

UNITED PLANT SAVERS

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2021

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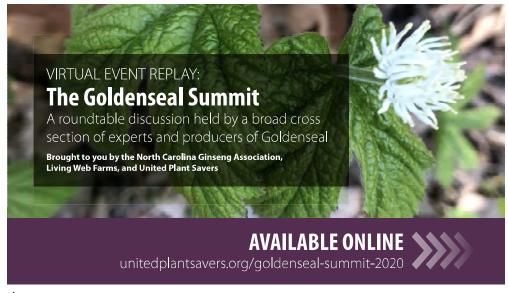
MAY THE FOREST BE WITH YOU

by Susan Leopold

It feels like during the pandemic time started to tick a bit faster as we shapeshifted our energy to tackle new challenges and opportunities. The theme of this year's Journal is the Healing Forest, and in tandem, the theme of the International Herb Symposium is also a deep immersion into the dynamic ways forests heal the planet. The keynote of the IHS was Diana Beresford Kroeger talking about the medicinal aerosols of trees, pointing out how the global forest exerts an antiviral and antibacterial action on the moving air masses. Would it not be a fascinating study to see how those living close to trees and taking walks in the forest regularly were less likely to contract viruses. I think we intuitively know the answer to such a question and that the recent increase in zoonosis disease over the last decades is directly related to the rapid rate of deforestation taking place on the planet. Therefore, the theme of the healing forest for both the Journal and for the IHS seemed to resonate so strongly at this moment in time.

We put a call out to you our members to share your accomplishments, stories, podcasts, zines, art, and poems. In the process of putting all this amazing content together I am in awe of the intersection of art, ecology, spirituality, and hope. This Journal reflects the work of you, the members, making a difference one person at a time, one garden at a time, and the sharing of knowledge and diverse perspective that plants bring into our lives. For many of us, plants have provided a haven for our fragile beings during this pandemic, and we now see a wave of migration as people are moving to wild spaces, or they are growing that garden they have always dreamed about.

We have been busy at the Sanctuary during this respite of events and travel. We established campsites to host visitors safely and have expanded our gardens and propagation efforts. We have worked hard to venture into online learning with the Goldenseal Summit, the concert for the plants, and the International Herb Symposium. The board of directors has taken on the task of updating the strategic plan for the organization, and on the website, we have a survey where we invite members to share input into the work of United Plant Savers. The board also has three working committees: the strategic planning and development committee, the At-Risk list committee, and the diversity and outreach committee. We are growing, and with the increase in membership comes opportunity to expand the work of United Plant Savers, and we invite your engagement as we grow with intention to address the everchanging landscapes of plant conservation. This Journal is a reflection of the community of plant savers, over 25 years in the works, and still young at heart with enthusiasm for the bounty and blessing of the green world.





A WORD FROM ROSEMARY GLADSTAR **Introduing the IHS Virtual Learning Center**

Welcome to Our Global Herbal Community.

It was at the 4th International Herb Symposium in 1994 that United Plant Savers was conceived. It arose out of the need to address the conservation and preservation of our native medicinal plants and our role as herbalists and plant lovers to help lead the way. From that tiny seed planted in one of the dorm rooms of Wheaton College by a small but dedicated group of plant lovers, UpS has blossomed to be a leading voice of medicinal plant conservation not only in the United States but worldwide as well.

The IHS continues to be a major venue for spreading the knowledge for the responsible and respectful use of medicinal plants to ensure that they are here for future generations of plant loves, and most importantly, for the Earth herself. This year's virtual IHS introduced a virtual learning center, enabling more people to participate than ever, both teachers and participants, who wouldn't normally be able to gather with us.

While the IHS has long been a major fundraiser for United Plant Savers, and medicinal plant conservation and preservation has always been one of the main focal points of the event, this is the first year that UpS has officially taken over directorship of the symposium. I want to thank UpS personally for stepping up to assume the important role of leading the IHS forward - not an easy task by any means! But as we continue to seek to embrace the many different cultural traditions and various ways we have of loving plants and doing service for them, it's also a deeply rewarding one as we witness a blossoming of shared information and connections from plant lovers around the globe.

And, finally, I want to take this moment to thank UpS's amazing Ex. Director, Susan Leopold and the UpS Board of Directors, along with their dedicated team of helpers who have worked so hard and diligently to bring us another exceptional herbal symposium.

Virtually or in person, as plant lovers of the world we have this amazing opportunity to come together, to honor and celebrate the plants and the many unique ways we have of loving plants and doing service for them. Let us honor our differences, our knowledge, and our herbal traditions. By standing together as a forest of green, or a wildflower meadow of unique and colorful flowers, we have the power to do so much good for this earth and one another.

Blessed be and green blessings always.

Rosemary Gladstar Co-Founder of the International Herb Symposium

TABLE OF CONTENTS

May the Forest Be With You	
A Word From Rosemary Gladstar	3
FEATURE ARTICLES	
Cottonwood Forest Communiqué	
Neem: Azadirachta indica A. Juss	
Abenaki Medicinal Plants	
Creating New Forests for Medicinal Plants	
Herbalism Survival in Refugee Families	15
Chaga and Birch	17
Reviving the American Chestnut	19
Deep in the Forest	
Living Trees As Our Teachers and Friends	24
Restoring the Midwest Oak Savanna	
Ecosystem	24
Forest Bathing: Staying Connected in	
Current Times	25
The Sun, Flutes, and Angelica	25
MEMBER NEWS & SUBMISSIONS	
Extension Director Pens Novel Focused on	26
Ginseng and Conservation	26
Environmental Education Program of Appalachian Ohio	27
Healing Forests	
Forest Oneness	
New Medicinal Forest Garden Trust Website	
Local Harmony	
Our Medicinal Community Garden	36
Let Me Tell You a True Story That Hasn't Happened Yet	37
Growing Roadside	
A Valley	
The Community and the Forest	
Tree Huggers, Unite!	
Foraging Plants in the Wild	
A Healing Sanctuary Called Into Being	
by the Trees	49
Forests and Community	52
A Walk in a Day – 2030	
For the Forest	
Snake in the Woods	
Archangel Ancienttree Archive	
BOTANICAL SANCTUARY NETWORK	00
Medicine Woods Sanctuary	61
Blackbird's Daughter Botanicals	
Spirit Canoe Lodge	
Dragonfly Medicinals Sanctuary	
Eagle Feather Farm	
Walker Mountain Botanical Sanctuary	
Shindagin Hollow Botanical Sanctuary	69
DEEP ECOLOGY ARTIST FELLOWSHIP	
Artist Fellowship Program, Summer 2020	
A Quilt Is an Ecosystem	
Weaving the Cross	
It's Our Nature	81

ON THE COVER:

This year's cover was illustrated by artist and photographer, Julia O. Bianco (@juliaobianco). Julia is a 2020-2021 Deep Ecology Artist Fellows. www.juliaobianco.com



Cottonwoods, Northern NM, Dara Saville

COTTONWOOD FOREST COMMUNIQUÉ

By Dara Saville

Forests communicate in myriad ways—through root connectivity, chemical signaling, or networks of mycelium. They also communicate with people through the examples they provide living their lives every day. Upon sustained and attentive observation, we can learn a lot about individual species, ecosystem functions, and how we might embody the wisdom of the natural world and apply it in our work or personal lives. The cottonwood (Populus deltoides wislizenii) forests along the Rio Grande floodplain, also known as the bosque, are the most extensive example of this ecosystem type in the Southwest and are also among the most altered and endangered environments globally. Yet, these enduring trees and their forest companions have an inspiring story to tell—one of nurturance, resilience, and connectivity.

Cottonwood trees are the matriarchs of the bosque, speaking to us through example, showing us how to foster life. They provide shade for animals and understory plants during the hot summers of the desert valley. They offer leaf litter mulch to keep plant roots moist and create habitat for insects and small mammals. Upon their bark and in their branches they house fungal organisms, porcupines, birds, and mistletoe (Viscum album). These forests weave themselves together with other habitat types to form a mosaic of ecosystem resilience that has existed for millions of years along the banks of one of the Southwest's great rivers. These corridors of life stretch for hundreds of miles connecting critical habitats for migrating birds and other animals and have provided the sustenance of life for innumerable generations of people. The magnificence of their rugged bark, twisting branches, and heart-shaped leaves decorate the foreground of the skyscape above me as I walk through this living landscape. Inspired by such an example, the non-profit organization, the Yerba Mansa Project was born, and our community found a new pathway to reclaim its responsibility to care for the floodplain and facilitate the restoration of native medicinal plants.

As treasured as this riparian environment is, both ecologically and culturally, extensive water diversions, dams, and groundwater pumping threaten its health and vitality. In a state of accelerating decline, the trees that



YMP volunteers entering the bosque, Dara Saville



YMP volunteer families, Yerba Mansa Project

have nurtured life for so long and all the accompanying native plants of this living system now need help. The Yerba Mansa Project volunteers have been mimicking the message of cottonwoods, taking sustained action for the last six years, helping to foster native medicinal plant communities along the floodplain. As our name suggests, the Yerba Mansa Project's field crew, comprised of multigenerational community volunteers, has planted several stands of yerba mansa (*Anemopsis californica*) as well as four species of milkweeds (Asclepias subverticillata, A. asperula, A. latifolia, and A. speciosa), New Mexico olive (Forestiera neomexicana), wolfberry (Lycium torreyi), and false indigo (*Amorpha fruticosa*), totaling nearly 200 live plants. Working with our community's children, we have also reseeded nearly 4,000 square feet of bare ground with native grasses, forbs, and shrubs. In addition to planting and reseeding, our volunteers also help to restore native plant habitat through hand removal of invasive nonnative ravenna grass (Saccharum ravennae), a large bunch grass that overtakes extensive areas, choking out native shrubs and understory plants. To date, nearly 1,700 of these have been removed, providing an opportunity for coyote willows (Salix exigua) and other native plants to rebound in the absence of overwhelming competition for scarce water resources. Students from the Albuquerque Herbalism program demonstrate reciprocity by helping to plant, weed, and water the restoration site and sustaining and tending the live plantings year-round.

The cottonwood forest communiqué, summoning us to care for this land and its native medicinal plants goes beyond this restoration service. Our volunteer staff members also provide free educational programs for school classrooms and the general public in our effort to deepen our community's understanding, appreciation,

and stewardship for the bosque as a living system. The Yerba Mansa Project has worked with 16 local schools, over 300 individual students, and provided over 50 free public programs. These students have also researched local native plants and published their work in our in-progress Plants of the Middle Rio Grande Bosque Field Guide via iNaturalist, creating another valuable community resource to help others learn about our local plants. Our staff members continue their work fact checking and editing the guide for accuracy and consistency.

The Yerba Mansa Project serves as an example of what a community can do when roused into passionate and informed action inspired by the living example of a forest that we love. We continue to coalesce under the canopy of cottonwoods despite prohibitions on in-person events during the pandemic and other ongoing challenges. These trees showed us the way to stewardship, and we now embody that. The call of the cottonwoods is clear. It is a message of carrying on the traditions of nurturance, resilience, and connectivity with our botanical companions and all living systems. Join us at YerbaMansaProject.org. ■

If you are inspired by our story and want to learn more about how to start a similar project or why this botanical community is threatened, see:

Saville, Dara. (2017). The Yerba Mansa Project. *Journal of Medicinal Plant Conservation*, 12-13.

Saville, Dara. (2020). Yerba mansa monograph. Journal of the American Herbalist Guild, 18 (1): 33-42.

NEEM: AZADIRACHTA INDICA A. JUSS - THE TREE OF THE 21ST **CENTURY**

By Klaus Ferlow, HMH, HA

Human ingenuity has created wondrous developments from fires to evolving an extraordinary complex social structure, splitting atoms, reaching for the moon, mapping the human genome, evolving the most complex repertoire of communication connecting the world, creating a "dangerous" radiation wireless world!

Man has taken apart and put together everything he could lay his hands upon or think about it. An extraordinary range of creativity has enriched our lives. Some of these activities have helped us wriggle out of situations confining all other forms of life. These are exciting times. We are today living in an age of unprecedented technology strides, and some even say this is just the beginning, as the internet, electronic mail, and jet speed travel have conveniently helped bridge the geographical distances. The challenge before us is to link the wisdom of our past with current knowledge and advanced technology to find ecologically sound solutions to emerging global requirements, such as climate change, pollution, etc.

The future food security and economic independence of developing nations depend on meeting our emerging requirements with a degree of caution and an eye on growth based on environmental-friendly technologies and a collaborative approach with nature. India and China together constitute 27% of all humanity, which translates into 2.6 billion people who need better food, shelter, and medicines with minimum damage to the ecological integrity of our precious land and forest resources.

Neem - The Healer

For thousands of years humans have sought to fortify their health and cure various ills with herbal remedies. The search for the true panacea or "cureall" has been undertaken by virtually every civilization. While hundreds of substances have been tried and tested, few have withstood modern science scrutiny. Perhaps no other botanical better meets the true definition of a panacea than neem (Azadirachta indica), a tropical evergreen belonging to the mahogany family native to India and Myanmar (Burma). Every part of this fascinating tree has been used from ancient to modern times to treat hundreds of different maladies. While it is still revered in India for its superior healing properties, recent research has dramatically increased worldwide interest in neem, and many products are now manufactured and distributed around the globe using this miraculous herb.

With an ever increasing number of manufacturers worldwide involved in selling and promoting herbal neem products, there is a dramatic increasing demand for quality neem raw material. As a result, these countries are becoming neem power houses—India, China, Brazil, Cuba, Paraguay, and Peru, where over 250,000 neem trees have been planted!

While legendary herbs such as ginseng (*Panax* spp.) are better known, comprehensive research has proven that neem has a far wider array of uses than any other herb. The first recorded use of neem is attributed to ancient Indian culture adding the plant to dozens of health and beauty aids several thousand years ago. The most successful botanical medical system in the world with a history of over 5000 years is Ayurveda from India with its timeless neem formulations in Ayurvedic pharmacy. Medicinal attributes of neem were extolled in the oldest Sanskrit writings. Neem has been continuously referred to as "Village Pharmacy," sarva roga nivarini or healer of all ailments, the divine tree, the holy tree, free tree of India, the life giving tree, the noble tree, and nature's drug store. No wonder that the United Nations declared the neem tree as "the tree of the 21st century!"

Other fascinating properties further increase the phenomenal applications. It is only in the last years that the rest of the world has started to show interest in and recognize neem's versatility and huge potential. Scientific research reports from universities ranging from Bangalore, India to Baltimore, Maryland have explored neem's ability to help prevent and treat an astonishing number of health disorders including many that are not successfully addressed by modern conventional pharmaceuticals.

The entire neem tree has medicinal value, and all parts of the tree can be used, including bark, cake, fruit, fruit pulp, flowers, honey, leaves, oil (derived from the kernels in the seeds), pulp, resin (gum), root, seed husk, tea, and timber.

Bark and leaves contain pharmaceutical constituents that offer some impressive therapeutic qualities. Neem is beneficial in preventing environmental pollution. It is an oxygen producer, reduces carbon dioxide, offers flood control, prevents soil erosion, and aids the rehabilitation of degraded ecosystems and wastelands. Other uses include agroforestry, for windbreaks in areas of low rainfall and high speed wind, protection of crops, non-toxic pesticides for organic farming, herbicides, insecticides, veterinarian medicine, cosmetics, and personal care products.

My own personal experience with neem and psoriasis has been nothing short of a miracle. I suffered for over 40 years with severe psoriasis on my scalp and elbows, and since 1994 when I started using neem cream, shampoo, oil, tincture, and soap, I have become free of psoriasis. More information about the benefits

and healing power of neem can be obtained from my book, Neem - Nature's Healing Gift to Humanity, which is available from Amazon in paperback and as an e-book. More information can be obtained from www.neemresearch.ca/shop.

Of all the plants that have proven useful to us throughout the ages, few have offered as much value and versatility as the unique neem tree. With growing research supporting its healing and beneficial properties, neem is finally getting the attention it deserves. This miraculous healing herb is truly an ancient cure for a modern world and able to solve global problems.

WNO - World Neem Organisation

I am one of the 14 core-founding neem researchers from Africa, Australia, Bangladesh, India, North America, Europe, and The Middle East, who in 2017 established WNO - World Neem Organisation, Mumbai, India to educate, market, and promote the benefits and healing power of the miraculous versatile medicinal neem tree that offers better plant, human, animal, and environmental health under the banner "NEEM - THE EARTH'S SAVIOR!" www.worldneemorganisation.org

I represent North America, Germany, United Kingdom, and the Scandinavian countries Iceland, Denmark, Finland, Norway, and Sweden.

As a speaker, I attended the 1st WNO – Seminar/ Conference "NEEM - Eco Friendly Solution for Sustainable Development" and 2nd Global Neem Trade Fair, Dec. 3, 4, 2018, Bangalore, India. My first trip to India was when I attended as a speaker at the 6th World Neem Conference, Nov. 21 – 24, 2012 in Nagpur, India.

Conclusion

In our quest for technological advancement, we have forgotten to learn from the practice of our forefathers. As a result, we have not been making good use of the centuries of knowledge and wisdom accumulated in the minds of people based on trials and errors of the generations gone by. Thus, the new awakening in the people the world over, especially among scientists, to try to understand traditional customs, values, and practices is a welcome change. We have made a good beginning with neem and have learned how good an example it provides of science learning from culture. A whole world of traditional knowledge awaits our objective scrutiny.

Words of Wisdom

It is health that is real wealth and not pieces of gold and silver — Mahatma Gandhi

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The Oak Tree

a place I sit when my heart is heavy, in a meadow, beneath an oak tree. My prayers are there, woven into grass, twirling with the wind. dancing a story of love.

— by Yvonne Mayshark

ABENAKI MEDICINAL PLANTS

by Marjorie Veilleux

The Ndakinna, or ancestral territory of the W8ban Aki First Nation (also spelled Abenaki) encompasses New England up to the St. Lawrence River in southern Canada. A few communities remain in the Northeast of the United States as well as two communities in the province of Quebec, Odanak, and W8linak. Historically, this nation is one of the first in Canada to trade and ally with European newcomers. The preservation of their culture has been significantly impacted by the presence of the settlers. In recent years though, Abenakis of all ages have been seeking to explore their roots. A few leaders have been working towards "bringing back home" the rich medicinal and nutritional forest plant wisdom that characterizes Abenaki culture.

In 2019 I was part of a project to document medicinal plants vulnerability in regards to climate change and exotic invasive plants. The goal of the project was first to record the location and composition of medicinal plants on both Odanak and W8linak territories. We also documented the spread of invasive species to determine if these plants constituted a threat to the habitat of native medicinal plants.

One of the main problems encountered by Abenaki members in southern Quebec is that 95% of the land is private. The W8ban Aki reserves of Odanak and Wolinak span respectively on 2.2 and 0.3 square miles (5.78 and 0.8 km²), which leaves very few natural areas to find plants. Thus the importance of localizing and protecting habitats for medicinal plants in these communities.

The process was simple and was undertaken in May, July, and September, 2019. With the help of our expert, Michel Durand Nolett, we would walk predetermined transects in woody areas of the territory. Michel would identify all of the species of interest that we would encounter and teach us how to recognize them, and my colleagues and I would count and geolocalize them as well as take notes and photographs.



Coptis groenlandica

We did not record *abazi* (trees) for the project, because we would have to take too many records on the field, and the team decided to focus on herbaceous plants and shrubs. Most trees are considered to be *nbizon* (medicine, implicitly plants before the advent of modern medicine). For example, young bark from *maskwamozi* (white birch – Betula papyrifera) is used in a decoction as a skin wash to treat eczema and acne. This tree is also the basis of wigwaol (canoe) building. Another example would be the *mahlakws* (pronounced "mah-lakos" - black ash - Fraxinus nigra), which is of cultural importance as is it used to craft abaznodal (baskets). It is also declining quickly because of the emerald ash borer invasion.



Trillium spp.

Because we spent a lot of time in kpiwi (forest), most species were native understory plants. We could localize important remnant patches of endangered and vulnerable to harvest species, such as winos (wild leek – *Allium tricoccum*), used for spring detoxification and cooking; pagakanilh8k (bloodroot - Sanguinaria canadensis), its red sap being used as an insect repellent; as well as nutritional ferns such as mazo'zi (ostrich fern - Matteuccia struthiopteris). A few species at risk could not be found on the territory, probably because they had been subject to overharvesting or their preferred habitat was not present, such as skokadebakw (wild ginger – Asarum canadense), wild ginseng (Panax quinquefolius), and senikaladabgw (rock polypody -Polypodium virginianum). In a few marshes, we confirmed the disappearance of *moskwaswaskw* (sweet flag - *Acorus* calamus), which used to be numerous in these areas but has declined probably because of overharvesting.

In open and disturbed areas, such as roadsides and vacant lots, I was impressed by the number of medicinal plants that are non-native species but naturalized ones that the Abenaki have welcomed in their pharmacopeia. A few examples are mullein (Verbascum thapsus) and 8wdiibagol (common plantain – Plantago major).

We noted the presence of invasive exotic species such as common reed (*Phragmites australis*) and Asian knotweed (*Fallopia japonica*). These plants formed localized patches that competed with native species such as pakwaaskw (cattail - *Typha latifolia*). These patches were mostly

located in highly disturbed areas. Luckily, we noted very few examples of proximity to native understory plants, for the moment at least.

Knowledge Transfer

One important aspect of the project was the passing down of this knowledge to community members. Michel Durand Nolett animated workshops and recorded educational videos. He had already been active in safeguarding it, as he interviewed many elders and community members for his book, *Plantes du Soleil levant* Waban Aki (Plants of the Rising Sun, the Abenaki being the people of the Rising Sun).

Donna O'Bomsawin and her apprentice, Évelyne Benedict, prepared an informative booklet named Kinaw8la (pronounced "kinawonla" – "She takes care of you") as well as workshops on wildcrafting *nbizon*. Among their favorite recipes were plantain salve (to heal wounds and burns) and moon salve (a belly care for women "on their moon" or menstrual period).

They've also grown a *nbizonkik8n* (medicinal plant garden) at the health center in Odanak. Many plants were provided by Michel who was growing them at his place. The garden is shaped as a medicine wheel, which is a holistic framework that teaches us that all things are interconnected. Our health balance is maintained through four realms: mental, spiritual, physical, and emotional. Each quadrant of the wheel is represented by four communities (red, yellow, black, and white), four elements (earth, wind, water, and fire) and four cardinal points (north, east, south, and west). In North American Indigenous cultures the four sacred plants are traditionally: tobacco (*Nicotiana tabacum*), cedar (*Cedrus* spp.), sage (Salvia spp.), and sweetgrass (Hierochloe odorata). The Odanak wheel of medicine comprises tobacco as the most sacred plant at its center. The other species covered in the four quadrants are local species: nahamaibagw (yarrow - Achillea millefolium), sagadaboak (common burdock - Arctium minus), sgweskimen (raspberry – Rubus idaeus), wiz8watawa (goldenrod – Solidago canadensis) as well as naturalized and introduced medicinal plants like plantain, mullein, dandelion, chamomile, comfrey, and mallow.



Medicinal Plant Garden

Evelyne wishes that the garden becomes a special gathering place where people come to learn and replenish. She has been very close to nature from a very young age, when she used to wander the woods close to home. Years later, feelings of wonder and freedom fill her with bliss each time she walks the same woods that her ancestors used to walk. Learning the names of the trees and the plants that are part of the traditional pharmacopeia was like a precious piece of understanding who she was and where she came from. She says that plants are potent medicine for us, and it's our responsibility to heal and take care of them. The way you pick and gather a plant is very important. "If you respect the plant, it will respect you and heal you in return." You should take only what you need. If you gather, for example, every single stem of an ostrich fern, it might regrow the next year, but will get smaller, and smaller year after year, until it's gone. Gathering no more than half of the young stems is better practice to ensure future plant generations and to secure access to wild food and medicine for gatherers.

I feel extremely privileged that I had the opportunity of being initiated to this rich knowledge and to witness the revival of an important part of the Abenaki culture. Coming from a scientific background, ethnobotany and alternative medicine were always met with skepticism. But I always felt in my heart that thousands of years of oral transmission, as well as empirical experimentation, could not be reduced to folklore. I can only show respect and gratitude for the people that have generously shown me how much power plants can hold. ■

Marjorie Veilleux has been working for two years as a biologist for the W8linak band council. She is passionate about forests, from studying its inhabitants to outdoor adventures and wild food foraging.

An Endangered Language

At the rise of the new millennium, just a handful of people spoke Western Abenaki. But there have been significant efforts to save this language and teach it to as many members as possible, young to old. Originating from the Algonquin family, nouns in Abenaki language are either animated or inanimate, which shares a unique conception of the world of their ancestors. Humans and animals are of course animated, but also landscape features which move or have a will of their own (asokw - sky, wajo (pronounced "wadzo") – mountain), certain fruits and trees (segweskimen - raspberry), and important tools (t8bi - bow).

As for pronunciation, the famous "8" is an "ôn" sound as in W8linak ("wonlinak"). The vowel "i" is often an "ay" as in abazi ("abazay"). The "w" as a vowel is an "o" sound as in mahlakws ("mah-lakos"). Stress falls generally on the last syllable of the word.



Michael examining the understory in his 25-year old medicinal agroforestry planting. Black cohosh, Viola odorata, and many species of tree seedlings.

CREATING NEW FORESTS FOR MEDICINAL PLANTS

By Michael Pilarski

United Plant Savers has done great work with 1) preserving what we currently have; and 2) encouraging more farming of medicinal plants to reduce wildcrafting pressures, 3) encouraging forest-grown herbs. Here are a few thoughts on a 4th way: Creating new forests for medicinal production and wildcrafting habitat.

We can use more emphasis on combining ecosystem restoration with herbal production. For instance, here in the Pacific Northwest we are designing riparian corridor plantings along streamsides on farmland with an emphasis on medicinal herb production. This takes land out of cultivation and/or grazing and restores it to forest. We make it a medicinal and food-filled forest so that it produces income and livelihoods for local people at the same time as it fulfills valuable ecological functions—a fully functioning ecosystem that provides resources for people. These can be completely native species or a mix of native and non-native. I use many native species such as red osier dogwood (Cornus sericea), willows (Salix spp.), Pacific wax myrtle (Myrica californica), cascara (Rhamnus purshiana), nettles (Urtica dioica), goldenrod (Solidago canadensis), yarrow (Achillea millefolium), and more. See species list below.

The degree of emphasis on natives depends on placement in the landscape and amount of aftercare available. These can range from intensively managed (more like farming) to wild (more like wildcrafting). These systems work well in small-scale subsistence

farming cultures, providing many products including fuelwood and building materials. There are millions of acres of degraded land around the world which could benefit from such systems including millions of acres of farmland. Which species to use depends on the culture, region, and climate zone.

The concept is similar to that of the "Food Forest," but in this case we make it a medicinal forest or a medicinal and food forest. We can design medicinal food forests since such a high percentage of food plants have medicinal uses. Some temperate species I use include elderberry (Sambucus spp.), Oregon grape (Mahonia aquifolium), raspberry, black currants, and roses.

Indigenous Forms of Land Stewardship, Indigenous Worldview, and Talking to the Spirits of Nature

Some of our best examples of sustainable land stewardship involving wildcrafting are from indigenous hunter-gatherer cultures. Some practices are extant, and some are no longer practiced. Many indigenous people managed food and medicinal forests for multiple products. I have spent much time researching the topic worldwide and have hundreds of relevant books on the topic. People planting such systems today should study the literature for traditional agroforestry systems in their own region as well as in similar climate zones from other parts of the world (analog climates). Indigenous practices always included talking to animals, the lands, seas, and nature spirits.

I have been establishing and managing medicinal agroforestry systems for the past 35 years in both the Maritime and Interior Pacific Northwest. Here are some of the design principles I have developed over the years.

SOME DESIGN PRINCIPLES:

- Maximize creation of ecological niches.
- Wide diversity of shade and sunlight in the system. I
 do close-planting in year one so that I get fast canopy
 coverage (Usually year 3 in my temperate climate.)
 Shade increases over time.
- High diversity of species. Typically, I start a planting with at least 50 plant species, reach 100 species in 3 years and 200 species in 8 years. A person could do it faster or slower.
- Encourage diversity of soil life, worms, fungi, insects, spiders, birds, amphibians, reptiles. Habitat and species mix increases year to year.
- Select species which have market demand or local subsistence demand. Not all of the species need to be crop species but you want enough to meet your goals.
- Select a species mix that will give you production in year one and every year following. The first year includes a lot of annuals, but this reduces as time goes on. The species bearing harvests will change over time.
- Add shade-tolerant and shade-obligate species as the canopy develops.
- Small-scale. The most area I have had in intensive, medicinal forests at one time is 2 acres. Always start small.
- Almost everything is done with handwork and hand tools except initial tillage.
- Large amount of the ground is in perennial crops and biennials. Multi-year crops.
- Interlaced canopies and root systems. Two or more species often share the same aerial space and/or rooting zone.
- Use shrubs and trees in the planting for windbreak, etc. Mostly they are crop producing such as medicinals and/or berries.



Michael in his 25 year old medicinal agroforestry planting with native and medicinal plants in the Methow Valley, Eastern Washington.

- If possible, apply selected mineral fertilizers in year one. Do careful research and/or soil tests. Most minerals meet organic standards. Oftentimes the first year is the only year needed to do this. This remineralization helps kick start the system, and the minerals are cycled over and over again.
- Use of fungal and microbial soil inoculants in the first year or two.
- Zero to low input of synthetic materials. I do not use plastic, weed mat, remay, chemical fertilizers, or pesticides.
- Use of Weeds. Can't avoid them, so might as well take advantage of them. I let desired weeds go to seed. Generally, don't let undesirable weeds go to seed. Selected weeds are allowed to grow in paths or where they won't affect crop yield, since all plants pump energy and root exudates into the soil. For instance, I made \$2,000 on weedy dandelions on my herb plot in 2020.
- Encouragement of volunteer plants of desired crop species.
- Control of weeds. High control early in the year, especially in new plantings.
- Use of mulches. I particularly like wood chips, ramial chipped wood, and bark/chip mixes. Weeds and crop residues are also used as mulch. What have you?
- All crop residues, prunings, and weeds are used for fertilizer and mulch.
- Give plantings adequate follow-up care. You want high survival rates and fast growth. This is key to success in most places.
- High leaf canopy coverage of soil surface. I usually have about 95% or more canopy coverage in year one. Just enough pathways to access. Generally, I only keep a few major pathways open enough for wheelbarrow access.
- Hugelkulturs where feasible. Woody biomass raised beds.
- Domestic animals can be integrated (or not).
 Chickens and fowl are best suited. The system can generate some woody fodder for ruminants.
- The planting is a carbon sequestration unit. Carbon is sequestered above ground, below ground, and in soil organic matter content. Soil organic matter content goes up year to year.
- Good fungal component in soil because of woody plants, crop residues, and use of wood chips as mulch.
- Great place for honeybees and other pollinators. Flowering throughout the growing season.
- Irrigation is used as needed.
- No deer (preferably). Deer fencing where needed.
- Ideally there is always a source of new land for planting on a yearly basis. And/or keep a strip of ground for annual crops (can be rotated around). You can manage larger amounts of land over time. The first year takes the most time with less time per area as the system matures.



Michael in a 2nd year medicinal agroforestry planting in Port Townsend, WA

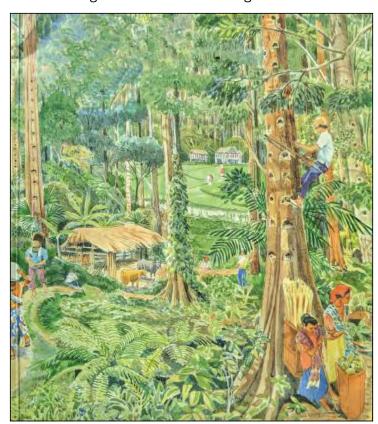
- Lots of seeds and propagation material are generated. This starts in year one and reaches substantial amounts in year 3 and keeps increasing for the first 5 years at least.
- Education can be an aspect of the farm and a source of income. Host field trips for other farmers, schoolchildren, etc. A successful example is worth a thousand words.
- Produces income year-round. Above ground crops from April to November. Root crops from October to April (when ground isn't frozen or snow-covered). Dry herbs year-round. Seed sales peak in the winter/ spring. Propagation material sales peak in the spring. In 2020 our ¼-acre plot grossed \$40,000 (its third year from establishment). This pencils out to \$160,000 an acre, and the site improved ecologically.
- Medicinals drive the system.

SOME SPECIES I HAVE WORKED WITH:

- Linden. (Tilia spp.) The flowers are such a good medicinal and so good for so many pollinators. And the trees have many other useful functions and products.
- Nettles. (*Urtica dioica* and its many subspecies). It would be hard to have too many nettles. Such a great medicinal. It handles a wide range of sun and shade.
- Yarrow (Achillea millefolium) Sun-loving but can take side shade. One of the cheapest native seeds to buy. Throw the seed out wherever you want it to grow.
- Goldenseal (*Hydrastis canadensis*). Wait until you have some tree shade before planting.

- Culver's root (Veronicastrum virginicum). I grow lots of this in regular garden soil. 3 to 4 years to harvestable root size. Full sun is best.
- Boneset (*Eupatorium perfoliatum*). Regular garden soil. Great long-term perennial. Start in full sun but can continue production into the shady years.
- Joe-Pye Weed (*Eupatorium purpureum*). Regular garden soil. Great long-term perennial. Sun or great plant for the edges where you want a tall windbreak effect quickly.
- False Unicorn Root (Chamaelirium luteum). I once had a client near Kalispell, Montana who wanted to grow this on a hot, desert-like site in a highly alkaline soil. Hardest plant to grow successfully I have ever attempted. Success depended on adding lots of soil amendments to make the soil acid, complete mulch, shade netting, and meticulous and frequent weeding. The real trick to success was to mulch with aged sawdust which had a good level of fungal activity. It totally needed that fungi.
- Goldenrod (Solidago canadensis) or whatever Solidago species are native to your area. I love herbs that are indestructible, and goldenrod is one of them. They thrive in light. Will run towards light. Sprigging is a great way to start new patches. Sprigging is the planting of sprigs, plant sections cut from rhizomes or stolons that include crowns and roots, at spaced intervals along a furrow. This is also how I establish nettles and black Indian hemp (Apocynum cannabinum).
- Oregon grape (Mahonia spp.). Such a great-multipurpose plant. I plant it in all my systems. It can get root rot if the soil is too heavy/wet.

- Elderberry (Sambucus spp.) I always plant our native S. cerulea. Great harvests.
- Black Cohosh (Actaea racemosa). Here in the Pacific Northwest I have had best results in full sun, even in sunny, dry eastern Washington. Once established they will self seed into even quite shady locations. I usually harvest roots after 4 years.
- Mayapple (*Podophyllum peltatum*). Great running understory in shade.
- Raspberry (Rubus spp.). Full sun is best on edges, or early years of a system.
- Black currant (Ribes nigra). Fruits best in full sun but can take some shade.
- Rose (Rosa spp.) Many species form suckering thickets, so use only where you have enough room for that.
- Lily of the Valley (*Convallaria majus*). Partial shade.
- Bugleweed (Lycopus americana). Easily becomes a dense, expanding patch. One of the easiest herbs to
- Meadowsweet (Filipendula ulmaria). Sun to partial shade.
- Gumweed (Grindelia spp.). Biennial. Good at selfseeding.
- Native mugworts. Western mugwort (Artemisia *ludoviciana*) and Puget Sound mugwort (*Artemisia* sukdsdorfii). Both species are spreading clumps.
- Sweet Flag, (Acorus calamus). I grow a lot of the American sub-species in regular garden soil with the same irrigation as the rest of the garden.



Cover of the 1994 Annual Report of the International Centre for Research in Agroforestry

- California poppy (Eschscholzia californica). A handy short-term perennial for the early years. The orange flowers are a bright touch in the garden.
- American licorice (Glycyrrhiza lepidota). Full sun to partial shade. A little harder to manage as they have long-ranging runners and don't grow solid enough to keep out other species. So they are always part of a mix of species. I have patches where I grow this with Apocynum cannabinum and fireweed since all three have the same underground growth patterns and can co-exist in the same space. Then there isn't much room for any other species.
- Black Indian hemp (*Apocynum cannabinum*). Ditto.
- Fireweed (Chamaenerion angustifolium). Ditto.
- Native Hawthorns (*Crataegus* spp.). Great for live fences, hedges, and windbreaks. Almost all temperate zones have hawthorn species. I use C. douglasii for its tasty, large fruit and C. columbianum for its high fruit production (orange-red fruits). The latter species gives bigger harvests of flowers.
- Meadow arnica (Arnica chamissonis). Sun to part shade. I have had them persist and spread for decades.
- Cascara sagrada (Frangula purshiana). Great for the honeybees and birds.
- White sage (Salvia apiana) Full sun. Can overwinter in pots in a heated greenhouse, and plant out again in spring to get flowering and seed ripening in the 2nd year.
- Osha (Ligusticum spp.), full sun or part shade.
- Echinacea (*Echinacea* spp.). Mostly sunny spots. Most need an alkaline soil.
- Butterfly weed (Asclepias tuberosa). Start in full sun. Plant the first year so they get a good start before canopy closure. Great color, great pollinators. Harvest in year 4, and use root cuttings to plant more.

Other temperate-zone medicinal species to consider adding:

Bleeding heart (Dicentra formosa), ginkgo (Ginkgo biloba), cramp bark (Viburnum trilobum), willow (Salix spp.), sweetgum (*Liquidambar styraciflua*), maypop (*Passiflora* incarnata), bay tree, California bay (Umbellularia californica), fringe tree (Chionanthus virginica), prickly ash (Xanthoxylum spp.), Siberian ginseng (Eleutherococcus senticosus), ginseng (Panax spp.), myrtle (Myrtus spp.), slippery elm (*Ulmus rubra*), and many, many more.

RESOURCE BOOKS

Many relevant books are already familiar to UpS readers such as Planting the Future, so I am only mentioning a few reference books here.

The Medicinal Forest Garden Handbook

Anne Stobart. 2020, Permanent Publications, UK. Distributed in the US by Chelsea Green Publishing. Large format 278 pages. Lots of color photos. Subtitled "Growing, Harvesting and using Healing Trees and Shrubs in a Temperate Climate". I don't know of another book explicitly on the topic, so this will be a classic for anyone attempting to plant out a medicinal forest garden for years to come. Great job, and they covered a lot of useful info. The focus is on the tree part of the forest. They cover 40 tree and shrub species in depth. If I took the time to write a follow-up book, I would cover a lot more species, especially the understory and the successional plantings and the "succession phase of abundance of propagation material" that Bill Mollison teaches us about. The book is a great example of a permaculture approach to the topic.

Fruits & Nuts

Susanna Lyle. Timber Press. 2006, 480 pages, large format. Beautiful book, lots of photos. Anyone, anywhere in the world who wants to put in a medicinal food forest should consult this book. Lyle researched and reports on the medicinal uses of fruit and nut trees and shrubs. An invaluable guide from tropical to temperate regions. She covers over 300 food-producing plants. Food is the main focus of the book, but the herb info is a goldmine for anyone interested in medicinal plants.

Medicinal Plants of the World

Ben-Erik van Wyk and Michael Wink. Timber Press. 2004. 478 pages. Covers 221 species. This is not in-depth info for medicinal uses or for growing, but it will give growers a lot more ideas of plant species to include in their plantings.

Subtropical and Tropical Medicinal Plants Checklist

Michael Pilarski, 2001. Friends of the Trees Society. 48 pages. This checklist has 1,700 plant species currently in international commerce or still in common use on national or regional levels. I put this together specifically for my friends in the Hawaiian Islands but. it will be useful in any tropical or subtropical region. The checklist is organized by plant Families (170 listed here), then genus and species. The Genus to Family index is helpful to see what is related. There is a common name to botanical name index, synonyms and a bibliography. For sale on my website: < www.friendsofthetrees.net > See books under products. 15 plus shipping/handling.

Farming the Woods An Integrated Permaculture Approach to Growing Food and Medicinals in Temperate **Forests**

Ken Mudge, Steve Gabriel, 2014, Chelsea Green. 384 pages.

Fantastic book for farming the understory in existing forests. They mainly focus on medicinals in eastern US woodlands. A valuable book for someone seeking to plant a medicinal forest, as it will give much info on working understory plants into the system.

Agroforestry Systems for Ecological Restoration. How to Reconcile Conservation and Production Options for Brazil's Cerrado and Caatinga Biomes

Andrew Miccolis, et al. 2019. World Agroforestry, ICRAF. 233 pages. Why a book from Brazil? The book is a good example of what needs to be written for every part of the world. This is a well thought out strategy that meets people's needs as well as ecological restoration of forests similar to what I am promoting in this article. They list info for 217 species, and research would undoubtedly reveal that a significant amount of them have medicinal properties.

Community-led Landscape and Livelihood Restoration. Embassy of the Earth's Initiative.

Not a book. A noteworthy organization working with communities in Kenya, Tanzania, and other parts of the globe which brings a community together to design and implement restoration strategies that also meet community needs. Multi-purpose, medicinal, food forests are desired by many communities. https://www.embassyoftheearth.org/

Here is a recent video about my 25-year old Medicinal Agroforestry planting.

https://www.youtube.com/watch?v=lxQGO5pW6Rc&t=14s

I have three youtube channels.

There is some overlap, but there is lots of unique content on each channel.

- Anna Pallotta Channel My main channel for herb farming and wildcrafting. https://www.youtube.com/c/ AnnaPallottaPlantRambles/videos
- Friends of the Trees Society Channel Agroforestry and permaculture are main topics. https://www.youtube.com/channel/ UCylekw2DaAsQHsIWaR-js A
- Global Earth Repair Foundation Channel: Ecosystem restoration and earth repair are main topics. Many videos from my 2019 Global Earth Repair Conference. https://www.youtube.com/ channel/UCNPSTkjWlrl7FD31xbJ5STg

Michael Pilarski started farming organically in 1972. He has been a student and teacher of permaculture since 1981; a professional wildcrafter for the last 25 years; and has studied widely in ethnobotany, agroforestry, forestry, and medicinal plants. He has been a UpS member (off and on) since it started. In 2017 he organized the Herb Growing & Marketing Conference in Port Townsend, WA. He does consulting.

To contact Michael Pilarski, friendsofthetrees@yahoo.com www.friendsofthetrees.net

HERBALISM SURVIVAL IN REFUGEE FAMILES

By Rachel Thomas

In homes all around the world, traditional plant wisdom is still respected and used every day. From the plants on their plates that nourish them, to the teas in their cups, humans have relied on plant medicine as the key to a healthy life since the beginning of humanity. For some families, wellness tools are easily passed down through the generations. For others, like my family, modern challenges have made it almost impossible.

When my grandparents left Ottoman-occupied Greece over a hundred years ago, they were both children and refugees of war. One of the tragedies of leaving this way was that they were not able to bring much with them. My great-grandmother lost all her property back home, and my grandfather started his life in America as a teenage indentured servant.

In Greece, their families had always relied heavily on local plants for food and medicine. Living under the occupation of a foreign government with limited health

My grandfather Theodore Thomas New York City 1920s

care and constantly facing famine, my ancestors survived because of their knowledge and access to plants. To this day, there are elders in my grandfather's Greek village who remember those times. If they can no longer make it out into the fields and forests, they keep a small medicine chest growing in their front yards or in buckets on their balconies. They tell stories of war times when they survived on wild greens and other gifts of nature that children collected nearby.

Sadly, only two generations later in New York, I was raised with no plant medicine in my life. My father did learn from his parents that doctors and pills were only necessary in emergencies. However, the herbal medicine that his grandparents had practiced in their homes to avoid those doctor visits had lost its way and never made it to my home—nor to the homes of any of my cousins. Aside from our abundant use of oregano (Origanum vulgare), our family herbal traditions were quietly annihilated, along with other cultural staples that differed too much from the powerful dream of fitting in to modern America.

When I first started studying herbalism 25 years ago in Manhattan, I did not realize that I was re-discovering my own roots. For 2 decades I studied the Indigenous wellness tools of the Americas, Asia, and the African diaspora with a fierce passion. Despite the many obstacles I had in finding my way, my passion has finally moved to the forgotten homeland of my beloved grandparents. My newest passion is finding the oldest family traditions that I can track down.

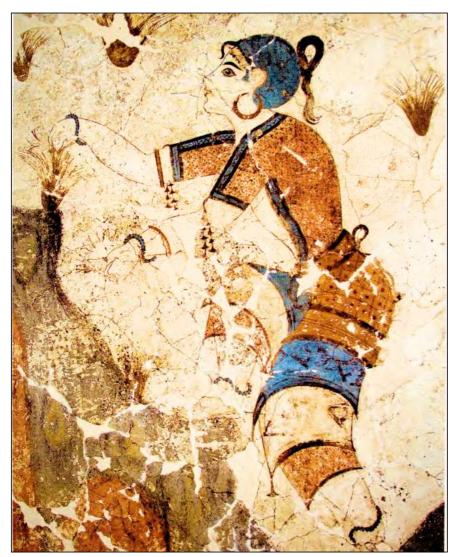
I realize how much privilege I have, to be able to revive my family's herbalism and even the shamanic practices of the ancient Greek world—and that I still have access to elders in Greece who are willing to share and the means to get back there, to sit with them and listen to their stories.



Greek families without gardens find ways to keep their plant allies close



Displacement separates many families from the nature that nurtures them



Woman in Ancient Greece collecting herbs from the mountainside Minoan Santorini

So many refugees around the world are at risk of losing their access to plants they know, losing their knowledge and healthy practices over generations. Of the possessions that they are forced to leave behind, their gardens, fields, and forests are simultaneously the most valuable and most difficult to transport. It is up to them to find ways to maintain their plant medicine in the camps and cities that become their new homes.

It is a tragedy that my grandparents were separated from their plant allies. Like many refugees, my grandmother died very young from a disease that she might have treated with plant medicine in her village had she not been forced to flee.

Plant medicine re-entered my existence by the miraculous appearance of many incredible Indigenous and Africana teachers, without whom I would have never discovered my own culture. And then I was lucky enough to find teachers like Rosemary Gladstar, who inspires grandchildren of refugees like myself to reconnect with the magic of plant medicine.

Around the world people are fighting for their own rights to practice herbalism, to conserve their forests, to pray and live as their ancestors did. The traditions that they maintain are valuable to us all. No matter how many generations have passed or how disconnected we become, there are those who are willing to show us the way back to nature. They are the ones who know that we all came from a world of plants and that we all should have the right to go back to that world, whether we are returning to our homelands or making our homes in new lands. ■

Rachel Thomas is an herbalist, wellness consultant, and teacher. After attending Brown University, Rachel moved to Costa Rica. She has been studying wellness traditions from around the world for 25 vears, which she teaches about at her center. Hidden Garden Ethnobotanical Sanctuary (<u>http://www.hiddengarden.co/</u>), part of the Sacred Seeds program. Rachel offers private virtual sessions, as well as transformational retreats in Greece. Read more of her stories at www.ancientwellnesstools.com.

CHAGA AND BIRCH: A MEDITATION ON RELATIONSHIP

By Vanessa Chakour

Early in 2020, I began a retreat into my own creative cocoon to work on my upcoming book, Awakening Artemis. I unplugged, pulled back, and entered my own world and invited memories to come through me, calling forth the experiences that wanted to be processed or celebrated on the page. I was around few humans in Western Massachusetts and the Scottish Highlands where I wrote the bulk of the book, but I never felt alone. In solitude, I listened to the land and one by one, invited each of the twenty-four plants in the book to speak to me, so that through my writing,

I could give them a voice. I reflected on fungi like chaga (Inonotus obliquus) and spent time with them, deepening a feeling of intimacy. And as I sat with each plant in their chosen habitat, I meditated on their relationships, too.

Chaga is not the fruiting body of a mushroom, but a medicinal mass of mycelium known as a sclerotia, and unlike most mushrooms, chaga is a polypore, a fungus with pores instead of gills. Rather than growing in soil, chaga prefers birch trees, pioneers that grow quickly on the devastated land, creating conditions and habitat for other woodland species to thrive. The rapid life cycle of the tree pushes upward fast causing them to fall, rot, and break easily, and in collaboration with the fungi, their rotting creates more fertile ground for generations to come.

Chaga in Scotland

In the Scottish Highlands the birch trees adorned with chaga appear to be thriving. The mushroom has grown on areas where trees have been wounded, creating a strong poultice. I believe they are helping, but when the birch gets too old, the chaga, perhaps altruistically, will consume them. Some argue that chaga's relationship with birch is parasitic, while others say the relationship is symbiotic and that chaga helps heal the tree's wounds. Protectiveness itself can become smothering, so it's no wonder people debate whether chaga is good or bad for the birch. We all need a healthy balance of intimacy and solitude in order to thrive.

Beithe or birch is the first symbol of the Ogham alphabet, representing the letter 'B', and ancient birch woodlands are immortalized in many Gaelic place names such as Glen an Beithe, Allt Beithe, and Beith in Ayrshire; the old name of 'birk' also appears in many parts of Scotland. The tree has been an ally to people in the cold north for thousands of years with uses from adhesives to baskets, boats, vinegar, spirits, and medicine. In early spring before the leaves unfurl, the tree's abundant birch sap can be used for irrigation therapy to flush and reinvigorate the body after winter. The birch tree can continue living for many years while mounds of chaga adorn her trunk, just as we can survive and even thrive while adorned with scars from old wounds. Whatever they go through in their partnership, the combination of the two is potent,

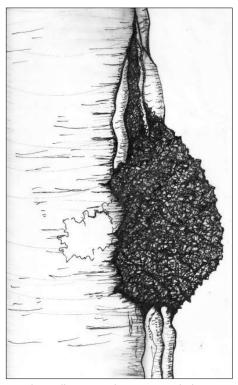
> and chaga, in the most medicinal form, does not exist without the birch tree.

> Chaga is a slow growing species, taking 3-5 years to fully form, and because of that, when I gather chaga for medicine (provided I have permission from the fungi, tree, and land) I leave plenty on the tree and only take as much as I need. The dark hyphal mass of Chaga intertwines with its host tree to form a unique fungal and tree interaction. The mushroom has the appearance of an irregular, cracked mass of burnt charcoal and when harvested, I find a beautiful color of rust inside. In my small muslin bag, the chaga I recently harvested looks and feels like a pouch of gold.

The name "Chaga" is the Russian word for mushroom in the language of indigenous people living west of the Ural Mountains and is deemed

"The Mushroom of Immortality" by Siberian Russian Shamans. A powerful adaptogen, this mycelial mass helps bring the body into balance through beneficial effects on the nervous system. Chaga is an effective cancer treatment that became widely known when Russian author Alexander Solzhenitsyn wrote about the healing powers in his 1968 semi-autobiographical novel, The Cancer Ward. The novel follows the work of Sergey N. Maslennikov, a Russian doctor who noted that he didn't have any cancer patients among the peasants he treated who saved money on buying tea by harvesting and brewing chaga. He felt they had unknowingly (or

maybe knowingly) been preventing and treating cancer for centuries. In order to test his theory, he began treating willing cancer patients only with the varied extractions made from chaga. His notebooks record the results of ideal methods of medicinal extraction and dosage and of his treatment of cancer with chaga, with many patients making full recoveries. Chaga has been an approved anti-cancer drug in Russia since 1955. It's important to note that the most important components of the chaga are the predigested betulinic acid derivatives and melano-glucan complexes from the birch tree. The mycelial mass is also a strong source of vitamin D, which is helpful for the long, dark winters here in Scotland and the other cold climates where this being lives.



Chaga Illustration by Vanessa Chakour

In the best circumstances both a fungus and their host benefit from the relationship— the fungus colonizes the host's root tissues, improving their moisture and nutrient absorption capabilities, and in exchange, the host plant provides the fungus with carbohydrates produced through photosynthesis. The fungi also provide greater connectivity with the larger forest web, which in turn, helps the forest function as one unified ecosystem.

Mushrooms also help by breaking down organic matter as they draw food and nutrients from decaying plants, dead animal bodies, and trees; making the nutrients available to the forest community.

Like chaga and birch, each of us contains the stories and memories of those we love. Some stories and experiences are harder to digest and compost, and sometimes they are one-sided making a relationship parasitic instead of healing. I'm fortunate that I've come to enjoy my own company, and even when I didn't, I understood it was necessary to be comfortable with myself before I could be completely comfortable with anyone else. I need a healthy balance of partnership, solitude, and intimacy in order to thrive. Through writing, visual art, or movement, I've learned (and do my best) to digest my own pain instead of unloading or projecting it onto others. And there are times when loved ones and I process pain together. One of us will lean in and let go,



Chaga harvested in the Highlands

while the other stands strong in an ever-evolving dance of symbiosis. Relationships offer a web of connection to catch us and to hold us even in periods of solitude. Even where we're alone, we are tethered to others.

About Vanessa Chakour

Vanessa Chakour is the founder of Sacred Warrior—a multidisciplinary educational and experiential "school" offering plant medicine, martial arts, wildlife conservation, and meditation through courses, workshops, and retreats. Her book, <u>Awakening Artemis: Deepening Intimacy with</u> the Living Earth and Reclaiming Our Wild Nature will be released in December 2021 and available for presale this summer. It is equal parts memoir, self-development guide, and love letter to the Earth. You can find her at vanessachakour.com.



Pic of Vanessa in The Scottish Highlands by John Young

REVIVING THE AMERICAN CHESTNUT - RESTORING ABUNDANCE IN MID-ATLANTIC FORESTS BY PLANTING TREES WITH KIDS!

By Joseph Resch & Lauren Krumm

Bringing Back a Keystone Species:

Imagine a woodland of towering trees, some over one hundred feet tall with trunks up to fifteen feet across, and a thick layer of delicious nuts blanketing its floor. The creatures bustle about, gathering as much of the

precious food as they can. Allegheny woodrats and other rodents add chestnuts to their winter caches, bears have a buffet, flocks of passenger pigeons and wild turkeys hurriedly gulp them down, and even humans could be seen collecting basketfuls of this rich source of nutrition. This would have been a common scene in parts of the Eastern United States, where the American chestnut (Castanea dentata) trees were once a keystone species in our forests. Though we may never see this in our lifetimes. and several of the critters that relied on these trees have gone extinct (passenger pigeons and several species of moth), we can certainly help Nature make progress towards filling this niche again. In this article, we describe the efforts of Antinanco, a non-profit organization based in Holmdel, NJ and our community of families, friends, and volunteers to help bring

these and other native food-producing plants back to our forests.

The original idea was to hold a tree planting workshop for kids and focus on restoring trees which both needed help in repopulating and could add the greatest value to the ecosystem. The American chestnut was chosen not only because of its unfortunate demise and functionally-extinct status, but its great potential to help feed our dwindling wildlife populations and possibly even people, as it did long ago. The inspiration to choose a tree with this potential comes from the examples that our indigenous brothers and sisters have set for us, which show that **the Land can be gently cared for in a way**

that creates habitat for a diversity of life, and native plant species can be intentionally cultivated in order to feed this life.

In November of 2018, amidst a blanket of fresh wet snow, a group of roughly fifteen children, adults, and a cute dog named Gigi set out upon a rustic farm in Eastern Pennsylvania to plant chestnut seedlings. Under the leadership of Joseph Resch, who assumed the position of the American Chestnut Revival Project Leader shortly thereafter, the group planted twenty-six trees with love and careful intent, named, and protected them from deer with funny-looking white plastic tubes. The seeds, or rather, seedlings, were sown. Though this was just one activity in a weekend-long event focused on practicing and preserving Earth-centered traditions, it was soon to grow. After experiencing firsthand the

enthusiasm of the participants and volunteers, it became clear to the Antinanco team, expanding on the program was inevitable and would be of great benefit to all.

Knowing there are no fully chestnut-blight resistant seeds or seedlings yet available, though there are organizations such as the Connecticut Agricultural Experiment Station and the American Chestnut Foundation working diligently on solutions to this, we select seedlings for planting from surviving American chestnut trees with the ability to resist the blight enough to flower and produce nuts. This method will provide a new generation of trees that can be monitored for blight-resistance as well as help preserve the genetics of the surviving native trees we have been left with. From those trees, the individuals which demonstrate the ability to grow

trees, the individuals which demonstrate the ability to grov strongly and produce nuts can be used to help breed even more tenacious generations in the future.



An American chestnut resprout on Long Island, NY. This is most likely a remnant of what was once a healthy tree a century ago.

Adding to our mission to revive this keystone species at a time when it is needed most, we have begun expanding the diversity of our planting sites with other native trees. Wherever possible, we utilize spaces that have been left by other trees which are unfortunately declining due to invasive pests. After all, as the old adage goes, variety is the spice of life. The more we can provide diverse food sources for our wildlife, the more resilient their populations as well as our ecosystems will be. The canopy space once occupied by an Ash tree for example, which unfortunately may have lost its battle with the invasive Emerald Ash Borer, can be replanted

with another species that needs help reestablishing and enjoys similar site conditions. While our primary focus so far has been to reintroduce the American Chestnut tree, we want to make sure there are as many species as possible producing food for humans and wildlife at any given site.

Many gardeners may be aware of a concept called "companion planting," in which different species of plants are intentionally grown in close proximity to each other to make use of specific benefits they may provide. Antinanco has incorporated plantings of other native species with the chestnuts, some with the intent of possibly aiding the chestnuts' growth and health and others in order to expand the diversity of food production on the sites. For example, herbaceous perennial plants such as False Indigo (Baptisia australis) and Slender Bushclover (Lespedeza *virginica*) were added near the trees to make use of their nitrogen-fixing abilities as well as for their potential benefits to pollinators. Native trees such as Honey locust (Gleditsia triacanthos) and Black Locust (Robinia pseudoacacia) were planted for the same purposes, spaced a bit farther away, and can be cut back without being killed if they begin to compete with the chestnuts. Native fruitproducers, Pawpaw (Asimina triloba) and Persimmon (Diospyros virginiana), were planted at the sites as well, with Pawpaws being sited where the soil stays more consistently moist.

Over the following two years since the first planting, Antinanco offered four more tree planting workshops in Pennsylvania and New Jersey. This has resulted in a total of two hundred fifteen native trees being planted by volunteers, children, and families. We pay these trees a visit each season to remove weed competition, take measurements, and compare the impacts of companion plants, tree genetics, sun/shade on site, and juglone presence on their health and growth. Also of great importance to us is the ongoing monitoring and care of our American chestnut seedlings. We have noticed signs of chestnut blight in several of them, with the majority

showing the ability to grow well despite this so far. We plan to test various methods of helping these trees as they grow, gathering as much useful data as possible along the way. Some of the trees from our first planting have already exceeded six feet in height.

Antinanco's American chestnut tree planting workshops have evolved into a well anticipated annual program, offering a fun and educational channel for raising awareness of the American chestnut's decline and its impact on local ecosystems. Our hands-on approach

> includes learning activities as well as group discussions with our resident forest experts and step by step training and guidance through the planting process. Local volunteers learn to prepare a comfortable home for the trees by taking measures to protect them from wildlife, digging holes to proper depths, inoculating the roots with ectomycorrhizal fungi spores, taking careful notice of soil levels, and adding companion plants. Each newly planted seedling is named and labeled, which is helpful in tracking their progress and makes them easier to find when volunteers revisit their trees.

Our 2020 planting season saw much growth in attendance and overall interest in the project. We engaged over 150 local scouts, students, parents, and other volunteers within two planting events. Amid the Covid-19 pandemic, our participants enthusiastically turned out with shovels in hand and contributed to the planting of forty American chestnut trees, forty-three Pawpaws, ten American Persimmons, nine Hazelnuts, five Honey Locusts, three Black Locusts, and hundreds of companion plants.



Two-year old hybrid American/Chinese chestnut seedlings ready for planting. If seedlings are to be started in containers, a deep pot is best for establishing a long healthy taproot.



Hardware cloth is cut and shaped into cylinders to protect the base of each tree from rodent damage. Without it, they can be girdled or completely cut off at the base.

Recent Developments:

In addition to growing community involvement, Antinanco is proud to have published and released our very first book *American Chestnut Tree* Conservation Field Course - Manual for Forest Ecology and Conservation of the North-East States. The manual is designed for undergraduate college students and explores the topics of ecological principles to manage ecosystems, specifically focusing on the conservation of the American chestnut tree species. It includes fieldwork and lab components

and teaches how to recognize forest disturbances, determine forest age, identify dominant and understory species, the principles of basic tree identification, and how to measure biological diversity, tree growth, and tree health.



Both paperback and digital versions are available for purchase on our website: https:// www.antinanco.org/productpage/american-chestnut-treeconservation-field-course-manualfor-forest-ecology

or Amazon: https://www.amazon. com/AMERICAN-CHESTNUT-CONSERVATION-FIELD-COURSE/ dp/0578806932/r 1 2?dchild=1&ke vwords=american+chestnut+conse rvation&qid=1609771471&sr=8-2

During the spring and fall semesters of 2021, students are invited to participate in Antinanco's newly offered American Chestnut Fieldwork Course. The course will be based on the American Chestnut Tree Conservation Field Course Manual mentioned above and consists of eight lessons. The course is intended for students wishing to gain a foundation knowledge about the history and plight of the American chestnut tree, tree care and maintenance, its importance in the northeastern ecosystem, the impact of its demise on other species, and its symbiotic relationships with companion plants and fungi.

If interested in participating in the American Chestnut Fieldwork Course, visit: https://www.antinanco.org/ american-chestnut-tree-course for details.

Last Autumn, the Antinanco Chestnut Team enjoyed road trips and hiking through forested locations in NJ, PA, NY and MA in search of American Chestnut trees that have survived or are surviving with the blight. Our mission is to find and forage viable nuts, which will be carefully grown and tended as the next generation of native chestnuts to help expedite natural selection and preserve the genetics of the species.

Get Involved:

Stav informed about our American chestnut adventures. planting events, volunteer opportunities, and project developments by signing up for our mailing list here: https://www.antinanco.org/subscribe.

Visit our website at: https://www.antinanco.org/americanchestnut-trees to learn more and join us on Facebook, https://www.facebook.com/antinancobee, where we post regular updates about the project.

You can also contribute to this project by supporting the following public parks, which have generously offered their land as a safe home for the seedlings. These parks and the amazing caretakers of these lands are protecting our plantings for the future.

- Columcille Megalith Park in Bangor, PA: http://columcille.org/
- The Land Conservancy of NJ, South Branch Preserve in Mount Olive, NI: https://tlc-nj.org/portfolio-item/into-the-woods/
- Graver Arboretum in Bath, PA: https://www. muhlenberg.edu/aboutus/graver/

Educational Resources:

We also encourage anyone interested in learning more about the American chestnut, its history, and restoration efforts to look into:

- American Chestnut: The Life, Death, and Rebirth of the Perfect Tree, a book by Susan Freinkel
- The American Chestnut Foundation at: www.tacf.org
- Sandra L. Anagnostakis' extensive publications at: https://portal.ct.gov/CAES/ABOUT-CAES/Staff-Biographies/Sandra-L-Anagnostakis
- The American Chestnut Cooperator's Foundation at: www.accf-online.org
- Clark, Stacey. L, An Introduction to the American Chestnut Online Course. Available at https://www.srs. fs.usda.gov/products/courses/

In Conclusion:

This project is about connecting, or re-connecting, plants and people in a mutually beneficial relationship. By restoring food-producing species to the forest and carefully tending to them as a community, we can help spread awareness about natural food production for humans and wildlife and not only preserve, but cultivate biodiversity. Quite possibly, these legendary native trees may one day decide to reward us with baskets full of Chestnuts, Pawpaws, and Persimmons.

Contributing Authors:

Joseph Arnold Resch

Joseph began caring for plants and gardening at the age of five and has worked in the green industry for over eleven years: working at a farm, landscaping, managing a garden center and most recently a retail nursery. He leads Antinanco's effort to help the functionally-extinct American chestnut tree as Project Coordinator as well as guides hikes and plant workshops. The most rewarding thing for him, however, is helping people to connect with Nature, and he draws on a lifetime of experience for that.

Lauren Anne Krumm

Lauren's lifelong appreciation for Nature paved the way to her passion for preserving ecology and working with plants and herbal medicine. From 2012 – 2018, she worked as an herbal apprentice, helping build an herbal business and offering her homegrown teas and topical remedies to the public. Lauren joined the Antinanco team as the Green Initiatives Outreach Coordinator in Spring of 2020 to recruit volunteers for the American chestnut project. She is honored to contribute her public relations skills towards empowering community through cooperative ecological restoration.

About Antinanco:

Antinanco is committed to preserving traditional and indigenous knowledge and providing public access to education beyond the classroom walls through nature experiences, hands-on projects, international cultural exchange programs and environmental conservation projects.

DEEP IN THE FOREST: THE CO-EVOLUTION OF COMMUNICATION

By Bevin Cohen

Truly fascinating, the relationships amongst plants. Many volumes have been written and sold on the topic of companion planting, the theory that growing certain species in close proximity to each other is somehow beneficial to one or both of the plants. This is sometimes attributed to one plant's ability to attract certain insects or deter unwanted pests or sometimes, it's almost as if the two species are engaged in some type of mysterious partnership, beneficial to both, yet the terms of the agreement are known only to them. In other words, we're not sure why these plants perform so well together, but we certainly know that they do.

Modern science has developed a theory that plants have found ways to communicate with each other, that the "trees can talk." This is attributed to a relationship between the roots of the trees and the mycorrhizal fungi within the forest soil. While this is a "new" theory, this knowledge is anything but. The Indigenous people that walked these forests and fields have known this truth for centuries. Their understanding of the tree's ability to communicate ran deeper than just the surface of this basic concept. They were aware that the trees are alive in spirit, and surely these trees are cognizant of their dependence upon each other as well as the other plants and animals of the forest.

This brings to mind a documentary I watched with my son a few years ago about the brazil nut tree, Bertholletia excelsa, and the many birds and insects that rely on this tree's micro-ecosystem for survival—from the euglossine bees that are the only insects able to gain access into and pollinate the trees' unique flowers, to the agouti, a small rodent that is one of the few animals with the ability to chew through the very hard pods of the brazil nut. The agouti, who buries the nuts for later enjoyment, much like the common squirrel of North America, is the main dispersal mechanism for the brazil nut tree's seeds, which would be unable to propagate without the rodent's assistance.

This relationship between certain plants and animals is like a conversation, tied to an evolution that in some cases began hundreds or thousands of years ago, if not more. As the tree evolved their seeds into nuts, rodents evolved to collect and consume them. The tree's nut then adapted to include a shell, and the rodents responded with larger, stronger teeth. Soon predators joined the conversation, eager to take advantage of the distracted munching rodent, using this opportunity to swoop in onto a meal of its own. The trees chimed in with thicker, harder shells on their seeds, and the rodent's only response, unable to chance the extra time out in the open gnawing through this shell, was to scurry away with its prize, thus dispersing the seeds out and away

from the shadow of the mother tree. This is almost like an evolutionary dance, with each partner responding to the next and moving in step, forever twirling together through time.

We delve deeper into the nature of interdependence when we contemplate the fascinating communication and relationships involved in the development of cocoa beans, the fruit of the tropical tree, *Theobroma cacao*. The luscious treat of chocolate that many of us enjoy certainly would not be possible without the intricate dance of maggots, midges, lizards, and monkeys that so magnificently displays the significance of these interspecies relationships.

Another fine example of the co-evolution of communication between plants and animals is that between birds and the chile pepper, Capsicum spp., a spicy-fruited, herbaceous plant native to South America. What gives the chile pepper its spice are capsaicinoids, naturally occurring alkaloids that function as a defense mechanism designed to protect the seed-laden pods of the capsicum plant from predation from mammals. This chemical irritant produces a sensation of burning in any tissue with which it comes into contact.

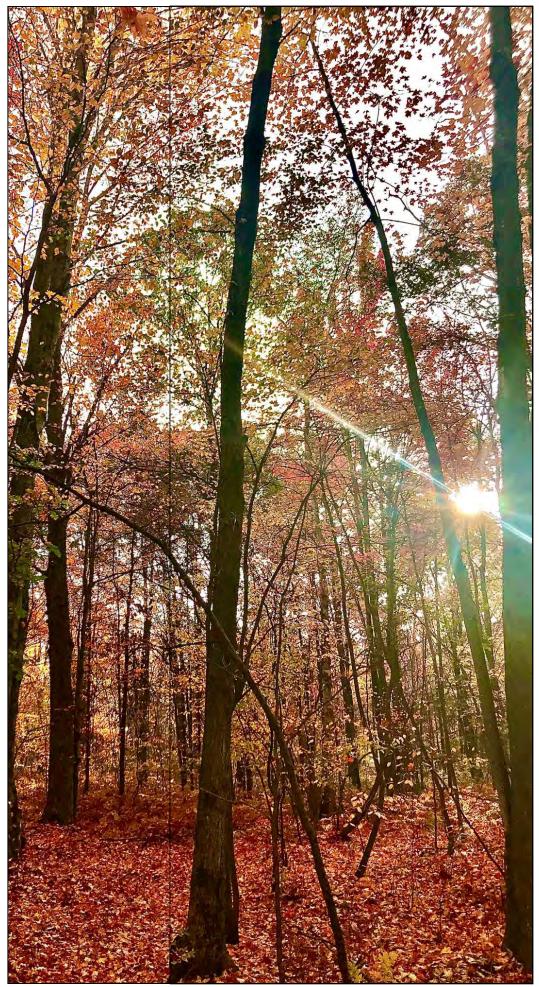
Interestingly enough, birds do not have capsaicin sensitive receptors in their mouths and therefore can easily consume the peppers with no adverse effect. To further this symbiotic relationship, ripened chile peppers typically turn a vibrant shade of red, a color that birds are naturally attracted to. In this agreement between plant and animal, the chile plant provides food to the bird in exchange for the avian assistance in widespread seed dispersal as the seeds are passed through the bird's digestive system. This is a particularly beneficial relationship for the chile plant, as it has been documented that the germination rates of capsicum seeds passed through the digestive system of a bird are notably higher than those that have not.

These relationships between plants, animals, and insects are truly fascinating and deserving of further study. One can't help but wonder about the depth of these conversations as we stroll through the forest, a network of mycorrhizal fungi passing information from tree to tree beneath our feet. But far too often we view the world from the vantage point of the outsider, wandering through Nature's museum as if we're critiquing fine art or gazing upon creatures on display at the zoo. This is perhaps our greatest error. By studying the world from the outside, we tend to forget that we too are a part of this relationship, that our voice is also needed in this conversation. Just as the plants, animals, and insects have developed co-dependent, symbiotic relationships, we have also evolved in conversations with all of Nature's wonders. After generations of playing the role of "observer," we have lost touch with our connection to

the order of things, creating an imbalance that in the short term is unsustainable and in the long term, cataclysmic.

I won't preach to the choir about the dangers of deforestation. We all know that continuing to take and consume without an equal effort put towards giving back is both short-sighted and destructive, and this holds true regardless of which disbalanced human-to-nature relationship we choose to analyze. But if we look to the forest not just as a series of networks, but as a complete, fully-functioning, living organism, then perhaps we will learn what the trees have always known—each part of the organism is equally valuable no matter how small or insignificant it may seem. Until every relationship is considered sacred and alive with spirit, then we will continue to have the same one-sided conversations with nature that have wreaked havoc upon our planet and the delicate balance of her ecosystems. As the world warms and the forests die, it is crucial that we accept our role in this madness and do our part to improve these relationships. It's time to have better conversations.

Bevin Cohen is an author, herbalist, gardener, seed saver, educator, and owner of Small House Farm in Michigan. Cohen offers workshops and lectures across the country on the benefits of living closer to the land through seeds, herbs, and locally grown food, and he has published numerous works on these topics, including the bestselling Saving Our Seeds and his highly anticipated new book, The Artisan Herbalist (New Society 2021). He serves on the board of the International Herb Association and the advisory council for the Community Seed Network. Learn more about Cohen's work on his website www.smallhousefarm.com.



WEB EXCLUSIVE

LIVING TREES AS OUR TEACHERS AND FRIENDS

By Rhonda Mae PallasDowney

Living as Human Adaptors

Relaxing and reflecting on various herbs, flowers, trees, and plants, their uses, and my relationship to them this past summer touched a place inside of me that continues to guide my inquiry into the field of adaptogens. All the while, I was experiencing an adaptation of my own that included the awareness of my lifestyle and all that it encompasses. The mindfulness of the changing of the seasons and what each season requires of me, although familiar, is a new way to adapt.

For example, slipping in from spring to summer especially changes my outdoor routine from walking and hiking most every day to swimming. This includes getting up an hour or so earlier and becoming accustomed to the timing of the sunrise, the sunset, and the Arizona heat. This timing change then also affects everything else I do all day long and the time in which I do it, affecting both my internal and external environments.

And as a plant enthusiast, I learn to readjust to the seasons changing within the season. Global warming, inconsistent weather conditions, the imbalance of drought vs. rain, etc. play an enormous role in my life in the way that I gather plants and make essences, even if the flowers are just a few weeks or sometimes a month off of the normal blooming period.

Oh yeah, and then there's everyday living. There are some days that go smoothly and just require a general routine such as eating, sleeping, job, family, hobbies, etc. without any drama. Piece of cake, right? And then there are those other days that may be comprised of various kinds of major dramas, whether in the world (that is everyday, in the politics of our country and worldwide issues), in our communities, or at home. And the list goes on, suffering at many levels, sickness, recovery, death, birth, and the evolving re-birth (mind-body-spirit) of humankind.

Each and every day we live our lives navigating our way or not, planned and/or unplanned, looking for, grasping on, and letting go, being present, being mindful, over and over, while adapting to being "normal" and yet authentic in nature to who we are. Now that's a lot of energy we hold in our energy fields! We become used to it, familiar with it, and as long as we're feeling strong, usually we can hold the energy and get by without a collapse. However, if and when we have those weaker moments ...

READ THE FULL ARTICLE ONLINE AT

www.unitedplantsavers.org/pallasdowney

RESTORING THE MIDWEST **OAK SAVANNA ECOSYSTEM:**

Utilizing sustainable forest herb farming to save a disappearing Iowa biome.

By Wendy M. Welder

Abstract

The Midwest oak savanna is a rare ecosystem disappearing rapidly from North America. Once covering millions of acres, the long ribbon of oak trees running from Mississippi to Canada is disappearing due to deforestation, overgrazing and wildfire suppression. The Midwest oak savanna is a transition point between mountains and plains and named for the predominantly occurring tree, the oak. Scattered throughout eastern lowa, pocket biomes are all that survive of what was once a massive ecosystem dominated by different oak species running from the southern United States to Ontario. That ecosystem loss brought by human expansion involves more than trees. Some of the most potent medicinal herbs native to this continent and also native to the Iowan midwestern oak savanna, including American ginseng (*Panax quinquefolius*), black cohosh (Actaea racemosa), goldenseal (Hydrastis canadensis), and bloodroot (Sanguinaria canadensis), are disappearing as well. Once abundantly growing under the shaded canopy of the oak savanna, these plants are endangered. This ecosystem encompasses a large piece of the North American medicine cabinet. Preserving the savanna through medicinal herb farming is a potential tool to save a small portion of the North American Pharmacopeia and the environments that best support it. Restoring and conserving the Midwest oak savanna by sustainably farming endangered forest herbs may be the answer to save the plants, the medicine, and a biome for generations to come.

Introduction

The remnants of the ecosystem known as the Midwest oak savanna (MWOS) border the tall-grass prairie in southcentral lowa. Characterized by prairie grass with widely spaced trees, (Dey & Kabrick, n.d.) the North American oak savannas have historically supported forest or woodland herbs including goldenseal, black cohosh, bloodroot, and American ginseng. All of these plants are native to the lowa portion of the MWOS and are disappearing. The reason for this is the loss of habitat and irresponsible, often illegal, harvesting practices. The declining forest herb occurrence is secondary to the oak savanna ...

READ THE FULL ARTICLE ONLINE AT

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WEB EXCLUSIVE

FOREST BATHING: STAYING **CONNECTED IN CURRENT** TIMES

By Teri "Cricket" Owens RN, BSN, MS

Many cultures have long recognized the importance of staying connected to the natural world to maintain human health. In fact, a fair portion of human evolution can be linked to our intimate relationship with nature.

It is really only over the last 200 years or so that we have gradually reduced our interaction with the outdoors. Going back to nature can return us to an improved quality of sensory awareness, of calm, and clarity. Being in nature can bring about a feeling of "returning home," which gives us a spontaneous sense of peace and happiness, for the state of our mind sets the stage for our life.

According to a study sponsored by the Environmental Protection Agency, the average American (pre-pandemic) now spends as much as 93% of their time indoors. Based on this, there is growing scientific evidence that getting outside in a natural setting is good for mind-body health. (#1)

In recent decades this idea has become known, in psychology, as "Restoration." The Restoration Theory (Kaplan, 1985) and its closely connected Stress Recovery Theory (Ulrich, 1991) maintains that our recovery from stress starts within minutes of entering a green or natural space. (#7)

As soon as the physical body begins to relax, stress hormone levels decrease, muscle tension reverses, blood pressure stabilizes, and our mental health improves. Once our mood lifts we can think more clearly and our feelings of vitality return. It is noted that we literally exhale a sigh of relief and begin to breathe more deeply. Studies indicate that in order to positively contribute to our mental and physical health, the time needed in nature can be as little as 20 minutes a day. (#7)

To this end, Japanese culture, in recent decades, has begun to practice and actively promote forest bathing, or shinrin-yoku. Shinrin in Japanese means "forest," and yoku means "bath." So shinrin-yoku refers to "bathing" or immersing oneself in the forest atmosphere. While Japan is credited with the term shinrin-yoku, the concept at the heart of the practice is not new ...

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www.unitedplantsavers.org/owens

THE SUN, FLUTES, AND **ANGELICA**

By Abrah Arneson

Let the beauty we love be what we do. - Rumi

The sun's warmth is generous. It is full of hope. The sun beckons us to emerge from shadows and bloom. The sun inspires the best in us. Northern people know this. On the first warm spring day, Northerners come out of their houses, turn their faces towards the sun, and smile.

In the north the sun is a goddess—gentle, loving, and healing. During mid-summer rituals when the sun rides high in the sky, Celts honour Aine, the Goddess of summer, love, and wealth. Our bright life giving star is named after the Norse Goddess Sunna, known for her kindness. Europe's oldest sun Goddess belongs to the Sami, the indigenous people of Scandinavia. She is Beaivi, the Goddess who blesses plants, reindeer, and sanity.

The Sami do not anthropomorphize Beaivi. She is not a Goddess with long flowing hair and radiant beauty. Nor is she old and wrinkled. I am not even sure if we can give Beaivi a gender from a western point of view or even call her a Goddess. Beaivi is the gentle, glowing caress that thaws frozen waters, warms the earth, and awakens plants from their deep slumber. The Sami tell stories of the reindeer carrying Beaivi across the sky. The Sami call the reindeer, "The Heart of the Earth."

One of the first plants to receive Beaivi's blessing and awaken is angelica (Angelica archangelica). In early spring, while the north and south winds fight for sovereignty over the frozen earth, angelica rises like a flame and calls to the beloved sun Goddess, "I am here. Remember me." Angelica reaches for the Sun like a lover long separated from her beloved's touch. Angelica is a plant that belongs to the sun. And like the Sun, angelica is a generous plant. In early Spring when food is still scarce, angelica nourishes the reindeer who have wandered all winter long and the bear who has just awoken.

How angelica received its name is a well-known story. It was the mid 14th century when the Black Death was sweeping across Europe indiscriminately harvesting the souls of the rich, the poor, man, woman, and child. Rotting corpses pile up at the edges of towns. People awoke in the morning feeling well and strong and were dead by nightfall. It was a terrifying time in the history of humanity. No one knew how to cure the Black Death ...

READ THE FULL ARTICLE ONLINE AT

www.unitedplantsavers.org/arneson

EXTENSION DIRECTOR PENS NOVEL FOCUSED ON GINSENG AND CONSERVATION

By Jim Hamilton



Dr. Jim Hamilton promotes ginseng planting and conservation. Photo credit NC State University

Dr. Jim Hamilton is a county director for North Carolina State Cooperative Extension, based in Boone, North Carolina. Over the last 9 years, he's presented at several conferences and seminars and currently leads farm tours, demonstrations, and workshops on the cultivation of wildsimulated ginseng (Panax quinquefolius) in western North Carolina. In 2019, he published a novel that draws from his deep

appreciation of the culture and people in the ginseng and medicinal herb trade while highlighting the threats and need for conservation.

"I started the novel six years ago with the help of a career writer and novelist, Glenn Bruce. I've been writing technical articles throughout my career. So, coming from a science and technical background, I can't tell you how refreshing and terrifying—it was to write this. There are plenty of articles and technical information out there on the history and production of ginseng. All those shows like Appalachian Outlaws had just come out, and I felt the need to sort of 'set the record straight' in the fiction world on the 'real world' of forest farmers and ginseng hunters."

While the story is fiction, Jim relied upon the real life experiences and stories from many of the producers with whom he works to create the narrative and the characters. With degrees in forestry and experience working in agroforestry and Christmas tree production, Jim transitioned his Extension work in the mountains of western North Carolina into helping landowners create value and diversity under their forest canopy.

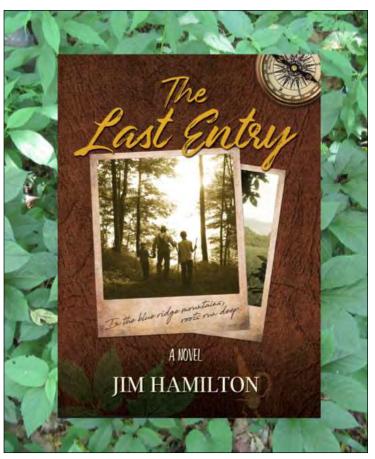
"By playing nice and taking genuine interest in the conservation of the plant, I've been adopted—or at least tolerated—by the medicinal herb community. They've invited me to their 'secret patches' to let me dig with them, plant with them, and learn. And, I wear the scars earned by the tangles of greenbrier with as much pride as I have in the ginseng root in my office that I found in one of my first 'seng-huntin' trips."

The novel is a coming of age story, centered on Tucker Trivette, a young man from western North Carolina who stakes his future on the forest farming skills he learns from his grandfather. Throughout the novel, you can see Jim's background as an educator shine through. He craftily sneaks in a number of teaching moments about the biology and ecology of ginseng and the forest and weaves other natural and cultural history elements into the narrative. While the story might be fiction, his commitment to conservation of the plant is not. As a result of his Extension work, Dr. Hamilton estimates that over 1,000 lbs of ginseng seed have been planted by those that have attended his workshops over the years.

Hamilton's novel, The Last Entry received a nomination for the Thomas Wolfe Memorial Literary Award and was a quarterfinalist in the BookLife Prize. It's available at a few Indie bookshops and on Amazon (https://www. amazon.com/Last-Entry-lim-Hamilton/dp/1940595711).

"My hope for readers who come or came from Appalachia, who may have moved off the mountain or moved away from their families' traditions, for whom huntin' seng was just one of those things they 'did with Paw Paw growing up,' is that they are reunited for a moment with the magic of the place to which their destiny of birthright rooted them."

Dr. Hamilton offers wild-simulated ginseng production workshops each fall. He can be reached at <u>jvhamilt@ncsu.edu</u> or at the Watauga County Extension Office in Boone, North Carolina at 828.264.3061



Hamilton's novel published in 2019.

ENVIRONMENTAL EDUCATION PROGRAM OF APPALACHIAN OHIO

By Emily Walter

Intrigue and skepticism mingled in the eyes of the students of Mr. Campbell's agricultural science class as they trickled into a room normally much emptier. Joe and I sat on their standard black science tables, legs swinging over the edge, making small talk with the students adjacent to us. I could tell they were trying to decide if they were in for an hour of boring lecturing that they had to respectfully pretend to listen to. I respectfully pretended I wasn't nervous.

Late last fall, my supervisor Joe and I were guests of an agricultural science teacher's class in rural Washington County, Ohio. We met Mr. Campbell through a problembased scenario workshop that Building Better Bridges to Careers, a partnership of nonprofits, businesses, and schools helping students of the Mid Ohio Valley achieve their professional goals, virtually hosted. We were partnered with Mr. Campbell's class to deliver an environmental problem for his students to research, analyze, and ultimately present a solution to. It didn't take more than a minute for Joe to suggest ginseng: a nuanced story of medicine, tradition, and exploitation.

We began class by asking students what they knew about ginseng (*Panax quinquefolius*). Did they have family members that hunt ginseng? Have they ever dug ginseng with their family members? Do they use ginseng as medicine? Creating space for students to share their experiences produces a student-led, conversational learning environment (unless they've never heard of ginseng, like a few students in this class told us). This was our big chance to inspire these students to engage in the stewardship of this special plant native to southeast Ohio.

We talked through a PowerPoint outlining the history of ginseng in China, its medicinal value and therefore economic value, and its legacy of importance to families in Appalachia. We looked at maps of ginseng's range, zooming in on the counties where ginseng has been documented in Ohio. Their faces illuminated when they saw Washington County shaded green to indicate ginseng's presence. What was an abstract, foreign plant ten minutes prior was suddenly something tangible they could find in the woods by their house. Consequently, they were more interested in learning the specific habitat ginseng needs to thrive. But what does ginseng look like? We looked at graphics of ginseng prong development as I tried to drive home ginseng's lengthy road to maturity.

The fun came when we played an identification game, "Is it Ginseng?" I threw photos of hickory seedlings, spicebush berries, and Virginia creeper their way to test their familiarity with the plant we had been discussing for the period. Shouts of "Nah, that's ginseng!" rang as students argued with one another about whether

they were looking at a ginseng imposter or not. After many rounds of "Is it Ginseng?," students were not only identifying ginseng correctly (no matter where the plant was in its prong development), they were fired up about preserving this unique plant. Quieter students began to speak up about how a grandparent hunted ginseng or that they themselves dug ginseng recently with their father.

Students also wanted to know more about what ginseng is used for and why it's so valuable. Mr. Campbell, too, was intrigued; he paused our PowerPoint to check what the internet reveals about ginseng's medicinal properties. Students' jaws slowly dropped as they read about the many studies about ginseng's power to support our immune systems; the importance of this point was deeply underscored by the pandemic. One student was mildly furious that nobody ever told her about medicinal plants that grow in these forests, plants that can help keep us from getting sick from a virus like COVID-19. Her rage quickly transitioned to enlightenment as she began wondering what other such plants may be out there.

Closing our time together, I encouraged students to follow a list of best practices for harvesting ginseng. They nodded their heads along to requests to harvest only older plants and gently plant the seeds. We left them with the question, "How can we create economic opportunity in our region with this overharvested and endangered plant, American ginseng?" Mr. Campbell reminded the students that Joe and I would be back in a number of weeks to hear their proposed solutions. Unfortunately, we have not yet returned to Warren High School because of rising COVID cases. Yet, I am confident Joe and I helped connect these students to our shared heritage and foster a sense of ecological responsibility. With new information on ginseng and class time dedicated to working in groups on the question we posed, Mr. Campbell's students are well positioned to generate solutions to real issues in their community. I hope this exercise demonstrates to them the value and power students have as citizens.

Visiting Warren High was but one lesson in our goal as an Environmental Education program to guide students of Appalachian Ohio down a path of environmental stewardship. In 2017, we partnered with Rural Action's Sustainable Forestry program to create a unit called Appalachian Stewards, our response to the garbage television show Appalachian Outlaws that popularized the poaching of ginseng. Since then, we have shared about ginseng, goldenseal (Hydrastis canadensis), wild ramps (Allium tricoccum), and other amazing plants with over 1,000 students in Appalachian Ohio. We even planted ginseng on land labs at several local schools (we won't name them) with students in grades 4-6 and their teachers. One student shared that he's been digging 'sang since he was 3 years old, and he helped us teach his peers about ginseng and the rules of harvest. According to outreach by the Smithsonian Institute, Rural Action is one of the only organizations doing this type of education with schools focused on ginseng. We are happy to share lesson plans and other nuts and bolts for other organizations who may be interested in doing so. Contact us at joe@ ruralaction.org.

Our Sweet Earth

Teach us your ways, Earth, oh Earth Teach us your ways our sweet Earth,

From magic of your seeds To pollinating bees

Your trees and leaves in a dance Your flowers got us in a trance

Teach us your ways, Earth, oh Earth

Flowers shaped like a heart So thoughtful in your art

Your stems bare leaves and leaves bare fruits You put force in trees to grow shoots

Teach us your ways, Earth, oh Earth

From your bottom forest crawlers To the blue whale hollers

Your creatures have all your trust Nurturing for you is a must

Teach us your ways, Earth, oh Earth

You give birth to puppies Feather fins to guppies

You give caterpillars broad wings Always work miraculous things

Teach us your ways, Earth oh Earth

From the depth of your seas To your cool ocean breeze

You provide air for wings to soar Through your bravery lions roar

Teach us your ways, Earth, oh Earth

From your birds taking flight Giving mushrooms their might

Your power not estimated You know life as liberated

Teach us your ways, Earth, oh Earth

Blossoms bloom after pruned You give herbs for a wound

You balance your roses with thorns And can make oak trees from acorns

Teach us your ways, Earth, oh Earth

Through dogs you show us love You bring peace through a dove

Your heart for life always showing You are the ultimate knowing

Teach us your ways, Earth, oh Earth

Wolfs howl hymns to your moon Your dolphins have a tune

You're winter, spring, summer, and fall Your intricacies never small

Teach us your ways, Earth, oh Earth

From your crystals dancing To animals prancing

Your strength bares infinite weight Your timeless love is never late

Teach us your ways, Earth, oh Earth

Remedies from your land In love is where you stand

You never seize in providing Your calls are always inviting

Teach us your ways Earth, oh Earth

From your pure intentions Divine interventions

You are not black or white you are both And you show the beauty in growth

Teach us your ways Earth, oh Earth

You keep all hearts beating One rhythm conceiving Communicating veins and roots Healing vibrations sent through flutes

Teach us your ways Earth, oh Earth

Our allies are your plants To your moon we sing chants

Through your nonverbal eloquence You can love with such elegance

Teach us your ways, Earth, oh Earth

From waterfalls flowing Your sun always glowing

Colors, rainbows, mesmerizing Your shooting stars hypnotizing

Teach us your ways, Earth, oh Earth

With your strong love and more You are all we live for

You had us in mind from the start From the whole we became your part

Teach us your ways, Earth, oh Earth

From the pit of your core To the vast skies and stars galore

You provide oxygen to breathe You hold everything we need

Teach us your ways Earth, oh Earth

You bring dusk after dawn Moon wanes but never gone

In darkest nights you brightly shine You were here before start of time

Teach us your ways Earth, oh Earth

Earth, Water, Air and Fire With Ether will transpire

The balance of your elements Universal Intelligence

Teach us your ways, Earth, oh Earth

Teach us your ways Mother Earth

Teach us your ways, oh Gaia

Teach us your ways, my dear Terra

Teach us your Terresterial!

Teach us your ways, Earth, oh Earth Teach us your ways sweet Earth

— by Erica Marie

Inspiration behind the poem:

Awakening our eyes to the beauty and intelligence of the Earth and reconnecting with its spirit is imminent at this time.

This poem, or chant, is a bit of my heart outpouring to the Earth and our urgent need for reconnection to our land as the Indigenous people knew it best. Ultimately, the Earth teaches us more about ourselves through the microcosm and the macrocosm.

Observing and absorbing the wisdom and beautiful lessons of the Earth will benefit us individually as well as collectively. The Earth is something everyone around the world has in common and can participate in relationship with. The Earth sets no boundaries, divides. or exclusions. It's an all-inclusive land of magic we get to be a human in.

I strongly believe we are all here to be in continuous communication, trust and relationship with the Earth. Whether we believe in it or not, communication, trust and relationship is happening in the world of planet Earth.

We are all students of the Earth. Earth is our greatest teacher when we still ourselves and have the courage to listen to Earth's callings and messages.

When embracing and focusing on the Earth, we simultaneously learn many things about ourselves. The Earth is the Universe's beautiful work of art that we can admire and enjoy. The Earth is the most beautiful painting of life; it's up to us to get mesmerized in her beauty and knowledge and offer her some of the nourishment she offers us daily.

We must focus on not only growing our practice and learning from herbalists, gardeners, astrologists, and other human teachers, but also learning and growing from the Earth itself. By being an Earth student, we expand our capacity of learning and growing on a scale much larger than our individual perspectives and practice. It is the courage to listen to the entire Ecosystem going on around us and sustaining us. Tending our "Earth Practice" will help broaden our perspectives and get wisdom from the most ancient source possible, which will help carry us through all areas of our immediate human experience.

I hope this poem can remind us all of the magnificent workings of the Earth and how we, as a collective of plant people, as Earth's descendance, can help heal ourselves and others with the same magic the Universe shows us is possible every day.

Much love and light,

Erica Marie, Dog Herbalist, Forever Earth Student, *Lover of the Universe*

HEALING FORESTS

Out-of-the-box thinking about human collaboration with forest communities

By Jim Conroy, PhD., www.TheTreeWhisperer.com and Basia Alexander, www.PartnerWithNature.org

We've all heard of food chains, mycelium networks. That's observable science about interconnectivity in forest ecosystems. But there's more to it. We—lim Conroy and Basia Alexander—have done experiential science since 2003 healing trees' inner functionality (yes, from inside-out without products) and healing relationships in forests, fostering co-existence in Nature.

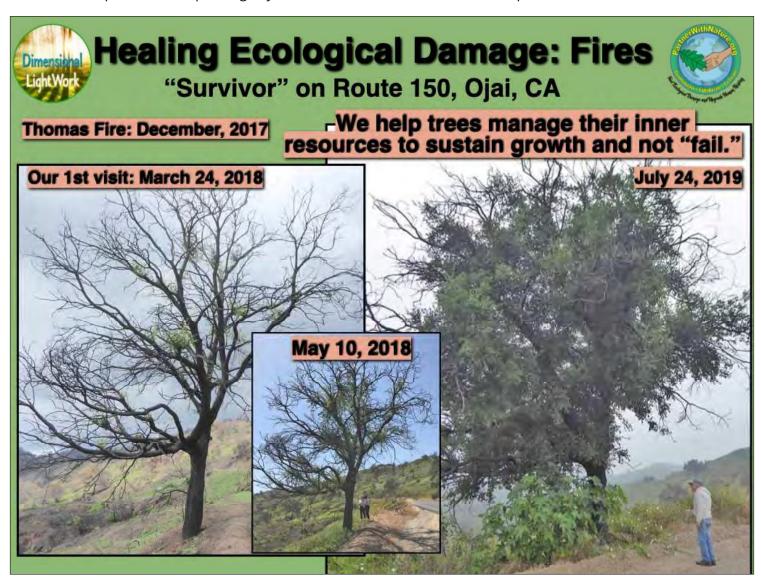
To be frank, if humanity is to survive ecological crises, people including scientists (Jim is a PhD. in plant pathology) must be open-minded and open-hearted in order to do what works to restore a livable planet.

Why do we say "healing?" Because the climate extremes, stresses, and imbalances that trees, plants (including medicinal ones), ecosystems, and forests endure cannot be solved with products or replanting. If you are as

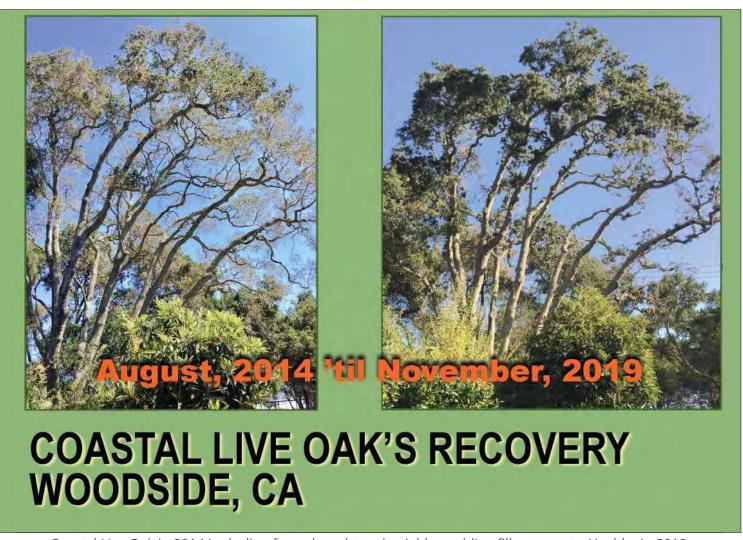
connected to the plant kingdom as we think you are, you know deep down that's true, and you may fear that there is no way back to livability on the planet. In the current human mindset of domination, control, and superiority, that's true.

But with an upshift of thinking a livable planet is possible. Humanity needs to re-accept as normal the ideas and practices of communicating, collaborating, and co-creating in partnership with the living Beings of Nature. It's always been normal for ancient and indigenous peoples.

We believe that many United Plant Savers members already communicate with plant spirits. In that experiential—even spiritual—place is where a method of structured overlap of human consciousness with



A single Coastal Live Oak selected to represent a community of hundreds after the Thomas Fire in California. Consciousness-based healing methods help surviving trees more effectively and efficiently manage their inner resources to sustain growth and not "fail."



Coastal Live Oak in 2014 in decline from drought and neighbor adding fill over roots. Healthy in 2019 after consciousness-based healing methods twice a year.

plant consciousness can heal forest communities. We say "overlapping human and plant consciousness," and it's done through innovative energy-medicine healing systems specifically for trees, plants, and ecosystems. Hope for a livable planet exists inside of your open-mindedness about such approaches.

The simplest approach also empowers people. It's about conveying intentional messages from the heart by whispering. The messages give Nature the information She needs at high levels of consciousness to be more effective and efficient in quickly overcoming the effects of climate extremes and stressors. We've seen this work save trees during Hurricane Sandy. There is also an advanced healing system using intuitive question-asking and targeted healing engagements with living Beings. We teach this method to people who want to foster balance on their land.

Let's think outside of the box about forests as communities. Yes, living beings in forests share resources and have sophisticated mutual collaboration via root or mycelium networks. Those are observable. What if there were a different way of thinking about forests as living communities that goes beyond what we can see?

What if there are added dimensions of interconnectivity that we can feel or know by being "in touch" or consciously aware of the "beingness" of trees, plants, and the forest?

Let's talk about the trees' world. In the trees' world, one trunk is not a tree. From the trees' point of view, many trunks are the tree. Many oak trunks make a unified oak tree. From the tree's point of view, many maple trunks make a unified maple tree—even if their roots don't touch, even if they are across a highway from each other. And what if, intertwined in both the oak and maple communities, there are other communities of living Beings? What if all were actually unified as a single Being: a forest? We know that interconnection happens on many levels beyond what can be seen and beyond physical touching.

How? What if the apparently individual trunks of each species sent out vibrations to each other, like a song that they all sing together or information that they all share? Perhaps the vibrations that all living beings generate from their bioenergy fields at both cellular and macro levels UNITE each species? And further, perhaps each "song" is shared so that all species of a forest "sing" or



Phytophthora on the same tree cleared after the tree became healthier.



A single Lodgepole Pine. In the inset, note hundreds of Pine Bark Beetle "hits" on the trunk from 2007. This tree and its community of hundreds of others that we gave consciousness-based healing methods to in Fraser, Colorado thrives in 2017 to this day.

vibrate or share information together? We believe a forest is a massive vibrational information-sharing network. Or should be.

Consider this: Some people believe that harmful insects or diseases weaken trees. But really, the weak tree comes first, and it attracts the insect or disease. It may be weakened by the stresses of climate extremes, pollutants, or human interference. In the forest information-sharing network, stressed trees or plants emit an off-beat "song". They send a modified message to their community because they are asking for help. They also become prey to insects and diseases that can sense the different vibrational information the weak plants are emitting.

Forests are not automatically healthy as massive vibration information-sharing networks. If trees or plants are very weak and send out degraded vibrational information, they fall out of community altogether so as not to put the community at risk. In other words, with more pollution, climate extremes, and interference, 32 | Journal of Medicinal Plant Conservation

forest communities will break apart. That is how forests die. They lose their mutual vibrational interconnectivity.

Doing practical things such as reducing carbon emissions and saving endangered plants is absolutely necessary. But that's only half of what's needed to restore a livable planet. The other half is open-mindedness and upshifted human thinking. Existing forest communities can be healed, repaired, and reconnected. Consciousness-based energy-work can be used so that vibrational information sharing can return as operational and optimized in forests.

This notion of forests as **massive vibrational information-sharing networks** is just one of the ideas that we teach and use in practical ways to heal the living beings of forests and the interconnectivity of forests as wholes.

Yes, we have results. We can show you the Lodgepole Pine forests of Colorado, improvement in trees with Phytophthora, and the survival of trees after fires in California. Our photos are not commercials. They are examples of what's possible when people communicate, collaborate, and co-create with Nature in partnership through methods using consciousness.

The Calling

My back to the forest, the wind in my hair modern society in front of me, weak and in despair.

Our Earth mother calling to us to look the other way, We've gotten distracted and have wandered astray.

The deep woods draw us into peace, barefoot we walk, grounded the stresses finally cease.

The songbirds sing, the mushrooms speak, as the refreshing mist lands on your cheek.

Take a deep breath, close your eyes, as you allow yourself to release your cries

The time has come her beauty vast, finding my true self in the forest at last

— by Leanora (Lea) Patterson

FOREST ONENESS

By June Ellen Bradley

How do you consider your part of being in a forest community? Imagine actually knowing things you don't even know through deep connection. Imagine working together with a particular place to expand awareness. This is the kind of connection you are born with and have maybe layered it over with other things, which you can also remove. I'll illustrate this concept with one of my favorite stories from a private nature class consisting of two rambunctious seven-year-old boys in springtime. We always start at the Sacred Circle, our base camp as it were, where we anchor each concept and lesson on tree stump seating where all voices are equal.

The gloriously radiant springtime ephemerals were in full adoration of the forest floor as we admired them. We linked the presence of certain plants to the birds and animals living there.

"Everything in the woods is so connected we cannot even comprehend the depth of it," I told them. "You are as much a part of the forest as these plants are." "How's that?" one boy asked. So I said, "We can discover that together!"

It is always a particular challenge to get two vivacious interactive boys to "be still and go within." So after we played a few games to wear them out physically and did a lot of running, we found ourselves back at the Sacred Circle where all the magic begins. After several attempts, we finally got to one full minute of stillness and silence. I asked, "Where are the nearest people?" They pointed in the general direction of folks working in the garden. "How do you know?" Their answer: "We can hear them." "So, where is the nearest deer?" Response: "We don't know." "Yes you do, actually," I told them. We would need to do another "go within" exercise to find out. They were all over it.

"Connect with your heart. Close your eyes, pray, and ask yourself, "Where is the nearest deer?" Keep your eyes closed, and when you feel it, point and keep your hands up." (Pause) "Now open your eyes." When we did, we were all pointing in the same direction. They thought that was pretty cool. What they didn't know was that the lesson was far from over.

Restlessness kicked in again, so we got up and meandered in the general direction of where we pointed. We looked at some frog eggs in the swampy area and then went down to the stream where we found a clay vein and made some pinch pot bowls. As we walked along the trail, toward our spicebush, suddenly there was a crash, the breaking of sticks and a flurry of motion. Way out of any range of danger from us, a buck had jumped up from his daybed and bounded towards us a little bit—to be sure we got a good view! He was bedded down exactly where we had pointed. The looks on the boys' faces were priceless. The lesson was rooted deeply: We are that connected. Always.

So when I prepare for such a lesson, I ask the forest "Can I teach here?" and "Will you help me?" before a class.

One time, I was scouting an area to teach a tree medicine class at the Southeast Women's Herbal Conference. The ideal spot (in my mind) was happy to let me teach there but would not help. I had to find another spot! I was out of time to find another space and would have to repeat the process upon my arrival at the conference. I did try to argue my case, then realized that this was not very respectful.

The new place was found by listening to conversations as well as by physically sensing where to go. There were over 80 people in that class, and it turned out to be astoundingly transformative for us all. At the end, during sharing time and after class was dismissed, people stayed to share their wonder and healing stories for an extra 30 minutes. It was truly an expansive and memorable experience for all.

Learning to listen is what will ultimately bring us all back into harmony in the web of life. We will not always get our way, and the price of not listening can have some ugly repercussions. Once we understand and internalize that we are part of an interactive hologram of exquisite sensitivity—and learn to cultivate that sensitivity within ourselves—a vast and intimate wildness permeates our being. We become deeply grounded, fearless, and skilled in the language of Nature. Then it also becomes the privilege of a lifetime to pass it on.

I apprenticed with Tom Brown Jr., founder of The Tracker School, for 10 years. One of my favorite quotes from him is: "Your fear level is inversely proportional to your skill level." These days, if something frightens you, learn about it. Develop some skills around it. Listen and spend time in the sacred silence within. You have more love, wisdom, and power inside than you will ever know. You are the source. Find your treasure and bring it. We need you part of our forest community!



NEW MEDICINAL FOREST GARDEN TRUST WEBSITE

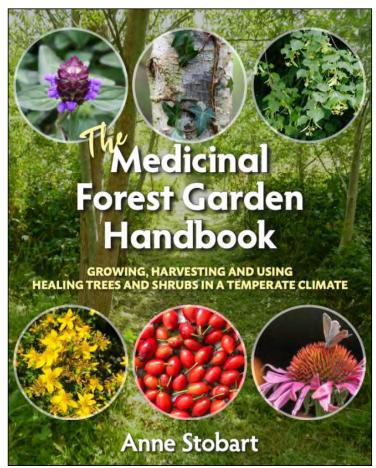
By Anne Stobart

A new website has been set up to help people who want to grow and harvest medicinal trees and shrubs. Over a decade ago Anne Stobart, a UK-based clinical herbal practitioner, joined the United Plant Savers intern placement scheme at the Botanical Sanctuary in Ohio. She came to learn about the plants of North America, and she went back home brimming with ideas about sustainable cultivation and harvest. In the UK and Europe, as in the USA, there is increasing recognition of the important role of cultivation for herbal medicine, as so many wild harvested herbal supplies are affected by habitat and climate change. Since that time Anne has designed several medicinal forest gardens in the UK and published a wellreceived book, The Medicinal Forest Garden Handbook (2020). Her handbook advises on design with healing plants using permaculture principles and includes profiles of medicinal trees and shrubs for a temperate climate.

Now, Anne has gone a step further, and she has established the Medicinal Forest Garden Trust website. This new website will provide a resource to help encourage herbalists and others to plan and grow their herbal supplies sustainably. On the website, there is information about trees to grow and suggestions for foresters and smallholders about practical issues. For anyone interested in further developing their own project there is also an online medicinal forest garden design course. Information will be added as blog posts including places to visit and background details such as research findings about healing trees. Visitors to the website can sign up for an occasional newsletter from the Medicinal Forest Garden Trust.

Currently, Anne is embarking on a restoration project with a local community keen to rejuvenate a neglected herb and forest garden area in South-West England. Working with a group of volunteers, she will be advising on trees and other plants which have become overly large due to lack of harvesting and management. Ongoing conservation will enable native and other ground cover herbs to return with reduced competition from larger plants. It is hoped to begin with training to identify relevant plants and establish a regular program of herb supplies with therapeutic benefits for the community. ■

Medicinal Forest Garden Trust website https://medicinalforestgardentrust.org



Front cover of The Medicinal Forest Garden Handbook by Anne Stobart



Anne Stobart harvesting European cramp bark (Viburnum opulus)

"A seed stores a forest; a mind stores a universe."

Matshona Dhliwayo

LOCAL HARMONY

By Chris Marano

A few years back, herbalist Chris Marano and I founded a non-profit, Local Harmony, with the goal of encouraging stewardship. With this mission in mind, in 2020, Local Harmony helped initiate three Regenerative CSAs where we live in western Massachusetts. For this trial season we focused on native pollinator species, but this model could be easily applied to medicinals, at-risk species, or any other beneficial plants.

In this first season, three small perennial nurseries participated. The goal was to apply a simple, grassroots model to help jumpstart local regeneration by encouraging plant production and getting beneficial species in the ground. Like any Community Supported Agriculture model, each nursery made shares available that were then purchased by members prior to the growing season. This created a reciprocal relationship: members' support provided key investment and commitment for the nurseries while members gained access to affordable, high quality plants and expert advice.

Once a member bought a share, they were guaranteed a number of plants. Each grower then worked directly with their members, helping them select plants at their established pick up time. This approach factored in the amount of time it takes to grow perennials, as well as the unpredictability of growing plants in general. This flexibility was very helpful for growers. At the same time, it allowed each CSA member to make more informed plant choices while receiving exact planting and maintenance directions, further reducing any guesswork.

In the end, this CSA model worked very well and our hope is that it is duplicated elsewhere. No grants, special training, or top-down planning are needed, just a community willing to grow together!

Owen Wormser is a landscape designer and author based in Conway, MA. For more information visit www.localharmonv.org



Pollinator seedlings growing outside the tiny house office at That's A Plenty Farm.



A monarch nectars on a rose milkweed, Ascepias incarnata.



Regenerative CSAs allow nurseries to grow ecologically valuable plants for the local community even with limited resources.

OUR MEDICINAL COMMUNITY GARDEN

By Robin Rose Bennett



Robin Rose - Medicinal Herbs Garden

I started the Native and wild medicinal plant garden here in West Milford, New Jersey in 2008 with great excitement and the help of a \$500 grant from UpS, in partnership with our new local sustainability group. I, the garden, and our group have gone through many metamorphoses since then, but we're all still here.

Our garden is located in the gorgeous Highlands of New Jersey at the top of a small triangular hill that is bordered by three roads and overlooks a small lake. Because of its location, I nicknamed it "Education at the Crossroads," and many educational walks and community gatherings have taken place in this rather unlikely spot for an oasis over the years. We have had a core group of volunteers help in a monthly gardening day, but many visitors have come from all over the region, including from other states. They help and learn. It's a win-win!

This spot was basically an abandoned piece of land, so we spent years building the dead soil, reducing the overwhelming amount of land-protecting poison ivy (or as I prefer to call it, potent ivy) and removing what felt like acres of brambles and bittersweet vines. We decided early on to plant our endangered woodland plants alongside commonly available analogs, to teach about both—and about using more of what was abundantly available, rather than turning to at-risk populations. For example, we planted motherwort (Leonurus cardiaca) and evening primrose (*Oenothera biennis*) plants next to black cohosh (Actaea racemosa) and birthroot (Trillium erectum), and mullein (Verbascum thapsus) and bee balm (Monarda didyma) next to pleurisy root (Asclepias tuberosa). We also began retrofitting the garden with permaculture techniques, such as swales and berms and water catchment systems after my partner returned home from Earth Activist's two-week permaculture certification course brimming with enthusiasm and looking to implement what he had learned. We did some sheet mulching, too.

There are many stories to tell of how we evolved from the first year when we were hauling buckets of water up from the lake again and again, to the building of our beautiful

water catchment tarp and tank, to being disheartened by having plants and trees mowed down over and over again by county workers who couldn't "see" what was there, to applying for and receiving a county grant called "Dig In" several years in a row that allowed us to get more plants and a protective wooden fence built! We had a beautiful kiosk made to hold our maps and informational literature that was crafted by a local group of at-risk youth, only to have it destroyed a few years later when someone drove up the hillside and plowed it down. We never learned exactly how that happened, but suspect maybe it was a drunk driving accident. That year (2018), I was away, having taken a much-needed year long sabbatical to travel and write and refill my well after over thirty years of teaching and consulting.

Fortunately, I was able to turn the management of the garden over to a graduate of my apprentice program. Karen had become a master gardener, and she and her husband John had been there from the beginning. I was and am so grateful they took it on. When I returned, we mutually decided they would continue running the garden, and I would support them in whatever ways I could. Karen has gotten the garden registered with the master gardeners program, and I've made a day in the garden once or twice a season a requirement for my apprentices. Again, it's a win-win!

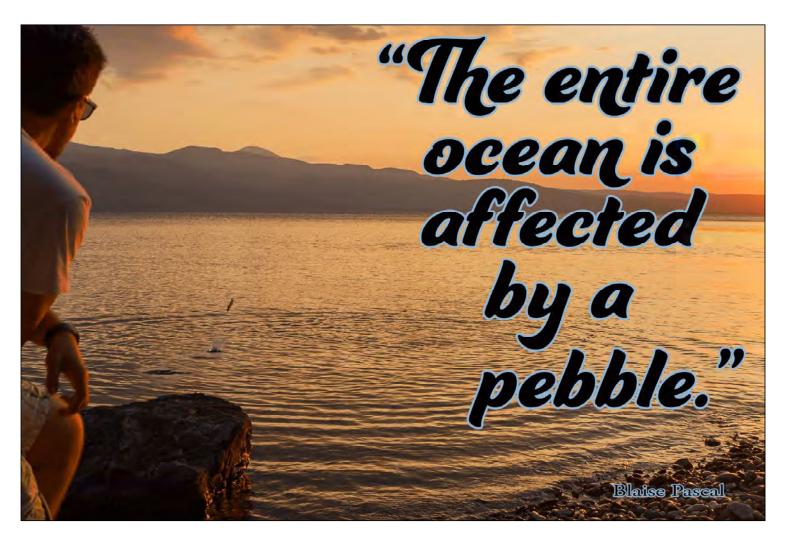
My beloved partner Doug and I went down to the state capital to accept a community service award, the first of two our garden received! The second was the Jefferson award for community service, for "ordinary people doing extraordinary things." That describes a lot of the plant people I know!

Doug passed away after a swift, terrible bout with lung cancer in the autumn of 2012, and we had a beautiful ceremony the next spring and renamed the garden the Douglass Memorial Garden in honor of the many hours of hard work and loving dedication he put into the creation of our Native medicinal garden, which we might never have begun without that all-important first grant from United Plant Savers. I'm honored to be a member of this organization.

Thank you. Green Blessings to all.



Douglass Memorial Garden



LET ME TELL YOU A TRUE STORY THAT HASN'T HAPPENED YET

By Basia Alexander, www.PartnerWithNature.org

This is a true story about doing things that work in community to restore forests and a livable planet. It hasn't happened yet, but it will.

Sometime in the future, there will be a family, including mother, father, children, a 100 year-old Beech tree in front of the house, 20 year-old apple trees, a forested area 'round back, a pond with pebbles around it, rows and rows of vegetable gardens, fragrant rose bushes, buzzy bees, and 4-legged animals. The land itself and even the sunshine are part of the WHOLE family.

The parents ask each member of the WHOLE family what it needs in order to survive and thrive. The mother asks, "Carrots, are your inner parts and functions working right?" The father goes to the forest and asks, "Trees of the forest, are your inner parts and functions working right?" If the carrots or even a single tree are sick, the WHOLE family is sick.

The mother and father instruct the children, trees, bees. and all others on the land and in the water to send healing vibrations through their bio-energy fields to

support carrots that are not feeling well or a tree that is sick. So, the WHOLE family regains health.

One day, an unusual 4-legged creature comes onto the land. It eats all the beans in the vegetable garden. The children ask the 4-legged creature what it needs in order to survive and thrive. The creature says "I can only eat beans. I need water, safety, and respect in order to survive."

The boy says, "We will plant more beans so you can live. However, you cannot eat all the beans or destroy the bean plants. You can eat a few beans from each plant so that the plants continue to live, you live, and we people have a few beans to eat, too. You may also drink water from our pond."

The girl says, "You are now part of the family. We respect you. You are safe here. We ask only that you support us as we support you." The 4-legged creature agrees and only eats some of the beans.

On another day, the beech tree has red fluid running out of its bark. The father turns to the tree and asks, "Why are you bleeding?"

The beech tree says, "I am weak and sick on the inside, and so these organisms thought that my bark would be a good place to live. They are hurting me, even though they don't mean to hurt me. Can you help me?"

The mother says, "May I have your permission to use bio-energy healing methods on you to help restore your internal parts and systems to full health?" The tree agrees. She touches the tree, and together they make a new healthy bio-energy pattern in consciousness for the tree to use to regain health.

The children ask the disease organisms what they need to survive and thrive. The girl discovers that the organisms are happy to live at the roots. The boy checks with the tree to make sure that having the organisms living at its roots would be okay with it. The tree agrees to feed the organisms with ooze from its roots. The organisms have a new place to live—in the soil, not on the bark. Now the tree could become healthy again. The disease continues to live. And, the WHOLE family people, trees, plants, forest, bees, insects, organisms, other living beings, the land, the pond—is healthy once again.

The mother and father are teachers. They explain to students that, yes, disease organisms, beetles on the eggplants, and those "weedy" plants are part of the family, too.

A student asks, "Wouldn't you want to remove them?"

The mother replies, "We work with Nature's living Beings, not against them. Our WHOLE family is precious to us; each one has a reason for living. By talking with each of them, they can come to agreements about how best to live together and support each other. All of us co-exist in peace and harmony."

The mother and father tell stories about how they help their trees, plants, forest, vegetables, roses, bees, animals, and others grow in the same way they help their children grow—with love, compassion, respect, direction, and open communication. They say, "When we do these things, all of our family's members operate together. Everyone has a role, does their best, and supports the others."

The parents invite students and neighbors to come to the land, eat the food, walk in the forest, smell the roses, see the 4-legged creatures, toss a pebble in the pond, and feel peaceful.

When people visit, they feel the peacefulness and want to learn to communicate with their WHOLE families, too. The mother and father are happy to show them how to feel the Life Force Energy of a big tree, put questions to an eggplant, and talk with a bee.

People catch on to the ideas and start caring for their own WHOLE families in similar ways. Everyone in town talks about it. Soon, many neighbors realize that they can overlap their WHOLE families—all organisms—with each other, for the good of all. The neighborhood becomes a zone that is healthy, vibrant, and strong. Several neighborhoods in the town band together to make larger and larger zones of healthy, vibrant, strong WHOLE families.

One day an electric company worker comes to the family's home and tells them that part of the 95 year-old beech tree must be cut down since it is too close to the power lines.

The children explain to the man that the beech tree is alive and part of the family. They say that by removing part of the tree, he would be removing part of the family and ruining the peace of the WHOLE family. They invite him to eat the food, walk in the forest, smell the roses, see the 4-legged creatures, toss a pebble in the pond, and feel peaceful.

The electric company worker enjoys the experience. He likes to walk in the forest, smell the roses, toss a pebble in the pond, and feel peaceful. So, he devises a more creative solution than cutting down the old beech tree.

The electricity man goes back to his company. He shows others the plan. Eventually, they see that the plan would be good for the company, too. They decide to do similar things in other towns.

Then, scientists in the community take readings and notice that the health of trees and plants in the town as well as in nearby places is improving. This catches the attention of government officials and investment professionals. They all want to know how this is happening.

The mother and father teacher-team invite the scientists, the government officials, and the investment professionals to meet their WHOLE family, to come to the land, eat the food, walk in the forest, smell the roses, see the 4-legged creatures, toss a pebble in the pond, and feel peaceful.

The scientists see that the peaceful land is cooler. They say, "If lands and forests everywhere could be this peaceful, perhaps planetary cooling could begin."

The government officials see how the communities banded together. They say, "If communities everywhere could share this way, there would be little crime."

The investment professionals see that the land is more productive and the people are prosperous. They say, "Maybe this is a better way to produce wealth!"

Teachers at colleges and universities want to learn how such a thing could happen so they can teach about it, too. Organizations of professionals realize that they could revise some of the ways they do things.

So, the family invites MORE people to meet their WHOLE family, come to the land, eat the food, walk in the forest, smell the roses, see the 4-legged creatures, toss a pebble in the pond, and feel peaceful.

This is a true story about the way all people enjoy a livable planet: in peace, respect, and collaboration with all living Beings of Nature. It just hasn't quite happened yet. ■

GROWING ROADSIDE

By Sarah Campbell Kirk (Sidhe)

My name is Sidhe. I am a UpS member, and I am a Wildflower that is thriving at Spirit Canoe Lodge Botanical Sanctuary. Just like the spring unfurling of ephemerals, I want to share my delicate, vulnerable story of strength with my Plant Savers Community to demonstrate how important our Sanctuaries are in changing people's lives.

(TRIGGER WARNING: This story contains the mention of death, abuse, trauma, addiction, mental health, and

In 2011, my life changed in a way I will never be the same from. I experienced a parent's worst fear—the unexpected death of a child. This impacted my family in so many ways, including the end of my marriage; my oldest child falling prey to abuse, trauma, and eventually addiction; and causing me to face childhood abuse I had buried deep down inside. My life was a pattern of dealing with crisis after crisis, trauma after trauma. I was struggling to survive and hold things together. Through this experience, the only thing that gave me comfort was connecting with Nature. It was the consistent relationship of support with the green world and the self-care that it constantly provides to me that helped me find a way through the dark and to keep showing up. No matter what was going on, I had a space where I felt loved and cared for and recognized my resiliency and the beauty that persists around me.

Three years ago, I was given the opportunity to move into an Oasis, or safe housing for women who had experienced intergenerational trauma, and given a chance to focus on my mental health and get consistent support to have my needs met. I was connected to NC Vocational Rehabilitation, a state program for people with disabilities that prevents them from following the course they set out on. After many tests and interviews and sharing my story of healing through Nature Connection and my desire to share that with others, my case worker and I determined my best course of action was to start a business that would feed my own passions and help me along my healing journey.

I had been studying plants and working with their medicine for 10 years with a focus on protecting and preserving our endangered wild plants. I had spent two years observing and caretaking native species as a Naturalist in different areas around the High Country and leading hikes that encourage people to connect with the land and its gifts respectfully, responsibly, and sustainably. Vocational Rehabilitation would help provide me with business startup counseling and guidance, startup funds, and a paid internship. My case worker reached out to the Watauga County Extension Office, where Dr. Jim Hamilton offers a ginseng growing class (due to its rich history in our local area), and inquired about the possibility of an internship to further my business plans and personal development. lust a few days later, Dr. Jim Hamilton was contacted by Kelly Clampitt, owner of Spirit Canoe Lodge about

the possibility of an intern coming out to help start a medicinal and native forest garden on her property. She was feeling called to care for ginseng (Panax quinquefolius) and goldenseal (Hydrastis canadensis) and learn more about protecting them while using their medicine sustainably. She had recently obtained a nonprofit status for her business and wanted direction on applying for grants and opportunities available to her. This connection was aligned.

Upon meeting, it was obvious that this was a kismet relationship. I had no idea how life changing this would be. I knew that giving plants the right soil, the right place in the forest, and the right companions would help them thrive, but I didn't know the same was true for myself.

FINDING SANCTUARY

I have just begun my second year as the Botanical Sanctuary Garden Director at Spirit Canoe Lodge and have become a part of building the dream there. Not only do I manage the care and upkeep of the gardens, I also serve on the board and help plan educational events and fundraisers. I have planted over a pound of ginseng seed and 300 goldenseal rootlets and over 500 Native wildflowers and seeds and several Native trees. My first accomplishment was submitting our story and acceptance into the UpS Botanical Sanctuary Network. I am writing grants to help establish more trails and plantings on the property, and we continue to grow and expand our plans.

This has not only provided me a stable income engaging in an activity I love, but aligns my path of service and purpose and gives me hope for a future I create and have control over. Through this opportunity of mentorship and community I have been able to chase my dream and help Kelly build hers. It is a wonderful

Calendula

The (free) newsletter from Briarwood Studios Flower Essences

in Athens, Ohio

All about flower essences: how to's, stories, research news, flower profiles, field reports, and creative ways to bring flowers into your life



TO SUBSCRIBE: E-mail Katherine at briarwoodstudiosfloweressences@gmail.com Please include your (snail) mailing address as our newsletter is paper.

relationship of give and take. We are Co-Dreaming. When I was younger, I had a dream that I would have a woman friend, and we would visit forest trails and gardens and hide faerie statues and flowers for each other to find. One day I came to work in the gardens, and Kelly had put new mushroom statues along the path and a gnome in the ginseng beds. I cried tears of joy because I knew my dreams, even if I didn't know what they were at the time, were coming true.

THRIVING

Kelly and I both connect on our ideas about healing through plant medicine and our "garden aesthetic" and dreams of what a forest garden could be. We see the forest as our holy space, the branches of trees creating cathedral arches, trilliums (*Trillium* spp.) and wild geraniums (*Geranium maculatum*) like stained glass. A place to pray and surrender. A sacred space to hear messages and gain clarity. A place to heal ourselves and the earth with us. A sanctuary defined as a holy place, a place of refuge, a place of safety.

These intersections have deepened my relationship with Kelly not only making our gardens a beautiful success, but she is also my mentor. She has guided me through ceremony when times were hard. She has offered her shoulder and friendship. Most importantly she has recognized my gift and encourages me to put myself and my service first. She has given me space to spread my roots and thrive just by being in the right environment.

Working with Kelly was the first time I knew I was putting plants in the ground that would be safe and protected and guaranteed a safe respected life. Property adjoining Kelly's had been logged, and we walked the ridge line together looking down over the devastation. I began seeing these rare plants we worked with as survivors facing harsh survival odds from over harvest, deforestation, and many other ways the land has been fractured. It's been hurt by greed and exploited, colonized, and conquered. This feels very similar to the ways survivors, like me and many many others such as BIPOC, face harsh realities surviving under the hold of the patriarchy and capitalism. Knowing that we can truly respect these plants and create safe sanctuary spaces for them, untouched by greed and possession, has been monumental in my own healing process. Starting our plant rescues feels like I am scooping up strong, vulnerable, brave wildflowers and giving them the right soil to grow in.

In my two years at Spirit Canoe Sanctuary Garden and Healing Retreat I have truly thrived. I have been able to build my dreams and my own success enough that I am able to move out of Oasis housing and into my own Sanctuary. I am buying a tiny home and starting my very own gardens. I am expanding my nature tour and land consultation services. I am thriving. Despite the end of my paid internship, Spirit Canoe Lodge is not a project that will lose my attention. I will continue to thrive in our sanctuary and help plants and people do the same.



"My fervent hope is that my work can help rekindle the vital connection with the spirit of nature that we need to for survival of life on plant earth..."

Life in the Forest Painting by Joan Solomon www.joansolomon.com



A VALLEY

By Lucas Tyree

The "Irish Creek" Valley has a long history as a refuge. For Yéssah People, the hills and valleys, ridges and hollows of this section of the Blue Ridge Mountains of Virginia were once a place for religious sites, ceremonies, and traditional practices. After European encroachment, the valley became a haven where both tribal members and freed slaves could survive the deluge. There were resources, and the land was not of immediate interest to the colonizing forces who sought fertile lowland farming sites. In the 19th and 20th centuries, even this remote place came under threat of exploitation. As saws and mining devastated many mountainous areas of the east coast, the inhabitants of this valley protected hundreds of its acres from deforestation, such that today there are over 3,000 acres of old growth forest within the valley. Additionally, there is a thriving native fish population in the primary creek of the valley. There are 12 indigenous fish species present, including a thriving Eastern Brook Trout population.

It was this valley that enabled the modern Monacan Nation to survive, with many of the tribal members descending from residents of the valley. Today the valley is mostly uninhabited, save for a few hunting cabins and a small community that arose after contractors were brought in to do road repair after hurricane Camille hit the valley in 1969. Ownership in the valley is largely

by non-resident owners, who purchased their lands from tribal members being forced out in the 1970s and 1980s by Klan activity and other racial violence including shootings, destruction of property, and intimidation.

In the name of indigenous-led conservation, land tenure, and traditional stewardship, we founded NDPonics 501C3. To date we have raised funds to purchase or assist in the easement protection of nearly 500 acres of land. These lands hold ecological, hydrological, and cultural features that will continue to sustain our community and the ecological integrity of the valley onward into the future.

The biodiversity of nearly every forest, grassland, desert, and every other ecosystem on the planet was enhanced and maintained by the efforts of indigenous people. The "Virgin Forest" narrative that has managed to persist into modern forestry is a holdover of European patriarchal influence. The idea that a forest is "untouched" until a European man's blade touches a tree has been scientifically discounted again and again. Fire regiments, tree cutting, tree culling, planting, and specialized breeding of species all shaped landscapes drastically and intentionally for a millennium of indigenous land tenureship. For example, from my own upbringing, raised in my grandfather's section of forest, I was taught to manage a forest without having to kill any canopy trees. This is the long view forestry practiced by generation after generation. I remember a particularly large oak tree that was splintered in a derecho storm and fell. As the understory began its natural ascent,



my grandfather cut smaller trees for tool handles, wikiup poles, fence posts, building beams, and bows, utilizing various species of trees that came up in the new sunshine. What was left was white oak and paw paw. The tree that fell had come down in a section of the forest that was used primarily for food production and was (and remains) dominated by an over-story of hickory and white oak, with a sub-story of beechnut, an understory of pawpaw, and forest floor with American ginseng (Panax quinquefolius) and wild ginger (Asarum canadense) as well as other medicinal herbs. Every topography was planned. Even the areas left untouched were left so that locations existed to be closer to the creators of all things. As modern science rediscovers the literal connectivity shared by plants connected through mycorrhizal fungi, they reinvent what was taught to me as a child. I was raised as a part of a landscape, part of a hive-mind of sorts, communicating through electrical impulses and subtleties to inspire action across large landscapes. In that way, "NDPonics" is merely another iteration of a selfprotective refuge for natural life. Indigenous knowledge was gained through experience with faith in these natural systems allowing these communities to remain humble, yet proud to be a part of such complex and beautiful systems.

Lucas Tyree is a traditional tribal member and was raised by his grandfather to live for one purpose—to live as a steward of his ancestral land, which is an unbroken ancient forest ecosystem. A portion of the Blue Ridge Mountains of Virginia has remained in his family since before European contact, and not one live tree has been felled by a human in the past nine generations of their control. However, the surrounding land has been under constant threat of decimation by either logging, pollution, construction, or other land use change. In these lands are ancient trees, refuge for bear population. Tyree is raising funds to reclaim this land. From its humble beginning in 2015, his nonprofit has grown with backing from students, alumni, faculty, various foundations, political families, and many others. The land is of immeasurable value to his people and to the generations following that could carry their culture unbroken. This project is the latest installment in a 500year resistance. ■



Native trout



Ancestral land

"The cutting of primeval forest and other disasters, fueled by the demands of growing human populations, are the overriding threat to biological diversity everywhere."

- E. O. Wilson



The Forest Community

THE COMMUNITY AND THE FOREST

By Linda Shekinah

In today's world it would be considered rude, if not criminal to walk into someone's house in your community and start eating their food, stealing items you find useful and making a general mess of their home. Yet a great many humans will walk into the forest communities and do exactly that. No polite knock on the door, no introduction of themselves and their interest in knowing more about the forest residents. Just mucking about, casually or willfully pulling up plants, clearcutting trees, and generally making a mess of things before leaving without a thank you or fare thee well.

We should be grateful that the forest communities are not of the nature to bring violence to bear on humans. Perhaps they know they will outlive us all and look at us as a rather young species in the grand scheme of things. My interaction with them has been one of peace and knowledge and life freely given when asked for in a loving and respectful way.

I wasn't always aware that the forest community is sentient. I am still rather dense in my communication with them. I am beginning to see that the younger we are when we start interacting with the forest community on their terms, the more likely we can blend both communities and help one another to solve each other's problems—the way people in the past that have lived close to the earth naturally brought up their children.

Let me tell you the story of one way that has happened.

This is the story of an older couple named Jack and Linda, who discovered their dream in the middle of a 20acre forest full of endangered plants.

Together they watched over American ginseng (Panax quinquefolius), blue and black cohosh (Caulophyllum thalictroides and Actaea racemosa), bloodroot (Sanguinaria canadensis), echinacea (Echinacea spp.), goldenseal (Hydrastis canadensis), trillium (Trillium spp.), ramps (Allium triccoccum), maidenhair fern (Adiantum pedatum), and other at risk plants.



American ginseng (Panax quinquefolius)

They both wanted to bring more endangered plants to safety. So—their dream expanded.



Forest School animation

Jack began to transplant ginseng that was in danger of being destroyed to places of safety on the land. Linda planted slippery elm (*Ulmus rubra*) seeds in pots in the greenhouse in spring and then transplanted them to a nursery bed that fall to overwinter. They survived and thrived.

This is also the story of a young mother named Lauren. She and her friends dreamed of a cooperative Forest School for their children—a place to learn through play, mostly outdoors, that allowed their children to understand their unique role in nature, cultivate their whole being, and nurture social bonds and strong friendships. They dreamed of exploring the forest, hiking the hills, building dens and campfires, and learning the names and uses of plants.

The plants, however, had dreams of their own.

Now Lauren and her family are neighbors of Jack and Linda. So they meet, of course, and Lauren shares her



Ginseng to transplant

dream of a forest school with Linda. Linda thinks "Why not bring the two dreams together, support and nurture both dreams and watch them grow?"

So Jack and Linda and Lauren and friends and family come together one morning in the 20 acres and learn about both endangered plants like maidenhair fern and blue cohosh and more prolific plants like false Solomon's seal (*Smilacina racemosa*), horsetail (Equisetum arvense), and knotweed (Polygonum aviculare). A plan arises to meet once a month to follow one endangered plant through time—to learn its cycles and habitat and finally to take home a plant and find a safe place for it to live, thrive, and multiply. This year, ginseng; next year, slippery elm.

And those wily plants dreaming of expanding their habitat snare Jack and Linda, Lauren, and friends and family to be their hands and feet. Thus, they can expand for themselves, the children, and for generations of both to come.



Thank you UpS!

Locust Creek Haven for Woodland life is a 20 acre sanctuary and farm in central Vermont for medicinal plants and herbs that are at risk due to over harvesting and habitat loss.

We have lived in this sanctuary for 11 years and choose to lead a simple life on purpose. We feel we are a part of a web of people who are independently protecting and sustaining the land where they reside, whether that be a city lot or a thousand-acre preserve. We may not know each other personally, but we all have the same goal in mind: to protect, preserve, and nurture the natural world, so we are very happy to become members of UpS Botanical Sanctuary Network and expand that web. Our main goal is to encourage and increase the number of plants on the land as well as spread them to other areas so that they will thrive for

many generations to follow. You can watch a short video of the sanctuary at https://vimeo.com/490502615 and contact us at locustcreekhaven@outlook.com.

Notes on Forest School

The first known official forest school was founded by a mother in Denmark in the 1950s when several mothers observed their children playing together daily in the neighborhood forest and began facilitating a routine "walking kindergarten" in the community.

The US first experimented with forest-based education when the Laona Forest School was founded in Wisconsin in the late 1920s, inspired by a tree planting project based in Australia. It wasn't until 1996 that the first official forest school was founded in the US, in California, and today there are over 240 nature based schools operating in America, though many forest schools are not operationally identifiable and often present as casual playgroups or cooperatives.

The forest school model is based off of educational ideas presented by Rudolph Steiner, (founder of the Waldorf school ideology), and Maria Montessori, (founder of the Montessori Method), and cultural ideas such as the Scandinavian friluftsliv (open air living) lifestyle. The majority of the "school" day takes place outside, with students experiencing and learning from nature.

Forest schooling recognizes adults as facilitators to learning, rather than teachers, and is founded in childled learning. Instead of creating a set lesson plan for a class full of children, a forest school facilitator studies the individual child and bases learning facilitation on his unique interests and learning style. Often, a forest school day begins with children speaking about their particular feelings at the moment or expressing what their interests are for the day.

For the past six months, a small group of mothers and children, including myself (Lauren) and my own two children, have met as our own independent forest group cooperative. We have a common interest to allow our children to experience their childhood fully, responding to the natural rhythms and freedoms that nature brings, and playing together outdoors for the majority of each meeting. What first began as a casual meetup has led to a real passion for preserving the joy of organic education for our children. We spend time hiking in the hills of Vermont, sitting in cold rivers on hot summer days, or building bonfires on cold winter mornings. We swim in mucky ponds and build handcrafts, visit with pet goats and paint rocks, and pull herbs and pea pods. We are thankful for what we have, and for what we can experience with our children.

White Pine

Evergreen and flowing, Her needles packed in bundles of five, White pine's so full of magic and grace, Your senses come alive.

Cut the needles finely To make a fragrant, opening tea. It brings deep peace, reminding you that It's enough just to be.

Take a deep healing breath, She helps relieve a wet or dry cough, So you expectorate more freely Taking chest pressure off.

To create a syrup, Steep fresh needles all day and all night, Add in herbal honey and brandy, Then sip to your delight.

Pine is an ancient tree, Remaining green in the cold, dark time. When we drink her in the winter months *The nourishment's sublime.*

High in vitamin C, Infuse the chopped needles all day long, The healing oils are antiseptic White pine won't lead you wrong.

> — by Robin Rose Bennett (excerpt from "The Gift of Healing Herbs") www.robinrosebennett.com

TREE HUGGERS, UNITE!

By Ken Kleiber

Last April, Buck Creek Sanctuary in Elizabeth, Indiana hosted the 1st Annual Tree Huggers Convention. Ken Kleiber, owner and caretaker of Buck Creek Sanctuary received a direct message from the trees and land

regarding the annual event. The message was, "First Annual Tree Huggers Convention at Buck Creek Sanctuary, Earth Day 2020." Ken spent many hours meditating among the trees of the sanctuary, and with this came the knowledge and information needed to begin organizing the event.

Buck Creek Sanctuary is a botanical, wildlife, and human sanctuary that is the home to many native trees and medicinal plants. Excited at the idea of this amazing opportunity bringing awareness to the community about the benefits of nature, friends and family of the Sanctuary began spreading the word and offering their expertise to facilitate the event.

Within a month of the direct message Ken received about the Earth Day intentions, an itinerary had been created and a day put on the schedule!

Once word began to circulate amongst the community, many people began showing interest in attending the event. However, with the pandemic being in the early

stages, safety was definitely a concern. The organizers began arranging the day into mini workshops that highlighted the beauty of nature via Zoom.

The 1st Annual Buck Creek Sanctuary Tree Huggers Convention fell on a beautiful April day, and 18 people attended the online event. The day's schedule included a Forest Bathing workshop, an Earth Mandala Blessing,

> a Tree Identification Segment, and a guided Tree Meditation. There was also time throughout the day for Q&A and discussion and most importantly, hugging trees!

The day was a success, which opened the door to many other exciting opportunities and projects, including Buck Creek Sanctuary officially being established as a 501c3.

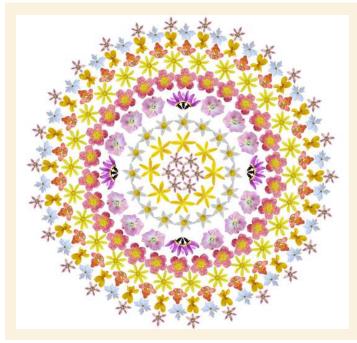
Throughout the past year, many hours of volunteering and walks among the hiking paths brought community members together to connect with the forest and listen to the trees. One must ponder, do the trees really talk and bring us messages? We think so!



The TreeHuggers at Buck Creek Sanctuary

The 2nd Annual Tree Huggers Convention will be on April 17th, 2021. Check out the Buck Creek Sanctuary Facebook page or email buckcreeksanctuary@gmail.com for more information. ■

> Buck Creek Sanctuary INC. www.buckcreeksanctuary.org



Forest Bath Mandala

by Melody Moon Brooke www.melodymoonbrooke.com

From the artist:

"I create Plant Mandalas with the intention to celebrate and encourage people connecting with plants.

This Mandala contains pictures I took of wildflowers that live in the forest behind my home in the Northern Sierra Nevadas. I believe that knowing the plants that surround us is just as important as knowing our neighbors and community members; they are our friends and allies as we are theirs."



Watching the water flow

FORAGING PLANTS IN THE WILD

By Suzanne Tabert

There are many more benefits to foraging plants in the wild than just the medicine they bring to us.

Before we pick our first plant, we are brought into the exquisite beauty of nature. It's the peace and quiet that first draws attention—the utter calm that is so different from the jarring electricity of the urban or suburban areas where many of us live. After appreciating the freedom from disturbance for a few moments, we begin to notice the sounds of the area: birds calling, insects buzzing, whispers of larger animals moving just out of sight, sounds of water from waves on the beach, creeks and waterfalls up in the mountains, and wind rustling leaves and branches.

Lungs take in deep breaths of fresh clean air, and our souls unfurl like new fern fronds emerging from the ground in the spring. Then the colors. Oh, the colors! Greens of all hues, yellows, reds, blues, pinks! Each

month brings forth colors that reflect their seasonal personality.

As for myself, when I'm walking in the woods, I'm with friends. Leaves wave as I walk past. The plants are happy to see me. I can feel it. Insects buzz around my ears. I strain to listen, wishing I could slow down their language so I can understand them better. Still, I listen, hoping to pick up a word or two. Cool breezes dry the sweat on my skin. In nature, I don't feel shoved to the side or looked upon as that "weird plant woman" because of my keen sensitivity to plants, trees, and animals and their unique ways of communicating. In fact, I'm all the more welcomed for it! It's beautifully transforming simply being among the woods and everything in them. Whenever I respond to nature's resounding lure, my soul is once again satiated with a sense of belonging.

On a hike to a waterfall, I had the profound realization while watching the water flow that there is no "he said, she said" in nature—no guilt or worry, no seeking of approval or doubts about self worth. Nothing and no one is regretting what happened before or wondering what is to come. It seems to me that, in nature, everything just "is." We all have the supreme opportunity to exist in that

fashion just as the rest of its inhabitants do if we choose. And if only for a short time, it brings us back to who we really are. It's not about taking pictures for social media. It's about sitting by a favorite tree or rock; we can go in grieving and come out feeling the peace that surpasses all understanding. Unexplainable, miraculous peace.

It's still possible to get outside and find healing in the bosom of nature while practicing safe physical distancing. A simple walk in a park will present plants that want to meet you. Look for the single leaf waving when others are not. Breathe them in and give them your breath when you feel overwhelmed. The exchange of oxygen from plants and carbon dioxide from us show us how intertwined we are. Plants and humans connecting.

Often the very plants we need grow right outside our door, presenting themselves to us, if we just take a moment to notice.

Whether deep in the forest, on a beach or meadow, or tucked into a pocket of nature in the city, the natural world calls us to go deeper. To reach farther in. To become part of the community of flora and fauna. We were never meant to be separate. We are a part of a whole, and we are welcome.

I encourage us all to get out into nature as often as we can. We are always invited. We are always welcome. We are always included in the collective. And when we are part of the whole, so too are we healed.

Suzanne Tabert is a bio-regional herbalist, wildcrafter, founder, and director of herbal education at the Cedar Mountain Herb School. She is a member of the American Herbalists Guild, the American Herb Association, and is practicum supervisor and adjunct faculty at Bastyr University. She has been teaching herbal medicine for 30 years, with plans to continue throughout her lifetime.



Green Gratitude

Gratitude for the plants and their selfless nature, who endlessly give nourishment, medicine and beauty to all living creatures. Plants are the life that sustain all life. *Gratitude for the Earth,* who holds us all so tenderly, who connects us to all life forms, who is our mother, our shelter. Gratitude for my teachers, who awakened me to my truth, who introduced me to the plants, who introduced me to my earthly mother. I owe my life to you. Gratitude for my younger self for choosing this path, who heard the quiet call of a green heart eager to grow, and listened. Gratitude for my present self, whose humble hands are covered in dirt, who can offer nothing but the plants, which is plenty. *Gratitude for purpose, for service, for offering.* Gratitude for healing, evolving. *Gratitude for the plants.*

— by Yvonne Mayshark



Forest Magic Healing Sanctuary in Plainfield Vermont - credit Rae Carter

A HEALING SANCTUARY CALLED INTO BEING BY THE TREES

By Rae Carter

The property was overgrown, unkempt, and tired. I sensed a feeling of suffering from one too many owners who cut into the Earth to create a landscaping feature, yet were unable to care for the growth and contractions of sloping land in the Vermont mountains. I wandered among the old berry bushes and fruit trees, feeling a sadness from the land, only half-listening to the realtors as they shared information from the listing sheet on the seven acres of forest land with a sturdy colonial house plopped at the entrance.

I walked past a pond and into the woods, noticing tangles of fallen trees, especially where the stream diverged from any flow. The water seemed to disperse broadly, spreading downward, a wake of uprooted and windshattered trees both hanging in mid-air and piled upon one another over the forest floor. I was overcome by a sense of both belonging and longing, as the trees spoke to me in a loud chorus of voices.

"Come take care of us," they cried. "We have been calling you to us." The forest has always been a sacred place for me and I have had many conversations with spirits amongst the trees, so while I was not startled, I was taken in by the collective intensity within such a short time of being beneath the full canopy of the trees.

My partner and I moved in, celebrating our first mortgage and the reckoning that comes with the financial, physical, emotional, and spiritual commitments of stewarding land. We listened to the land as it guided us to untangle the

fallen trees and begin to regenerate the forest floor. We tended the gardens, weaving in our knowledge of biodiversity, natural planting, and replanting pollinator and native species. We emphasized protecting the source water, clearing farming debris and reshaping the stream by opening up the flow through the forest and trying to reshape the damage from some of the erosion. Five years passed, and we began to see moss covering more of the forest floor and a variety of mushrooms and lichens growing where they hadn't before.

We were able to create some space for the trees to breathe, finally able to keep up with winter blow downs and selectively harvesting our own firewood. Sacred spaces began to call themselves in to be revealed, and with our hands, we uncovered new springs, cleared debris from rocks and boulders, and unearthed a fire circle.

The Reciprocity of Healing with the Land

It was then I was diagnosed with cancer, falling deep into my own unearthed narrative of trauma that gave way to transformation. In my darkest hours, when questions of living were the voices in my head, the trees called me to them. I began to awaken to the well of feminine intuition that had been buried under a career of disconnection to the land—a career focused on the sustainable economic development of the working landscape, yet devoid of the relationship to the land.

I spent hours and days lying on the moss, being held by tree trunks, and crying into the shadows of the fallen trees as they composted into the Earth. I envisioned cancer leaving my body and returning to the Earth just like the rotting wood of trees. I imagined the emotional



Rae Carter hugs a pine tree during cancer credit Rae Carter

trauma and cancer of my spirit being composted into moss as I created somatic practices to encourage release under the canopy of trees.

As I navigated both conventional and holistic medicine in a profound journey of healing, my relationship with the land deepened. My partner and I transitioned the vegetable garden into a medicine garden, growing specific foods and herbs to support treating the root causes of dis-ease in my body. We began to plant native medicines for our climate and learned more about identifying and nurturing the wild medicines on the land.

Conversations with the trees expanded to recognize the original ancestors of the land, and we began to acknowledge the reckoning of truth and reparations, living on the unceded homeland of the Abaneki First Nation peoples. As my healing continued and I grew stronger, I gathered my personal and professional gifts, infused them with the unlearning and relearning of perspective change, and refocused my energy into the intersectionality of healing and social justice.

At the same time, the collective voice from the woods grew as intense as it was when we first visited the land. "Bring people to this land to heal."

Sharing the Gifts of the Trees

The connection between my healing and the land was apparent to me soon after I was called into the woods on one of my darkest days of despair. The reciprocity between healing the land and the land healing me is a

powerful magic that helped me reclaim the very essence of the power I had so readily given away for years. This magic was asking to be shared. Having provided us with a healing sanctuary to awaken our magic, heal our spirits, and re-connect our souls to their journeys, we named the land the Forest Magic Healing Sanctuary.

With cancer finally behind us, my partner and I were ready to hold space for people on the land. COVID also arrived in our lives, and we started holding physically distanced workshops and invitations for people to visit the sanctuary for meditation and reflection. We advertised on social media, and strangers from across Vermont responded, trusting nothing more than an ad and being guided by a strong sense of intuition to join us under the trees and receive the gifts of the healing sanctuary.

We facilitate events and circles drawing from our own personal transformation experiences on the land and healing modalities I learned and trained in while navigating cancer. We are holding online circles this winter, where we include guided meditations and journeys on the land and will hold more in-person events and circles as the weather warms.

We keep the focus of workshops simple, with plenty of space to listen, share, and be present. Practices to connect with the trees and plants are always included as ways for people to learn to tap into their intuition as a guide for building a mind, body, spirit connection. We want to help people realize how, as they grow their own commitments to healing, their relationship to the Earth is synchronous with their relationship to self, and the relationship to self directly influences the ability to heal.

The gentle and compassionate approach we take holds space for entry points into social justice, and we weave our shared commitments to race, gender, and class equity into our offerings. We prioritize accessibility over profit, practice safer space facilitation, bring awareness to cultural appropriation, and acknowledge the original ancestors of the land and share how we engage in reparations. We are active in social justice movements, sharing our own stories to challenge dominant society assumptions, which ripple into different perspectives



Prepared for an artistic event at the Forest Magic Healing Sanctuary credit Rae Carter



Old growth ancestor maple tree in the Forest Magic Healing Sanctuary

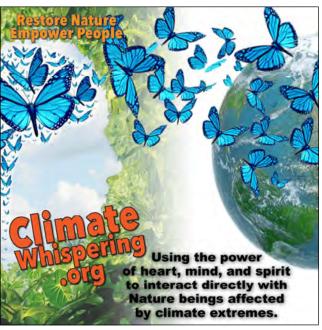
for people to consider. We provide explicit context to the relationship between individual and cultural healing, linking the direct correlations while also recognizing each person is on a different path, and it is not for us to judge, shame, or blame.

As more people find connection with the Forest Magic Healing Sanctuary, we encourage the empowering ways holistic healing of dis-ease and personal and ancestral trauma directly ripple into healing the land and the harmful culture of dominant society. The trees called us here for reciprocal healing, and our commitment to being land stewards now extends to supporting people on individual paths of healing and growing shared commitments to co-create a more just, inclusive, and compassionate society. As we heal ourselves, we transform our culture to one of love, hope, dignity, and respect for us all, with integrity to our relationship with the soil, water, and air that give us life—with much love for our dear friends—the plants and trees. ■

Rae Carter is a bridge builder, change maker, healing navigator, and web weaver. She is the founder of EmpowR, a social and healing justice enterprise centered in co-creating personal and cultural transformation. She lives in Plainfield, Vermont with her partner Mitch Pauley and together, with a growing community, they steward the Forest Magic Healing Sanctuary.







FORESTS AND COMMUNITY A WALK IN A DAY - 2030

By Shantree Kacera

Message from Elders of the Future

"If governments won't solve the climate, hunger, health, and democracy crises, then the people will. Regenerative agriculture living provides answers to the soil crisis, the food crisis, the health crisis, climate crisis and the crisis of democracy."

~Dr.Vandana Shiva

In the decade of the 2020s, we asked ourselves the question—In the Crisis: Regeneration or Degeneration? A significant shift was upon us. Here are a few steps we took to become herbal forest dwellers.

Imagine waking up in the morning of 2030 living in a herbal ecovillage. Everyone is acting as an ecosystem participant contributing to the whole, thriving in a regenerative forest community—fully connected forest dwellers. The basis of this earth culture is a living—like a tree's metaphor for our society.

The root system is our relationship with the earth, and the stem of the tree or hardwood at the centre of the trunk is our core governance. The branches are the various cultural expressions, and the leaves are us as individuals.

The ecological wisdom and knowledge of regenerative

culture are giving attention to and respecting communicating with the land and holding the ancient plant language as sacred and living according to the sacred laws of interconnectedness.

Interconnectedness - Biophilia

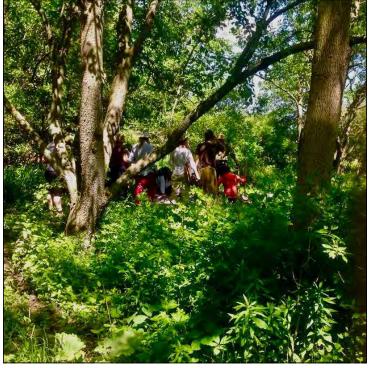
Biophilia is the passionate love of life and of all that is alive. While the past did indeed face dire ecological and social challenges in the 2020s, humanity also expresses a sign of tenacious courage and love of life through our willingness to work for humankind and Earth's betterment. Shifting to biophilia principles, biogenic living, and following a regenerative system can again bring itself into existence. Ecosystems that are restored, renewed, and revitalized cause miraculous abundance to be returned.

Thriving with Nature: Regenerative **Community Living**

Regenerative way of life processes restore, renew, and revitalize their sources of energy and materials. A holistic design uses whole systems thinking to create resilient and equitable systems that integrate society's needs with nature's integrity.

What does it mean to be regenerative? During the 2020s, regenerative agriculture and herbaculture became a way of life with the basic message, "You give back more than you take." During this time, we asked ourselves deep ecology questions that went beyond our landscape, beyond ourselves, to envision how to change our immediate landscape and become even more intimate with our green family. To see these beings of life and shift our consciousness to a deeper connection of how to live in this circle of life. A regenerative design of imitating

> an ecosystem which goes a step further than sustainable. So our present community became an ecosystem village, and each of us became an ecosystem participant. We took an active role in both seeing and acting for the whole so that everything we did was to support the whole—to regenerate to move the entire system forward to reach its fullest potential.



Forest Dwellers

Ecosystem Participants

As ecosystem participants, we see ourselves as suppliers, distributors, consumers, governance, processes, producers, and even healthy competitors, improving our ecosystem as a whole. Our behaviour

patterns streamline the flow of ideas, talent, resources, and circular economy throughout the system. We see an ecosystem thriving and also supporting our neighbouring ecosystems through our gifting economy.

We live knowing we are wholly dependent on Earth's ecosystems and services, such as food, clean water, disease regulation, climate regulation, spiritual fulfillment, and aesthetic enjoyment. The relationship between our well-being and ecosystem services is not linear. Our vitality and our inspiration because we see and act as our forest is our provider, infinite wisdom university, and sacred cathedral.

We chose and committed to daily practice in regenerative habits and processes that go into everything we do. This goes from our homes to agriculture to our home-



Forest Garden

made fashion and livelihood—not just to limit the toll on us here in our environment but also to make the air, soil, water, and ecosystems healthier than we found them. Many indigenous cultures offered us examples of how to apply this way of life, which is inherently regenerative and respectful toward Mother Nature. We took the best of ancient wisdom and the best of scientific understanding, and we braided these threads together to create a regenerative fabric.

A Regenerative Sustainability Future

We saw regenerative sustainability as the next wave of sustainability, based on a holistic worldview and aims for thriving whole living systems. It integrates inner and outer realms of sustainability and focuses on shifting deep leverage points in systems for transformational change across scales. The regenerative design uses whole systems thinking to create resilient and equitable systems that integrate community needs with nature's integrity.

"Regeneration is an act of love towards the soil that is responsible for pretty much all of life on earth. A regeneration lifestyle is a lifestyle of uprooting oppressive systems and treating our earth and its inhabitants with dignity and respect."

The Prime Directive

"Braiding Sweetgrass was an inspiration to many of us during this time. Of how we need to have our foot in the spiritual world and the world that thrives in and paying

attention to these non-human beings in our lives and one foot stuck in reality and facing shadows of supremacy that live here for us to quell them, and make room for more thriving."

> ~Robin Wall Kimmerer, Braiding Sweetgrass, 2015

A few of us moved onto the land a few decades back, and we reforested the land, so we became known as herbal forest dwellers and created a livelihood for ourselves and our families. And yes, planting we did, thousands of trees; edible, medicinal, and native restoration happened every year.

What would happen if everyone planted a tree every year?

For this we know, without trees, humans would not survive because the air would be unsuitable for breathing. If anything, people would have to develop gas masks that filter the little oxygen left in the air.

Statistically, if everyone planted a tree, the amount would still be dwarfed by the population of trees worldwide because there are currently three trillion trees worldwide —this is around 400 trees for every living human!

Each tree planted will save an estimated 4 kg of carbon each year—so that 20 million trees will eventually hold 80 thousand tons of carbon every year.

What's low-tech, sustainable, and possibly the most

useful thing we can do to fight climate change? Planting trees. A trillion of them.

Tom Crowther is a climate change ecologist at Swiss university ETH Zurich. He found about 3 trillion trees already on earth—much higher than NASA's previous estimate of 400 billion. His team of researchers has calculated that there is enough room on the planet for an additional 1.2 trillion—and that planting them would have considerable benefits in absorbing atmospheric carbon dioxide, the main driver of climate change.

One inspiration for this is how Costa Rica regenerated and brought back the rainforest from its forest land, slowly increasing from 21% of its territory in 1987 to an estimated 75%. That means rainforests and their plantations covering three-quarters of Costa Rica. In 2020 they launched a crowdfunding campaign to plant 200,000 trees by 2021 in Guanaguste territory. They made a declaration of protecting 30% of the planet by 2030, followed by 50 additional countries making the same commitment. Costa Rica's 2030 goal was 85% reforestation. Curridabat, Costa Rica has granted citizenship to pollinators—including bees, hummingbirds, bats, and butterflies—along with native plants and trees.

"The amount of carbon that we can restore if we plant 1.2 trillion trees, or at least allow those trees to grow, would be way higher than the next best climate change solution."

~Tom Crowther

Herbal Forest Guardians

We knew that forests also have more indirect links to livelihoods. Forests provide soil nutrients and forage for crops and medicines. They also help to reduce soil erosion, pollinate crops, and provide protection from the elements. Hundreds of millions of people in the developing world have relied on forests that sustained them since the beginning of time.



Forest Village

Our community forestry practices include encompassing activities by individual households, female and male forest gardeners, ecoculturists and herbalists, and other folks involved in the community as a whole. As ecological herbalists, we knew that the shade-loving herbs were becoming rare, endangered, and threatened. We asked ourselves and made the shift by creating a livelihood on sustaining ourselves by growing our medicine and designing a diet that included primarily perennials and shade-loving foods that thrive more on a forest edge.

We have evolved as a tribal people who depend on forests for our livelihood as we forage the woodland and follow sacred reciprocity. Mending our relationship with the earth and deepening our daily routine of sacred reciprocity as the heartfelt exchange, gratitude, and acknowledgment for everyone and the green world sustain us.

Crafting herbal and natural products from the forest through the gifting economy, we sustain our community with the larger community. Besides providing habitats for wildlife and livelihoods for ourselves, forests also offer watershed protection, prevent soil erosion, and mitigate climate change.

Forests are essential for our livelihoods, and we depend on forest resources for various products such as fuel, wood, construction materials, medicine, and food.

When done with tender loving care and respect, the benefits of community-based management can be seen over the long term, leading to greater conservation participation, reduced poverty, increased economic productivity, and the protection of many forest species. We have been living on this land for 50 years, and with each passing year, there is even greater forest cover and more miraculous abundance. Our community is on 50-acres thriving with health, joy, and plenty to share.

The Ecosystem of a Herbal Microbiological Sanctuary

Key Ecosystem Participant Roles

Plant Nurseryperson Medical Herbalist Herbal Formulator Forest Gardener **Ecoculturinst** Herb Farmer and Trail-

Blazer Local Chef

Fruit and Nut Orchardist Wild Plant Forager

Vegetable Grower Fermentation Chef **Herbal Educators** Bioshelter Gardener **Tour Guides**

Seedsman Caretaker

Landscape Permaculturist

20 hectares (50 acres) farm converted to a forest ecosystem

Five hectares (12 acres) are devoted as a biological reserve for teaching and species protection of rare,



Shantree in the Forest

endangered, and threatened native plants for a sacred reciprocity garden and a place to be in awe and inspiration—a deep core of the forest.

5 hectares (12 acres)

A magnificent forest edge for foraging shade-loving plants and a forest garden nursery/

5 hectares (15 acres)

A reforested area planted with trees as an edible and medicinal forest garden—one of the most innovative parts of our integral agrarian system encompassing the forest garden and edible forests.

5 hectares (12 acres) are devoted to ponds, greenhouses, annual crops, passive solar homes, and other ecological buildings.

This environmentally conscious community of the future sustains a few multi-generational families. We connect with other villages called Regenerative Development Hub Partnerships within our bioregion. The future has shifted after a decade of what many called the Great Turning. Folks stood up and shifted their ways of being with each other and this precious earth.

Many folks feel daunted by trying to mend our relationship to the earth, but living in Sacred Reciprocity can be as simple as giving heartfelt thanks or acknowledgement as you walk in the woods or swim in a clear lake. This story is from herbal elders of a not-so-faraway future. The future is here—now!

Just imagine what would happen if every single human being participated in a sacred relationship of exchange with the Earth? Imagine living your passion—living fullyconnected, living as a herbal tribe thriving in a beautiful enchanted forest.

"When we surrender the need to figure it all out, and cultivate the ability to let it all in, then our earth walk becomes a sacred dance of healing service on the planet. More than the world needs saving; it needs loving."

~don Oscar Miro-Quesada

"Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius — and a lot of courage to move in the opposite direction."

"The system of nature, of which man is a part, tends to be self-balancing, self-adjusting, self-cleansing. Not so with technology."

Small is Beautiful ~E.F. Schumacher

Shantree Kacera, R.H., D.N., Ph.D., an international author, teacher, and mentor is the founder and codirector of The Living Centre Eco-Spiritual Education Sanctuary, established in 1983. The centre is located outside of London, Ontario, Canada in the heart of Carolinian Canada.

He integrates plant medicine, nutritional energetics, forest gardening, and ecological permaculture. He is one of a few Canadian Herbalists who has been given the "Honouring our Elders" award by the Canadian Council of Herbalist Associations for offering outstanding contributions to the field of herbalism. A past Vice-President of the Ontario Herbalists' Association (OHA), he served on the OHA board for 10 years. He has been a Professional Member of the Ontario Herbalist Association for 40 years. Shantree's deep spiritual connection to the Earth has drawn him into the teachings of shamanic and earth wisdom practices and Carolinian Canada native plant preservation and studies and rainforest studies.

"In a forest of a hundred thousand trees. no two leaves are alike. And no two journeys along the same path are alike."

- Paulo Coelho

FOR THE FOREST

How Sacred Earth Arts is giving back to nature & our connections to source outside Kansas City

By Terra Wolfe and Tania Rounds

Tucked away in the Quindaro Bluffs at the edge of Kansas City's urban center is a forest that doubles as a classroom. In a clearing on the hill, an orchard, berry patch, and prairie-restoration site, along with vegetable, medicinal, and herb gardens, are located. This is the foundation of Sacred Earth Arts, a locally owned and operated grassroots community of herbalists and artists.

Here a unique gathering of diverse individuals learn, maintain, and explore the pristine natural spaces of Dogwood Forest.

Since 2010, Sacred Earth Arts has provided the local community with classes and events centered around nature. "The more deeply we connect with the plants, the more we understand and find our place in the natural world," says founder Regina Compernolle, describing the group's vision. The program debuted with a visual and performance art installation titled For the Forest, showcasing fifteen local artists utilizing biodegradable, natural materials.

Compernolle leads groups and classes in shamanic herbalism, discovering plants and their uses, meditating and drumming in the forest, and creating

art. "We drum and go deeply within to connect with where the forest lives within us," she said, "It feels really good leading people to spend time in the woods, listening with their hearts, and looking within for innate wisdom." Shamanic herbalism is meditation, connecting with ancestors, communicating with plants and animals, drumming, traveling in the dream world to receive messages and blessings, and making art.

The unprecedented circumstances of 2020 shined a bright light on the need for accessing this valuable resource amid pandemic shut-downs and social distancing mandates. Students spent the summer months in outdoor meditation, immersed in physical, emotional, mental, and spiritual activities for the interactive art experience, For the Forest, held annually in October. Participants engage with themselves, the planet, and each other through the unique expressions of living art.

In class students seek to connect with these aspects, thereby connecting with their own places of belonging and value as part of the greater whole of life on Earth. "Art is channeled from the interplay with living spaces and then gifted back to the land in a non-invasive and non-destructive way," program intern Terra Wolfe said, "and through these conscious-creative processes new artistic and energetic doorways are opened."

Slowing down to make art and commune with the materials interrupts the anxiety or overstimulation that creeps into the mind. Humans have created

> overcomplicated lives in an attempt to secure survival and comfort. Life has become a well-practiced unconscious fear-based response fueling day-today activities and decisions. When spending time in nature, much of this falls away without conscious attempt to clear or release it. What remains is awareness of how little the complicated fast-paced life contributes to survival and what actually does support a thriving life.

Classes are a time reserved away from technology, pollution, and politics. The program seeks to support a natural lifestyle, strengthen intuition, and connect to the Earth's community that gathers to support and grow these practices together; be a unique source of love, acknowledgement, and

voice and guidance. Sacred Earth Arts is an established

nourishment; and honor a symbiotic relationship with the planet's living energies.

There are a wide variety of opportunities at Dogwood Forest, including forest bathing, wildcrafting, farming, folklore, intuitive art, astrology, alchemy, reiki, plant identification, and home herbalism. Interested persons may join any class or activity they feel drawn to, regardless of skill set or lack of experience. There are also year-long memberships, internships, and weekend retreats for those who want to more deeply immerse themselves in the land and community.

For the Forest Stone Circle Community Gathering

More information on Sacred Earth Arts: Website: www.sacredeartharts.com Facebook: www.facebook.com/sacredeartharts

Drumming and Singing



Mother of the Forest Mask by Regina Compernolle



Prairie Community Gathering

Looking Through a Seed Catalog in January

It's time to order seeds for next year. I open the catalog, paging through. Just seven years ago, you were all new to me. I didn't know what type of soil you grew in, how deep your roots stretched, the shape of your arms.

I didn't know if I should pick leaves before you flowered or after, in June or August, just once or whether

you'd bloom again.

You were the bustling, loud relatives of the family I had just adopted into.

Opinionated, colorful, and unknown.

I've spent the years wading through the crowd, stopping to talk with each,

gathering beloved recipes, learning who sits next to whom at dinner, who takes charge of conversation, who sweeps bad news out the door.

I know the way your scalp smells when you bend down to kiss my cheek, the soft clasp of your hand around mine.

You have become my family.

And now here I sit, cozy in my corner chair, thumbing through the catalog, making notes,

preparing for next year's gathering.

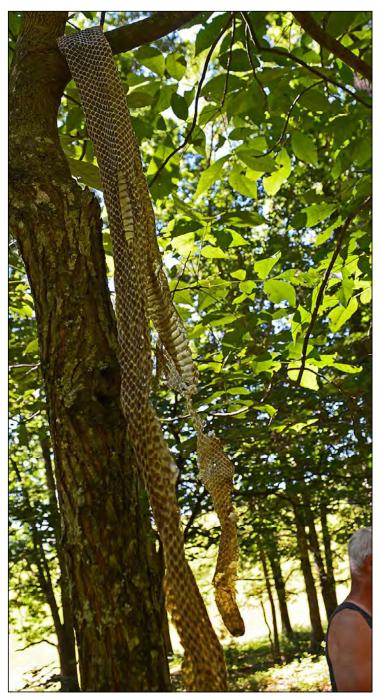
— Amanda Midkiff, Jan 2021

SNAKE IN THE WOODS: ADVENTURES IN FOREST **BATHING**

By Annette Naber

I saw the standing deadwood from a distance. It was a giant tree trunk jutting high into the air. Something was dangling from it, swaying lightly in the breeze. Too soft and fabric-like to be peeling bark, I decided.

Walking closer now, my breath caught, and I stood frozen in awe the moment I recognized the largest snake skin I had ever seen. Transfixed, I looked up at



Full-length snake skin - photo by Annette Naber

the thin membrane dangling like an exotic scarf from a height of about 10 feet. My next thought turned to the owner of the skin, probably a black snake that must be living somewhere around the tree roots. I looked around cautiously, not wanting to accidentally step on a monster snake.

At the same time, my mind kept chanting one word over and over: "Transformation, transformation." My heart beat a little faster. I knew this was the snake's message to me. Spring and summer had been full of snake energy-from the rattlesnake vibrating the air alive on our covered porch to the black snake I found entangled in a roll of bird netting in the garden shed. I was able to cut it loose marveling at the strength of the muscular flesh contracting under my hands. And here was the grandfather of all snakes leaving behind his mark, a mark I could no longer ignore and bury in the busyness of my life.

Because I was leading a small forest bathing group when I came across the skin, I had to turn my attention back to my group, listen to their tree experiences, and lead them back out of the woods. A big storm prevented me from heading back there for a few days. When I finally looked for the tree again, the skin was gone! I circled the tree trunk wading through brambly bushes and finally spotted the skin. I pulled it out as gently as I could to prevent the brambles from shredding it. Then I hung it up over a nearby smaller tree so I could photograph it. While suffering from a bit of wear and tear, it was still magnificent.

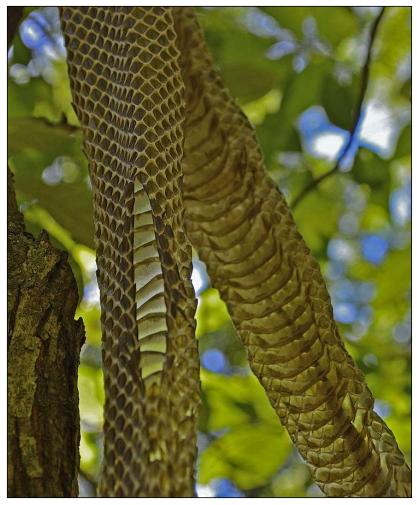
I remembered that the snake symbolizes rebirth, initiation, and wisdom. In Native American mythology, snake is a symbol of transformation and healing. In Eastern lore, a coiled snake at the base of the spine represents kundalini energy which, once activated, opens up new levels of awareness and creativity.

But what did THIS snakeskin mean to me? What kind of transformation was imminent in MY life? As I sat and contemplated, the snake skin released its short message to me: "Go deep," I heard, "Go deep-here."

I had been spreading myself in too many directions, going "wide and far." I knew intuitively what "going deep" meant: to gather my energies inward and invest them into my life here, on my property in the mountains of Virginia. This is where I can go deep with native plants, plant medicine, my own re-connection to Earth after decades in the urban rat race and stewarding the land and the woods.

"Go deep," the snake whispered through its cast-off skin.

In the coming months, I began to shed small and large fragments of my old skin: the majority of



Snake skin detail - photo by Annette Naber

political activities that had been depleting my creative and emotional energies; traveling abroad (a yearly luxury), which immediately eliminated my largest carbon footprint source; and decluttering spaces in my house by selling, giving away, or recycling unneeded items.

Now it was time to travel again, right here in my own backyard and backwoods. I started a small plant sanctuary for endangered woodland medicinals. I re-committed to book research that would encourage gardeners to plant natives in our area. I am designing workshops and retreats that will help others re-connect to their outer and inner nature. I feel more anchored and grounded in my new skin and am listening more intently to that inner calling. It just occurred to me that each and every year brings along a new shedding season. Watch out for those snakes! ■

Annette Naber, Ph.D. is the owner of Emerald Mountain Sanctuary, LC, a small retreat and conference center in the Highlands of Virginia. She enjoys tending her organic garden, edible landscape, and small woodland plant sanctuary. She is also a photographer, blogger, nature guide, and workshop facilitator.

www.emeraldmountainsanctuary.comwww.BeautyAlongTheRoad.wordpress.com









Walking in the redwoods

ARCHANGEL ANCIENT TREE ARCHIVE

David is propagating trees from the giant sequoias. His work becomes more important every year we lose grandparent trees in forest fires.

- Lucy Bowers-Wildblood

David Milarch leads Archangel Ancient Tree Archive towards his vision of replanting the earth with the genetics of the world's remaining ancient forests. A third generation nurseryman with over 40 years of experience in propagation and reforestation, David tells us that 98% of old growth forests in the United States are gone, with only 2% of our "life savings" left. The mission of Archangel Ancient Tree Archive is to propagate, reforest, and archive. To propagate the world's most important old growth trees before they are gone. To reforest the Earth with the offspring of these trees to provide the myriad of beneficial ecosystem services essential for all life forms to thrive. Trees are excellent at sequestering carbon dioxide, releasing oxygen, and providing beneficial aerosols and medicines. They are essentially a global warming solution. To archive the genetics of ancient trees in living libraries around the world for the future.

While Archangel does embrace traditional horticulture techniques, some of the techniques developed by our team of horticulture and botany experts use ways to propagate the cuttings of these trees that traditional

science said was not possible for ancient trees. To plant our saplings we work with diverse groups such as conservation districts; Native Americans; even Eagle Scouts and regular people interested in enhancing and protecting the environment where they live. Archangel has created living archives in many areas in the world, including in their home state of Michigan as well as partnering with groups that have trust properties that accept our trees, ensuring that the hard work expended to capture these tree genetics will live on for generations to come. Even though we have made great strides, there is still much to do, and we can't do it alone.

With over eight thousand tree species on the endangered species list and our world in such ecological peril, we cannot rest until we are able to plant tens of millions of these important trees globally.

To learn more, visit www.ancienttreearchive.org



David Milarch in our propagation building

MEDICINE WOODS SANCTUARY

East Tennessee

Sanctuary Steward: Cynthia Johnston

Medicine Woods Is a jewel of 5 acres on Tall Poplar Way, near the Great Smoky Mountains National Park, in east Tennessee. It is my home, and I consider myself lucky to be the caretaker of this wonderland in the woods. It is full of medicinal herbs, mosses, hardwood trees. and mushrooms. The Smoky Mountains are a bountiful spot chocked full of many of the herbs we see in our "medicine cabinets" like ginseng (Panax quinquefolius), goldenseal (Hydrastis canadensis), wild yam (Dioscorea villosa), stinging nettles (Urtica dioica), and black cohosh (Actaea racemosa) to name a few.

The Spring of 2021 will be, at last, the launching of classes, walks, programs for children and adults, a HipCamp, and Airbnb for campers. It will be a lot of fun to host folks and show them the beauty and magic that is everywhere you look around here.

The delays we all experienced in 2020 seemed to actually work out quite well for us here, as this quiet time allowed for improvements in learning spaces, gardens, and trails. We will post updates on the website_ www.moonmaidbotanicals.com as they become scheduled. Meanwhile, below are a few plant photos from many walks in the garden.

As a young person in California, I would never have imagined myself in the South. The plants, however, had a different plan. As I developed my company, MoonMaid Botanicals, I found myself drawn to new woods and mountains, different than those I grew up with. Wild yam is an herb I have worked extensively with over the last 30 years. It offered its medicine secrets to me years ago, and I have observed powerful and almost magical shifts for women experiencing hormone imbalance. I nurture this plant and the many other medicinal plants I find here in my woodland garden.



It has become my mission and my honor to spread the good word about medicinal plants. A part of that mission is teaching sustainable use, propagation, and how to nurture our environment to invite these plants, and all other plants and beings on this planet, to live with clean air, water, and soil. It is not hard. It does take effort. I hope my lifestyle at Medicine Woods serves as an example of "what most certainly, can be done." Find us on Facebook, Instagram, and @ www.moonmaidbotanicals.com.

~ Cynthia @ Medicine Woods











BLACKBIRD'S DAUGHTER **BOTANICALS**

Barrington, NH

Sanctuary Stewards: Jessica LaBrie and Steve McPhee By Jessica LaBrie

Blackbird's Daughter Botanicals is a center for Sacred Gaian Herbalism and healing, a dream continually coming true and a passion project that belongs not just to Steve McPhee and Jessica LaBrie, but to everyone whose contributions enrich the land and ensure its stewardship for the next inhabitants.

Located in N'dakinna, the ancestral homeland of the Abenaki, Pennacook, and Wabanaki Peoples, Blackbird's Daughter Botanicals rests on a small portion of Scruton Pond Farm, a 125-acre intentional community in Barrington, NH. Steve, a master cabinetmaker, came to purchase this spot six years ago; his mind was made up as soon as he drove up the driveway and saw the cluster of white oak trees that grace the property. That sacred oak grove has formed the core of this space ever since. Quiet forest trails, a pond, bogs, vernal pools, and glacial erratic boulders are all part of this UpS sanctuary. When Jessica, a Sacred Gaian Herbalist, wisewoman, and educator, moved in with Steve, he built her an apothecary off the kitchen, filled floor to ceiling with glowing curly maple shelves. They painted the walls with turmeric, were married the following year, and immediately began to grow their hilltop home into a community sanctuary and educational center.

With Jessica's vision and Steve's technical carpentry skills, Blackbird's Daughter Botanicals is expanding the current gardens to nurture even more at-risk and medicinal plants, many of which already grow on the property and will ultimately be re-introduced into the forests of New Hampshire. As Steve works to convert a small building into a classroom and apothecary, Jessica's next goal is to terrace a steep stone hillside to create an accessible sensory herb garden - a monumental but rewarding task. Their loftiest plans are to finish a small space above the barn, "the Nest at Blackbird's Daughter." Once finished, it will be available to rent for herbal retreats and as lodging, in addition to campsites, for WWOOFers and guests.

They also look forward to expanding the gardens into a network of wheelchair-accessible teaching and healing refuge for all abilities and stages of life. This vision extends beyond the garden walls (quasi-protected from marauding deer by fences of beaver-felled blueberry branches) and into the surrounding wilderness. With the help of herbal apprentices, colleagues, and friends, they've laid a medicinal mushroom trail and have worked with a permaculturist to design and plant a food & medicine forest, including fruit trees and a nut orchard. Even though many of these trees won't bear food during our lifetimes, their goal is to return this space to how it would have been in pre-colonial times.

"We believe everyone deserves access to hands-on education and time in nature" says Jessica, who firmly



Drying rack, garbling, and trails

believes that no one should be limited no matter their age or abilities. "We're co-creating this space in a way that this land wants. Sometimes, when I'm nearing the end of a project, I'll walk back toward the house and notice that things begin to look different. Everything turns sepia, but one area will stand apart from the rest. I know that that's the next place this space wants me to work and I honor that call."

The call has blossomed into a number of year-round educational and enrichment opportunities, the majority of which are sliding-scale and offer social justice scholarships to BIPOC and trans/GNC folks. Programs include a three year, six-module Sacred Gaian Herbalism apprenticeship, herbal workshops, kitchen witch classes, and naturebased programs for all ages, as well as work-study opportunities. An ordained minister and practicing Green Witch, Jessica offers sacred studies programs, performs rituals, ceremonies, and community celebrations to mark the Year Wheel, and provides Wise Woman counseling and life coaching, including trauma-informed nature therapy. Clients appreciate visiting with the plants who they will later enjoy in tea and tincture, and participating in the "ground up" medicine-making process. They find solace and peace in forest-bathing and learn to practice mindfulness among the green allies.

Blackbird's Daughter Botanicals is uniquely situated to welcome visitors to the magic of partnering with the plants. The small meadow and ever-expanding teaching gardens are home to many animals, insects, birds, fungi, trees, wildflowers, and herbs. Nestled in the gardens and throughout the protected woods are many at-risk and medicinal plants, including arnica, bilberry, black cohosh, blueberry, Canadian ginger, echinacea, elder, ginseng, gentian, ghost pipe, goldthread, hemlock, lady's slipper, northern maidenhair fern, mayapple, partridge berry, pipsissewa, sarsaparilla, sassafras, trillium, wapato,



Visitors at Scruton Pond Farm.

white pine, white oak, witch hazel, and yellow pond lily, among others. Scruton Pond Farm is also home to otters, beavers, eagles, hawks, a nesting pair of turkey vultures, ravens, black bears, coyotes, deer, turkeys, salamanders, snapping turtles, painted turtles, and many more animal friends who work in tandem with the land to create a thriving ecosystem.

"We are proud to be part of the UpS Botanical Sanctuary Network because we believe in the mission of United Plant Savers and have an opportunity to be of service. We understand that this land does not belong to us: rather. we belong to the land and hold all of the inhabitants, from wild turkeys to turkey tail mushrooms, in the highest regard. We are enormously grateful to live here in partnership with this sacred space and the communities of beings we share it with, and to share this reverence and understanding with others." ■



Steve and less

Jessica LaBrie is the current president of the New Hampshire Herbal Network (AHG-chapter), co-owner of Mama's Kiss Cannabis, LLC, and owner of Blackbird's Daughter Botanicals, an AHG Herb School, United Plant Savers Partner in Education, and UpS designated Botanical Sanctuary in Barrington, NH. She specializes in supporting clients through a multi-disciplinary approach based in narrative therapy, archetypes, herbalism,

ceremony, and nature therapy, and a host of botanical, spiritual, and multicultural wisdom traditions. Learn more by visiting www.blackbirdsdaughter.com.

SPIRIT CANOE LODGE

Ashe County, North Carolina Sanctuary Steward: Kelly Clampitt

Spirit Canoe Lodge, a non-profit healing retreat sanctuary, is a 50-acre plot nestled between two ridge lines in the sacred and wild Appalachian Mountains of Ashe County in North Carolina. Its location in the mixed hardwood cove forest at an elevation of 3300 feet in the oldest mountains in the world offers a plethora of plant and wildlife diversity. It is also close to the New River (Kanawha), the second oldest river in the world. The land is noticeably special to any sensitive person who visits and is used as a retreat space with a focus on nature for this very reason. The Mission of Spirit Canoe Lodge is to provide space in nature for those who seek self-development and mastery of life. Each and every event hosted on the property offers a way to connect with Mother Earth and honors all living things upon it. It is truly a sanctuary for all of life, and many people visit the retreat to experience this. The land has a diversity of native and medicinal trees and plants. Sassafras (Sassafras albidum) stands and spicebush (Lindera benzoin) give the woods fall color, and spring ephemerals freckle the forest in spring. Turk Cap lilies, rhododendrons, and azaleas bloom in the summer. There are stands of blue cohosh (Caulophyllum thalictroides) on the slopes and bloodroot (Sanguinaria canadensis) spreading down from the ridgeline. It is also rich in ginseng (Panax quinquefolius). The land was logged approximately 60 years ago but has remained relatively untouched since. The forest has many pockets of different microclimates, as is typical in western North Carolina's temperate rainforest mountains. There are open spaces, but most of the property is wooded, wild, and untouched. It has an existing orchard with numerous old blueberry bushes, towering pear trees, and twisted old apple trees. It has abundant springs and creeks and a pond area.

Founded in 2010, the land has been occupied by Kelly Clampitt, the owner, for almost 10 years, and she has established a deep relationship with it. She has sprinkled the property with shrines to the plants and the land spirits. She has a good deal of knowledge about the plants and is very familiar with almost every inch of the property. The vision of Spirit Canoe Lodge is to serve as a self-sustaining community that nurtures the human spirit and brings balance into the world for generations. She has started many projects to bring this vision to life.

Kelly has created beautiful functional garden spaces on the property's living zone with intention. She uses everything that is grown and plants her gardens with this in mind. She has planted hazelnut trees and fig bushes in the orchard and started developing a beekeeping area. Edible and culinary herbs and flowers are just outside her kitchen door.

Knowing that her land is a rich source of plant diversity and wanting to cultivate that, she has transplanted at risk native wildflowers she rescued from developing areas, such as goldenseal (Hydrastis canadensis), yellow lady slipper (*Cypripedium parviflorum*), and trilliums (*Trillium* spp.). This gave her the idea to expand her vision to include what the forest has to offer in the way of medicinal plants to Spirit Canoe's Vision.

This idea was started when Kelly was visited by a neighbor who asked "to hunt" her land for ginseng, and he told her it was an ideal location and historically hunted. Kelly went looking for it and found it speckled throughout the property, including an area with over 100 plants ranging in age and size. Kelly listened to this plant's story and was called to grow and care for it. With ginseng root digging being such a large part of Appalachian Mountain culture and tradition, plus its importance in Eastern culture and medicine, Kelly hoped to create a balance between the protection of the plant and the use of its important and potent medicine.

A project was started in the fall of 2019 with the help of an intern, Sidhe Kirk, a local naturalist who is also a UpS member. The land was surveyed, and a medicinal garden was brought to life. Together they hoped to create a safe place to experiment with wild simulated ginseng and a sustainable local market for our sacred medicine. Not only are we encouraging a healthy repopulation of ginseng and experimenting with wild simulated cultivation, but we are also experimenting with ways to create sustainable markets for domestic medicinal herb sales. We are working to heal what has been fractured, not only with overharvest and habitat loss, but taking it to the next level and creating a sustainable future for the medicinal plant market. Since its inception, a pound and a half of ginseng seed, 250 goldenseal rootlets, and 200 Solomon's seal (*Polygonatum* spp.) roots have been planted in wild simulated forest beds along a roughly constructed Medicine Trail. More than 500 native wildflowers, including maidenhair fern, doll's eyes, echinacea, trilliums, ramps, rattlesnake plantain, and Dutchman's breeches were also planted on the property. Each one was planted in an area best suited for its needs, while thought was also given to where it would be most enjoyed.

Kelly and Sidhe continue to work on expanding and improving the trail through the Spirit Canoe property and spreading wildflowers as the trail grows. It will become a self-guided nature trail through the property for all who wish to visit the gardens, complete with a guide featuring Kelly's award winning photography beside plant info and lore and a map with sit spots and meditations along the way. Spirit Canoe community members are lovingly creating markers for plants along the way and adding their own voices by helping to build the trail. Sidhe is writing grants and arranging plant rescues to fund and grow the trails, the pollinator garden, and the Native Wetland Garden at the Pond.

We also hope to do our part in inspiring the local community around us to consider the importance of ginseng's future. We offer workshops and tours of the garden to help educate people about why we protect and nurture our wild plants, while also demonstrating and teaching how one can start their own wild simulated garden or start preserving, protecting, and stewarding their land. As we spread this knowledge and more people have become interested in this important work, Sidhe has started offering her surveys and consultation services through 5 counties in the surrounding High Country area. We feel this work is crucial in our area with a long history of overharvest and the ever increasing development of our wild spaces.

We invite any UpS member to visit and reach out and connect with us at Spirit Canoe Lodge. We recognize through our membership in UpS that by becoming a Botanical Sanctuary Member, we are joining a community of like-minded individuals who can provide us with support and resources. We desire a community of "plantpeople" whom we can look to for guidance as we take on important experiments in creating a wild simulated and fair medicinal market while allowing plants to naturalize and repopulate. It feels extremely important to align ourselves with others who recognize the balance we wish to create between utilizing our potent native medicine and helping its survival for future generations. We seek to learn and teach what we learn—gleaning, giving, and sharing to help everyone do their best.

We want to support building and growing a larger community of those who put the earth and her medicine at the forefront of everything they do. We see creating this Sanctuary space as a necessary part of bringing balance, healing, and wholeness to the world community.

Plant medicine works by calling us to connect with ourselves first and then the community of the entire living world. When we want our gardens to thrive, permaculture tells us to mimic nature and let all the different elements work together—to let the beans grow up the corn and squash shade the ground and roots below. Just like permaculture, we know things thrive in certain communities and guilds with people, projects, and ideas. Keeping this in mind, we can help each other grow. We see ourselves helping UpS as much as it can help us. We are certainly companion plants. We look forward to connecting with our plant community.





Entry road to our property

DRAGONFLY MEDICINALS **SANCTUARY**

Vashon Island, Washington

Sanctuary Steward: Michael Laurie and Diane Emerson

We are growing small quantities of medicinal plants on a 3 1/2-acre site on Vashon Island, Washington, a short ferry ride from Seattle. We are growing several plants on the at-risk and to-watch lists, including arnica (Arnica spp.), black cohosh (Actaea racemosa), cascara sagrada (Rhamnus purshiana), echinacea (Echinacea spp.), goldenseal (*Hydrastis canadensis*), maidenhair fern (Adiantum pedatum), mayapple (Podophyllum peltatum), Oregon grape (Mahonia aquifolium), osha (Ligusticum porteri), spikenard (Aralia racemosa), wild yam (Dioscorea *villosa*), and yerba mansa (*Anemopsis californica*). Our property has been a member of the UPS Botanical Sanctuary Network for over 10 years.

Right after purchasing the property 17 years ago, we went to work removing invasive plants, including holly, ivy, and Himalayan blackberry. And at the same time, we spent a few weeks transplanting several medicinal plants we started growing at another site. Not only are we growing several at-risk and to-watch plants, but we also are growing over 265 species of plants that are mostly either medicinal, native, or perennial edibles.

There are many reasons why growing medicinal plants here is important to us. I share the vision of helping to

protect and restore medicinal plants that are over-picked in the wild. But I also think it is important for our island community to have a living pharmacy of medicines that they can make use of right here and hopefully for some of them, right out of their backyard. This makes sense to me because it is more resilient, it is cheaper than exclusively relying on pharmaceutical drugs, and it has a lower carbon footprint.

I have been making use of medicinal plants for over 45 years and have been growing medicinal plants for over 23 years. I first became interested in medicinal plants when I read about them in the Whole Earth catalog many years ago. It made perfect sense and seemed exciting to me to be able to take responsibility for some of my own medicine including growing some of it. I was encouraged by meeting other people through the years who shared my interest in medicinal plants.

But one disappointment to me has been how hard it has been to interest the general public in medicinal products and plants. I assumed that it would be an obvious evolution that more and more of the general public would adopt the use of medicinal plants. But while their interest has grown, it is still stuck at a much lower level than I expected by now. I feel bad that they are missing out on the joys of growing some of their own medicine and making use of medicine from plants that can be grown locally. I am at a loss as to how to get the pace of adoption of medicinal plants to increase. But I have not given up on spreading the word, growing the plants, and making the products.

We now have planted from starts or seeds over 20 species of native plants into the 3 acres of forest on the property in an attempt to restore the wild native forest. This forest borders on about 100 acres of forest on other property. So, this makes for a sizable forest to protect and restore. Recently we completed the building of a trail that goes down the slope behind our home through the forest that we are restoring to the ravine at the bottom. There are a number of old growth Western red cedar trees in our forest. So, by protecting and restoring the forest we are taking action to continue the carbon sequestering that these trees and the soil network are carrying out.

After purchasing the property and establishing and planting new medicinals, we made small quantities of tinctures and oils and dried some for use as tea. For a few years, I made and sold tinctures and oils at the Vashon Farmers Market. Now I mostly make these products for myself, my wife Diane, and friends and family. There are many plants that I have developed a special relationship with. One of the first plants that I wildcrafted was valerian (Valeriana officinalis) growing up in the Cascade mountains of Washington state. I was really impressed with how it helped me relax and fall asleep easily. We still grow and make use of valerian here. I also remember the first time I tried a few leaves of skullcap (Scutellaria baicalensis) from a garden.



Michael picking tea leaves to make some green tea

The feeling of ease and clarity it provided impacted my whole day. Goldenseal works wonders for drying up the congestion I get from life-long allergies. Bleeding heart (Dicentra spp.) is a favorite for many reasons. When I sold tinctures at the market, bleeding heart was the most popular one. It is a native plant around here, and its flowers stick around for a long time to add their beauty to the garden and forest floors. I chose to have a tattoo of it on my ring finger for our wedding ring because



Bleeding heart wedding ring on Michaels hand

Diane and I did not want to have the climate impact that comes from metal rings. And speaking of Diane, we both like the tea plant because it drew Diane's interest on a garden tour of my property the first time we met. Her coming back to harvest some of the tea leaves led to us dating and eventually getting married.

We also focused on making the property a model of

sustainability by adding some of the following measures: 5 rainwater systems, a rain garden, certified wildlife habitat, a green roof on the toolshed, drip irrigation, worm bins, a hugelkulture bed, use of sustainably harvested lumber from Vashon for the raised beds, Forest Stewardship Council (FSC) lumber for a deck

rebuilding project, efficient home appliances, ductless heat pump heating, air sealing, and more.

We have led over 10 tours and classes here. The tours have typically provided information on our medicinal plants as well as the sustainability features. In 2017 we co-taught a 2-day class on growing and using medicinal plants. We also had two educational tours for permaculture classes and two classes on the design and installation of the rain garden.

In 2020, after we became a certified nursery, we had plans for many plant sales, but the pandemic led to a modification of that. We still had a few sales on site with one customer at a time with masks and social distancing. We also sold our medicinal plants and native plants through a Vashon based on-line system called Vashon Fresh. This system allowed us to make sales on-line, and twice a week we delivered the ordered plants to a pickup station on island.

Going forward we plan to continue selling through Vashon Fresh or on-site in a safe way. And when COVID is no longer a danger, we will have more tours, classes, and plant sales for the public on site. And we will continue to add more native plants to the forest and protect the ones we have already planted. Last Fall we saved seeds from over 40 species of natives and medicinals and planted some of them in the fall and winter. We plan to plant more of these seeds and hope to sell many of the starts next spring. And Michael took on the challenge of planting American ginseng (Panax quinquefolius) seeds last fall in a special bed in the shade of paw paw, hawthorn (Crataegus spp.), and ginkgos (Ginkgo biloba). He worked to make the soil more alkaline, and he put some other ginseng seeds in a bag of wet sand in the freezer. We look forward to what surprises these seeds will provide for us in the coming months and years. ■



Michael teaching a class on growing and processing medicinal plants

EAGLE FEATHER FARM

Marshall, NC

Sanctuary Steward: Robert Eidus

"It seems like with the environment, everyone's up on trees and animals and insects and butterflies. But the plants are just not really defended at all."

Robert Eidus sees his purpose in life as being a defender of Appalachia's wild woodland medicinal plants plants like trillium (*Trillium* spp.), goldenseal (*Hydrastis* canadensis), and especially American ginseng (Panax quinquefolius). At Eagle Feather Farm, a medicinal plant nursery nestled in a mountain hollow north of Asheville, NC, Robert propagates a wide variety of medicinal herbs that he sells as living plants or processed into medicinal tinctures and capsules.

The heart and soul of Robert's work, however, is his work with American ginseng. Robert is passionate about encouraging more American farmers and landowners to grow organic "wild-simulated" ginseng—ginseng that is grown in an environment that closely mimics its natural habitat without fungicides or other chemicals that are commonly used in commercial ginseng growing. Robert fears that such chemicals are "poison." Robert works to promote sustainable ginseng growing in a variety of ways. He conducts site visits and consults over the phone, and he provides educational material via workshops, a website, and a local radio program. He also sells ginseng seeds and young ginseng plants at herbal festivals and gatherings. Robert is also a registered ginseng dealer and occasionally buys wild ginseng to process into medicine, but he will only buy ginseng from harvesters who he is confident are harvesting ginseng responsibly.

Robert got a later start in ginseng than many other growers and dealers. Robert's first career was in real estate in Raleigh, NC, but he grew frustrated with the business and yearned for a job that would be more physical and enable him to cultivate a deeper connection



Robert Eidus at Eagle Feather Farm in Marshall, NC



Young ginseng plants available for sale at Eagle Feather Farm

with the natural world. "Whether it was a dream or a vision or whatever, I thought that I had this conversation with Grandfather Ginseng about being a person who could advocate for the plants. And that was kind of it," says Robert. In the early 1990s Robert built a house on the property that is now Eagle Feather Farm and began to seek out prominent herbalists and experts in plant lore to help him learn how to be a good steward of the plants: "In real estate, if you want to find out how to get 10 houses and rent them out, you go to the person who knows, who's been successful doing that. So when I started in, I went to Doug Elliott as one of my teachers and Frank Cook as another one of my teachers, and then CoreyPine Shane and Ceara Foley slightly, and Juliet Blankenspoor slightly."

Robert also supports sustainable ginseng growing and harvesting as president of the North Carolina Ginseng Growers' Association. The NCGA is still a small organization and has run into some growing pains—Robert has encountered skeptics who argue that ginseng dealers and growers are set in their ways and are unlikely to join such an organization. However, Robert has had some success in using the NCGA to build community among younger and newer ginseng growers in North Carolina. The NCGA also advocates for state-level policies in North Carolina that incentivize organic ginseng growing and preserve wild ginseng for generations to come.

WALKER MOUNTAIN **BOTANICAL SANCTUARY**

Deerfield, Virginia

Sanctuary Steward: Shay Herring Clanton

It is the end of January at Walker Mountain Botanical Sanctuary. The black cohosh (*Actaea racemosa*), blue cohosh (Caulophyllum thalictroides), and ginseng (Panax *quinquefolius*) that grow on the northern and eastern slopes of this land are dormant these short winter days and long nights, but as the light increases, day by day, they are preparing once again for spring and new life. The pair of ravens who nest on the ridge every year are croaking their mating songs and flying in elaborate dances together. It is good to hear their familiar voices. In this time of the pandemic, with so much uncertainty and unrest in the human realm, the eternal rhythms of the natural world are reassuring.



Ginseng (Panax quinquefolius) - Walker Mountain

It is becoming clear, however, that winters are now warmer with dramatic shifts from warmer days to brief intense cold. There have been some losses in the complex and diverse web of life in the sanctuary. The hemlocks are mostly dead now from the invasive woolly adelgid. The big ash trees are slowly dying from the invasive emerald ash beetle. Much of the old indigenous ginseng that grew in the sanctuary was stolen in July of 2019. Sadly, again, this past July a lot of the old ginseng was stolen from the forest adjacent to the sanctuary on our neighbors land. We have taken steps to protect our own land with cameras and greater vigilance. I have tried to come to terms with this loss, but I am conscious that something that is hard to put into words is now missing. The plants were my friends. I had watched them and tended them for years. When I walk past the places where they grew, I have the intuition that lights have gone out in the forest, that something whole and ancient has been disturbed. Stealing ginseng on both public and private lands for quick money is common practice here now and is resulting in a significant loss of populations.

(For laws and legal guidelines for protection of ginseng see https://www.fws.gov/international/plants/american- ginseng.html).

I am, more than ever, grateful for the network of United Plant Savers Botanical Sanctuaries across the country where native medicinal plants are honored and protected. There are many people who live in honor of the land and the web of life that includes the plants and the natural system they are an integral part of. This action and the intention itself are healing and important in ways that are more far-reaching than we can know.

At Walker Mountain Botanical Sanctuary we have planted many hundreds of ginseng seeds in the past several years, all carefully planted one by one using the "wild simulated" method of forest farming. Last year we planted more goldenseal (*Hydrastis canadensis*) and ramps (Allium tricoccum). We do not intend to sell the plants but want to restore abundance and weave again a web of diversity and wholeness. The medicinal plants, goldenseal, black cohosh, blue cohosh, ginseng, ramps and bloodroot (Sanguinaria canadensis) that live here are allies and medicine for our family and friends and the land itself. They live in a protected and honored place as members of their own community of diverse species. I am looking forward to a time, several years in the future, when there are beautiful stands of ginseng, here again, growing among the black cohosh and other forest plants.

In this year of guarantine from travel and daily busyness, the slower rhythm of life has given me the gift of time to be more present. I am more aware of my deep connection to this mountain and its many layered and mysterious web of life. We have lived here for over 25 years, and this land has taught me so much, but I realize that, in some ways, I have been blind in making decisions about what is the right action for this place. I am more conscious now of paying attention to the slow accumulation of knowledge that comes from observing the rhythms of the land and the life that unfolds here. This coming year will be a time of practicing the humble art of listening with an open heart to the wisdom and voices of the land for guidance. ■

In gratitude to the Navajo Dine' people for this closing prayer.

In Beauty I walk With Beauty before me I walk With Beauty behind me I walk With Beauty around me I walk It has become Beauty again.

May you walk in Beauty.

Shay Herring Clanton Walker Mountain Botanical Sanctuary



Shay and Boone

Sunflowers

Amongst the wildflowers, I sit. The sun rises above the trees and the blooms wake up.

A buzz grows around me.
Carpenter bees by the dozens and
the prettiest bee fly you can ever imagine drink
from the lemon flowered Cup Plant.
The cupped leaves cradle water and a
camouflaged tree frog.

The butterflies join in.
Tiger Swallowtails
Monarchs
Silver-spotted Skippers
Zabulon Skippers, forest-edge lovers,
just like me. Kin.

The sun grows warmer and the ray and disk florets of False Sunflower waft scents of nectar and pollen. Twin tiny beetles rest on the ray florets.

One red.

One black.

A tiny hoverfly sits on another. A whole community right here on this one flower branch.

On another, twin plant hoppers rest on the stem, both oriented towards Earth.

My eyes witness the life. My heart roots in the life. My spirit grows.

— by Jennifer Kleinrichert www.thecommonmilkweed.com

SHINDAGIN HOLLOW BOTANICAL SANCTUARY

Willseyville, NY

Sanctuary Steward: Suzanne Johnson

Here at Shindagin Hollow Botanical Sanctuary it has been a year of discovery on the land and in the forest. Much of our work has been canceled due to the coronavirus, which has allowed much more time for exploring and long woods walks that we haven't had time for in the past. We feel so fortunate to caretake this land and find a silver lining during this pandemic.

On our walks we have been so happy to discover thriving patches of ginseng (*Panax quinquefolius*) we planted back in 2004 and goldenseal (Hydrastis canadensis) that has spread naturally. We also have more reishi (Ganoderma *lucidum*) and turkey tail (*Trametes versicolor*) mushrooms than ever before. leff, who is a certified MFO (Master Forest Owners), like others in this group has received training from Cornell University's Department of Natural Resources that complements their experience as forest owners. All MFOs are graduates of a 4-day training program where they learn about sawtimber and wildlife management, forest economics, and ecology. Jeff has managed our forest for diversity of wildlife, tree, and plant species. In culling "weed" species such as beech, and leaving downed trees, it has created more habitat for these medicinal mushrooms as well as animals.

In the past 3 years, I have been so excited to bring students of my gardening program into the woods to discuss wildcrafting and harvesting sustainably and bring our forest and community together. We have gone on woods walks to find and identify the medicinal plants and trees. We have also been able to harvest small quantities for medicine making of many plants, including blue cohosh (Caulophyllum thalictroides), partridge berry (Mitchella repens), eastern white pine (*Pinus strobus*), and wild leeks or ramps (*Allium tricoccum*) that grow in abundance here. We also make medicine from elderberry (Sambucus nigra), plantain (Plantago spp.), goldenrod (Solidago canadensis), yarrow (Achillea millefolium), and mugwort (Artemisia vulgaris). As we harvest, prepare, and discuss these plants, I get to watch the students begin to see their true value and develop a relationship with these truly magical beings we share the planet with. They also receive information about UpS and the importance of preserving and propagating our medicinal plants.

While we have had to take a year off from sharing our land with students, we have found so much more to introduce to them this coming year! Having this time to become more intimate with the land ourselves has been a true gift, and we look forward to sharing it with renewed energy in the coming years.



First poster in a series to empower and educate the public about how they can use herbs in their everyday life. Dye on Paper by Rachel Bordeleau

DEEP ECOLOGY ARTIST **FELLOWSHIP PROGRAM**

This program is available for artists looking to spend time at the sanctuary to explore their artistic perspective in regards to the role of native medicinal plants in the ecosystem through photography, writing, and mixed media.

Deep ecology is an ecological and environmental philosophy promoting the inherent worth of living beings regardless of their instrumental utility to human needs, plus a radical restructuring of modern human societies in accordance with such ideas. Deep ecology argues that the natural world is a subtle balance of complex inter-relationships in which the existence of organisms is dependent on the existence of others within ecosystems. Human interference with or destruction of the natural world poses a threat therefore not only to humans, but to all organisms constituting the natural order.

2020 - 2021 **Deep Ecology Fellows**

2020

Sarah Mills, Ohio watercolor, multi-media facebook.com/sarahchristinemills

> Brett Hill, Ohio musician, songwriter linktr.ee/brother.hill

Selena Loomis, Ohio fiber art, mixed media www.selenaloomis.space

> Mad Conway, Ohio photography

> > 2021

Kadambari Patil, India drawing, illustrations

Julia Bianco, California Visual arts, watercolor www.juliaobianco.com

Allison Branham, Missouri mixed media arts

Jessica Maffia, New York visual arts @kad leidoscope

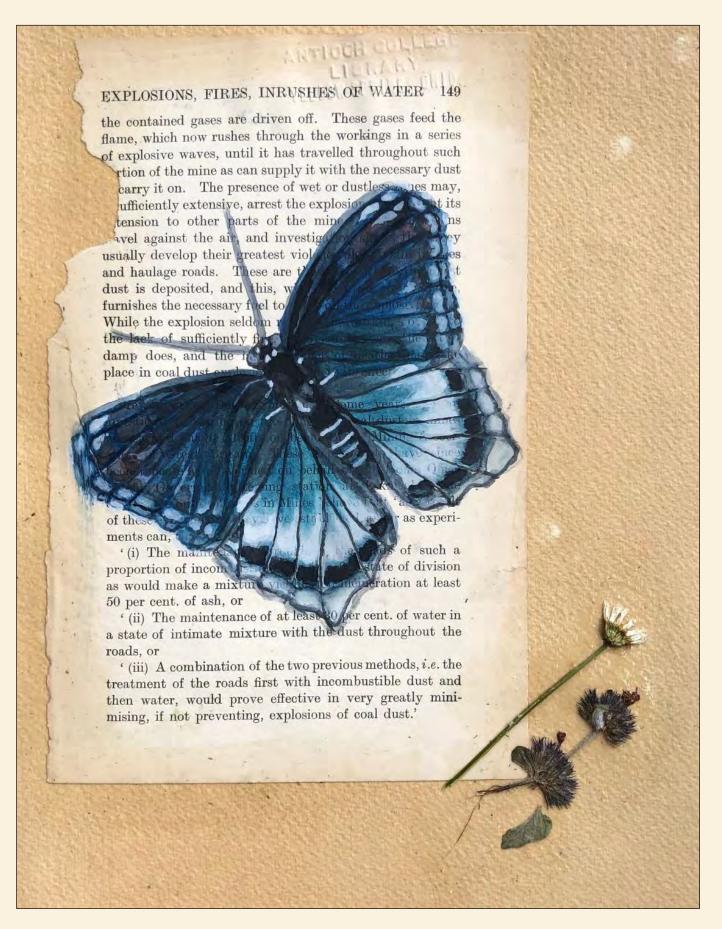
DEEP ECOLOGY ARTIST FELLOWSHIP PROGRAM, **SUMMER 2020**

By Sarah Mills

I came to United Plant Savers on a mission to craft pages for my unique botanical book. For most of my life I have been a creator, aspiring to be an artist. In those years, on the journey to becoming an artist, I found my muse to be nature. This muse spoke to me, not only in images to reproduce, but also of the protection she needed. This set me on a path to learn more about the gifts of Mother Nature. I found, while educating myself about the earth's gifts, a lot of ugly wounds left on the environment. I often felt helpless, asking "How do I help? How do I reciprocate these gifts? How do I awaken others to the blessings? How do I stop the damage?" Until recently, I did not see that I was already giving back, helping, awakening others through my artistic practices. Each of us receives the gift of life from our earth, and each of us has something to offer in reciprocity to our Mother. I was blessed with the talent to create. I believe by no coincidence I was given abundant inspiration from the natural world. These two gifts were meant to be used in unison.

In the midst of a world struck with pandemic, I was offered time to take a break and refocus on what is truly important. Even though I work hard to produce art that is nature inspired, I was often caught up in the swings of society's pressures, unable to find time to be with nature and create. Within the pages of my book, one will find the magic of reclamation of the natural world from the sickened society present in life these days. The Goldenseal Sanctuary's theme of reclamation is so important to the current days one faces. These pages are a reflection of the gifts I received from my time at the sanctuary. These are the pages of my connection to that land, the plants, and the magic that happens at the sanctuary. I am grateful for the time to see healing of the earth, even be it at a 300-acre sanctuary. One must stay hopeful and continue to see this hope blazing through the anthropocene.

I hope my images, along with my "found" materials and tidbits of information that fill the pages of my book will spark desire within others to be kind to our earth. I hope that the same hope that was set into me during my time at United Plant Savers will shout loudly from the pages. Saving the earth seems a daunting task, but there are glimmers of hope everywhere. One can see it in the abundance of milkweeds in a prairie or even in the cracks of a sidewalk where nature still wins. We all have a gift to help us reclaim our earth. One just has to let nature show them the way. ■



A QUILT IS AN ECOSYSTEM

ecosystem: noun

- a biological community of interacting organisms and their physical environment
- a complex network or interconnected system

By Selena Loomis

Like many people prone to bouts of long, all-consuming sorrow, 2020 was a difficult year for me. After losing my day job, my studio, and a lot of sleep, I arrived midday on September 1st (a full moon), six months into a global pandemic, with a stack of the last year's botanical dye experiments tucked under my arm. I hoped to create a guilt, some comfort object to yank both me and my practice back into a reality where doing something anything—felt not only possible, but useful.

The first few days, it pours. After a dry, hot summer,

the rain arrived impatiently, coming down sideways, seeping into each crevice of the forest, and drip drip dripping on the roof of the yurt. I wonder aloud to myself if this rain sounds different rain falling on a forest where I've yet to see even one amur honeysuckle bush. It feels foreign in many ways, the rain on this abundant ecosystem full of native, but mostly newto-me plants. The drops hitting their bodies sound softer, smoother somehow than my hometown rainstorms a few hours northwest. I wonder if this was how the rain sounded to my ancestors or to the more rightful ancestors of this land whose skin is not so milky white as mine.

I brought a large stack of books with me, assuming I would become someone else entirely while in residency—a better version of myself who wakes

at dawn and reads for hours over steaming cups of tea, instead of rolling over at 10 and hazily checking my email, reading the newest bad news on a too bright screen. But I tuck my computer and phone under my pillow and dive headfirst into a book. I pursue becoming this better me throughout the days-long rainstorm, reading bits and pieces of all the books I unpacked, and diving into the well-stocked shelves of the sanctuary, too. I still have no plans for my fabric, now mocking me on the desk. I try painting—too slow, writing—too quick.

Rain still pouring, I find the sanctuary's binders full of collaged memories of past interns. I know a few of them, try to find their faces in the pages, but these are older stories—from the late 90s and early 00s, when I was just a toddler. I hungrily flip through all four as though they are my own family's heirloom albums. One group

devoted a page and a half to a reishi (*Ganoderma lucidum*) mushroom encountered on a hike offsite. There is a photo of the whole intern team squatting in the woods around the shelf mushroom, still attached to its home log, each of their hands outstretched towards it in delight, as though showing off a trophy they've just won or a friend they are proud to know. Above the shelf holding these huge, dusty binders is a framed ginseng (*Panax quinquefolius*) root, each of its dozens of wiry tendrils pinned down with t-pins. The ginseng lives on what used to be bright pink paper, now faded to a soft orange from life in a spot where the sun hits and bleaches it just a little each day. I slide the binders back in their place near the floor and climb on a chair to read the tiny, handwritten label, which says American Ginseng Root (Panax quinquefolius) found in a dumpster at Ohio University. I am instantly delighted by the whimsical mundanity of this framed plant and the care that a former inhabitant of this yurt took in finding, cleaning, mounting, labeling, and hanging it on the wall years ago.



Yellow buckeye medicine trail sign

Time passes differently when it rains hard in the morning—the cicadas get confused and sing gloriously all day through. A few days in, I begin to feel antsy and decide to walk outdoors despite the mushy mud and heavy drops still falling. I am starting to feel guilty for not "doing anything" while in residency. I am beginning to feel like I've fooled my way into this time and space, that my work doesn't deserve it, and someone else should be here in my stead. Shame is a close, personal friend of mine, lurking at the edges of all my best (and worst) efforts. To keep her cruel cycles at bay, I slide on my thick work boots and head out onto the Medicine Trail. I am not a particularly adept hiker—I don't even own hiking boots, but I soldier on, squishing and slipping my way along, reading every trail

sign I come to. I love them, these signs with simple white paint on cool grey slate and many different handwritings. Some are illustrated with sweet, simplistic renderings of the plants they are marking, for ease of telling them apart on the ground, I assume. So many plants I have never met live on this short loop, and many people before me have likely met them for the first time right here, too. I don't hike far, but over the next few days I follow the trails deeper into the woods, up on the ridges, and into spaces I'm not sure I'm supposed to wander through, until I find one of my beloved trail signs, reassuring me it's okay to go on. I've been thinking about becoming trustworthy and what that means in a relationship with the land and the overwhelming, amorphous grief of this pandemic year. Poetics and poetry in the body; how to make experiencing one's own body safer, more meaningful, a site of tender curiosity.

I can feel some dull emptiness in my stomach when I sit still long enough out here. I wonder if that is it—The Grieving that Joanna Macy told me lives here. Can I locate it well enough to articulate something beautiful or worthwhile from it? No. Not yet. Resmaa Menakem and Bessel Van der Kolk speak often of the trauma stored in all our bodies from our own traumatic experiences, but also from childbirth, our parents' traumas, theirs, and so on clear back to the start of human civilizations. If left untended, this trauma swells into more harm, causes the cycles of pain, toxic masculinities, and other violences we are finally becoming comfortable with naming as a society. It seems clear to me that it is not only the harm my ancestors did unto one another (and had done unto them) that is stored in my bones, but the eco-psychological trauma that they enacted against their home ecosystems, and that we continue to practice today, is also stored there. The forest can sense this better than me; it knows to be wary of me. It is a lifelong practice to hear some message(s) from the plants, the land, to

become trustworthy enough to be humbled by them. I am not there yet, as I am only just beginning this voyage of caring, of "honoring my grief for the world." I choose not to sit in the loneliness of this, but to practice silence as an offering to this sanctuary community. Maybe soon I will be trustworthy enough.

I loop back from a dropletcovered Heart Pond through the wildflower field, visiting old friends I have met many times in other places. The ironweed (*Veronia gigantea*), goldenrod (Solidago spp.), big swaths of blooming jewelweed/touchme-not (Impatiens capensis), and their closest friend poison ivy (Toxicodendron radicans). I remember when I was first introduced to these plants, the gratitude I felt to know their names when I saw them—a gift of relationship handed down to me from so many

different teachers. The years spent (and ongoing) learning the many gifts they offer to us—the birds, insects, soil, and one another. The humbling reminder that no matter how many plants I meet, there are still so, so many more. Knowing the names of beings is not the only way to know them, of course, but so many ecologists/naturalists have made it seem otherwise. Steeped it in ego, in pride, in being DIFFERENT/BETTER. In a world we (I should say I) want, everyone knows these things and the virtues to care, tend, reciprocate, and practice gratitude more actively are simply THERE, brought up within us all.

The sun is setting by the time I reach the yurt's doors. It is time to get to work. Stepping back from screens, books, and big ideas that need to prove something to someone, I push myself to think about what it is I am really doing here: seeking connection—to others, plants, my own body. It has been both incredibly easy and extremely

challenging to disassociate from my embodiment during the past six months of pandemic times. Vulnerability and fallibility—ephemerality even—are close at hand with and against this virus.

Without much thought, I begin to cut up one of the brown paper bags I lugged my 2 weeks of groceries in. I find my bright white paint and get to work making trail signs of my own. I write-paint whatever comes to mind, quotes I can't stop thinking of (INHABIT THE PORTAL—FALL IN LOVE WITH BEING A PART OF IT; CO-CREATE A WHITENESS WITHOUT SUPREMACY), things I want to cultivate in my own life, and the world (SILENCE AS AN OFFERING, SILENCE AS A PRAYER), and firm reminders to my most-eager, capitalistic, imposter-syndrome-addled self about how art is actually made (SLOWER; ALCHEMY; COURAGE + HANDS; BREATHE; THERE IS TIME). I go to sleep certain this is nothing, but also buzzing that it is the very tiny start of something.

Over the next days, I hike more, if only to fall deeper in love with the resident trail signs. I find the place in the

barn where Kelsey, a current Americorps VISTA, handpaints the ones that need replacing. I well up a bit at the paintbrushes, the cracked old signs that have been carefully removed from the woods. Offering a chuckle at my wistful love for them, Kelsey does not seem as poetically enthralled with the trail signs as I am. They are just to-do's on her list. This reaction throws me deeper into loving them and the everydayness of this artmaking, this mark-making, this earnest, three-fold gift of education, acknowledgement, and relationship with this specific land. I think of Martin Buber's I, Thou about honoring the "being-ness" of all beings, with care not to anthropomorphize or heave human moralities, judgements, and motives unto them. These signs feel like this practice in action. I



Stiff goldenrod medicine trail sign

photograph a few favorites with my phone, blurry from the fog the rain has left in its wake. The photos do feel slightly magical but don't do much justice to the heart quickening I feel for the hunks of slate. I head deep into the woods again.

I spend a lot of time in residence this way, walking the sanctuary in what Mary Oliver tells me might be prayer. Not religious praying to a specific god for specific changes, but using "prayer" as another word for inviting messages—prayer as another word for listening with my whole body. I walk deep into the woods in utter silence. It becomes familiar, a close friend, after a long year spent in much the same way at home.

Pausing to listen offers many gifts, both auditory and not, including bird calls and insects buzzing, wind rustling leaves, and my own heart pounding in my chest as I climb the unfamiliar hills of the sanctuary. In the yurt, in an Annie Dillard book, she tells me that silence is the voice of the natural world. She seems like a person who has spent a lifetime trying to listen and communicate about what she hears, and still, it is silence she feels most deftly explains the experience. Standing deep in these carefully tended woods, surrounded by trees whose names I don't yet know, I can feel that for me, the voice of the world isn't silence. It is a loud, alive, bubbling, giggling community. The trees, mycelium, understory plants, creatures, and soil are all working on their personal ecological responsibilities. I have spent years trying to better understand my own offering in this community. Being a good human is more about remembering you are an animal than anything else, it seems.

I climb out of the valley back into the yurt into more silence. At night, for the next few nights, I paint more trail

signs for myself as an owl calls right outside the window until I run out of brown paper bags.

Soon, the fabric calls to me to make a quilt to live here, with the framed dumpster ginseng, binders of reishiworship, and creaky futon frame that's made a terrible crick in my neck over the last week. I love the ecosystem of small treasures others have left behind, and I want to say thank you to them with a soft comfort offering to grow old, fade, and disintegrate here with them. I want to take a stab at an invitation to this world of "Deep Ecology" and specifically, of where the BODY lives in it all.

I run out into the fields to draw quick line-sketches of my "spark plants," those first few l met that helped me recognize my plant blindness and dive

into caring about the earth as a dear friend and colleague. I carve these lines into the bubblegum pink linoleum blocks I brought with me, thinking all the while of the teachers who first introduced me to these plant friends teachers, overwhelmingly white, who came from middle class, liberal backgrounds much like my own. I consider the privilege that encased my ecological education. It was hidden away so easily because often, the rooms and forests where I learned the names of plant friends were filled with only white faces like my own. As I've grown up, I've had the gift of being led to teachers and writers beyond the overwhelmingly white environmentalist canon. I have learned that many ecologists in my own cultural tradition write about HUMAN this, HUMAN that when they are actually referring to specific systemscapitalism, imperialism, productivity addiction, extractive cultures. It is a fragile choice to pass blame unto species as a whole rather than cultural systems. Claiming the harm is HUMAN and not systemic, bypassing responsibility and making ecological violence easier to

turn away from, a simple byproduct of the relationship humans must have with the earth. But cultures beyond my own know better ways and practice them all the time.

I carve some of the smaller/bigger questions from my personal trail signs, too. These include Invitations to feel into our bodies, to notice their subtleties and deepen the relationship with the natural world, the nature body all around in hopes that, perhaps under the comfort of a quilt, these vulnerable, taboo, sometimes embarrassing places will be easier to breathe into.

Finally, I begin to sew the quilt squares together. I purposefully didn't bring my sewing machine, so endless hours of hand-stitching fill the final week of my residency. I choose to "single-task" the work, focused, in silence, undertaking it as exercise in truly feeling what my body is doing in this labor of blanket-making.



Trail signs for the next world

As I sew, I think of the seams of a guilt as the understory brush leading to prairie clearings, marking the liminal space between the two—a quilt as an ecosystem, and an ecosystem is a living archive, an active, breathing memory library holding histories of all that has taken place there. Like my own body, the nature body's ecosystem holds colonization, harm, exploitation, care, soil swollen with last week's heavy rains. In the quilt's case—labored hands stitching, stitching, stitching. I think of power and presence and how spaces become charged and have wounds, pressure points, joys, heartbreaks, and harm. These points can be traced, sometimes through science, yes, but they must sometimes (in tandem) be traced through story, ritual, lineage, and magic. I think this might be the two-fold work undertaken by

the people committed to this place.

I think of the long lives of the fabrics—as seed, stalk, retted fiber, spun, woven, dyed, dyed again, cut and sewn back together—passing through so many hands and soils from start to finish before even beginning their job as this comfort object.

This quilt is an offering to engage our embodied despair and, too, our delight. To question and connect in comfort and warmth. To approach the human body and the larger, interconnected nature body with tender curiosity instead of contempt, exasperation, and greed. To soften into those uncomfortable places and spend time in the grieving, painful spots. Joanna Macy said "When we examine and embrace that pain, grief, despair—it doesn't stay. It turns. It turns into our absolute connectedness with all life." I hope this quilt, a tiny ecosystem unto itself, becomes a living member of the powerful, hopeful ecosystem of the United Plant Savers Botanical Sanctuary,





Prints before quilt assembly

There is time quilt

inviting future visitors to reach into that absolute connectedness and consider the casual, far-reaching, historic, healing relationships between ourselves and the plants and one another, how deeply beautiful and livegiving they are—the everyday mundanity of climate crisis and our own ability to turn away from it, but the power and community held in turning towards our shared, terrifying, uncertain future-present instead.

There is time quilt: 35 by 55" – completely hand-stitched from reclaimed cotton and linen, hand-dyed with botanicals including goldenrod, marigold, indigo, avocado, hibiscus, dyer's coreopsis, Japanese knotweed, and calendula. The backing/binding is a repurposed bedsheet. Prints are original linoleum blocks of my "spark plants," the abundant native ones that pushed me to acknowledge and begin unlearning my own plant blindness (jewelweed, ironweed, goldenrod, poison ivy). It also features questions/messages meant to invite grounding embodiment into the work that is done at UpS, the work of tending to and learning from native medicinal plants. Exploring the grief, joy, and specific pace of time that being in close relationship with a thriving ecosystem/sanctuary creates. The walking trail map of the sanctuary is quilted into the fabrics in honor of the many hours spent walking these woods in gentle reverence, both during my residency and as the true labor of the organization. The ephemeral nature of natural dye means the colors of the quilt will shift, fade, and change with use and washing. Eventually most will disappear altogether, as a joyful reminder of the fleeting nature of everything, including abundance, grief, delight, and loneliness. The quilt now lives at United Plant Savers to comfort future visitors.

Thank you to Katey, Kelsey, and Susan for their warmth and generosity throughout my stay at UpS.

GIVING THANKS TO THE ELDERS - a reading/listening list from my residency

- Robin Wall Kimmerer Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants
- Annie Dillard Teaching a Stone to Talk: Expeditions and **Encounters**
- Arundahti Roy The Pandemic is a Portal
- Martin Buber *I, Thou*
- Mary Oliver "Listening to the World" interview with Krista Tippett/ On Being
- Joanna Macy "A Wild Love for the World" interview with Krista Tippett / On Being
- Pauline Boss "Navigating Loss Without Closure" interview with Krista Tippett / On Being
- Mary Siisip Genuisz Plants Have So Much to Give Us, All We Have to Do Is Ask: Anishinaabe Botanical Teachings
- Lama Rod Owens "The Unseen World is Trying to Liberate Us" interview with Asher Pandjiris / Living in this Queer Body podcast
- Tao Orion Beyond the War on Invasive Species: A Permaculture Approach to Ecosystem Restoration
- Timothy Lee Scott Invasive Plant Medicine: The Ecological Benefits and Healing Abilities of Invasives
- Resmaa Menakem My Grandmother's Hands: Racialized Trauma and the Pathway to Mending our Hearts and Bodies

Selena Loomis (they/them) is an interdisciplinary artist, quilter, and land-tender living and working in Yellow Springs, Ohio on traditional Shawnee, Ottawa, and Miami land. Their work is concerned with domestic ecologies, cycles, meeting-making, and the time the body keeps. They have a BA in Performance Art from Antioch College. You can find their work at <u>selenaloomis.space</u> and get in touch at selenaloomis@gmail.com.



WEAVING THE CROSS: MUSIC IN THE DEEP ECOLOGY **FELLOWSHIP**

By Brother Hill

The reeds quiver in the wind as I tie them together with a length of twine. One reed bent around the next, turned clockwise, and repeated—an ancient Irish ritual meant for Imbolc, a changing of seasons. It is the end of January, and I am weaving a Brigid's cross at the tail end of a four-day video shoot at United Plant Savers Goldenseal Sanctuary. The song I am shooting a video for, "Mother of our Nature," is written as an ode to the divine feminine in the natural world, themed around the many faces of the nurturing "Mother of us all." I can hardly think of a more fitting place on Earth to represent that sentiment for me than the Goldenseal Sanctuary in Meigs County Ohio, sentient land that has held me to its life-giving bosom this last year and nurtured my soul in ways I could not before have imagined.

My name is Brett Andrew Fritts Hill (though many call me by my stage name Brother Hill), and my home is southern Ohio from Montgomery to Athens counties. I am a performing/recording artist and songwriter of four musical acts: Brother Hill, Appalachian folk quintet Hill Spirits, Slavic-Appalachian supergroup Slavalachia, and Dayton doom-rock band *Nineteen Thirteen*. I am also the owner of Hiddensee Publishing Ltd, an amateur film producer, a 16-year film photographer, and a Certified Medical Qigong practitioner.

I am also a passionate amateur dendrologist which is central to my interest in ecology. I gained this passion during my time at Hocking College studying under the late Dennis Profant, who was the greatest teacher I ever had. He inspired by example and instilled in me a deep appreciation of tree science.

Atop all this I have been blessed to be named a Fellow of United Plant Savers' Deep Ecology Fellowship, which is what has enabled me the distinguished honor of writing for this annual journal. How this came to be was one of the more serendipitous experiences of my life.

FELLOWSHIP

Twas the beginning of July, and I sat on a stone at the Goldenseal Sanctuary's heart pond with a handful of my dearest friends. It was an average 2020 afternoon for us—swimming, discussing the state of the world's decomposition up to that week, playing with the blessed infant child of our dear friends Kyle and Jules, and of course, playing boisterous Appalachian folk music and singing to the forest.

Though the day was bright, this was an overall somber time for me. Had the performing arts not been derailed by the virus, I would have been only two weeks out from departing for Eastern Europe to perform, record, and continue representing Appalachia with the Slavic-Appalachian folk alliance SLAVALACHIA, a cross-cultural musical project I had been helping facilitate for 16 months by then. We were set to perform at a multitude of festivals in Ukraine and Belarus, record an album in my favorite city L'viv, and continue filming the documentary we'd put so much time into creating at the beginning of the year. Alas, none of that was to happen anymore. And now I looked down the line at August and wondered what I might possibly do with my time that would make me feel more than the pain of loss. I discussed the matter with my friends.

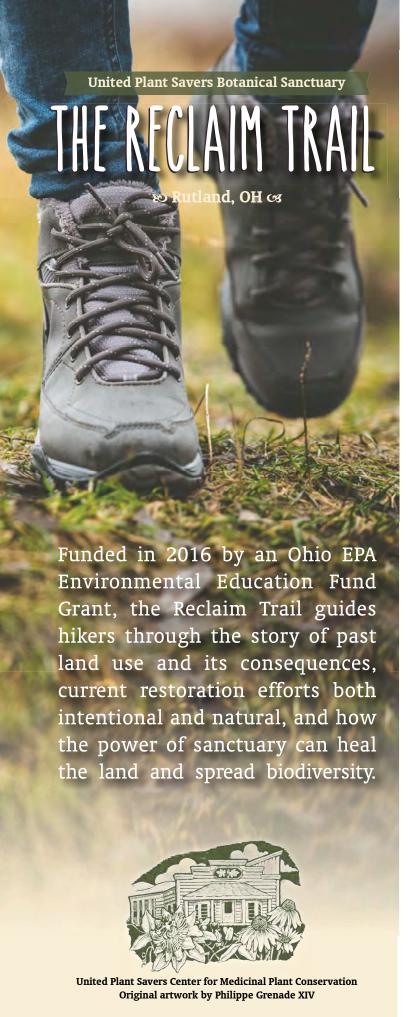
"Well, you could apply for the Deep Ecology Fellowship," said that darling Katey Patterson, a dear friend and employee of the plant sanctuary. "I don't think we have anyone signed up for August anymore because the guy coming from overseas had to cancel due to COVID."



Brett Andrew Fritts Hill

"Whuuut?" I must have sounded like Scooby-Doo when he gets startled. "What is that? I have never heard of this."

"Yeah, UPS offers artists the chance to come live on the sanctuary and create for two weeks to a month. It's something we are trying to push a little more, actually. We basically want artists to infuse the land with creative energy and for the land to act as the artists' muse. It is an ecological process at heart, and that's why it's called the Deep Ecology Fellowship."



I learned of it Sunday, applied on Monday, and by Tuesday I was granted the fellowship. There are some who may call this luck or coincidence. I choose to see it as pure providence.

Within three weeks I arrived back at the sanctuary to move into the yurt with four guitars, two drums, a banjo, a mixing board, two powered speakers, and a stack of texts from Thomas Merton to the National Audubon Society. My only mission: to dive into the sacred medicinal forest and create. This was an opportunity I could have only dreamed of before now.

In the course of the next month I grew my beard long and poured into both my craft and myself in every way I could including wandering the woods for inspiration on any given whim, writing every single day, practicing gigong deep in the forest, eating my fill of the oyster mushroom harvest, managing the coming releases of three albums, two singles, and two music videos, and plotting my best methods for musical proliferation and global domination. The world was my oyster, and I had been blessed with the opportunity to craft pearls of pure intention. Every day held something new, a new sight, sound, taste, experience, or realization for me both as an artist and as a human.

As a propagator and disciple of Appalachian folk music, I believe that the music and land are tied in much deeper ways than simple origin stories and ethnomusicologists give credit to. It is my belief that the sounds of the hills that predated human habitation have woven themselves inextricably to the music. Many would try to pin this down as simply the "Old World European and African folk influence," but truly it is so much more than this. I believe the sound of Appalachia to be woven into the spirit of the land, like mycorrhizal fungi spreading itself across the region, supporting and nurturing the sounds of those who sing and play to the hills. Thus this opportunity to spend my late summer days in ecological communion with some of the healthiest and most abundant forests in Appalachia was an esoteric experience that has left me both nourished in perpetuity and reaffirmed in the belief of the magic of these hills.

When you sing to the hills, the hills sing back.

BLACK HAW

Perhaps the most notable anecdote from my stay at the sanctuary came about one afternoon when walking the Medicine Trail. Whistling a nameless tune that had come into my head, I came across an understory shrub with opposite branching and finely toothed ovate leaves. It took me a moment before I deduced what it was: black haw (Viburnum prunifolium or, "that-Viburnum-with-thecherry-leaves".) It took me by surprise how long it had been since I'd seen one or even thought of its name. It was like hearing a song you haven't heard in ages or suddenly seeing the face of an old loved one again. I would be lying if I didn't note that I was in a state of utter heartache at this time, longing for a lover after our time had passed. On this day both of these sentiments rang the same bell in my mind; that of a longed-for lover and that of long-forgotten plant medicine.



Joe Pye weed (Eutrochium purpureum) in bloom beneath Black Willow (Salix nigra) and Black Walnut (Juglans nigra) on the Botanical Sanctuary's Prairie Walk

I stepped a few feet off the trail, sat down on a fallen ash tree, took the notebook out of my pocket and the guitar off my back, and penned "Black Haw" to the tune I had been whistling.

Been a long long time since I heard your name, Black Haw Been a long long time since I saw your face Allow me a study of your shape, Black Haw And to memorize your patterns and your ways

Fell winds are bringing down the ashes I hear even the the oak has fallen prey Though many have come and gone, rouse and rally and linger on

I'll sing a song to you my love and that's "Soldier on"

What may I find that I've forgotten? Oh all of those tales I've craved so long I wanna bring you into the light, show the whole world what you're like

But you'd be out of place and surely you'd fade away Long, long time since I heard your name, Black Haw A long long time since I saw your face Let me love you just away you are, Black Haw And never seek to change your fate

I recorded this song at Reel Love Recording Studio in Dayton, Ohio the week after it was written and it is featured on "Blackfish", the newest Brother Hill record (out 12 March.) In the background of the recording you can hear the evening birdsong of the Sanctuary prairie, a field recording I made during my fellowship.

HILL SPIRITS ELDER GIN

Even after my time living at the sanctuary came to its conclusion, the fellowship thrives and the collaborations continue. My Appalachian band Hill Spirits will be releasing our debut album on vinyl on the 30th of July 2021, and along with it we've conceived of a liquor specifically crafted for drinking while listening to it. In the spirit of support for the United Plant Savers mission, we have also found a way to help preserve American

Ginseng at the sanctuary while still being able to reap its sacred medicinal benefits.

Introducing Hill Spirits Elder Gin: an earthen decoction of Elderflower, Eastern Red Cedar, and American Ginseng distilled by Athens West End Distillery with a botanical bill sourced from United Plant Savers Botanical Sanctuary, the proceeds of which will go to support UPS' noble mission of American Ginseng preservation.

Come Spring we will be harvesting all the constituent ingredients of Sambucus canadensis flowers, Juniperus virginiana berries and tips, and Panax quinquefolius root and leaf from the UPS Sanctuary and surrounding areas to distill a collaborative spirit conceived, harvested, produced, designed, bottled, and labelled entirely between three sustainably-minded organizations in Athens and Meigs counties. Thus it shall be the threefold force of a local business, local non-profit, and local artist collaborating to make one mutually beneficial product for all. (Also the first collaborative liquor/album release that any of us have ever heard of. Have you heard of such a thing? If you have, please send me an e-mail because I want to know more.) The proceeds of our first batch will be sufficient enough to provide for the planting of our own Panax patch, from which we will be able to harvest Ginseng for our gin in perpetuity. Sustainability or bust!

Hill Spirits Elder Gin will be available for purchase at Athens West End Distillery come July 30. It will be sold both on its own and in a package deal with the Hill Spirits vinyl record, cocktail glasses, and Elder Gin t-shirts.

The mission of Athens West End Distillery is: "to use the finest, locally-sourced fruits, grains, roots, and herbs to produce top-shelf spirits that embody flavors and styles uniquely Appalachian." (For more information visit www.athenswestend.com/hillspirits)

CONCLUSION

All in all, my life has been indelibly changed after receiving the Deep Ecology Fellowship last summer. I can hardly imagine what my life would have looked like had I not had the space to clear my mind from the static monotony of 2020 by coming out to the sanctuary to live, write, and rebalance. I can confidently claim that this experience will continue to nurture me on my life's path by reflecting back to me my deepest understandings of who I am and the role I am to play in interpreting the natural world through my art and music.

I can only hope the incredible staff at the Goldenseal Sanctuary knows what an absolute lighthouse they have been to me through these times. (Katey Patterson, Chip Carroll, Susan Leopold—you are saints in my eyes.) It is my vow to do everything in my power to aide their mission of conservation and preservation through artistic interpretation and creative methods of support for all the days of my life. As an Ohioan naturalist, the Goldenseal Sanctuary is the Promised Land. Long Live the Deep Ecology Fellowship.



Brother Hill (right) and Hill Spirits bandmate Kyle Lyons (left) rehearsing in the yurt during Brother Hill's stay at the UpS Botanical Sanctuary (Aug. 2020)

POSTSCRIPT: "I WILL HANG A BRIGID'S CROSS ABOVE MY DOOR"

There is a tradition dating back to at least the sixth century in Ireland of preparing a Brigid's cross for 1 February, "St. Brigid's Feast Day," also known as "Imbolc" to those who do not subscribe to the Catholic calendar. This cross is made from rushes or reeds and placed beside or above the door of one's home to prevent disease, fire, hunger, and any evils from entering the home throughout the year. This cross is then burned and replaced the next year on the same day.

The history of Brigid is a fascinating example of syncretism between early Christianity and even earlier pagan beliefs. The pre-Christian Brigid was known as one of the chief deities of the Tuatha Dé Danann, the supernatural inhabitants of ancient Ireland that the legends say were already there when humans first arrived. Brigid was a goddess of spring and of the hearth, of fertility and of the forge, of inspiration and of poetry.

Once Christianity came to the island, a "St. Brigid" was soon to follow. (Deities can be shameless in their ascertainment of devotion.) Alas this inheritance into the canon of saints has kept Brigid alive and well into the modern age, particularly due to the weaving of Brigid's crosses, the first of which St. Brigid was said to have woven for a druid king on his deathbed. While using it to explain to him the doctrine of salvation, the message was supposedly so moving that the king requested to be baptized a Christian before passing on. Fast forward to the 21st century and Brigid's crosses are inextricably tied to Irish identity, in some ways reflecting their ancient brand of Christianity but to a deeper degree reflecting the remnants of a far older belief, that of the ancient ones and of old Brigid.

In the "Mother of our Nature" interpretation (AKA Brother Hill's interpretation) Brigid represents another incarnation of the divine feminine from the pages of space and time alongside the likes of Freya, Mother Mary, and Mother Nature herself. In this light the Brigid's cross represents an intricate wholeness in the balance of nature and we humans finding our proper place in that balance. Thus the song concludes:

"I will hang a Brigid's cross above my door You should hang a Brigid's cross above your door They should hang a Brigid's cross above their door We'll all hang a Brigid's cross above our door."

Instructions on how to weave one of these ancient crosses can be found in hundreds of places on the internet, most simply by searching YouTube for "How to weave a Brigid's cross." (I find instructing one to do that is simpler than instructing through text, though of course not as simple as sitting before one and showing them in person.)

The symbol of this cross is prominently featured in the music video to "Mother of our Nature", filmed in part at United Plant Savers Goldenseal Sanctuary, which will be released alongside "Blackfish", the full length Brother Hill album coming 12 March, 2021.

Visit the website below to look down the Brother Hill rabbit hole, follow Brother Hill on Instagram and Facebook to stay in the loop on what betides, and contact Brett Hill directly via e-mail with any inquiries or comments.

https://linktr.ee/brother.hill brettafhill@gmail.com

Heavens bless.



IT'S OUR NATURE

By Jesse LoVasco

A decade ago or so, while living in Vermont and enjoying all that nature had to offer in hiking mountains and kayaking rivers, I also had to make a living and practiced cosmetology at a local salon in Montpelier.

As I worked on clients day after day, cutting and styling hair, I heard the same story over and over. Women who were born in this beautiful state with ample accessibility to nature had never had the experience of hiking or kayaking, not even walks in the woods. They complained that all they did was go to work, make dinner, shop for groceries and sleep. They never had time to discover the natural world.

After hearing this for months, I wondered if there was something I could do to encourage and motivate people to get in the woods. I created a program and an opportunity for anyone who wanted to experience the rich forests and mountains that surrounded them in Vermont. I hoped that this would be a way to have meaningful interactions with nature. I created a program called, It's Our Nature.

Before long, I had several interested people. I set up a series of mountain hikes, which included meditation, yoga, hiking, drawing, poetry, and reflection time. Each interested participant had an opportunity to do this alone so they could get in touch with themselves and be present to their experience. I was able to be a witness throughout their journey.

One woman in particular, my first participant, was an overworked teacher. We traveled to three different forested mountains, Spruce, Abraham, and Worcester. She had very deep realizations during her experience as we paused to write and reflect with poetry and as she drew rocks and leaves along the way. She felt like it was life changing.

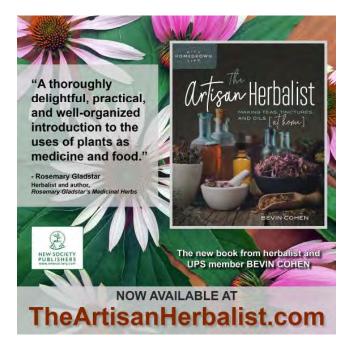
I was also invited to take a group of interns from the University of Vermont Medical School on a nature experience to help them slow down and learn to find solace and relaxation amidst the heavy load of classes and testing of their curriculum.

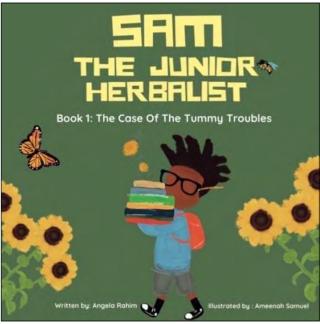
I took them to Red Rocks, a local park on the edge of Lake Champlain. In order for each participant to have an intimate experience, I had them walk 20 paces, before the next one could follow. No one was allowed to speak. It was as if they were alone. The only sound was water lapping against rocks and birds in the trees. The forested paths and rocky outcrop were a perfect place for inner listening of meditation.

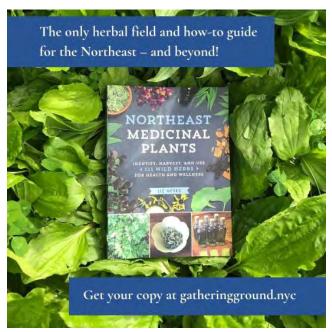
It was apparent after doing a summer of this work, that the forests spoke to each participant like nothing in their lives had ever before. They commented on how their minds slowed down, how smells, sounds of birds, and rock and leaf patterns were soothing, healing, and exquisite. They truly did not imagine that the power of the forest was so peace filled.

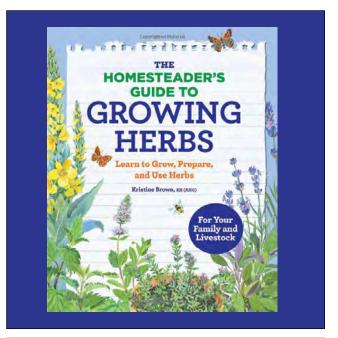
The woman who was my first participant wrote to me later in the year and told me that she did not go back to teaching. Her family owned land in the rural area of Vermont, and she explained that after her adventures on the hikes and questions she asked herself about life, that she could not return to a job that kept her away from the natural world. She decided to start a farm to be closer to the land on a daily basis.

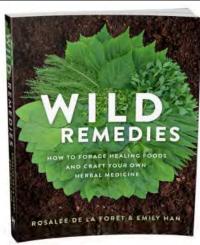
I now know that there are studies on how the forest, and nature itself, is a component of human health and what we are designed to be a part of. I am happy that there has been so much emphasis on the importance of our connection to nature, and terms such as forest bathing or "Shinrin-yoku," as it is called in Japan, have made their way into our thinking. My hope is that as we take time to relish the gifts we've been given in nature, that we also pause and give thanks and also continually defend and protect the sacred lands that we have been given.





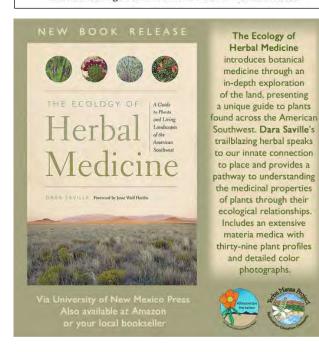


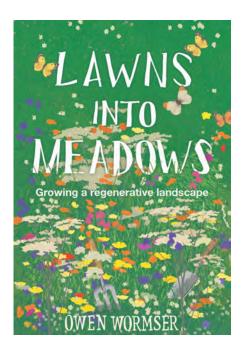


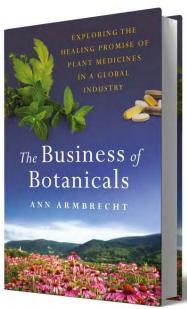


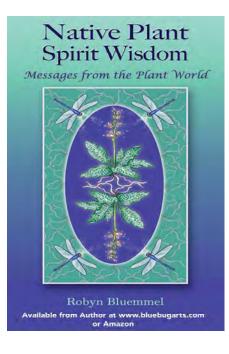
Strengthen your connection to nature while learning how to tend the plants that grow around you.

This best-selling book is available wherever books are sold.











OLIVIA'S GARDEN

By Diane Tait

I grew up in a small town in central New York State. I knew I was lucky to have a huge, grown-over hollow adjoining my yard. It was from the foundation of what had been a school for girls years ago. Some of the stone basement walls were still partially standing and were a source of lovely fossil finds. The glen, as I called it, was a magnet for all of us neighborhood kids. We spent hours inventing games, swinging on "monkey vines" (probably wild grape or Virginia creeper), and just hanging out in a sea of periwinkle. It was here that I started learning about plants.

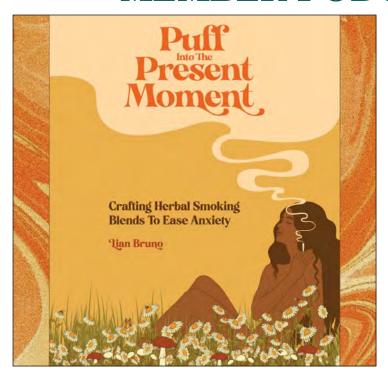
Years later I became a grandmother to a vibrant, creative little bundle of energy, named Olivia. She lives in Australia with my daughter and son-inlaw. I have so much I want to pass on to her about plants and how they can heal. From the time she could crawl and then walk, she has been drawn to collect frangipani flowers dropped from the tree or stoop and admire the little tough plants who grow in the cracks of sidewalks. We always return from our walks with hands full of botanic bounty.

I decided to write a story that would take place in my beloved herb gardens. I wanted it to be botanically accurate and involve not only the plants in the garden, but also all the other inhabitants of a vibrant, diverse community of medicinal plants. Luckily, a long-time friend of mine jumped at the chance to create the beautiful illustrations, and off we went!

When my Olivia was three, our Aussies visited us in the summer. Olivia and I were sitting on our back porch, swinging and talking. Suddenly she stopped the swing, sat bolt upright, pointed to the garden in front of us, turned and looked at me, and shouted, "Olivia's Garden! Olivia's Garden!" It had worked. She had been led into my world.

Teaching children how to look and notice all the little things in their world, whether in a garden, their backyard, a park, or in the cracks of sidewalks, sows the seeds for grown adults who care about and love our natural world. This is so very important to me and my illustrator, Karen Thompson.

MEMBER PODCASTS & ZINES

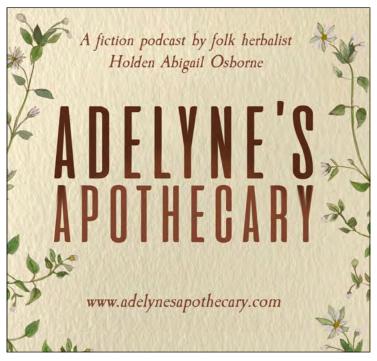


▲ Puff Into The Present Moment is a print zine that explores anxiety from an herbalist's perspective and offers insight into working with herbs through smoke. Written by the founder of Puff Herbals, this zine guides readers in crafting their own herbal smoking blends to ease both mental and physical manifestations of anxiety. Printed by Flower Press, an equitable publishing practice centering womxn, femme, queer, & trans artists and practitioners.

www.puffherbalsmokes.com

Harmony Way is offering a new Home and Family Herbal Training Program on a sliding scale, which is live, virtual and geared toward anyone who desires to live more lovingly and sustainably with the plants, whether budding beginners or more advanced herbalists. Beginning in March of 2021, this course meets one Saturday morning per month for 10 months and will be experiential learning with lots of individual guidance, discussion, fun projects and recipes. For more information, please see this link:

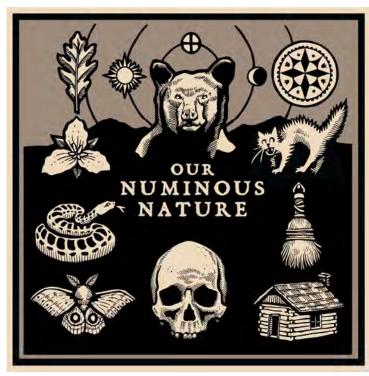
harmonywayhealing.com/herbal-training-program

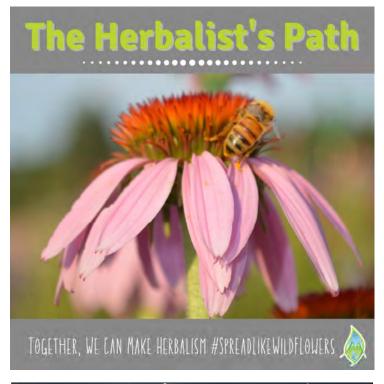


▲ Adelyne's Apothecary is a fiction podcast exploring the world and tales of folk herbalist Adelyne Hutcheson. Adelyne's storytelling takes us deep into the hills of Northern Appalachia where we meet her eccentric neighbors, family, and dearest plant friends. Each chapter features a medicinal plant and herbal recipe.

www.adelynesapothecary.com

■ Our Numinous Nature is a traveling podcast in search of profound and soulful stories from passionate people who live close to the land. From the likes of herbalists and wildlife rehabbers to hunters and trappers, living historians, folk artists, paleontologists and cavers. We learn of their regional flora & fauna, folklore & history, and of course, hear their numinous accounts of ghosts, witches, nature spirits, uncanny animal encounters and visionary messages from the plant kingdom. Available on Apple Podcasts, Spotify and @ournuminousnature [Instagram]







▲ Plant Cunning Podcast brings together a network of people wise to the ways of plants, fungi and the natural world to explore the Mysteries of Nature. We invite herbalists, ethnobotanists, farmers, magicians, fungi experts, community organizers and all kinds of people to the microphone to share their wisdom and experiences with us. The Plant Cunning Podcast bridges different worlds, makes connections, inspires and at times blows our minds while we explore the underlying theme of plant-life.

www.anchor.fm/plantcunning

The Herbalist's Path podcast is all about inspiring a movement where there's an herbalist in every home... Again! We love to interview fellow herbalists, and share solid herbal education in a fun way, to inspire people to use plants as medicine in a safe and effective way. We are also working to create more online classes for herbal education throughout 2021 and beyond. Together, we can make Herbalism #SpreadLikeWildFlowers!

www.theherbalistspath.com



▲ Jamie Nix is a writer/editor, and organizer with Plants & Poetry Journal. She is an independent researcher and content creator for topics that include poetry, connecting communities, and medicinal and edible landscapes. She currently lives with her husband, Tariq, and their dogs, River and Ramos. You can connect with her on her website: www.kicksfornix.wordpress.com, or Instagram: @plantsandpoetryhouse / @jamiemnix.

www.plantsandpoetry.org

CONGRATULATIONS TO THESE MEMBERS

CHESTNUT SCHOOL SCHOLARSHIP GRATITUDE

by Lochan Mungal



Dutchman's Pipevine (Aristolochia trilobata). Photo by Lochan Mungal.

My interest in local herbs began in my childhood. Both my parents and grandparents were into agriculture, so I spent most of my leisure time in the lush vegetation in El Dorado close to the foothills of the mountains, learning about local bush medicine.

At a horticultural show, I was introduced to Professor Compton Seaforth whose specialty was in the field of ethnobotany. Dr. Seaforth's mentorship reignited my deep passion for local medicinal herbs. He encouraged me to acquire formal academic training in herbalism. As a result, I have been studying, teaching, and promoting traditional herbal medicine for the last 12 years.

The Chestnut School of Herbal Medicine has provided a range of learning resources, United Plant Savers inspired me to form a local chapter in Trinidad and Tobago, Medicinal Plant Savers, and an Herbal Farmacy. The objective of Medicinal Plant Savers is to utilize local plants known for traditional medicine. These plants are fast becoming extinct, facing dangers such as loss of natural surroundings and over-collecting because of the fast development of the herbal business and nongenerative and non-sustainable agricultural practices.

Herbal Farmacy encourages the creation of private land "botanical sanctuaries" across the country where atrisk plants can be preserved. The concept and purpose of this herbal farmacy is to share information through expeditions on identifying plants, as well as their medicinal benefits, germination, and harvesting, while creating a materia medica and formulary of local herbs.

Part of my commitment is to develop a community promoting healthy lifestyles, practice preventative

medicine, and develop a working knowledge of medicinal plant remedies. I will give my time to my community by conducting free introductory classes on herbal medicine making to raise awareness, especially among the younger generation. I also envision the opportunity to bring this knowledge to a younger audience in primary and secondary schools one day.

As COVID-19 hit all over the world I was very fortunate to have these herbal formulas to test, and good results were reported all around with positive feedback. It was truly an experience incorporating the practical aspects of this course. I didn't expect to learn so much and have the benefits of so many recipes. The course is really an A-Z of herbal medicine magic.

Thank you, Miss Juliet and your team. I will never forget this experience. ■



Lochan Mungal Herbalist is a tutor and mentor from Trinidad & Tobago. He is a Chestnut Medicine Making Course graduate and current Herbal Immersion student. <u>www.facebook.com/</u> 101ediblemedicinalplantstnt/



UpS members Betty Belanus, Anna Lucio, Anna Plattner, and executive director, Susan Leopold were featured at the Smithsonian Folklife Festival in a highlighted online discussion surrounding ginseng.

This program was part of the Festival's American Ginseng: Local Knowledge, Global Roots project. You can watch the replay, along with other programs and related content featuring ginseng culture from a diversity of perspectives online at: https://festival. si.edu/event/story-circle-women-to-the-rescueconserving-american-ginseng

ON THEIR RECENT ACCOMPLISHMENTS



The visionary and creator behind these cards, ethnobotanist and curandera Rocío Alarcón, writes: "My maternal lineage left me a legacy of knowledge based on a close relationship with nature, the divine forces that surround us, especially humming-birds and plants. My research aims at keeping alive the knowledge about the healing power of hummingbirds that my grandmother Angela María Pozo Albuja taught me."

Available online at Avena Botanicalswww.avenabotanicals.com/products/oracle-of-the-hummingbirds

The NC Ginseng & Goldenseal Co. at Eagle Feather Organic Farm had a very productive year for 2020. The highlight was the Goldenseal Summit, a 2-1/2 hour Zoom call across the country (recorded and edited in 5 parts). The event occurred on Earth Day, April 22 2020. All five parts are available to watch on the United Plant Savers website, North Carolina Ginseng Association's Facebook page, and at http://www.ncgoldenseal.com.

Our very own **UpS Sanctuary Steward, Chip Carroll**, was interviewed for episode five of the *Grounded Hope* podcast – <u>Growing Health: Plants as Food & Medicine</u>. This episide visits the Lloyd Library, the Soda Pharm, and the UpS Botanical Sanctuary.

groundedhope.org/episodes/episode-05



Katherine Ziff, was recently published in the Spring 2020 edition of *Essence*, the magazine of the British Flower and Vibrational Essences Association. Her article is entitled: <u>Geography, Spirit, and Culture: Flower Essences from the South Carolina Lowcountry</u>. It profiles several of the flower essences that are made there in the Lowcountry, including Spanish Moss flower essence.

Maria Christodoulou is a clinical herbalist exploring the practice of ancient Greek herbal medicine as The Greek Herbalist (www.thegreekherbalist.com). As an educator for The Herbal Academy, she recently published the Ancient Greek Herbal Medicine Intensive published in The Herbarium.

Her three-part Intensive examines the practices of ancient Greek herbal medicine, sacred plants featured in Greek mythology, and the religious and cultural roles of popular herbs and spices in ancient and modern Greece.

Visit: https://herbarium.theherbalacademy.com.

87



"This mezzotint print honors the loss of life due to the negative effects of deforestation and habitat loss while portraying the forest's resiliency and ability to regenerate."

Never Say Die by Vanessa Jo Bahr www.vanessajobahr.com



Sacred Plant Sanctuary at Seattle School of Body-Psychotherapy

The at-risk plants at the certified botanical sanctuary at Seattle School of Body-Psychotherapy play a role in training practitioners to combine deep somatic psychotherapy with earth-based practices and improving our mental health through decentering our humanness. Through the gardens we study plant lore and the use of herbs for health and mental health, but most importantly we learn to open our hearts and heal through sitting with the plants and elements as they invite us into deep relationship with the living breathing world in which we are steeped. This changes everything!

www.bodypsychotherapyschool.com



The Midwest Women's Herbal is Celebrating its 10th Year of service to the herbal community with these amazing events!



In Our Own Hands: Women's Wellness Series (virtual)

Saturdays, Feb. 13-Apr. 25, 2021 with an amazing lineup of instructors with workshops on herbs, writing,

personal growth, personal ritual, and much more!

10th Anniversary Midwest Women's Herbal Conference

May 7-9, 2021(*virtual*) with featured speaker **Rosemary Gladstar** and many other herbal and personal growth experts, plus opportunities for pre-conference deep immersions on Herbs for Birth, Death Doula Introduction and Herbs for Ceremony.

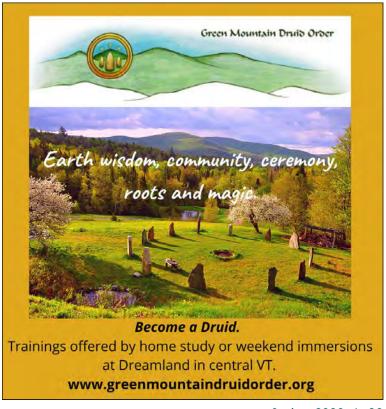
Mycelium Mysteries: A Women's Mushroom Conference Fall 2021

Learn about and meet fungi for food, medicine, the health of the planet and so much more.





For registration/information www.midwestwomensherbal.com



UpS BOTANICAL SANCTUARY NETWORK MEMBERS

Arkansas

Bean Tree Farm Bluebird Botanical Plant Sanctuary

Fire om Earth

California

California School of Herbal Studies

Dandelion Herbal Center

Five Winds Mountain **Education Center**

Herb Lore

Knowlton Farms

Medicine Creek Sanctuary

Motherland Philo Pharm

Sacred Sanctuary of Rogue Valley

Sierra Institute of Herbal

Colorado

Studies

Desert Canyon Farm Three Leaf Farm

Connecticut

Farth Remedies

Florida

Florida School of Holistic Living Traditions School of Herbal **Studies**

Wallaby Ranch

Georgia

The Herb Crib Two Creeks Farm

Illinois

Ataga'hi - "Lake of the Wounded"

Labyrinth Gardens

Luna Farm Herbal Gardens and Botanical Sanctuary

Indiana

Buck Creek Sanctuary Green Turtle Botanical Sanctuary

Iowa

Fern Hill Cabin Gaia's Peace Garden Kathy Krezek Larson Tallgrass Prairie

Kansas

Sacred Mother Sanctuary Shaw Black Farm

Kentucky

Vajra Farm

Maine

Resilient Roots

Avena Botanicals

Rogue Sanctuary

Solidago School of Herbalism & Botanical Sanctuary

Maryland

The Rare Seed Sanctuary Green Farmacy Garden Maryland University of Integrative Health Garden

Massachusettes

Brick Kiln Brook Preserve Cedar Spring Herb Farm Native Earth Teaching Farm Seven Arrows Farm Singing Brook Farm Temenos Retreat Center White Buffalo Herbs

Michigan

Little House Farm Seeds and Spores Family Farm Windsong Garden Farme

Minnesota

Hickory Heal Gardens Little Knife Wild Medicinals Sanctuary

Missouri

Augusta Botanical Sanctuary

Montana

Buck Mountain Ranch

Nebraska

Curious Roots Botanical Sanctuary

Red Road Herbs Retreat & Learning Center

New Hampshire

Bee Fields Farm Blackbird's Daughter **Botanicals** Dawn Land Sanctuary Madala Way

Wise Way Wellness Center

New Jersev

Morning Sun Homestead

New York

Akron Rewilding Sanctuary Atka's Garden: Sacred Warrior & Wolf Conservation Center Sanctuary

Cat's Cross

Eden Hyll Botanical Sanctuary

Hawthorn Way Botanical Sanctuary

Healing Wheel Sanctuary

Heartstone Sanctuary Heartthrob Farm

Mab & Stoke Farm

Midsummer Farm

Perry Hill Farm

Plattsburgh Botanical

Sanctuary

Shawangunk Ridge Farm Shindagin Hollow Woodland

The Green Spiral Herbs

Wise Woman Center (Laughing Rock Farm)

North Carolina

Black Mountain Community Garden

Eagle Feather Farm

Gaia Herbs of Brevard, NC

God's Gardens

Healing Spirit Sanctuary

Herb Mountain Farm

Lichenwood

Moon Cove Botanical Sanctuary

Owl Mountain Herbs

Pangaea Plants

Soulflower Farm

Spirit Canoe Lodge

Val'Holler Farm & Homestead

Wasabi Springs

Watershed Forest Farm Wellspring Mountain

Scotia

Ohio

BeeGood Gardens **Equinox Botanicals** Goldenseal Sanctuary

Gosnell Preserve

Historic Loveland Castle

Hopewood Farm

Kannagara Woods

Light Footsteps Herb Farm and Learning Center

Mockingbird Meadows

Moss Hollow

Preble County Historical Society

The Broadwell Hill Sanctuary & Off Grid Learning Center

The Common Mikweed

The Trillium Center

Oklahoma

IdleWild Native American Plant Sanctuary

Oregon

Akal Ranch Herb Pharm

Nature Cares Nursery and **Botanical Sanctuary**

Oak Creek Botanical Sanctuary

Pennsylvania

Bartram's Garden

Dibble Hill Native Plant Sanctuary

Forsaken Roots of Acme, PA

Heart of the Moon Medicinal Herb Garden at Snipes Farm

Heart Springs Sanctuary

Lynwood Herb Farm

Nettlejuice Herbals

Oasis, Peoples Pantry

Restoration Herbs

The Wellspring Valley

Weeds For Wellness LLC

Rhode Island

Listening Tree Cooperative

South Carolina

MagMell Farm

Tennessee

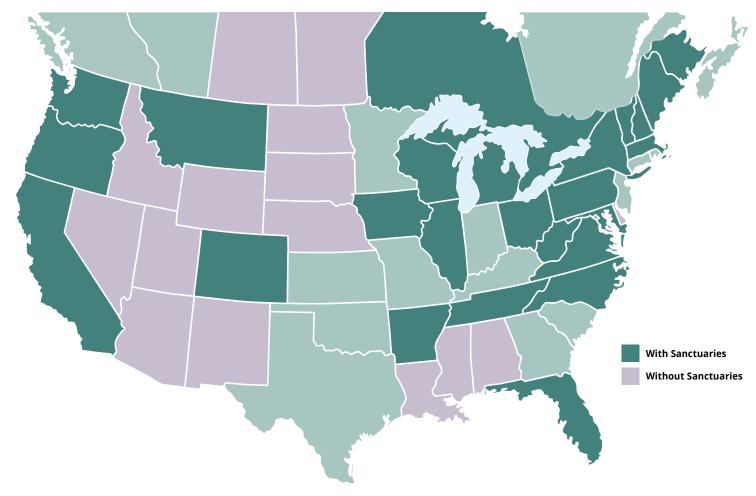
Cherokee Medicine Woods

Down to Earth Massage + Wellness

Eaton's Creek Farm

Hidden Treasure Herb Garden

REGISTERED SANCTUARIES THROUGHOUT THE US & CANADA



High Garden School of Wholistic Herbalism and Traditional Craft-

MoonMaid Botanicals' **Woodland Medicinals** Sanctuary Saddleridge Sanctuary Turtle Mountain Herbs

Texas

Cedar Ridge Genie's Dream

Vermont

Bethel Botanicals Cold Spring Herbals Dreamland, home of the Green Mountain Druid School Fern Hill Nursery Foodmedicine Farm Martha Rabinowitz & Joe Earle Morze Tree Farm Sage Mountain

Springsong Sanctuary

Sweetwater Sanctuary

The Manitou Project

Three Springs Farm Trifolium Farms LLC

Virginia

7 Acre Wood Farm C.A. & J. Farm

Forrest Green Farm

Green Comfort School of Herbal Medicine

Heartmoor Farm

Mill House

Riverbank Botanical Sanctuary

Sharondale Mushroom Farm of Keswick, VA

Soothing Herbals

Terra Vita LLC

Virginia Tech's Catawba Sustainability Center

Walker Mountain Botanical Sanctuary

Wildcroft Hollow Botanical Sanctuary

Wind Song Sanctuary

Washington

Bastyr University Herb Garden

Cedar Mountain Medicinals **Dragonfly Medicinals**

Highwoods Heaven Botanical Sanctuary

Sacred Plant Sanctuary at Seattle School of Body-Psychotherapy

Sweet Briar Herb Garden

West Virginia

Hillary Banachowski/Keir Knoll Sacred Roots Herbal Sanctuary

Spotted Horse Farm

Yew Mountain Center

Wisconsin

Lunar Hollow Farmette

Mequon Nature Preserve, Inc.

Wellspring Inc. Nonprofit Organic Farm and Retreat Center

Wild Roots and Wings Sanctuary

Alberta

Senses of the Soul Sanctuary and Farm

British Columbia

Stark Natural Herb Farm

New Brunswick

Indian Mountain Botanicals

Nova Scotia

Gaspereau Mountain Herb Farm and Botanical Sanctuary

Harriet Irving Botanical Gardens

Herbalist Association of Nova

Ontario

Cailli Cnoc

Kina Gegoo Botanical Sanctuary

The Living Centre & Living Arts Institute

Quebec

The Green Clinic: Herbal and **Traditional Healing**

The Place Where the White Pine Grows

2021 ANNUAL MEDICINAL PLANT CONSERVATION AWARD

— Recipient —

PENELOPE BEAUDROW

Submitted Conrad Richter President Richters Herbs Goodwood, Ontario

This year's award goes to Penelope Beaudrow of The Ginkgo Tree and Kina Gegoo Botanical Sanctuary in Cannington, Ontario.

Penelope debuted a wonderful film, "For the Love of Medicinal and Native Plants" featuring her journey in created a botanical sanctuary (vimeo.com/480554460). Furthermore, she helped launch a Sanctuary Dreamers a meetup group for AHG along with Mimi Hernandez to support and encourage those thinking about creating a botanical sanctuary. Her passion to encourage herbalist to include native plant conservation as a part of the herbalist core curriculum is deeply inspiring and critical to the mission of United Plant Savers. Rosemary Gladstar among others reached out to nominate Penelope for this award. We decided to share this touching letter of nomination that was submitted by Conrad Richter another UpS member and avid plant saver and known propagator.

"Giving Back - It's Good for the Soul"

This may be the mantra that resonates with the wider herbal medicine consuming public. Yes, there is a general awareness that some herbal medicines come from the wild and that some herbs may be getting scarce. But in a worldview that sees plants as an inanimate resource to be taken and used whenever we like, Penny's mantra may be what gets people thinking not only about safeguarding this precious resource that gives us health but also about giving back to the plants.

Penny's path from family farm to joining a nearby company that makes herbal medicines is not unusual. She earned two diplomas in herbalism and became a registered herbalist in Ontario. But over more than two decades of studying and working with herbs, giving back knowledge to the herbal and health care communities gradually rose to become an important part of who she is. She became a community outreach specialist and educator, a conference coordinator, and founder of a herbal festival, all while she continued her work as a product development specialist for the herbal medicine company she joined in 1997.

Throughout her career, she never lost touch with her roots while living on the family farm she shares with her husband. Even before she knew it, she was creating a sanctuary for medicinal plants. She decided to give back 60 acres of her 100-acre farm to nature because of her love of the outdoors. And she planted a teaching garden for her herbal education business, The Ginkgo



Tree, which she runs on the farm when she is not busy developing products or away at conferences.

When she learned about the work of the United Plant Savers she immediately became a member. She realized that what she was doing on her farm was what UpS has long encouraged. She was planting "at-risk" and "to watch" plants in her teaching garden where she teaches students the importance of treating these plants as precious gifts to humankind. She also realized that giving back tillable land to nature where these plants could flourish was helping to ensure their survival for future generations. The ideals of UpS excited her so much that she soon decided to join the Botanical Sanctuary Network as the first sanctuary in Ontario.

With infectious enthusiasm, Penny encourages her students, her clients, and her professional health care colleagues to plant herbs such as arnica, bloodroot, black cohosh, blue cohosh, echinacea, goldenseal, trilliums, and many more, as she has on her farm. She regularly leads a medicinal plant sanctuary walk on her farm in which she talks about the loss of wild medicinal plant stocks and about the urgent need to plant "at-risk" and "at watch" plants. Her mantra is already bearing fruit for the benefit of us all.

Penny has set aside a separate portion of her land -- about five acres -- to be what may be described as a "whole ecosystem" sanctuary, where nature can unfold without human intervention. Human access is limited to only an occasional visit every few years, otherwise the area is left undisturbed. That wild turkeys, coyotes, and hawks are common sightings, and even bobcats, bears and cougars have been seen in the area, suggests that the ecosystem is becoming healthy again. In the coming years it will be interesting to follow the progress of natural unassisted development of medicinal plant communities in this area.

I believe that Penny is worthy of the Medicinal Plant Conservation Award. Her work and beliefs are eminently aligned with the goals of the UpS. She is a strong advocate of medicinal plant conservation. In the years to come her "giving back" to these plants will inspire the souls of many to give back also.

PARTNERS IN EDUCATION (PIE)

United Plant Savers Partners in Education program is designed to enrich school programming and students' education through instilling awareness and ethics in regards to the conservation of our native medicinal plants. Schools and apprenticeship programs that have enrolled in the Partners in Education program have provided their students the opportunity to receive all of the benefits of membership at a discounted 'student-friendly' price. These schools and programs are also given educational resources and

curricular support as well as provided the opportunity to promote classes and workshops on our website and social media channels. For more information about our Partners in Education program, please visit our website: www. unitedplantsavers.org. United Plant Savers holds a special place in our heart for our Partners in Education Schools and would like to thank the following participating 2020-2021 schools and programs:

Alberta Herbalists Association

Calgary, AB

www.albertaherbalists.ca

Antinanco

Holmdel, NJ

www.antinanco.org

Appalachian Ohio School of Herbal Medicine

Rutland, OH

herbsheal.com

ArborVitae School of **Traditional Herbalism**

New York, NY

arborvitaeny.com

Artemesia Academy

Santa Barbara, CA

www.artemisiaacademy.com

Bastyr University Herbal Sciences Kenmore, WA

bastyr.edu

Blackbird's Daughter Botanicals

www.blackbirdsdaughter.com

Blazing Star Herbal School

Ashfield, MA

blazingstarherbalschool.typepad.com

Blue Otter School of Herbal Medicine

Fort Jones, CA blueotterschool.com

Blue Ridge School of Herbal Medicine

Barnardsville, NC BlueRidgeSchool.org

Bumbling Acres Farm

Union, WV www.bumblingacres.com

California School of Herbal Studies

Forestville, CA www.cshs.com

Cedar Mountain Herb School

Sandpoint, ID

cedarmountainherbs.com

Chestnut School of Herbal Medicine

Weaverville, NC chestnutherbs.com

Dandelion Herbal Center

Kneeland, CA

dandelionherb.com

David Winston's Center for Herbal Studies

Washington, NJ www.herbalstudies.net

EarthSchool of Maine

Hollis Center, ME earthschoolmaine.org

Eclectic School of Herbal Medicine

Lowgap, NC

eclecticschoolofherbalmedicine.com

Edith J. Carrier Arboretum at James Madison University

Harrisonburg, VA www.imu.edu/arboretum

Florida School of Holistic Living

www.holisticlivingschool.org

Green Comfort School of Herbal Medicine

Washington, VA

greencomfortherbschool.com

Green Girl Herbs and Healing Hopewell Junction, NY

greengirlherbs.com

Green Turtle Botanicals

Nashville, IN

greenturtlebotaniclas.com

Greenwood Herbals

Limerick, ME greenwoodherbals.com

Heartstone Herbal School

Van Etten, NY

heart-stone.com

Herb Pharm

Williams, OR

herb-pharm.com/connect/internship

Herbal Academy

Winchester, MA

theherbalacademy.com

Herbal Academy of New England

Bedford, MA

herbalacademyofne.com

Herbal Association of Nova Scotia

Garlands Crossing, Nova Scotia herbalns.org

Herbal Sage Tea Company

Pomeroy, OH

www.herbalsage.com

Herbalist Association of New Brunswick

www.haofnb.ca

HERBS on the Side Educational Sanctuary

Saint Laurent, QC HERBSontheSide@.com

Herbs with Rosalee

Carlton, WA

herbswithrosalee.com

lean's Greens

Castleton, NY jeansgreens.com Kootenay Society for Sustainable Living Kimberley, BC

Growsustainability.org **Land Grant Free School**

Viroqua, WI

Luna Farm Herbal Gardens and Botanical Sanctuary (Herbal Roots Zine)

Troy, IL

www.herbalrootszine.com

Magnolia School Glouster, OH

Maryland School of Integrative Health

Laurel, MD muih.edu

Merton Academy International -Arts & Career Technology

Stockton, CA

Milagro University of **Herbal Medicine**

Orlando, FL

milagroschoolofherbalmedicine.com

Misty Meadows Herbal Center

Lee, NH

www.mistymeadows.org

Mockingbird Meadows Eclectic Herbal Institute

Marysville, OH mockingbirdmeadows.com

Moon Mama Herbals

Bradford, NH

www.moonmamaherbals.com

Moonwise Herbs, LLC

Stoughton, WI www.moonwiseherbs.com

Mountain Industries, Ltd

El Paso, TX

North Country Herbalist Guild

St. Paul, MN nchg.org

Northwest School of Botanical Studies

McKinleyville, CA herbaleducation.net

Oak Spring Garden Foundation Upperville, VA

osgf.org/bccf

Ojai Herbal Symposium Ojai, CA

ojaiherbal.org

Omnigreen

Port Clinton, OH omnigreen.com

Owlcraft Healing Ways

Scottsville, VA

owlcrafthealingways.com

Patricia Kyritsi Howell

Mountain City, GA

www.wildhealingherbs.com People's Medicine Project

peoplesmedicineproject.com

Permaculture Designer, **Candice Crawford**

Purple Moon Herbs & Studies, LLC

Hartly, DE

Jacksonville, FL

purplemoonherbstudies.com

Sacred Plant Traditions

Charlottesville, VA sacredplanttraditions.com

Sage Mountain

East Barre, VT sagemountain.com

San Francisco Botanical Garden

San Francisco, CA www.sfbg.org

Sherman Cohn Library

Laurel MD

www.muih.edu

The Resiliency Institute

Naperville, IN theresiliencyinstitute.net

The WANDER School

www.thewanderschool.com

Thyme Herbal

Amherst, MA

thymeherbal.com

Tobey Karg Pittsburgh, PA

Twin Star Herbal Education & Community Apothecary New Milford, CT

twinstartribe.com **Vermont Center for**

Integrated Hebalism Montpellier, VT vtherbcenter.org

Wild Ginger Community Herbal Ctr

Bryans Road, Maryland

www.wildgingerherbalcenter.com

Wintergreen Botanicals Herbal Clinic & Education Center

Allenstown, NH

wintergreenbotanicals.com

HERBAL BUSINESS MEMBERS

Lettis Ngoe Richardson, TX

A Wild Soap Bar LLC awildsoapbar.com

AH2Os Herbal Products & Services Great Mills, MD ah2os.com

Albuquerque Herbalism/ Yerba Mansa Project Albuquerque, NM

albuquerqueherbalism.com Ali's Apothecary

Coraopolis, PA alisapothecary.co

Alkemist Labs Garden Grove, CA alkemist.com

American Medicinal Arts

Trinity, TX

www.americanmedicinalarts.com/ ama-shop-all

Amish Ways Greenville, PA amishwaysusa.com

Amulette Studios Bend, OR amulettestudios.com

Ancestral Herbology Wakeman, OH ancestralherbology.com

Apoterra Skincare Jupiter, FL apoterra.com

Asana and Intuitive Medicinals

Flagstaff, AZ aandimedicinals.com

BackCountry Botanicals Kanab, UT

backcountrybotanicals.com

Banyan Botanicals Albuquerque, NM banyanbotanicals.com

Barefoot Botanicals Doylestown, PA barefootbotanicals.net

Blue Crow Botanicals

Gill, MA www.bluecrowbotanicals.com

Botanical Medicine.org Ashland, OR

botanicalmedicine.org **BotanicWise**

Kempton, PA www.botanicwise.com Cascadia Skincare

Coquitlam, BC cascadiaskincare.com

Cleban & Daughters Millbrae, CA cleban.com

Dandelion Herbal Center Kneeland, CA dandelionherb.com

Deschampsia -Nature Based Self Care Seattle, WA deschampsia.co

Doe River Farms

Roan Mtn, TN www.doeriverfarms.com

Dolu Moon Portland, OR Dojumoon.com

Edge of the World Farm Siler City, NC

Emblossom LLC Greenfield, MA emblossom.co

Empowered Herbals Terryville, CT 173.201.247.52/testimonials.htm

Equinox Botanicals Rutland, OH equinoxbotanicals.com

Essence of Thyme College of Holistic Studies Langley, BC www.essenceofthyme.com

Everything Herbal Cannington, ON www.everythingherbal.ca

Forrest Green Farm LLC Louisa, VA forrestgreenfarm.com

Four Winds Natural Healing Ctr. Omaha, NE

fourwindsnhc.com

From Nature With Love Oxford, CT fromnaturewithlove.com

Frontier Co-op Kurtistown, HI frontiercoop.com

GardenOf Elgin, IL

Green Girl Herbs & Healing Hopewell Junction, NY

greengirlherbs.net

Healing Spirits Avoca, NY

healingspiritsherbfarm.com

Heartwood Forest Farm Cedar, MI <u>heartwoodforestfarm.com</u>

Herb Pharm Williams, OR herb-pharm.com

Herbal Content Cottage Lawrence, KS HerbalContentCottage.com

Herbal Educational Services Ashland, OR

botanicalmedicine.org **Herbal Roots**

La Crescenta, CA herbalrootssupplements.com

Herbalist & Alchemist Washington, NJ herbalist-alchemist.com

HerbNerd Research Greenfield, MA herbnerdresearch.com Hildegard, Inc. Brookhaven, NY hildegard.life

Hobbit Gardens Erth Gatherings Center Fillmore, IN

hobbitgardens.blogspot.com

Holy Wild Paramount, CA holywild.me

Honor Earth Apothecary St Petersburg, FL www.honorearthapothecary.com

Host Defense Paramount, CA www.fungi.com

HSU & Co. Natural Health Stores

Columbus, OH hsu.com

Huna Skin Inc. Monte Creek, British Columbia hunaskin.com

Indie-Peasant Enterprises/ Shagbark Seed & Mill Athens, OH shagbarkmill.com

Joyefully Natural Boston, MA joyefullynatural.com

Kat Johnston Yellow Springs, OH

Kuumba Made Tucson, AZ kuumbamade.com

La Abeja Herbs Austin, TX laabejaherbs.com

Laura's Botanicals etsy.com/shop/LaurasBotanicals

Leaf People Skin Care Carbondale, CO leafpeople.com

Live Botanical Portland, OR www.livebotanical.com

lovesprouts.co

Love Sprouts Botanical Bodywork Cortez, CO

Luminary Medicine Company

Luminary Medicine.com **Mangum Pottery**

mangumpottery.com Marvin's Organic Gardens LLC

Kings Mills, OH marvinsorganicgardens.com

Matthew Wood Institute of Herbalism Hutchinson, MN

matthewwoodinstituteofherbalism.com

Max The Herbalist Austin, TX maxtheherbalist.com

Meadow Mama Herbals facebook.com/meadowmamaherbalsma

Mickelberry Gardens mickelberrygardens.com Miss.Begotten Vancouver, WA missbegotten.com

Mizzle Botanicals mizzlebotanicals.com Warrenton, VA

Moon & Bloom Brooklyn, NY moonandbloom.com

Moon Bath Boulder, CO moonbath.com

Mountain Mel's Essential Goods Welches, OR www.mountainmels.com

MycoSkin Niwot, CO mycoskin.com

Native Botanicals, Inc. Banner Elk, NC www.nativebotanicalsinc.com

North Country Herbalist Guild St Paul, MN

www.nchg.org **Ohio Herb Center** Gahanna, OH ohioherbcenter.org

One Nature Beacon, NY Onenaturellc.com

Open Door Apothecary Winter Haven, FL

Pacific Botanicals Grants Pass, OR pacificbotanicals.com

Pharma Botanica Mona Vale, NSW pharmabotanica.com.au

Priarie Star Botanicals Blair, NE prairiestarbotanicals.com

Puff Herbal Smokes Medford, MA puffherbalsmokes.com

Radicle Wellness LLC Bishop, Ca radiclewellness.com

Railyard Apothecary Burlington, VT railyardapothecary.com

Boulder, CO wearerasa.com

Ratza Chocolate Tarpon Springs, FL ratzachocolate.com

Red Bird Lodge, LLC Gatlinburg, TN

airbnb.com/rooms/41176937 **Red Moon Herbs**

redmoonherbs.com **Rising Fawn Gardens** Lookout Mtn, GA risingfawngardens.com

Rooted Remedies Portland, OR rootedremedies.co **Roots Medicine Garden**

Denver, CO rootsmedicinegardens.com

Rosemary Gladstar's The Science & Art of Herbalism

Easte Barre, VT scienceandartofherbalism.com

S. A. Plunkett Naturals saplunkett.com

Sage Mountain Retreat Center Easte Barre, VT

sagemountain.com Sandy Mush Herb Nursery

Leicester, NC sandymushherbs.com

Simple Teas and Herbals Inc. simpleteasandherbals.com

Sovereignty Herbs, LLC Athens, OH sovereigntyherbs.com

Spirit of Change Magazine Uxbridge, MA spiritofchange.org

Starwest Botanicals sacramento, CA starwest-botanicals.com

Tadin LLC Vernon, CA Tadin.com

Tammy's Natural Essentials tammysnaturalessentials.com

Tea Tree House Pacific City, OR pnwteatreehouse.com

The Druids Garden thedruidsgarden.com

The Ginkgo Tree Cannington, Ontario theginkgotree.ca

The Healing Rose Company Newburyport, MA www.thehealingroseco.com

The Peoples Apothecary Bend, OR thepeoplesapothecary.net

The Scarlet Sage Herb Co. San Francisco, CA scarletsage.com

The Urban Apothocary Toronto, ON urbanapothecary.ca

Traditional Medicinals Rohnert Park, CA traditionalmedicinals.com

Transcending Roots Herbal Apothecary Philadelphia, PA www.transcendingroots.com

United Herbalist Graton, CA unitedherbalist.com Vineyard Herbs Teas & Apothecary Vineyard Haven, MA

www.vineyardherbs.com

Vintner's Daughter San Francisco, CA vintnersdaughter.com

Vital Plan, Inc. Raleigh, NC vitalplan.com

Wholesale CBD Providers Las Vegas, NV wholesalehempandcbd.com

Wild Carrot Herbals

Enterprise, OR wildcarrotherbals.com

Wild Muskoka Botanicals Dwight, ON wildmuskoka.com

Wildcraft Herb Interlaken, NJ wildcraftherb.com

Wilson Herb Farm Greensboro, VT wilsonherbfarm.com

WishGarden Herbs Louisville, CO wishgardenherbs.com

Wooden Spoon Herbs Cloudland, GA woodenspoonherbs.com

Woodland Essence Cold Brook, NY woodlandessence.com

Z Botanicals and Hemp Co Vershire, VT zbotanicals.net

Zhi Herbals Vancouver, BC zhiherbals.com

101 CBD Ventura, CA 101cbd.org

21 Drops 21drops.com

Herbal business members have a unique opportunity to educate their customers about issues surrounding the sustainable supply of our native medicinal plants. More information about the herbal business member program can be found at unitedplantsavers.org/becomean-herbal-business-member/

We make every effort to maintain the accuracy of this list. However, we ask that members help us in doing so by reviewing and updating their company info in their member dashboard on the United Plant Savers website.



Actaea pachypoda by Vincent Frano www.thebowerstudio.com

From the artist:

Actaea pachypoda (Doll's Eyes) is a cousin to the medicinal Actaea racemosa (Black Cohosh) and can be found growing side by side in the forests. Doll's Eyes looks incredibly similar to their cousin Black Cohosh, and knowing the difference between the two is key to forest cultivation, as Doll's Eyes is toxic. Both are important native herbaceous understory species within the forest community.

"And into the forest I go, to lose my mind and find my soul." - John Muir



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