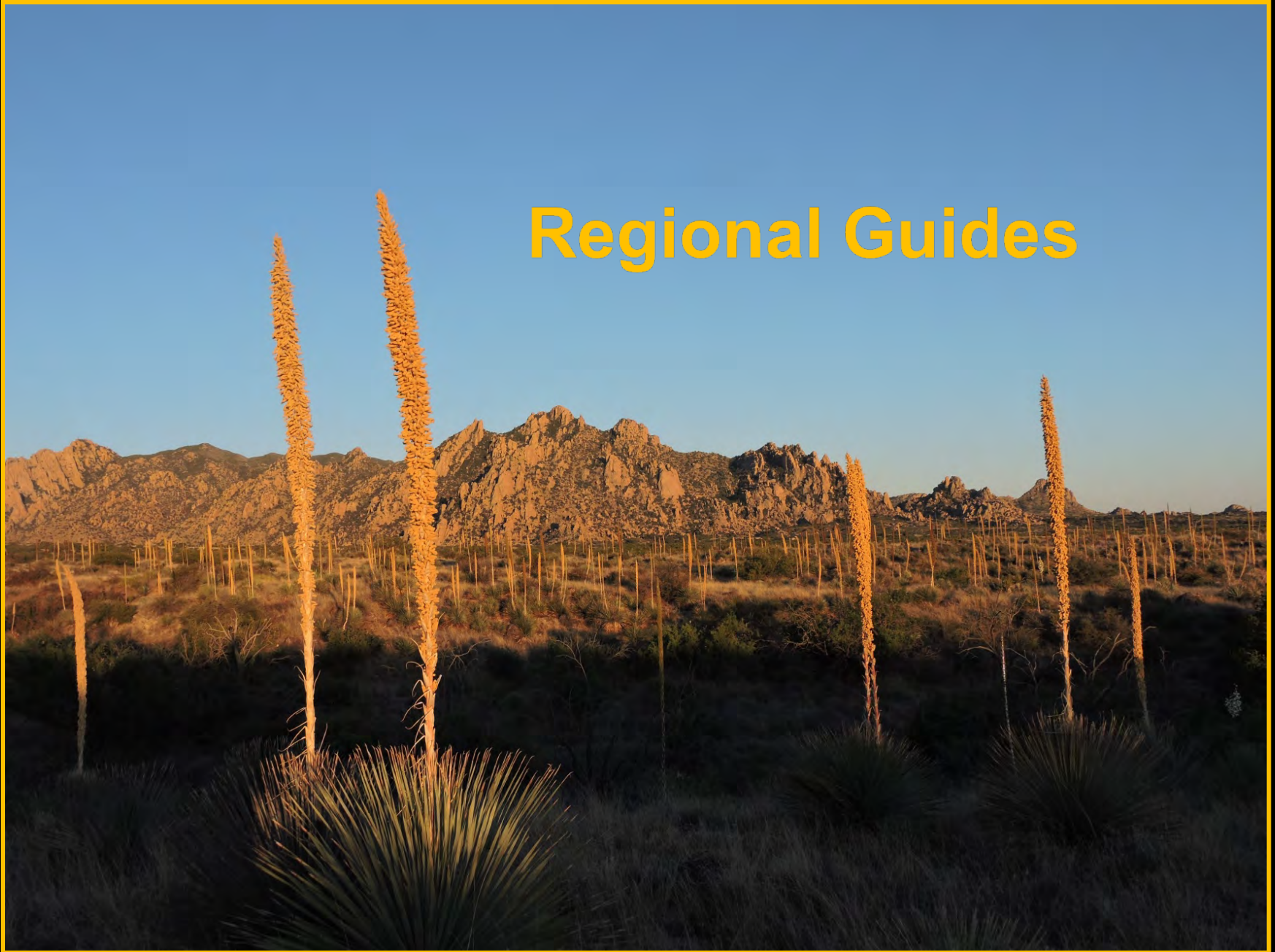
**Douglas Ripley
Arizona Native Plant Society
Cochise Chapter**

A photograph of a desert landscape with several tall, thin, reddish-brown plants with clusters of bright red flowers. The background shows a dry, grassy field under a cloudy sky. The text is overlaid on the right side of the image.

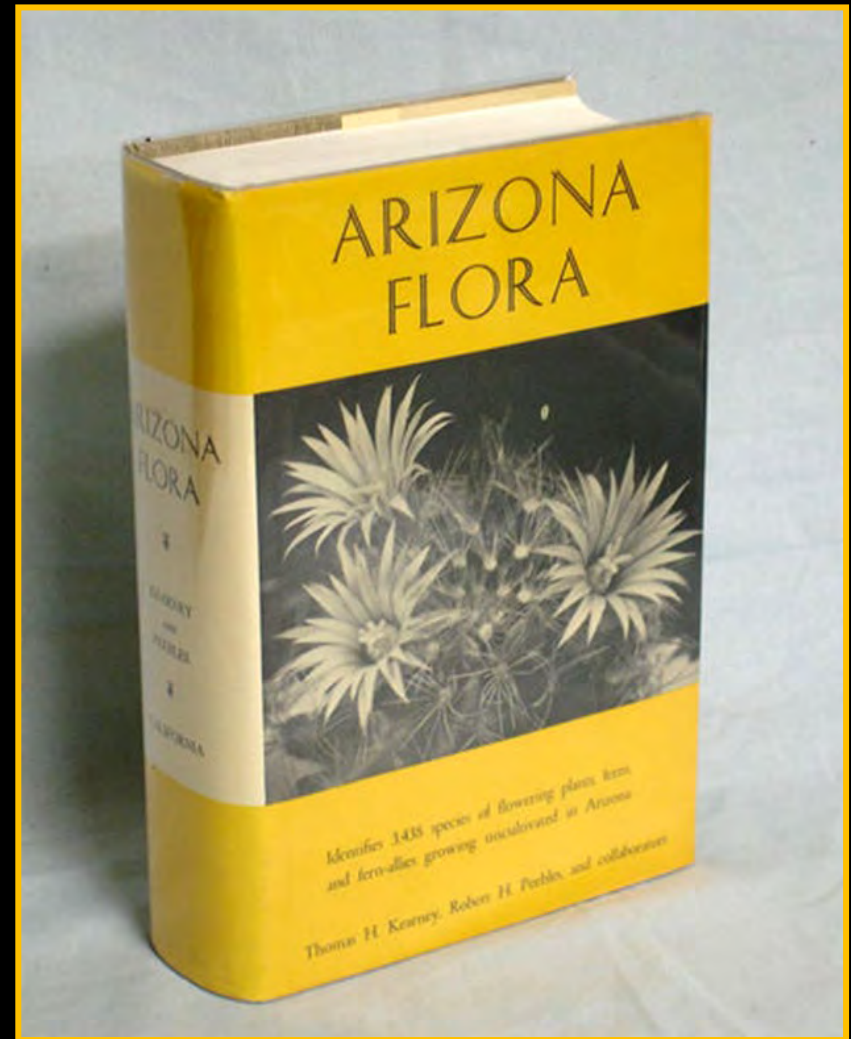
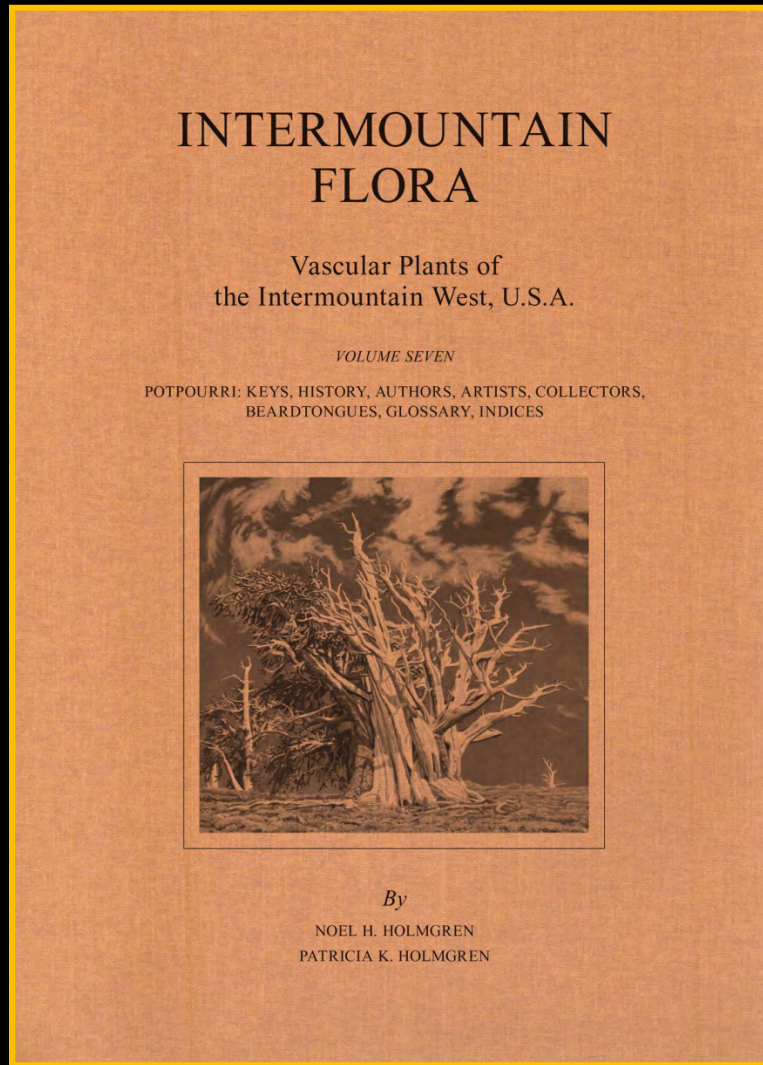
Arizona Native Plant Identification References

- Regional Guides
- Individual Plant Group Guides
- Local Floras
- On Line and Electronic Resources
- Herbaria

Regional Guides

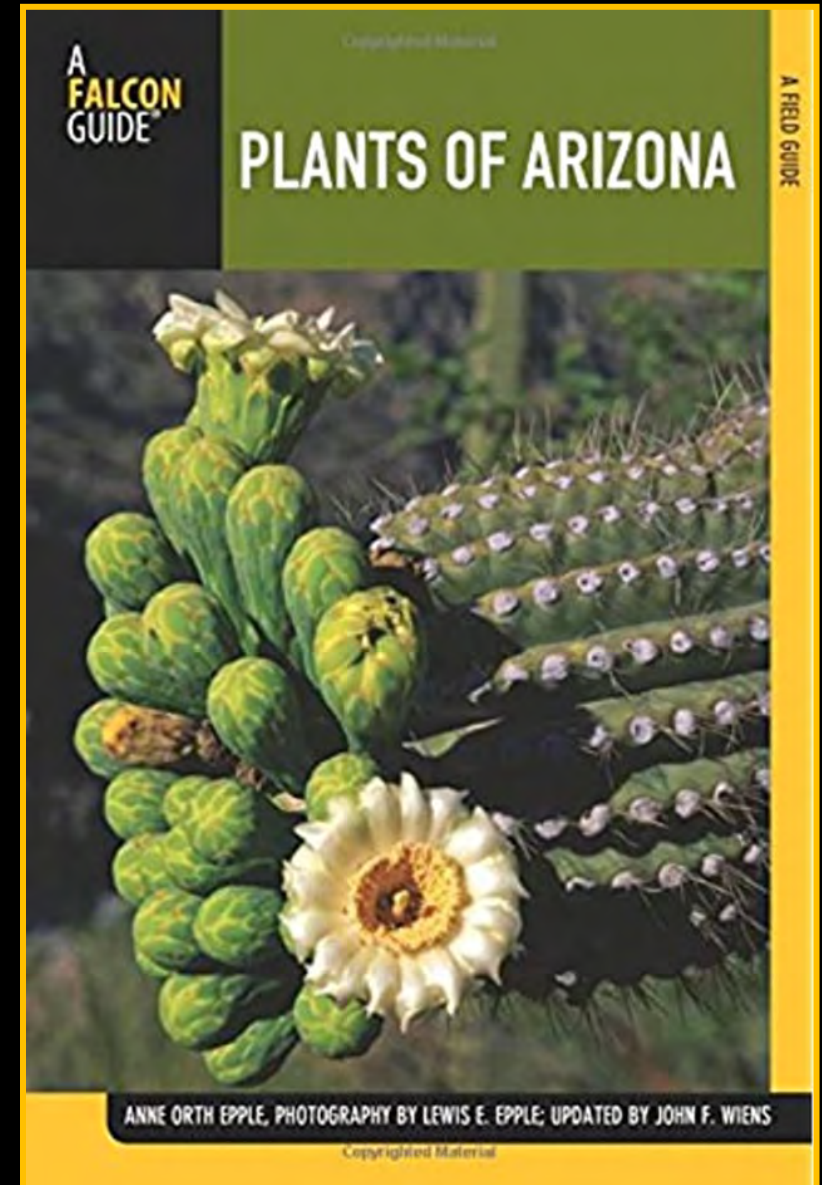
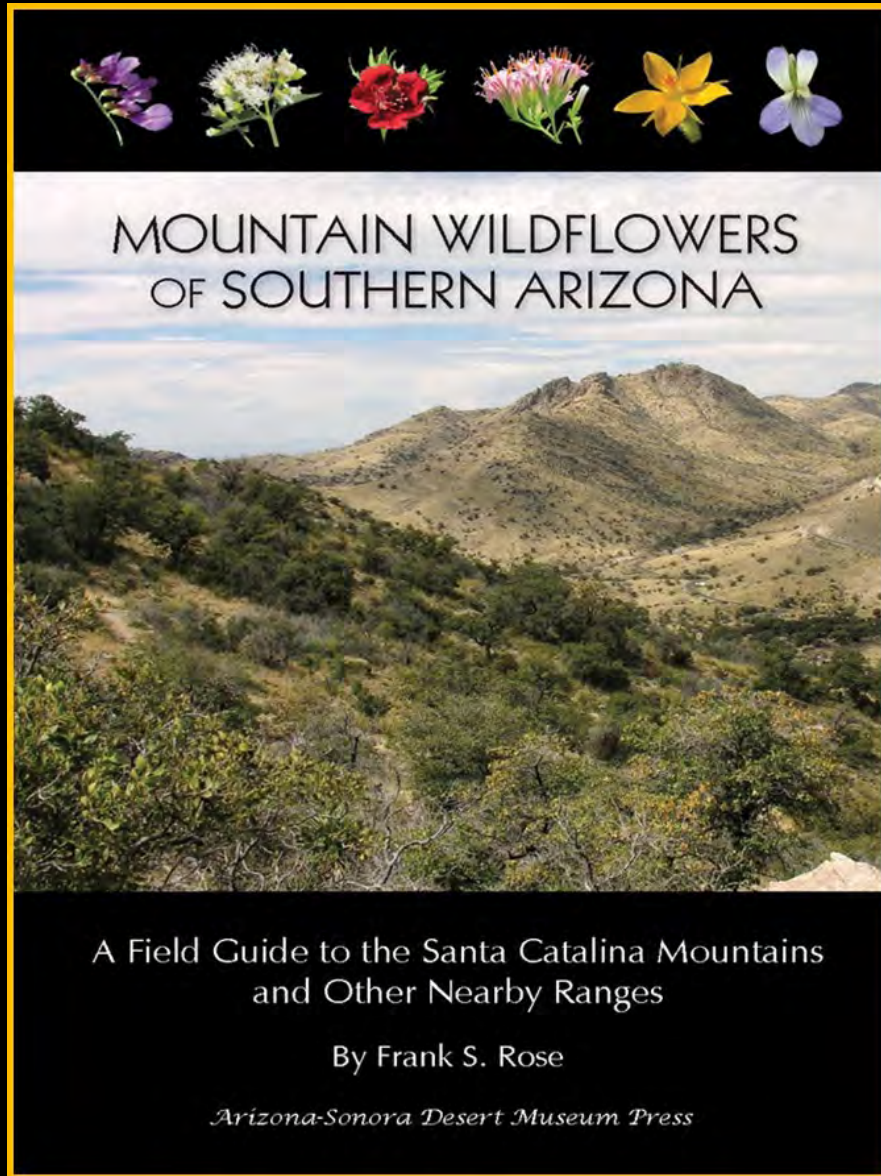


Regional Guides



Kearney and Peebles (1969)

Regional Guides



Regional Guides



WOODY PLANTS OF THE MOGOLLON HIGHLANDS

A field guide and
botany companion

Carl and Joan Tomoff



NATURAL
HISTORY
INSTITUTE



Claret Cup Hedgehog
Echinocylindrus coccineus



This highly variable **mounding cactus** has few to many green to blue-green stems. Growing in a crowded cluster about **six inches** (15 cm) tall, each stem reaches up to **2.5 inches** (6 cm) across, with **nine to 10 ribs**. Spines are pale gray to tan, up to **2.5 inches** (6 cm) long, sometimes dense and sometimes sparse.



Spinstars typically grow in **clusters**. To learn more about these formations, visit page 111.

Spinstar
Escobaria viriparia



Usually growing in **clusters** about six inches (15 cm) tall, the stems are green to blue-green globes or cylinders, usually less than **two inches** (5 cm) across. Their surface is covered by **tubercles**, each bearing numerous **white radial spines** and fewer darker **central spines**.



Regional Guides



GUIDE TO THE PLANTS OF Arizona's White Mountains

George C. West
WITH CONTRIBUTIONS BY Julie Hammonds
FOREWORD BY Ellen L. West

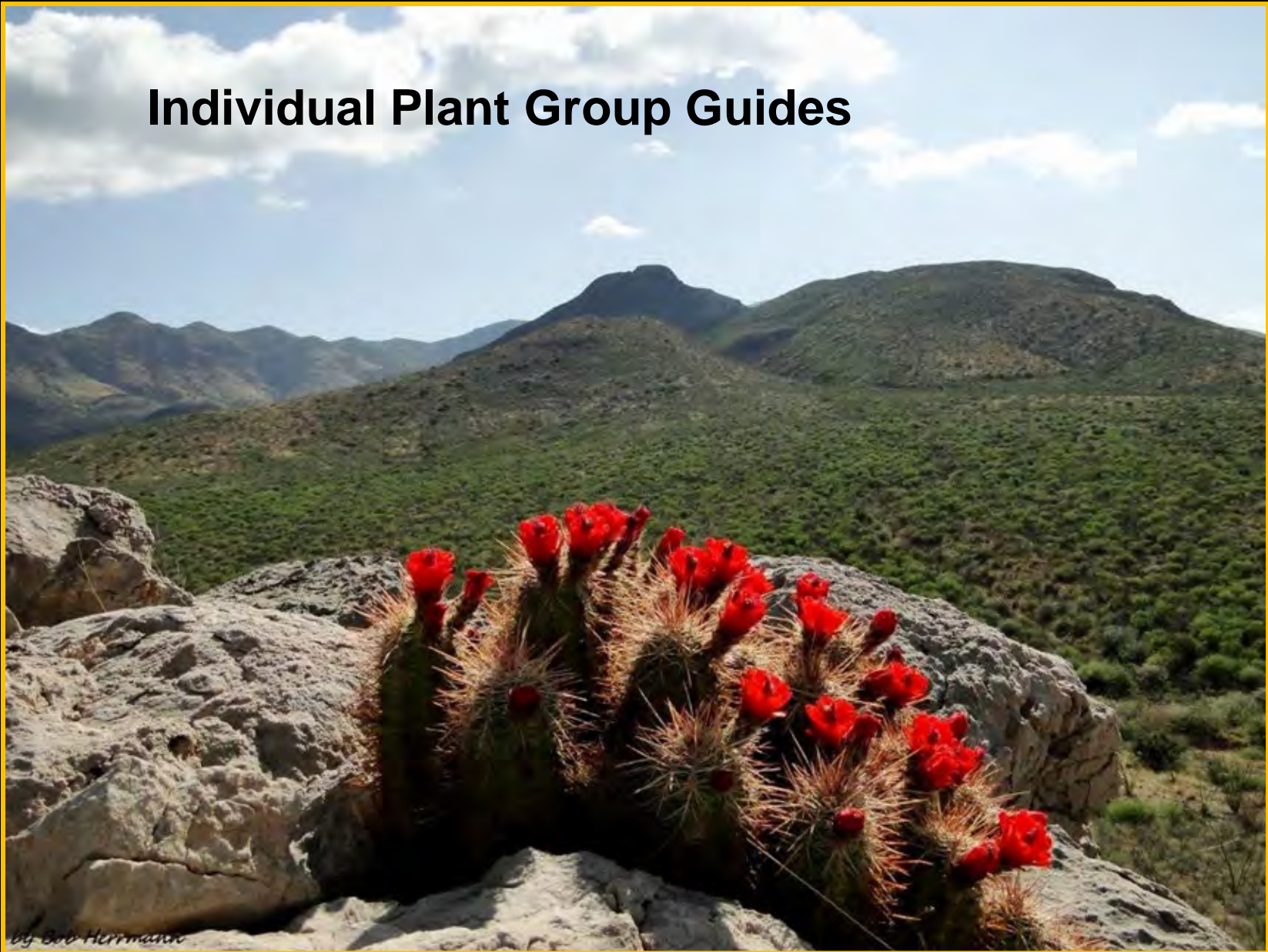


The Natural History of the San Francisco Peaks

A Sky Island of the American Southwest

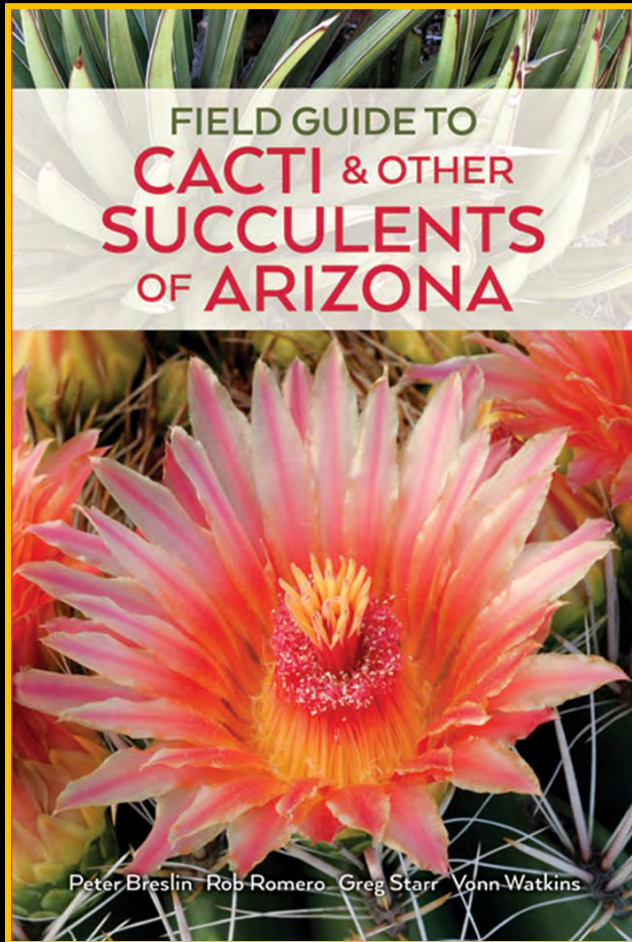
GWENDOLYN L. WARING, PH.D.

Individual Plant Group Guides



by Bob Herrmann

Individual Plant Group Guides



Individual Plant Group Guides

Mountain Trees of Southern Arizona

A FIELD GUIDE



By **FRANK S. ROSE**

Foreword by **MATTHEW B. JOHNSON**

Arizona-Sonora Desert Museum Press

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Hummingbird Plants *of the Southwest*



Individual Plant Group Guides

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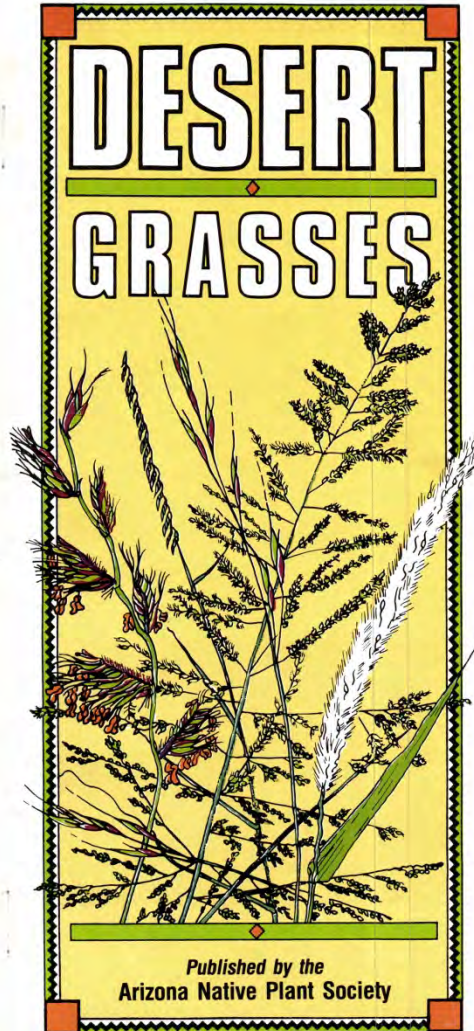
For information on other desert plant brochures in this series
and to order additional **Desert Grasses** booklets, contact:
Arizona Native Plant Society, P.O. Box 41206, Sun Station,
Tucson, Arizona 85717.

Cover design by Margaret Pope



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Available from AZ
Native Plant Society

arizonanativeplantsociety@gmail.com

Also Available:
"Desert Trees"

Local Floras



Local Floras

CANOTIA VOLUME 16

Diversity in a Grassland: Flora of the Salero Ranch, Santa Cruz County, Arizona

Susan Davis Carnahan 1



Published online April 2020
Vascular Plant Herbarium
School of Life Sciences
Arizona State University

DIVERSITY IN A GRASSLAND: FLORA OF THE SALERO RANCH, SANTA CRUZ COUNTY, ARIZONA

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University of Arizona Herbarium
Tucson AZ 85721
scarnahan@email.arizona.edu

ABSTRACT: A vascular flora and annotated checklist are provided for the Salero Ranch, some 6500 hectares of private land in central Santa Cruz County, Arizona. The study area has a history of silver mining and cattle grazing dating back hundreds of years. It is located in the Madrean Sky Islands region near the U.S.–Mexico border and includes parts of the Grosvenor Hills and the foothills of the Santa Rita Mountains. The elevation varies from 1150 to 1934 m, a range of 784 m, and the terrain is rocky, sloped, fractured, and faulted, creating many microhabitats. Scrub or semidesert grassland is the dominant vegetation type; evergreen oak woodland (encinal) is also present. This flora is specimen-based; more than 1640 collections were made between 2013 and 2019 to document 788 species and infraspecific taxa distributed in 445 genera and 103 families. The largest families are Asteraceae (129 taxa at or below the specific level), Poaceae (115), Fabaceae (72), Euphorbiaceae (27), and Malvaceae (27). The largest genera are *Muhlenbergia*, *Euphorbia*, *Cyperus*, *Bouteloua*, and *Dalea*. Non-native plants (69) comprise 8.8% of the flora; nearly half (34) of the non-natives are grasses. Significant records include two species new to the United States (*Polystemma* sp., Apocynaceae; *Solanum houstonii*, Solanaceae), two species new to Arizona (*Ipomoea muricata*, Convolvulaceae; *Sida glabra*, Malvaceae), and new localities for several species with limited distributions in the state. Factors contributing to the floristic diversity are elevational range, topographic complexity, species-rich vegetative communities, and sampling effort. The results of this flora suggest that the grasslands of southeast Arizona—even private ones with a history of intensive use—harbor botanical surprises and high species numbers.

INTRODUCTION

This flora began as part of the Plant Atlas Project of Arizona (PAPAZ), a partnership of the Arizona Native Plant Society, Grand Canyon Trust, Desert Botanical Garden, Northern Arizona University, Museum of Northern Arizona, and the U.S. Forest Service to document the flora of under-studied parts of the state. I chose the site because it was my home territory and had not been previously inventoried. All photographs are mine unless credited otherwise.

The Salero Ranch is located in the center of Santa Cruz County, the smallest county in Arizona but arguably a botanical hotspot near the international border between the United States and Mexico. More than half (52.7%) of the county lies within Coronado National Forest (de Steiguer et al. 2005), including part or all of the Pajarito, Atascosa, Tumacacori, Santa Rita, and Patagonia mountains (Figure 1). This is the Sky Islands region (Gehlbach 1993; McLaughlin 1995; Van Devender et al. 2013), an archipelago of isolated, rugged mountain ranges separated by open grassland or desert in parts of Arizona, New Mexico, and the Mexican states of Sonora and Chihuahua. Geologist Raphael Pumpelly used the phrase “islands from the sea” to describe these mountain ranges in the 1860s:

SALERO RANCH IMAGE GALLERY



Scrub grassland with *Bothriochloa barbinodis*, Salero Ranch, 24 September 2013.

This gallery of 840 images is a supplement to the flora of Salero Ranch in central Santa Cruz County, Arizona. Images are organized by major groups (Pteridophytes, Gymnosperms, Magnoliids, Eudicots, Monocots) and then alphabetically by family, genus, and species. More information about the study area, including maps, history, floristics, and an annotated checklist can be accessed at <https://canotia.org/volumes/vol16/SaleroRanchFlora.pdf>

All photographs by Susan D. Carnahan.

SALERO RANCH IMAGE GALLERY



Figure 1. PTERIDOPHYTES. Marsileaceae: (A & B) *Marsilea mollis*. Pteridaceae: (C & D) *Argyrochosma incana*; (E & F) *Argyrochosma limitanea* subsp. *limitanea*; (G) *Astrolepis integerrima*; (H) *Astrolepis sinuata*; (I) *Astrolepis windhamii*; (J) *Bommeria hispida*; (K) *Myriopteris aurea*; (L) *Myriopteris fendleri*; (M) *Myriopteris lindheimeri*; (N) *Myriopteris rufa*; (O) *Myriopteris wootonii*; (P) *Myriopteris wrightii*; (Q & R) *Notholaena grayi*; (S & T) *Notholaena standleyi*.

Desert Plants

Volume 34, Numbers 1 & 2
July 2018

Published by Boyce Thompson Arboretum



Mist on a mountain trail from 4500 feet elevation

Thirty-Seven Years on a Mountain Trail:
Vascular Flora and Flowering Phenology of the Finger Rock Canyon Watershed,
Santa Catalina Mountains, Arizona.

C. David Bertelsen

Desert Plants

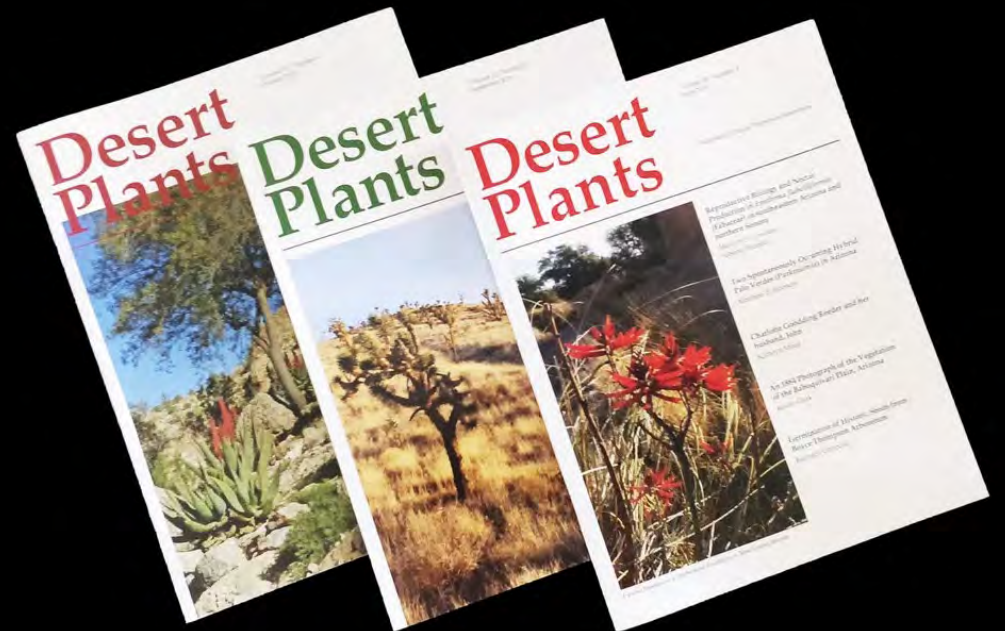
Published by The University of Arizona
for the Boyce Thompson Arboretum



**Annotated Flora of the Santa Catalina Mountains,
Pima & Pinal Counties, Southeastern Arizona**

James T. Verrier

Local Floras



<https://www.btarboretum.org/desert-plants>



The Plant Press

THE ARIZONA NATIVE PLANT SOCIETY

Volume 40, Number 1

Summer 2017

A Flora of the Tortolita Mountains, Pima and Pinal Counties, Arizona

by Ries Lindley¹ All figures courtesy the author, except where noted.



Special Issue:

A Flora of the Tortolita Mountains, Pima and Pinal Counties, Arizona

Plus:

27 Another Milestone for the Sky Islands

With Regular Features:

2 President's Note

4 Book Review

10 Who's Who at AZNPS

13 Spotlight on a Native Plant

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Figure 1. Looking east in the Tortolita Mountains from the Ridgeline Trail near its intersection with the Loop Trail. Some of the higher peaks of the eastern project area are in the foreground. This is typical of the semidesert grassland in the project area. The Santa Catalina Mountains are in the background.

Introduction

On a hot day in June of 2012, I found myself bouncing along in the backseat of a big white SUV that belonged to the Desert Botanical Garden. In the front seat were Wendy Hodgson and Andrew Salywon. I had turned the conversation to my search for a botanical project, specifically a flora. Wendy's suggestion was the Tortolita Mountains, and the why was simple: not much work had been done there.

Floras are done for many reasons, including to gain a better understanding for land management, to measure change, to see how an area fits botanically or ecologically in the puzzle of its neighboring lands, or to fill in *terru incognita* on a map. The Tortolita project falls in the latter category.

Despite the seven million specimens available to the online database known as the Southwest Environmental Information Network (SEINet), there are still a number of places where common species exist and yet are not documented. Most collections are done along roadways, and then secondarily along trails, giving a very skewed view of

continued next page

¹Arizona Native Plant Society, Tucson Chapter, ries.lindley@gmail.com

A Flora of the Tortolita Mountains *continued*

need the higher elevations of the sister range next door continued to survive. The physical distance to the Tucson Mountains was not that great either. Those distances have not changed, but the recent history of the region has brought barriers to the movement of animal species among these mountain ranges.

Time has brought many changes to this region, some of them cyclical, like the comings and goings of the ice sheets and the attendant changes in vegetation. In that snapshot of time that comprises the current millennium, the changes that affect the Tortolitas are not so much changes to the mountains themselves but the changes to their humanly habitable surroundings. The encroachment of civilization has brought human habitation to the valleys that intervenes between the Tortolitas and their neighbors, the Santa Catalinas to the east and the Tucson to the south. For wild animals, a road, a railroad, or a canal is as much a barrier as a wall, and the wider the road the greater the barrier.

The Tortolitas not only serve as a patch of habitat for common species of plants and animals but also as an important waystation for the movement of important animal

species of the region (Figure 9) as noted by Beier et al. (2006):

Habitat loss and fragmentation are the leading threats to biodiversity, both globally and in Arizona. These threats can be mitigated by conserving well-connected networks of large wildland areas where natural ecological and evolutionary processes operate over large spatial and temporal scales. Large wildland blocks connected by corridors can maintain top-down regulation by large predators, natural patterns of gene flow, pollination, dispersal, energy flow, nutrient cycling, inter-specific competition, and mutualism. Corridors allow ecosystems to recover from natural disturbances such as fire or flood, and to respond to human-caused disturbance such as climate change and invasions by exotic species.

To preserve the value of the Tortolitas as a part of natural wildlife linkages, local, regional, and state government agencies have devoted some planning and construction to providing artificial wildlife linkages among these mountain ranges. Two structures, a wildlife bridge and an underpass, have been built across State Route 77, creating a link between the Tortolitas and the Santa Catalinas. Proposed crossings for the Tucson Mountains-Tortolita Mountains link have not yet been built.

03

The Plant List

Families: 61

Genera: 229

Species: 334 (species rank)

Total Taxa: 339 (including subsp. and var.)

Introduced: 22 (species rank)

Specimens collected for this flora were deposited in four herbaria: ARIZ, the University of Arizona Herbarium; ASU, the Arizona State University Vascular Plant Herbarium; DES, the Desert Botanical Garden Herbarium; and SDSU, the San Diego State University Herbarium.

The collection numbers in this list are those of the author unless otherwise noted. The specimens are deposited at the University of Arizona Herbarium (ARIZ). Common names are from SEINet. The Spanish common names are

italicized. The notation "native" means the plant is a native of the lower forty-eight states and "introduced" means the plant is not thought to be native. The Plants Database of the United States Department of Agriculture was used to determine the native status of plants on the list.

Species that appear on the Protected Plant List of Arizona are listed as one or more of four designations. In order of priorities they are: highly safeguarded, threatened or in danger of extinction; salvage restricted, subject to damage and vandalism; salvage assessed, valuable enough to support salvage; or harvest restricted, subject to over-harvesting due to commercial value.

ACANTHACEAE

Anisocanthus thurberi (Torr.) A. Gray – buckbrush, desert honeysuckle,

Thurber's desert honeysuckle, *chuparosa*, *cola de gallo*. Uncommon in washes, mostly in semidesert grassland, native; 228.

Carlowrightia arizonica A. Gray – Arizona carlowrightia, Arizona wrightwort, lemillia, *rama toro*, *ramoneada flor blanca*. Uncommon, maybe rare in project, plants are difficult to detect, native; 237. SEINet observation, not collected due to relative rarity.

Justicia californica (Benth.) D. Gibson – beloperone, hummingbird bush, *chuparosa*. Uncommon in Sonoran Desert scrub, native; 407.

Justicia longii Hilsenb. – longflower lubetongue, siphonoglossa. Uncommon in Sonoran Desert scrub, native; 657.

On Line and Electronic Resources



On Line and Electronic Resources

SEINet



SEINet Arizona - New Mexico Chapter

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Welcome to SEINet

The SEINet data portal was created to serve as a gateway to distributed data resources of interest to the environmental research community within Arizona and New Mexico. Through a common web interface, we offer tools to locate, access and work with a variety of data. SEINet is more than just a web site - it is a suite of data access technologies and a distributed network of collections, museums and agencies that provide environmental information.

To learn more about the features and capabilities available through this site, visit the [Symbiota Help Pages](#). Join SEINet as a regular visitor and please send your feedback to seinetAdmin@asu.edu. Visit the [Data Usage Policy](#) page for information on how to cite data obtained from this web resource.

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- Consortium of Midwest Herbaria
- Consortium of Southern Rocky Mountain Herbaria
- Intermountain Regional Herbarium Network
- Madrean Discovery Expeditions (MDE)
- Mid-Atlantic Herbaria Consortium
- North American Network of Small Herbaria
- North Great Plains Herbaria
- Red de Herbarios del Noroeste de México (northern Mexico)
- SERNEC (Southeast USA)
- Texas Oklahoma Regional Consortium of Herbaria (TORCH)

Search Taxon

Plant of the Day



What is this plant?
[Click here to test your knowledge](#)



Development of SEINet, [Symbiota](#), and several of the specimen databases have been supported by National Science Foundation Grants (DBI 9983132, BRC 0237418, DBI 0743827, DBI 0847966)

Aquilegia chrysantha A. Gray

Go To Encyclopedia of Life...
Family: Ranunculaceae

[aquileña](#), [more...](#)



Max Licher

FNA SW Field Guide Web Links

Alan T. Whittemore in Flora of North America (vol. 3)

Stems 30-120 cm. Basal leaves 2-3x-ternately compound, 9-45 cm, much shorter than stems; leaflets green adaxially, to 11-55 mm, not viscid; primary petiolules 20-50 mm (leaflets not crowded), glabrous or distally pilose. Flowers erect; sepals perpendicular to floral axis, yellow, lanceolate to ovate-lanceolate, 20-36 × 5-10 mm, apex narrowly acute or acuminate; petals: spurs yellow, straight, ± parallel or divergent, 42-65 mm, slender, evenly tapered from base, blades yellow, oblong, 13-23 × 6-15 mm; stamens 12-25 mm. Follicles 18-30 mm; beak 10-18 mm. Flowering spring-summer (Apr-Sep). Damp places in canyons; 1000-3500 m; Ariz., Colo., N.Mex., Tex., Utah; nw Mexico. Colorado populations supposedly having spurs only 35-40 mm have been called *Aquilegia chrysantha* var. *rydbergii*. Material seen from this area falls within the normal range of variation of the species. Populations intermediate between *A. chrysantha* and *A. coerulea* var. *pinetorum* occur in northern Arizona (M. Butterwick et al. 1991).



Sue Camahan



Max Licher



Max Licher



Max Licher



Patrick Alexander



Patrick Alexander



Sue Camahan



[Open Interactive Map](#)



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Northern Arizona University



ASC 00103333



PLANTS OF ARIZONA
Flora of Grand Canyon National Park
Aquilegia chrysantha x *formosa*
USA, ARIZONA, Coconino County,
Perennial stream west of Santa Point in
Sagunt Canyon, near Limestone.
UTM: 12S 417402N 4957602W MAG27
Elevation: 5899 ft
Associated species: *Carex curatorum*,
Cirsium rydbergii, *Carex aurea*, *Acer*
grandidentatum, *Cercocarpus betuloides*, *Cirsium*
arizonicum, *Abies concolor*, *Acer negundo*,
Salix exigua, *Tamarix chinensis*, *Apocynum*,
Clamatis, *Oxalis*
G. Rink 1958 18 May 2008
with: R. Riel, G. Fugate
MCA-0022, 104075
Northern Arizona University (ASC)

On Line and Electronic Resources

SEINet Portal Network - Google Map - Mozilla Firefox
https://swbiodiversity.org/seinet/collections/map/googlemap.php?usethes=1&taxa=579

Legend

- = *Aquilegia chrysantha*
- = various taxa
- = *Aquilegia chrysantha* var. *chrysantha*
- = *Aquilegia chrysantha* var. *hinckleyana*
- = Collection
- △ = Observation

Add Point of Reference

Latitude decimal: eg: 34.57

Longitude decimal: eg: -112.38

Enter in D:M:S format

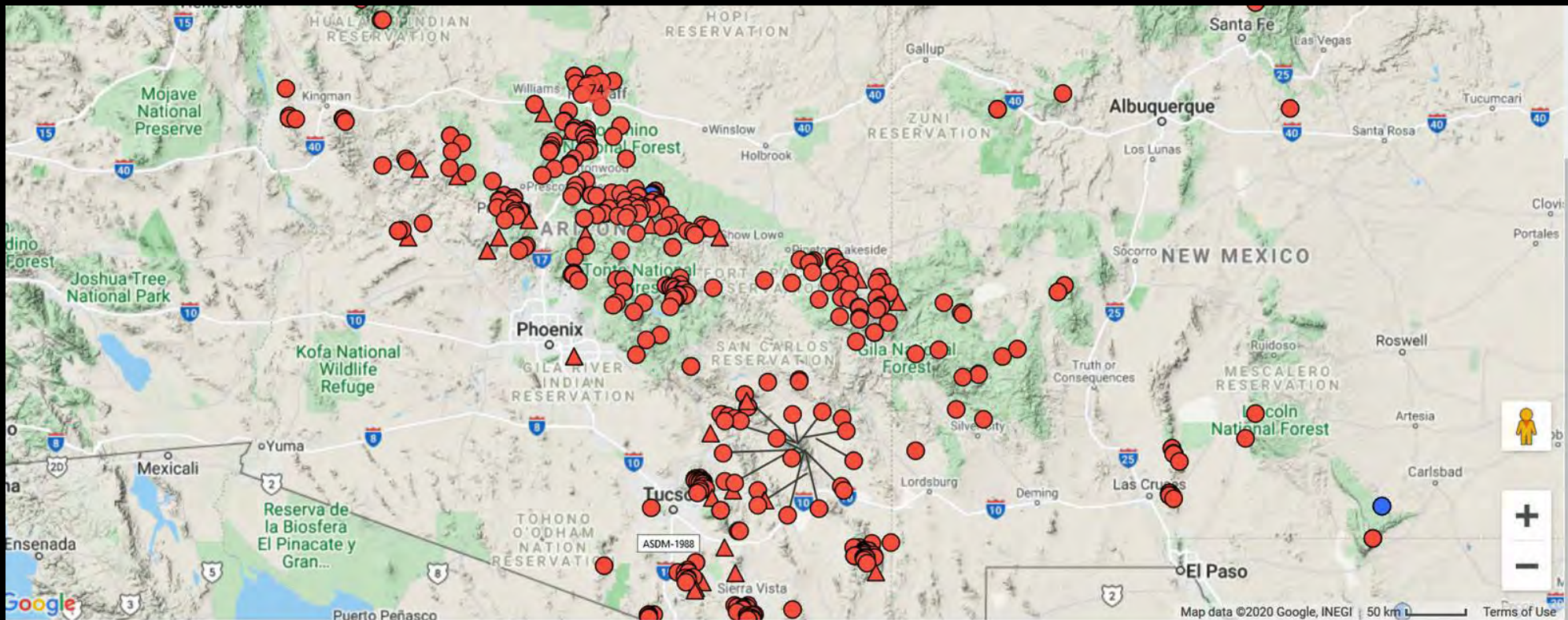
Marker Name:

Add Marker

Map data ©2020 Google, INEGI 200 km Terms of Use

Type here to search

8:48 AM 10/4/2020



Legend

- = *Aquilegia chrysantha*
- = various taxa
- = *Aquilegia chrysantha* var. *chrysantha*
- = *Aquilegia chrysantha* var. *hinckleyana*

- = Collection
- △ = Observation

Add Point of Reference

Latitude decimal: eg: 34.57
 Longitude decimal: eg: -112.38
 Enter in D:M:S format

Marker Name:

Details

Map

Comments

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Arizona State University Vascular Plant Herbarium (ASU:Plants)

Occurrence ID (GUID): b6c498d9-3fdd-41e7-b70f-d6090025df95

Secondary Catalog #: 79742

Taxon: *Aquilegia chrysantha* Gray

Family: Ranunculaceae

Collector: David J. Keil 10086

Date: 1974-06-15

Additional Collectors: Marvin L. Roberts

Locality: USA, Arizona, Graham County, Wet Canyon. Pinaleno Mountains.
32.65 -109.82 +-200m.

Elevation: 2000-2000 meters (6560-6560ft)

Habitat: Mesic canyon with small stream, along stream

Associated Species: *Alnus* sp., *Acer* sp., *Juglans* sp., *Quercus* sp.

Description: Flowers yellow; common; plants up to 1 m tall

Reproductive Condition: flowers

Usage Rights: [CC BY-NC \(Attribution-Non-Commercial\)](#)

Record ID: b6c498d9-3fdd-41e7-b70f-d6090025df95

For additional information on this specimen, please contact: Elizabeth Makings (Elizabeth.Makings@asu.edu)

See an error? [Login to edit data](#)

On Line and Electronic Resources

Botany 2020 Brochure - jdoug x SEINet Portal Network Home x +

https://swbiodiversity.org/seinet/ 170%

SEINet

 Arizona - New Mexico Chapter

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- [Consortium of Southern Rocky Mountain Herbaria](#)
- [Intermountain Regional Herbarium Network](#)
- [Madrean Discovery Expeditions \(MDE\)](#)

Search Taxon Search

Plant of the Day

On Line and Electronic Resources

Home >> Arizona Flora

Arizona Flora

Project Managers: Arizona State University Vascular Plant Herbarium

Arizona is the third or fourth most floristically rich state in the US with perhaps as many as 3900 species of vascular plants. Over the last 60 years an average of ca. 12 new species records have been reported annually.

Research Checklists ☺ 🌐

The ☺ symbol opens the species list as an interactive key.

- [Agua Fria National Monument \(in progress\) ☺](#)
- [Appleton-Whittell Research Ranch ☺](#)
- [Arizona ☺](#)
- [Arizona - Cyperaceae ☺](#)
- [Arizona - Juncaceae ☺](#)
- [Arizona National Scenic Trail ☺](#)
- [ASU Arboretum ☺](#)
- [ASU Poly - ABS 207 ☺](#)
- [ASU Types ☺](#)
- [Buckeye Hills Recreational Area ☺](#)
- [Buenos Aires National Wildlife Refuge ☺](#)
- [Cabeza Prieta National Wildlife Refuge ☺](#)
- [Camp Creek ☺](#)
- [Canyon de Chelly National Monument ☺](#)
- [Casa Grande Ruins National Monument ☺](#)
- [Castle Dome Mountains ☺](#)
- [Chiricahua National Monument ☺](#)
- [Cienega Creek Natural Preserve ☺](#)
- [Deem Hills ☺](#)
- [Diablo Trust IMfoS Project ☺](#)
- [Eagletail Mountains Wilderness ☺](#)
- [Escudilla Mountains ☺](#)
- [Fish Creek Canyon, Superstition Mountains ☺](#)
- [Flora of the Lower Verde River ☺](#)




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Home >> **31.91499 -109.98113 within 32.2 km** 

31.91499 -109.98113 within 32.2 km ♂ *Games*

[More Details](#)

Families: 112
Genera: 515
Species: 1061
Total Taxa ([details](#)): 1061

Page 1 of 3: [1](#) | [2](#) | [3](#)

ACANTHACEAE

- [Anisacanthus thurberi](#)
- [Carlowrightia arizonica](#)
- [Carlowrightia linearifolia](#)
- [Carlowrightia texana](#)
- [Elytraria imbricata](#)
- [Ruellia ciliatiflora](#)
- [Ruellia nudiflora](#)

ADOXACEAE

- [Sambucus cerulea](#)
- [Sambucus nigra](#)

Options




Search:

 Common Names
 Synonyms

Taxonomic Filter:

Original Checklist

 Display Synonyms
 Common Names
 Display as Images
 Taxon Authors
 Show Taxa Alphabetically

On Line and Electronic Resources

Home > Dynamic Map

Pan, zoom and click on map to capture coordinates, then submit coordinates to build a species list. [More Details](#)

Build Checklist

Taxon Filter:

Point (Lat, Long): 31.91499, -109.98113

Radius: 50 Kilometers



On Line and Electronic Resources

SEINet

 Arizona - New Mexico Chapter

[Home](#) | [Specimen Search](#) | [Images](#) | [Flora Projects](#) | [Agency Floras](#) | [Dynamic Floras](#) | [Additional Websites](#) | [Resources](#) | [Log In](#) | [New Account](#) | [Sitemap](#)

Home >> 31.91499 -109.98113 within 32.2 km

31.91499 -109.98113 within 32.2 km ♂ *Games*

[More Details](#)

Families: 112
Genera: 515
Species: 1061
Total Taxa ([details](#)): 1061

Page 1 of 3: [1](#) | [2](#) | [3](#)

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[Build List](#)   



2800 Arizona Wildflowers



Product features

- Easy, quick flower identification for 85% of all Arizona flowering, non-grasslike plants
- Includes over 2850 species, over 8600 photos, and a robust interactive key
- Illustrated interactive glossary, search by common or scientific name
- No outside connection needed, photos and help documentation included
- Ideal for all, from nature lovers to farmers to professional botanists.

On Line and Electronic Resources


The screenshot shows the Amazon Appstore for Android interface. At the top, the Amazon logo is on the left, and a search bar contains 'Apps & Games'. Below the logo is a navigation bar with 'Hello Select your address' and various service links like 'Best Sellers', 'Customer Service', etc. The main content area is titled 'Apps & Games > Lifestyle'. The featured app is '2800 Arizona Wildflowers' by Flora ID. The app icon is a green rounded square with a white silhouette of wildflowers. The app's price is \$9.95, and it is available instantly. A promotional banner for 'internet for FireTV' is visible on the right. Below the app details, there are sections for 'Special offers and product promotions' and 'Latest updates'.

amazon Apps & Games

Hello Select your address Best Sellers Customer Service New Releases Today's Deals AmazonBasics Whole Foods Gift Cards Free Shipping Registry Sell Coupons #Found

Appstore for Android Amazon Coins Fire Tablet Apps Fire TV Apps Games Appstore Family Your Apps & Subscriptions Help

Apps & Games > Lifestyle

 **2800 Arizona Wildflowers**
by Flora ID
Rated: All Ages
[Be the first to write a review](#)

Price: **\$9.95**
Save up to 20% on this app and its in-app items when you purchase **Amazon Coins**. [Learn More](#)
Sold by: Amazon.com Services LLC


Available instantly

This app needs permission to access:

- Access information about networks
- Access information about Wi-Fi networks

[See all Application Permissions](#)

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Special offers and product promotions

- **Amazon Business** : For business-only pricing, quantity discounts and FREE Shipping. [Register a free business account](#)

Latest updates

What's new in this version

- Many new and added plant photos, some new plant species, and a few data corrections.



BROWSE (2924)

KEY



Best Menu



Number of fertile stamens



Leaf shape (SIMPLE LEAF ONLY)



Flower length



Flower arrangement (Inflorescence)



Flower width



Leaf/leaflet base shape



Number of sepals



Flower color [main color(s) only]



Number of petals



Flower shape or type



Leaf blade width



Leaf blade veins



Forgiveness

Calochortus b
mariposa, Bruneau
Liliaceae



Calochortus c
mariposa, beavertail gra
Liliaceae



Calochortus e
mariposa, Cox's
Liliaceae



Calochortus e
mariposa, cat's ear
Liliaceae



Calochortus e
mariposa, bigpod
Liliaceae



Calochortus g
mariposa, Greene's
Liliaceae



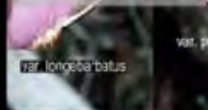
Calochortus h
mariposa, Howell's
Liliaceae



Calochortus l
mariposa, Leichtlin's
Liliaceae



Calochortus l
mariposa, long-bearded
Liliaceae



Calochortus n
startulip, greenbanded
Liliaceae



Calochortus n
startulip, yellow
Liliaceae



Calochortus n
mariposa, broad-fruited
Liliaceae



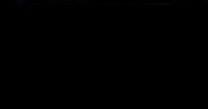
Calochortus n
mariposa, naked
Liliaceae



Calochortus p
mariposa, Siskiyou
Liliaceae



Calochortus s
2924 / 2924 Species
Liliaceae



startulip, yellow

Calochortus monophyllus

Images





BROWSE (1120)

KEY



Leaves



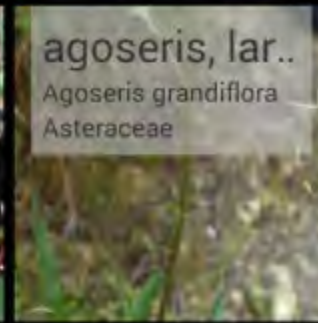
agoseric, an..

Agoseris heterophylla
Asteraceae



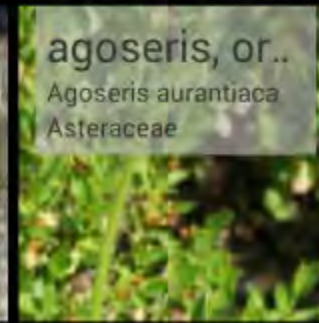
agoseric, lar..

Agoseris grandiflora
Asteraceae



agoseric, or..

Agoseris aurantiaca
Asteraceae



agoseric, pa..

Agoseris glauca
Asteraceae



Leaf distribution on plant



Stipules



Petiole to leaf ratio



Leaf blade length



Leaf blade width



Leaf blade veins



Leaf type

agoseric, sp..

Agoseris retrorsa
Asteraceae



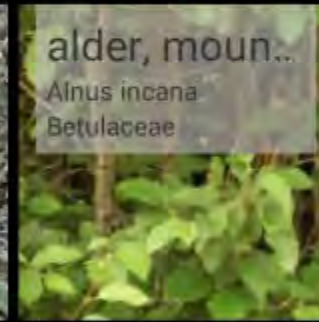
agroseris, fa..

Nothocalais troximoi
Asteraceae



alder, moun..

Alnus incana
Betulaceae



alder, Sitka

Alnus viridis
Betulaceae



alfalfa

Medicago sativa
Fabaceae



alkanet

Anchusa officinalis
Boraginaceae



alumroot, s..

Heuchera micrantha
Saxifragaceae



alumroot, tall

Heuchera chlorantha
Saxifragaceae



1120 / 1120 Species



Forgiveness





BROWSE (2924)	KEY
---------------	-----

azalea, western
Rhododendron occidentale
 Ericaceae



baby-blue-eyes,
Nemophila menziesii
 Boraginaceae



baby's-breath, f.
Galium mollugo
 Rubiaceae



babystars, true
Leptosiphon bicolor
 Polemoniaceae



baccharis, salt
Baccharis glutinosa
 Asteraceae



balm, common
Melissa officinalis
 Lamiaceae



balm, lemon
Mentha aquatica
 Lamiaceae

balsamroot, ar.
 2924 / 2924 Species
 Asteraceae

Herbaria





University of Arizona



Desert Botanical Gardens



Deaver Herbarium

University of N. Arizona



Arizona State University

Arizona Herbaria



Arizona Western College



McDougall Herbarium

Museum of N. Arizona

