

THE **A**rboretum
AT FLAGSTAFF

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February 2024

Happy Snowy February Everyone!

After a relatively mild winter so far, it's great see some real snow on the ground! I am happy to report that we finished the installation of the new boiler system in the Horticulture Building just in time. Our staff and plants are warm once again after years without reliable heat in the building.

I am also excited to report that our Board of Directors events committee is kicking off a new series called:

"Ales with the Arb: Nurturing Nature in Your Pint!"

These off-season educational programs and fundraisers will bring ecological presentations to our community. Our first event will be hosted by Mother Road Brewery downtown (7 S. Mikes Pike St, Flagstaff, AZ 86001) on Wednesday February 21st at 6 pm. The format for the night will include a series of mixed-media talks from graduate students in NAU's Forestry Department on topics related to biocrust soils, fire ecology and more! We will also be providing information about the Arboretum and collecting donations during the night. All are welcome to this free event.

Come enjoy a pint, hear more about the latest research while supporting the organization we all love!

I hope to see you then!

With gratitude,

Nate O'Meara
Executive Director

*We are a 501c3 charitable organization

Make Your Calenders for our EcoExplorer Summer Camps!

Reigstation for Members opens March 1st!

[Click Here](#)





It is time to get excited for summer 2024 as the Arboretum gets ready to host our annual EcoExplorers Summer Camps! Campers will be immersed in the beauty of nature while utilizing our 200 acre outdoor classroom to enjoy unforgettable hands-on learning and the opportunity to meet other adventurous kids like them! Campers must be prepared to be outdoors most of the day weather permitting.

Camps will be held Monday - Friday from 9:00 am-3:00 pm for kids ages 5-11. Registration will open online at [here](#) on March 1st, 2024 for Arboretum members and March 8th, 2024 for non-members.

Please note that camps are held at the Arboretum and require guardian transportation to and from camp each day via Woody Mountain Rd.

2024 Summer Camp Topics:

Creature Camp (6/10-6/14)

Come join us at The Arboretum to learn about the creatures that call our ecosystem home. We will be exploring our 200 acres of gardens, forests, riparian areas, and meadows to see where and how these creatures live. Campers will have a chance to meet some animals up close and personal and learn how they can be protectors of animal habitats.

Pollinator Power (6/17-6/21)

This week campers use our beautiful outdoor classroom and natural spaces for an immersive experience learning about native plants and pollinators. Campers will create art and play games to learn about the many pollinators in our ecosystem. They will get insights into their habitats and what can be done to protect them. Come join us!

Weird Science (6/24-6/28)

This week our campers will explore the world around them via fun and wacky science experiments. Campers will learn by investigating and asking questions; gaining important critical thinking skills. All while getting messy with hands-on activities and learning how fun science can be!

Wilderness Explorers 1 (07/08-7/12)

Back by popular demand! Campers will explore various wilderness exploring techniques this summer at the Arboretum. Come get hands-on experience learning how to build shelters, tie knots, and use a map and compass to guide your way. Learn what to do if you get lost in the wilderness from Coconino County Search and Rescue and put your new knowledge to the test! Campers ages 8-11 will have the opportunity to camp out at the Arb and learn how people have used stars to navigate for ages.

Wilderness Explorers 2 (7/15-7/19)

This camp is so popular we host it twice! In this camp, we will continue building our wilderness skills and knowledge and end the week with a camp out under the stars for campers ages 8-11.



Basic Botany

by Sheila Murray - Conservation Botanist

Flagstaff winter can be downright brrrrrr, cold. During these snowy days, I often find myself snuggled up under my faux-fur blanket watching my woodstove. The fur blanket reminds me of some of the adaptations plants have to stay warm, protected from the sun, and to keep their precious moisture. They can often be covered in what I like to call "plant-fur".

One term in particular is my favorite: hirsute. Hirsute means having a thick covering of stiff hairs. A common native plant that can be described as hirsute is the Hairy False Goldenaster (*Heterotheca villosa*).





Hairy False Goldenaster (*Heterotheca villosa*) with hirsute leaves

Another common non-native plant with lovely fur is Lamb's Ears (*Stachys byzantina*), which could be described as having velutinous hairs.

**Here is a quick basic botany lesson on some of the different terms used to describe "plant fur".
Read and enjoy while staying warm this winter!**

- Ciliate** – having hairs along the margins of the leaves
- Glandular** – having hairs with glands of sticky or oily substances
- Stellate** – hairs arranged from a central point like a star
- Strigose** – hairs straight, stiff and sharp
- Hirsute** – many course, stiff hairs
- Hispid** – rough with firm, stiff hairs
- Canescent** – short and dense hairs, whitish in appearance
- Pubescent** – long and dense hairs, whitish in appearance
- Woolly** – hairs so dense that you can no longer see the leaf surface
- Tomentose** – very short and matted hairs
- Velutinous** – velvety soft spreading hairs



Lamb's Ears (*Stachys byzantina*) with velutinous hairs on its leaves

Thinning Ponderosa Seedlings

by Sarah Armanovs - Gardens Manager

Did you know ponderosa pines don't like shade? When European settlers began suppressing fire around Flagstaff in the early 1900's, the forest structure changed. Why?

Consider this: a ponderosa seed takes about 5-6 years to grow into a fire-hardy tree, just enough time before fires would naturally move across the landscape every 5-25 years. The result is that you'd have a landscape of grassy understories with different aged trees growing in an open woodland structure. This is a very different situation from the dense forests we see today.

To recreate what fire did, I've begun thinning the small trees on the Arboretum's grounds. When the baby ponderosas are still 1"-2" in diameter, it's a good time to use loppers or a hand saw to selectively remove some trees while keeping the hardiest and well-spaced trees, just like fire would have done historically in the area.

If you would like to learn more about thinning ponderosa trees on your property then see this [link](#) for an excellent publication for landowners from the University of Arizona's Cooperative Extension entitled: "Guidelines for Thinning Ponderosa Pine for Improved Forest Health and Fire Prevention" by Tom DeGomez.

Ponderosa seedlings germinating in groups requiring thinning for long term forest health



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