

# TREE TIME

THE NEWSLETTER OF MOUNT PISGAH ARBORETUM



## Fernleaf Biscuitroot

by Gail Baker and August Jackson

The 2022 Wildflower Festival poster plant, Fernleaf biscuitroot (*Lomatium dissectum* var. *dissectum*), has many distinctions. Native to Western North America, it is a member of the carrot family, Apiaceae, a widely used plant in native North American culture, and a graceful and butterfly-friendly garden plant.

Fernleaf biscuitroot relatives not only include cultivated carrots but also parsley, cilantro, the toxic poison hemlock and water hemlock, and familiar roadside plants like Queen Anne's lace and cow parsnip. There are at least 44 other biscuitroots in Oregon in the *Lomatium* genus. One is our special Willamette Valley endemic, Bradshaw's desert parsley, *Lomatium bradshawii*, that thrives along the western section of the Amazon running trail and on the southeast side of Mount Pisgah. It was just recently removed from the Federal Endangered Species List due to successful repopulation efforts.

Fernleaf biscuitroot is widely used in native North American culture for various purposes. To the Sanpoil People of Washington, young shoots were a special food eaten mixed

with balsamroot and featured in the "first roots" ceremony. Many indigenous peoples considered the roots of the plant to be poisonous if eaten in large quantities, but the roots have been frequently used medicinally to treat a number of ailments. Additionally, the more mature roots contain toxic compounds from the furanocoumarin group and so would be used to create a poison that would aid in the catching of fish by killing them in a section of stream.

The native plant nursery trade has yet to fully offer fernleaf biscuitroot for our gardens. This perennial plant stands up to 3' in height with a wonderful spray of

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Artwork by Emily Poole

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delicate fern-like leaves, living up to its name. You can view this stunning plant at Mount Pisgah Arboretum on the east side of the White Oak Pavilion. Although the flowers are not large and showy, they form handsome clusters of yellow or purplish flowers.

Fernleaf biscuitroot shares the poster art with the eggs, two larval stages, and the adult of the anise swallowtail butterfly (*Papilio zelicaon*). Caterpillars of the anise swallowtail feed on a variety of plants in the carrot family including *Lomatium dissectum*. The host plant preferences of the anise swallowtail vary widely and remarkably throughout its range, so much so that individuals in one region may completely ignore the preferred plant of those living only hundreds of miles away. In some locations, anise swallowtails have begun using introduced, weedy species in the carrot family like fennel and poison hemlock.

Part of this variation in host plant preference is the result of appropriate phenological overlap—specifically, whether or not the plant is at the right stage of development when the butterflies are looking to lay eggs. But chemistry also plays a very important role in the selection of host plant. Swallowtail butterflies orient to their hosts by honing in on the smells of the volatile chemicals released from the plants. The suitability of the host is further confirmed through the butterfly tasting non-volatile chemicals by drumming its forelegs on the surface of the plant. The essential oil composition of plants is a strong determinant of host suitability. The members of the carrot family used by some species of swallowtail butterflies have a similar composition of essential oils as plants in the citrus family, Rutaceae, which are host plants for most swallowtail butterflies, and likely the ancestral host plants for the genus *Papilio*. The similarities are so great that a population of anise swallowtails in southern California has switched back to the Rutaceae, making use of planted orange trees as its larval host.

The larval host plant preferences of the anise swallowtail have provided tantalizing clues for plant taxonomists. In the eastern Columbia River Gorge, *Lomatium grayi* plants east of the town of Mosier had been frequently used as larval hosts by the anise swallowtail, but those to the west never were. Further study provided convincing evidence that these were actually two different species, now known as *Lomatium klickitatense* and *Lomatium papilioniferum* (the latter name referring to its role as a swallowtail host). There is more disruption coming in our understanding of the complex genus of *Lomatium*, and the anise swallowtail's understanding of the plant world may continue to point us in new directions.

## References:

- Alexander, Jason, Whaley, Wayne & Natalie Blain. 2018. The *Lomatium Grayi* Complex (Apiaceae) of the Western United States: A taxonomic revision based on morphometric, essential oil composition, and Larva-Host coevolution studies. Journal of the Botanical Research Institute of Texas. 12. 387-444.
- Dev, Vasu, et al. 2010. Essential oil composition of nine Apiaceae species from western United States that attract the female Indra Swallowtail butterfly (*Papilio indra*). Biochemical Systematics and Ecology. 38. 538-547.
- Kuhnlein, Harriet and Turner, Nancy. 1991. Traditional Plant Foods of Canadian Indian People. Gordon & Breach Science publishers.
- Turner, Nancy J., R. Bouchard and Dorothy I.D. Kennedy. 1980. Ethnobotany of the Okanagan-Colville Indians of British Columbia and Washington. Victoria. British Columbia Provincial Museum.

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Mount Pisgah Arboretum is a nonprofit organization with a mission to engage people with nature through interactive learning and stewardship.

Mount Pisgah Arboretum is located on the traditional homelands of the Kalapuya people. The Kalapuya people were forcibly dispossessed of their homeland and moved to reservations in western Oregon by the United States government following treaties in the 1850's. Today the Kalapuya people are largely citizens of the Confederated Tribes of Grand Ronde and the Confederated Tribes of Siletz Indians. We acknowledge that the Arboretum is on occupied lands, and express our respect for the Kalapuya. We humbly honor their past, present, and future, and are committed to finding meaningful ways to recognize their enduring legacy in the region.

## iNaturalist Florablitz!



Upload your photo observations of plants in Lane County to iNaturalist from May 10th-May 14th. Your photos will be identified by experts, and these observations will augment the floral display for this year's Wildflower Festival! Check out the project here: [bit.ly/3vIDjLk](https://bit.ly/3vIDjLk)



Photos by August Jackson

## Mount Pisgah Arboretum

The Native Plant  
Society of Oregon-  
Emerald Chapter &  
Lane Community  
College Present:



## Wildflower Festival 2022

Sunday, May 15th 10am-5pm

Tickets by pre-sale only!

For tickets and more information, visit:  
[bit.ly/3xkogUN](https://bit.ly/3xkogUN)

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## Education Report

by Jenny Laxton, Education Manager

This spring we're still doing our Arboretum Exploration after-school program once a week for elementary school kids and signing up more kids for our upcoming summer half day programs. We're excited to be pursuing these programs that started out as COVID adaptations, but have gone so well we are now continuing them. Along with that, our walks for both adults and families just keep filling up. We're continuing to add more as they fill, sometimes doing multiple rounds of the same walk so that more people can get into them.



Photo by Jenny Laxton

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We're also starting a test pilot of a phenology study through Nature's Notebook, an online app. Phenology is the study of cycles in nature- what time animals are breeding, nesting or hibernating and when plants start to flower, make fruit/ seeds or loose their leaves. We want to try to keep track of how some of these things might be changing at the Arboretum with our shifting climate and weather patterns. Our end goal is to be able to incorporate this information into our youth programs. Right now we're testing out the app and learning how to make observations with a small group of volunteers. If all goes well, we'll open up the program to anyone who is interested in volunteering to watch the flowers bloom and record those observations!

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## Site Report

*By Patrick Wegner, Habitat and Trails Manager*

*Spring has sprung, grass has riz.* The Arboretum is coming out of its winter slumber. The fawn lilies have bloomed, the birds are singing, and the bees are buzzing. This time of year makes a good case for why we, the site crew, love this work. This winter and spring has provided more favorable growing conditions than last year, but we still hope for more rain and cooler temps this spring.

As the wildflowers grow, so do the weeds. This past winter into spring, volunteers have been busy on site controlling blackberries, English ivy, non-native cherries, and various other weedy species. They have also been repairing the hillside trail, replacing the eroding supports and fixing the grade in some sections. Additionally, we have had multiple school groups and youth corps helping around the site with native planting, trash pick-up, and woody debris placement in the creek.

The staff have been working on multiple improvement projects this last winter and plan on continuing them into the spring and summer. The projects worked on this winter were the new planting beds in the Wildflower Garden and the Visitor Center foundation. If you make it over to the new planter beds in the Wildflower Garden, we ask to watch your step as an official trail has yet to be punched into the big bed, so tread lightly.

This spring be sure to look out for our three University of Oregon interns, Haley, AnnaMae, and Sam, who will be helping out on site. These interns will be helping the site staff with invasive species control, habitat restoration, and trail maintenance, and will spend some time learning about the Arboretum's ecosystems and plant species.

As always, Thank you for your continued support and we look forward to seeing you soon!



*Photo by Jenny Laxton*



*Trillium seeds are harvested by ants, so seeing a large cluster is a sign that the seeds may have found their way to the compost pile in an ant nest.*

*Photos by August Jackson*



*A new rock bed in the Patricia Baker Wildflower Garden.*



## Interpretive Plan Update

With four exhibits completed, and a brief pause during the worst of the Covid-19 pandemic, Arboretum staff have jumped back in to working on our interpretive plan. The exhibits were a perfect option for socially-distanced learning, and became popular destinations for visitors.



Staff have identified a number of modifications and improvements to make to existing exhibits in order to provide the public with an even better experience, no matter how many times they visit. We plan to complete these alterations by the end of this year or early in 2023! Following this process, we plan to engage the public in a discussion of what potential future exhibits may look like.

# State of the Reunion

*By Brad van Appel, Executive Director*

What if there was just one, united organization serving Mount Pisgah? An organization with the staff and the resources to care for trails and habitats throughout the whole park and to provide the nature education and community events that have helped make this place a treasured resource? What if you could make one annual membership donation that would support all of this work? This is our future. Mount Pisgah Arboretum and the Friends of Buford Park & Mt. Pisgah are reuniting to become that one organization.

Together, we share a vision of engaging people with nature. Historically, the Friends have had a greater focus on the land, and the Arboretum has had a greater focus on people. But both groups understand that the only path to a sustainable future is to nurture the connection between the two. Our combined strengths will create a more inclusive and connected community around learning about and caring for the natural environment we live in.

The process of uniting two well-established organizations involves some moving parts. Each group comes with its own internal culture and way of doing things.

Each uses a different operating model and takes a different approach to how it gathers and manages resources. All of these things are being considered as the Arboretum and the Friends do the work of determining the right way to combine our strengths and resources in order to best serve the land and the community.



*Photo by August Jackson*

The two Boards have met jointly and the employees have gotten to know each other over pizza. With guidance from outside professionals, the two Executive Directors are leading teams addressing various aspects of the reunion process to ensure that all due diligence is taken care of. You can support the work of bringing these two valued non-profits together as one by visiting the Arboretum's website at: [mountpisgaharboretum.org/about/reunion](http://mountpisgaharboretum.org/about/reunion).

In the coming months, we will keep you updated on our progress. Before too long we hope to report that there is one strong and united voice for all of us who love this special place. Until then, we hope that you will continue to support both the Arboretum and the Friends as we take this journey together. Thank you!



# Gathering Again

By Leisha Wood

Mount Pisgah Arboretum has had the honor of providing a special place to gather in the heart of nature to more than a thousand families over the years. After a long two years of cancelled events, we could not be happier to have the liveliness and celebration of this year's weddings and milestone events to look forward to. We have been booking events for 2023 as well, and expect it to be a busy couple of years as our community catches up on honoring the meaningful experiences of life.

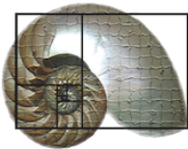


Photo by Jay Eads

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Wednesday from 10am-  
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theme and can be signed up  
for individually.



For more info and  
registration, visit:  
[bit.ly/3JzsWsB](https://bit.ly/3JzsWsB)



Photos by Jenny Laxton



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Jan. 25th, 2022 to March 31st, 2022

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Alan Leiman  
Alvin Johns  
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