



HAPPENINGS

The Quarterly Newsletter of the Arizona Native Plant Society
Our mission is to promote knowledge, appreciation, conservation
and restoration of Arizona's native plants and their habitats

Join Any Chapter E-List

The best way to keep up with the latest AZNPS events is to join the chapter e-list, which notifies members about meetings, events, conferences, field trips, workshops, and volunteer opportunities in the area. Don't forget to keep us updated on e-mail address changes. To be added to any chapter e-list, send your name and e-mail address to:

Cochise Chapter:	Doug Ripley	jdougripley@gmail.com
Flagstaff Chapter:	Susan Holiday	naris123@cs.com
Phoenix Chapter:	Lisa Rivera	aznpsphoenix@gmail.com
Prescott Chapter:	Sue Arnold	PrescottAZNPS@gmail.com
Santa Cruz Chapter:	Francesca Claverie	Santacruz.aznps@gmail.com
Tucson Chapter:	Lyn Loveless	lyndloveless@gmail.com
Upper Gila Chapter:	Kara Barron	uppergilaaznps@gmail.com
Yuma Chapter:	Valerie Morrill	aznpsyuma@yahoo.com



COMING IN OCTOBER VIA ZOOM!

Arizona Native Plant Society Botany 2020 Meeting

The Board of Directors will soon announce speakers and topics for a fall Botany 2020 Conference to be held remotely via Zoom on **5, 6, 7 October (7:00 to 9:30 PM)** each day. The conference will focus on Arizona's uniquely diverse native plant life in different regions throughout the state with presentations of interest to botanical and home landscape/gardening enthusiasts. Watch the aznativeplantsociety.org website and your email for conference details and registration procedures.



Clockwise from top left: Grand Canyon; Mt. Baldy Wilderness; Sonoran Desert; Lower San Pedro Valley; San Francisco Peaks. Photos credit: Doug Ripley

Chapter News

Cochise Chapter



We have traditionally held monthly programs on the third Friday of each month from September through May at 5:00 PM in the Cochise County Community Development Office conference room, 4001 Foothills Dr. (corner of Highway 92 and E. Foothills Drive), Sierra Vista. However, with the restrictions imposed by the Covid-19 pandemic, we suspended in-person meetings starting in mid-March. Starting in September we will be holding virtual monthly meetings via Zoom on the **third Friday evening of each month at 7:00 PM**. Once it becomes safe to do so, we will resume our regular monthly in person meetings and other activities such as field trips. To participate in a remote Zoom meeting, please send an email request to Doug Ripley (jdougripley@gmail.com) and he will send you the necessary link to log into the program. The Chapter has established a Facebook website (<http://www.facebook.com/AZNPS Cochise>) where much useful information about the chapter and its members is posted.

Chapter Offices

President: Douglas Ripley (jdougripley@gmail.com); Vice President: Elliott Hendricks (emhndrks@yahoo.com); Secretary: Deann Sanner (longeyesone@gmail.com); Treasurer: Pat Sullivan

Meetings

Friday, September 18. Ken Kingsley, Consulting Ecologist and Naturalist and Interpreter-Guide: *Are Insects Disappearing?*

In the past few years there have been several alarming papers calling attention to perceived declines in insect populations and rapid loss of insect biodiversity. There have also been critical reviews of these papers, and the public media have picked up the story and run with it. Are we really facing Insect Armageddon or Insect Apocalypse? What is true, what do we know, and what do we need to know? Are we losing our pollinators? What should we do, individually and collectively?



From left to right: Tachinid fly (*Macromyia crocata*); Chiricahua white (*Neophasia terlootii*); Black swallowtail (*Papilio polyxenes*); Dull firetips (*Apyrrothris araxes arizonae*). Photos credit: Arlene Ripley

Friday, October 16. Daniel McNair, Environmental Consultant and Naturalist, WestLand Resources, Inc., Arizona: *Velvetleaf Mallows of the Apache Highlands Ecoregion*



Parish's Indian Mallow
(*Abutilon parishii*).
Photo credit: Dave
Bertlesen

The Mallow Family (Malvaceae) contains numerous plant species of cultural and economic importance around the world such as cacao, cotton, durian, hibiscus, jute, marshmallow, and okra. The Apache Highlands Ecoregion—spanning Arizona, New Mexico, Chihuahua, and Sonora—contains an incredible diversity of native mallow species. This presentation will review the mallow flora of the Apache Highlands Ecoregion with a particular focus on the genus *Abutilon* and other similar genera.

Friday, November 20, 2020. Natalie R. Wilson, US Geological Survey, Western Geographic Science Center, Tucson: *Vegetation Response to Watershed Restoration in Southeastern Arizona*

Vegetation communities are increasingly affected by interactions of precipitation and temperature changes, land-use change, and local alterations of ecological processes. Restoration practitioners in many regions seek to mitigate these changes and conserve landscapes. In southeast Arizona, threats to the landscape include changes in precipitation patterns, increased wildfire interval and intensity, and increased use of ground and surface water resources by a growing human population. In this region, vegetation dynamics are primarily driven by water availability and in response a suite of restoration techniques have been developed to restore watershed function. These techniques affect the hydrology of the landscape, increasing water availability and decreasing damaging flows, but the effect of these techniques on vegetation dynamics have not been adequately documented. To evaluate the effect of restoration structures on vegetation, field data were collected for four growing seasons (August – September) from 2015 to 2018. We measured and documented overall vegetation response, changes in species composition and abundance, occurrence of wetland species, and native/non-native species dynamics. Preliminary results show higher frequencies of perennial vegetation at treatment sites after four years for all sites and site specific dynamics will be discussed.



From left to right: Gabion, wire enclosure rock structure in channel; Check dam, loose rock structure in channel; Media luna, loose rock structure on floodplain. Photos credit: Natalie Wilson

Flagstaff Chapter



Our monthly evening programs are now being presented online via Zoom on the **third Tuesday evening of the month, March through October, at 7:00 PM**. Links to the online programs will be sent to Chapter members and are available upon request by emailing FlagstaffAZNPS@gmail.com. Some of the meetings have been recorded and can be viewed the Flagstaff Chapter's Facebook page at <https://www.facebook.com/AZNPSFlagstaff/>.

Our monthly field trips are currently on hold due to the COVID-19 pandemic.

Meetings

Tuesday, September 15: Nicholas Wilhelmi. *Common Pathogens of Arizona's Forests*



Mistletoe. Photo credit: Nicholas Wilhelmi

A variety of pathogens affect forest health in Arizona, ranging from fungi to parasitic plants, both native and introduced. This presentation will focus on some of the common pathogens which affect Arizona's forests. Topics covered will include basic biology, effects on host trees, as well as management.

Nicholas Wilhelmi studied forestry at the University of Missouri and forest pathology at Oregon State University. He has worked as a forest pathologist with Forest Health Protection, Arizona Zone, since 2017. Nicholas is particularly interested in aspen, white pine blister rust, as well as tree risk assessment and hazard tree mitigation.

Tuesday, October 20. Michelle Cloud-Hughes: *The Horror of Man and Beast: A Relatively Painless Introduction to the *Cylindropuntia* (chollas) of Arizona*



Cylindropuntia. Photo credit: Michelle Cloud-Hughes

Arizona has the highest diversity of *Cylindropuntia* (cholla) species in the U.S.; however, their prickly nature and generally similar appearance can make proper identification a challenge. In this presentation, Michelle will provide a general overview of the cactus genus *Cylindropuntia* (chollas) and in-depth descriptions for the cholla species of Arizona. She will also discuss the most common naturally-occurring hybrids, along with recent genetic research and taxonomic changes. This presentation will be pre-recorded, and Michelle will be available for questions both during and after in the chat rooms.

Michelle Cloud-Hughes is a botanist and restoration ecologist specializing in desert flora and ecosystems. She worked for the Soil Ecology and Restoration Group at San Diego State University from 1997 to 2013 and spent most of those years doing restoration work in the central Mojave Desert at Fort Irwin NatioCynal Training Center. In 2010, she started her company, Desert Solitaire Botany and Ecological Restoration, and since then has been involved in many rare plant surveys and other botanical and restoration projects throughout the southwestern U.S and Mexico. She has conducted morphometric and genetic research on *Cylindropuntia* with Dr. Marc Baker of Arizona State University for over 10 years and loves sharing the results of that research at every opportunity.

Phoenix Chapter



To stay up to date on Chapter activities and announcements, please subscribe to our **email list** by contacting aznpsphoenix@gmail.com.

We also share a variety of native plant news and information on our **Facebook page** (facebook.com/aznpsphoenix) and our **Chapter webpage** (aznps.com/chapters/phoenix).

Follow us on **Instagram** at [@aznpsphoenix](https://www.instagram.com/aznpsphoenix) and use the hashtag #aznativeplants on your plant photos to help us showcase the beauty and importance of Arizona native plants!

Chapter Offices

Our 2019-2020 season offices are President: Lisa Rivera; Vice President: Natalie Melkonoff; Secretary: Danielle Carlock; Treasurer: Steve Blackwell. We look forward to leading our Chapter with an enjoyable and productive season! Please feel free to contact us at aznpsphoenix@gmail.com.

We will hold Chapter elections for the 2020-2021 season this fall. Offices are open to AZNPS members. For more details on office responsibilities or to make a nomination, please contact Lisa Rivera at aznpsphoenix@gmail.com.

Upcoming Activities

Due to COVID-19 precautions, **all of our Chapter activities for the remainder of 2020 will take place virtually via Zoom.** While we miss being able to meeting in person, we look forward to using this new virtual format to our advantage by creating new ways to connect and learn from each other!

Our virtual events will be announced to our email list subscribers at least two weeks in advance. So please be on the lookout for messages from us throughout the fall for details about upcoming events.

Recap of Summer Activities

Over the summer, we began a pilot project in collaboration with the Maricopa Native Seed Library to study the success of using **seeds balls** as a method to add native plants to home landscapes. Seed balls are widely used, but there are few published studies about them. So we've teamed up to study their germination success in various residential locations throughout the Valley.

Thirty of our members and supporters are participating in the seed-ball project. Each participant "planted" two seeds balls at their home in July and will monitor any growth over the summer and fall. We'll keep you posted on what happens! For more information about the project, please contact Danielle Carlock at seedlibrary@scottsdalecc.edu.



Handmade seed balls created by the Maricopa Native Seed Library (left) and seed balls planted as part of the pilot project (right). Photo credits: Danielle Carlock (left) and Lisa Rivera (right).

After much preparation to become skilled at hosting virtual events, we held our first webinar in August. Jeny Davis of the Desert Botanical Garden (and Phoenix Chapter member) gave an excellent presentation about the **Metro Phoenix EcoFlora project**. A recording of the webinar is available at https://youtu.be/n9_aYsVGmRc.

Urban ecosystems are understudied, and plants are especially overlooked. To help fill this gap in knowledge, the EcoFlora project enables anyone to submit observations of plants and wildlife found in urban areas. There are also monthly EcoQuest challenges that focus on certain species. The information gathered provides insight into biodiversity science questions, contributes to local conservation efforts, and helps observers become more familiar with their urban environment. To join the project and become an EcoFlora "neighborhood naturalist," visit <https://linktr.ee/ecofloraphx>.

Volunteer Opportunities

Volunteer activities are currently limited due to social distancing guidelines. However, please visit our Chapter webpage (aznps.com/chapters/phoenix) for local **citizen science** opportunities that you can participate in on your own.

Prescott Chapter



To stay up to date on chapter events, you can be added to our email list and/or follow our Facebook page. Send an email to PrescottAZNPS@gmail.com to join our mailing list or for any other contact. Follow us at www.facebook.com/AZNPSPrescott to keep up-to-date on chapter events.

Chapter Offices

Secretary: Patricia Hils, hilsp1893@gmail.com; Treasurer: Sue Arnold

Santa Cruz Chapter



To stay up to date on chapter events, you can be added to our email list and/or follow our Facebook page. Send an email to santacruz.aznps@gmail.com to join our mailing list or for any other contact.

Chapter Offices

President: Francesca Claverie (afclaver@gmail.com); Secretary: Ariana Raley (ariraley@protonmail.com); Treasurer: Perin McNelis

Tucson Chapter



Starting in September, we will be holding virtual monthly meetings via Zoom on **either the second or third Thursday evening of each month at 7:00 PM**. Links to the online programs will be sent to Chapter members and are available upon request by emailing nativeplantstucson@gmail.com. Other activities during the fall will be announced on the Tucson Chapter Facebook page and on the AZNPS website chapter page for Tucson.

Chapter Offices

President: Lyn Loveless (lyndloveless@gmail.com); Vice-President: Andrew Cordery (ecotrot@gmail.com); Treasurer: Jackie Taylor; Secretary: Vacant.

Meetings

Thursday, September 17. Perin McNelis, Director, Wild Crop Relatives Initiative at the Borderlands Restoration Project, Patagonia: *Conservation of Crop Plant Wild Relatives*



Phaseolus acutifolius.
Photo credit: Jillian Cowles

Perin will talk about the Restoration Project's new venture exploring conservation of wild relatives of crop plants important in borderlands agriculture, from chiltepins (*Capsicum annuum* var. *glabriusculum*) to tepary beans (*Phaseolus acutifolius*). Protecting these baseline genetic resources is important for food security in an increasingly hot and arid future.

Thursday, October 8. Bill Peachy: *Saguaro Strategies*



Carnegiea gigantea. Photo credit: Shelley Silva

Bill will discuss the iconic saguaro cactus (*Carnegiea gigantea*) and its strategies for dealing with extreme and harsh environments, a talent which may become ever more important as we face a changing climate.

Thursday, November 12. John Scheuring, Patty Estes, and Chuck LeFevre: *Bringing Back Mother Nature from Fountaingrass Strangulation in Alamo and Cargodera Canyons*



Pennisetum setaceum.
Photo credit: Max Licher

John, Patty and Chuck will discuss the efforts to free Alamo and Cargodera Canyons of invasive fountaingrass. Their talk, originally scheduled for last March, takes on new significance following the Bighorn Fire in the Catalina Mountains.

Upper Gila Chapter



Chapter activities, including meetings, have not been finalized for the fall but will most likely include at least one field trip and monthly meetings beginning in September. To keep up to date on activity dates as they are finalized, please contact us at uppergilaaznps@gmail.com.

Chapter Offices

President: Kara Barron; Vice President: Diane Drobka; Secretaries: Julie Plath & Clara Gauna; Treasurer: Julie Davis. Contact: uppergilaaznps@gmail.com

Yuma Chapter



We meet October thru April and will be hosting or sharing events via Zoom. If safe and practical, we will schedule masked and social-distanced outdoor activities. Please join our email list at aznpsyuma@yahoo.com in order to receive notification of our upcoming events.

Chapter Offices

President: Valerie Morrill (bebbia@hotmail.com); Vice President: Karen Reichhardt (ayekarina52@gmail.com); Secretary: Erv Barnes (aznpsyuma@yahoo.com); Treasurer: Tom Fox



The Tucson chapter of Citizens Climate Lobby (CCL) is celebrating the 50th anniversary of Earth Day with an online film festival, **Tucson's first Climate Solutions Film Festival**, during Labor Day Weekend from September 3rd through September 8th.

Professionally produced by Wild & Scenic on Tour, it incorporates 18 short films in a two-hour event that highlight stories of people impacted by a changing climate. These compelling stories include people determined to solve the crisis through science, education and activism. They tell stories with humor, compassion, artistry, and stunning imagery to inspire viewers to keep our planet livable—for everyone.

This fundraiser will send college-aged students who demonstrate commitment to environmental activism to the next CCL International Conference in Washington, D.C. Two days of workshops about climate change solutions and policy options will conclude with a day of lobbying Members of Congress on Capitol Hill.

We're thrilled to have University of Arizona's Dr. Joellen Russell as our keynote speaker. She'll share her research regarding the waters around Antarctica and Greenland. Our local sponsors include Mrs. Green's World, The Amity Foundation, Technicians for Sustainability, and University of Arizona's Mt. Lemmon Sky Center.

Link to Eventbrite invitation: <https://ccl-film-fest.eventbrite.com/?aff=CommunityPartners>

For more information about CCL, and the work of the Tucson chapter, visit TucsonCCL.com

A Pilgrim at Tinker Creek

Annie Dillard

It is amazing that trees can turn gravel and bitter salts into these soft-lipped lobes, as if I were to bite down on a granite slab and start to swell, bud, and flower. Trees seem to do their feats so effortlessly. Every year a given tree creates absolutely from scratch ninety-nine percent of its living parts. Water lifting up tree trunks can climb one hundred and fifty feet an hour; in full summer a tree can, and does, heave a ton of water every day. A big elm in a single season might make as many as *six million* leaves, wholly intricate, without budging an inch; I couldn't make one. A tree stands there, accumulating deadwood, mute and rigid as an obelisk, but secretly it seethes; it splits, sucks, and stretches; it heaves up tons and hurls them out in a green, fringed fling. No person taps this free power; the dynamo in the tulip tree pumps out ever more tulip tree; and it runs on rain and air.



Aspens (*Populus tremuloides*). Photo credit: Shelley Silva

Welcome New Members!

Cochise: Trudy Lynn, Dylan Dorey, Kate Hoover

Flagstaff: Jana Graber, Monica Bai, Kim Girard, Lindsay Kowall, Lonnie Pilkington, Ariel Leonard, Robert Estrada, Andrew Story, Carrie Dallas, Reba Amabisca, Miguel Perez, Sheri Begay

Phoenix: Andrea Hoerr, Jennifer Flores, Linda Howard, Erik Chait, Brent Rose, Kathy Balman, Amy Townsley, Gage Harford, Braze Houmes, Amanda Hall, Nancy Mumpton

Prescott: LuAnne Murphy-Baylet, Vicki Elliot

Tucson: Rockel Eriksen, Erika Wingfield, Hilary Cox, Carlyn Sherer, Robert Ojeda, Erik Schmahl, Alessandra Bevier-Thiem, Dawn Walker, Gary and Cynthia Gran, Paul Keidel, David Caiz, Lisa Campbell, Cindy Maynard, April Hoffman, Lisa Colburn, Nissa Quanstrom, Andrew Gourevitch, Peggy Allen,

Yuma: Jacob Gibson, Heidi Jessen

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FOR MORE INFORMATION ABOUT AZNPS, CONTACT THE CHAPTER OFFICERSOr visit the AZNPS website: www.aznativeplantsociety.org**AZNPS Headquarters**

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Phoenix Chapter

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 Vice President: Natalie Melkonoff
 Treasurer: Steve Blackwell
 Secretary: Danielle Carlock

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uppergilaaznps@gmail.com**Yuma Chapter**

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 Treasurer: Tom Fox

bebbia@hotmail.com
ayekarina52@gmail.com
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AZNPS HAPPENINGS is a forum to promote chapter news and activities throughout the state. Please contact your chapter president or program coordinator to contribute information, or e-mail the *Happenings* editor, Shelley Silva, at shelley.a.silva@gmail.com. Photos are always welcome!

Please send information for the newsletter by:**February 1st** for March - May events**November 1st** for December - February events**August 1st** for September - November events**May 1st** for June - August events



ARIZONA NATIVE PLANT SOCIETY
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Tucson, AZ 85717

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Members with email access will receive email notice when new "Happenings" newsletter and *Plant Press* issues are posted online. **Please indicate if you prefer to receive either publication via postal mail.**

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Join or Renew Online at:
www.aznativeplantsociety.org