I recently visited Goldenseal Sanctuary to welcome the fall interns and was pleasantly surprised by Nina Britton (spring intern who returned to do the fall internship), who had just picked a beautiful bouquet of blooming flowers from right outside the yurt. Picking flowers is something we all love to do to remind us of the outside beauty while we tend to our inner realm. This concept resulted in one of the most famous seed catalogues, and the first to be printed in England, by Robert Furber (1674-1756), a nurseryman. Furber’s brilliant idea was to market his seeds by commissioning an artist (Henry Fletcher) and an engraver (Pieter Casteels) to capture his monthly display of flowers in bloom. The catalogue featured more than 400 different species of plants spread out over 12 months. Each plant was numbered with a list of the names of corresponding species, and then in the following pages cultural descriptions of these unique plants were also included.

Furber wrote in his introduction, “…that to know only the Names of Flowers, and to be ignorant of their culture, might occasion a continual expense in procuring such rarities which, one day might live with them, and, for want of this necessary knowledge, might perish the next.” This quote really speaks to the mission of UpS because the cultural knowledge of plants is the necessary link to conservation. We are indebted no doubt to the seed collectors and propagators, who go out into the wild collecting seeds and bring them home in an attempt to unlock the mystery of germination. A good seed catalogue reveals the tales and cultural assets that the collectors can’t help but write about, such as long time UpS supporter Richo Cech and his catalogue, “Horizon Herbs”.

On my drive from Virginia to Ohio I pass by a small town in West Virginia called Hinton, home to the most splendid native plantsman, Peter Heus, proprietor of “Enchanters Garden.” Peter hikes the rugged mountains of West Virginia in search of disappearing native plants in seed so that he might try his magic at germination and bring these important plants into cultivation. His garden, tended to by himself and his amazing wife, Andy, is most exquisite. Peter’s tour of his enchanted homestead reveals stories of where he collected his seeds and the cultural and ecological value of the plants he is trying to save. Certainly Furber’s passion is still ever present in the many deeply devoted seed collectors and gardeners out there today.

Going back to Furber’s time frame of the 1700s, the monthly calendar of flowers displayed was insanely popular and thus reprinted and repackaged. This was in part because there was an accepted language of flowers that was spoken in the 1700s.

Flowers were used to communicate emotions and personalities, and several books were published as keys to this language. The monthly calendars spoke to this language and became sort of one’s birthday horoscope, telling which flowers one could find in bloom for that special month. So common are these prints, that even today I often see them at flea markets and Goodwill stores.

In this issue of the Fall Bulletin you will find stories relating to community gardens, the growing interest in conservation of Chinese herbs, and demand for Chinese herbs grown in the U.S. Furthermore you will read about current UpS news and the recap of our Planting the Future event in Wisconsin this past August.

Going into winter Furber wrote, “It may be thought, perhaps, that the Winter Months are void of delights expected in a flower garden: but the mistake will soon be discovered by any curious observer, when he shall find, that there are at least two and thirty flowers of different kind of splendor”. Looking ahead to the annual winter Journal the theme will be research in regards to medicinal plant conservation. Furthermore I am inspired by Furber to be looking out for winter beauties in full splendor to report on from my home in the foothills of Virginia.

Footnotes: Richo’s seed catalogue: www.horizonherbs.com Peter Hues: www.enchantersgarden.com

To read and view the digitized version of Furber’s, Flower Gardens Displayed, go to www.oakspring.org under Digitizing Projects.

AN APPALACHIAN ETHNOBOTANICAL GARDEN IN GEORGIA
by Jennifer Cordier

Six years ago a woodland trail was blazed and ground was broken on a sunny hillside on the property of the Georgia Mountain Research and Education Center. An enthusiastic group of community volunteers toting shovels, trowels, wheelbarrows, hammers, posthole diggers and landscape timbers gathered to create a most unusual garden. Commitment, creativity, a love of gardening and lots of sweat equity resulted in a beautiful Woodland Medicine Trail, the Appalachian Ethnobotanical Garden and a formal Herb Garden. A covered bridge serves as the entrance to the ethnobotanical garden, and wooden boardwalks lead visitors to the garden beds. The Woodland Medicine Trail, bordered with landscape timbers, is approximately one-half mile in length and offers an easy hike in a cool wooded setting. An old springhouse site serves as the entrance to the Woodland Trail. A new boardwalk invites visitors to walk by the pond, rest on the benches and enjoy woodland plants that are labeled at the site.

If visitors come to this special garden and trail expecting a highly landscaped setting with showy, flowering plants, they will be disappointed. However, if one comes to look deeper and has the desire to identify and learn about the plants native to the southern Appalachian Mountains, this site becomes an educational treasure!

The gardens and outreach projects of the Preservation Committee are the result of a visionary group of community volunteers who, in 2003, formed the Community Council of the Georgia Mountain Research and Education Center/University of Georgia in Blairsville, Georgia. The Community Council supports the education and outreach projects of the Center by 1) sponsoring monthly adult seminars, 2) providing field trips and in-school programs for children and 3) providing preservation projects to promote the importance of preserving the great diversity of native plants living in our southern Appalachian Mountains. All programs are free to the public and are funded solely through community donations.

Over the past six years the Preservation Committee has:

1) Developed demonstration gardens, which display over 200 species of plants. All plants have Ethnobotanical importance, as they have been used in the past and present for medicine, food, shelter, tools, fabrics, dyes and more.

2) Transformed the historic community cannery building, adjacent to the gardens, into an Interpretive Center for native plants and local history.

3) Conducted plant rescues for homeowners and at building sites.

4) Sponsored the Appalachian Native Botanical Sanctuary Project. Currently over 800 acres of privately owned property are preserved in the Botanical Sanctuary Project.

5) Sponsored educational seminars on medicinal herbs, cooking with domestic herbs and native plants, garden tours with plant use demonstrations, holiday crafts from the garden, ethnobotany and organic gardening.

6) Developed Powerpoint presentations focusing on: Seasons and Regions of our Mountains, Ethnobotany, Nature’s Pharmacy, Preservation Projects and Volunteer Opportunities, How Nature Inspires Creativity.

7) Organized weekly garden tours open to the public from May through September.

8) Enlisted and trained over fifty volunteers who maintain the gardens throughout the growing season and serve as tour guides.

Over the years hundreds of adults and school children have visited these special gardens, learning to see our native plants with “new eyes”. Such an impact can only have a positive effect on our world and our future.

Jennifer Cordier has been an organic gardener and educator of native and medicinal plants for the past 20 years. Jennifer teaches gardening and herbal studies at John C Campbell Folk School in Brasstown, NC, Young Harris College in Young Harris, GA, Tri-County Community College in Murphy, NC and at the Georgia Mountain Research and Education Center in Blairsville, GA.
In Keene, NH there is a growing interest in local agriculture and holistic medicine. In spite of this there are few demonstration gardens to help teach people about medicinal herbs. Thus last year while working toward my Master’s degree, I decided to make medicinal herbs the focus of my capstone project. I have always been interested in botany and at the suggestion of my advisor began researching North American medicinal plants. The topic interested me so much that I decided to plant gardens to help educate the public about these herbs. I wanted to give people a chance to interact with the actual plants and thus gain a greater appreciation for them.

This project began with the decision to create two demonstration gardens along with an educational pamphlet to teach people about the uses of the herbs as well as a brief history of herbalism. I researched over sixty plants finally narrowing my list down to twenty-seven, which I chose in part because they are native perennials and their growing requirements matched the conditions in the garden beds. I wanted to make the gardens as long lasting and low maintenance as possible. I also chose a few “At-Risk” herbs. I wanted to expose people to these plants and to educate them on the importance of conserving wild populations.

I worked closely with the Wildtype Native Plant Nursery in Woodbury, CT and Fedco Seed Company for this project. The owner of Wildtype Native Plant nursery generously donated some of the plants and seeds that I needed, including a single goldenseal plant that I was more than a little excited to obtain.

In the spring I got permission to plant one garden on the campus of Antioch University NE in their new vegetable garden, while the other was to be planted at Stonewall Farm in Keene. I had previously volunteered at Stonewall Farm, so when the garden manager heard that I was looking to plant a medicinal herb garden, she offered me the unused bed around the new Geodesic Dome greenhouse and offered to let me start my seeds in the hoophouse. As I waited for the plants to mature, my family and I began preparing the beds for planting. This was an arduous process as neither of the beds had been planted before.

As spring turned into summer I began transplanting the plants into the garden beds. I also transplanted in five common herbs that I had wildcrafted—common plantain, dandelion, common violet, yarrow, and stinging nettle. I was very careful to harvest only a few plants from large populations and to make sure that I wasn’t disturbing any endangered or “At-Risk” species that might be growing nearby.

Once the plants were planted I left them to grow, basically giving them free rein to establish themselves. Everything grew better than I had expected with no plant loss. Some of the herbs, such as valerian root and stinging nettle grew even taller than I had expected, over six feet!

This year the gardens have done even better and are actually being used by the students and faculty at Antioch University, as well as the staff at Stonewall Farm. My hope is that the gardens will continue to be used and that they will inspire people to learn more about the conservation of medicinal herbs.

Jennifer Young is relatively new to the world of medicinal herbs, but as her husband will attest has allowed her passion for medicinal botany to fill their small apartment with plants and herbals. She spends most of her days reading, studying and pressing plants.

After recently finishing the 6-week spring internship at Goldenseal Sanctuary in Rutland, OH, I felt very fortunate to be able to represent UpS at the Northwest Herbal Fair outside of Mt. Vernon, WA in August. The Fair has just returned from a 5-year hiatus and has come back in full bloom. Prior to the break, this particular gathering had been an on-going tradition since the mid-nineties. It was started by close UpS friend and incredible organizer/farmer/herbalist/wildcrafter/permaculture educator, Michael Pilarski, of Friends of the Trees. The NW Herbal Fair is not only a place where herbal medicine and magic converge, but it is also where a wonderful communion of friends, old and new, depart on the final day as family. The days and nights are filled with workshops, herb walks, singing, networking, dancing, learning, playing, swimming, and growing. It is a place where conversations of plant identification, flower essences, plant energy and the human connectedness are commonplace. The NW Herbal Fair felt like home and one that I look forward to returning to year after year!

Ashley Rieger received the Michael Moore Internship Scholarship this spring and has just begun her first year of the Naturopathic Doctorate program at the National College of Natural Medicine in Portland, Oregon.
I endeavor to honor the Earth, through the plants of Nova Scotia, and my elders by collecting and transplanting the herbs of wise women in my province.

I have been given many native plants, such as bearberry, stinging nettle, violets, hawthorn and cramp bark. Some I use to make medicine—as teas, tinctures, oils and salves. Some I use in the kitchen, to throw into a potato salad or sauce. Some I dry for decorative stationary. Some I use for a combination of the above. When I hear of someone who has too much of one herb (how can you ever have too much?) or that they are downsizing the garden, I ask if I may take the plants that have been so loved and cared for. I have a neighbor in her 60s, who, due to mobility issues, has decided to compost many of her lovely garden familiares in favor of raised beds. I told her that I would love any plants she could provide me, and she was thrilled to pass on her plants and her knowledge. They remain living and breathing and greening and flowering in my garden.

I nurture these plants in turn, and when they propagate enough to divide, I provide cuttings to others, spreading the herbal love and lore that have transpired through those roots, leaves and buds.

I share this love and learning of our green friends with others in the community, children and adults alike. I participated in the Wellness Day at the local elementary school, where all classes from kindergarten through grade 6 came for an herb garden tour. The kids had planted the herbs themselves and helped them grow from seed. I introduced them to the sensual aspects of the plants, encouraging them to rub and smell the leaves, and even to taste them. I told them about some of the medicinal and culinary uses of the herbs. I know that most, if not all of them have eaten oregano and mint before, but many of them had never seen the real, live herbs.

I also made floral mint lemonade with roses and mint picked fresh from the garden with a group of kids at the community Canada Day celebration. Now they all want to make it at home! I find engaging the senses is what really draws people to connect with plants, especially children. I try to encourage the protection and preservation of plants within my workshops, urging people to eat dandelions rather than spray them. It is better for them, the Earth and all living creatures.

This is the principle of herbal medicine—to keep learning, keep growing, and to share the knowledge and experience of the plants, to pass them on. My hand me down plants provide a link from their previous friends to me and on to other people, perhaps other generations. Each time I share a cup of mint tea with a friend or client, I remember the person who also loved and nurtured that plant and allowed it to grow.

Herbs make the best gifts I am given from others, and I give the plants I can in return. Really, plants are nature's green bounty of gifts to us all.

Amanda Dainow is a Clinical Herbalist and is Certified in Holistic Care for Animals. She is the Founder and Director of North Mountain Animal Sanctuary. She lives in Nova Scotia, Canada.

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AN URBAN REFUGE: BARE LOT TO BIRD-BLESSED
by Kathleen Simpson Myron

When my husband Jim and I looked for a house to buy back in 1977 in or near Canby, OR, we were unable to locate the small acreage we were hoping to find. So, we compromised and bought a house on the edge of Canby, farmland just being developed with the provision that the bare earth yard (75x95, 3-bdrm house, 2-car garage lot) would be dedicated as a native bird and plant refuge.

I designed the sloping south-facing front yard to provide seasonal shade and sunlight, planting a mix of deciduous and evergreen trees and shrubs after creating small river rock trails across and wandering down the slope. Raised berms were formed from digging out the trails. My goal was passive solar landscaping with increased infiltration of precipitation to reduce run-off to the street and city sewer system. The backyard was a mix of lawn with bermed islands of vine maple, pine, and Oregon grape. A small garden space was located in the northeast corner. More recently a garden art studio, lazy bed, and wine half-barrels have replaced the lawn and garden.

The original trees (birch, pine, ginkgo, sweet gum, apple and pear) brought in insect- and seed-eating birds. Soon “bird blessings” were sprouting! Those blessings include thriving native Oregon grape (Berberis or Mahonia aquifolium and M. nervosa), snowberry, red-osier dogwood, cascara sagrada, Indian plum, serviceberry, Sitka mountain ash, Pacific crab apple, red-flowering currant, and trailing blackberry (Rubus ursinus) to list a few. I had planted just one Oregon grape transplanted from the family farm just 3 miles away, and now our home is surrounded by ever-expanding clumps of it!

Following my participation in the 2007 Breitenbush Herbal Conference, I became increasingly aware of just how many herbs I—and the birds—had brought to this urban subdivision. More than 35 tree species now thrive here; eight wine half-barrels are filled with vegetables (the 3 Sisters) and a wide variety of annual and perennial herbs, as well as flowers; and over 40 bird species shelter, feed, court, nest, fledge young, and hunt (Cooper’s and Sharp-shinned hawks) here, while native bees, butterflies, and dragonflies also enjoy the wide variety of plants from lush groundcovers to tall western red cedars and aspens. There is lots of good medicine for body and soul every day, every season. The yard is my regenerating refuge; the birds and plants, and other animals (including possum and squirrel families and the occasional raccoon or skunk!) are some of the richest blessings in my life.

Subsequent Breitenbush and Herb Pharm conferences taught me that both cascara sagrada and Oregon grape are on the “To-Watch List”. These and Trillium spp. grew on our family farm prior to livestock grazing. I am hopeful that with changed management, my generation will be able to restore many of the native plants, especially these three, to our 80-acre family farm as this little bit of urban land is pretty much chock full of green life now!

For me the best lesson of landscaping for birds and native plants remains: no matter how small your piece of land, it is possible to create a refuge and herb garden.

Kathleen Simpson Myron is a gardener, birder, photographer, clay sculptor, beginning simpler herbalist and perennial student of the natural world. Oregon born and blessed to have always lived close to the Earth—family gardens, farm, and trips to the coast, mountains, river and forests, she grew up and continues learning and loving plants, animals, and the interwoven webs which sustain us all.

PLANTING THE FUTURE - WISCONSIN

by Betzy Bancroft
August 6, 2011

There are lots of wonderful plant lovers in the upper Midwest! The Kickapoo Valley Reserve in LaFarge, Wisconsin turned out to be an absolutely ideal place for a Planting the Future event. Named after the Kickapoo Indian Tribe, the reserve is a protected area consisting of 8,569 acres. The history of this reserve and all its unique ecology can be read about on their website (kvr.state.wi.us). The story entails the forced sale of local farms for the construction of a dam for the purpose of flood control and the development of recreational tourism. Halfway through the project construction was shut down, and the army corps was required to return the property back to the state of Wisconsin. Thus the formation of the Kickapoo reserve, which has 13 rare species of plants, such as the endangered cream gentian (Gentian alba).

The visitors’ center served as the meeting spaces where 130 participants and a dozen teachers came together on a beautiful, sunny August day in celebration of the plants. Our circle nearly filled the large lawn behind the Reserve’s beautiful modern facility! This was the third Planting the Future conference UpS has held in the region, and there was so much enthusiasm for this event that we’ll have to begin planning another!

Participants of this year’s PTF event in Wisconsin join in a circle
The teachers were great—wild food author Sam Thayer gave two wild edible plant walks; Linda Conroy shared the magic of fermentation; Cynthia Thomas gave a great presentation on her participation in an herbal relief clinic in earthquake-devastated Haiti; Jane Hawley Stevens, Carol Willis and Althea Northage-Orr gave excellent classes on growing medicinal herbs; and Jim McDonald led a big group on an entertaining herb walk, as well as a useful class on choosing herbal substitutes for plants on the “At-Risk” list. Robin DiPasquale led a class in meditations on herbs and chakras; Jess Krueger gave a lovely class on family wellness; and Kathleen Wildwood shared her favorite herbs for a simple medicine kit. Long-time UpS member and ecologist Gigi LaBudde set up a great invasive plant display in the visitors center and gave an informative class on Forest Ecology. Excellent herbal medicine classes were presented by Carol Jacobs and Althea, and office manager Betzy Bancroft, who led her herb walk, which she always loves to do. Truly there was something for everyone, and it was great to have so many classes aligned with the UpS mission of cultivation and sustainable use of our native medicines.

These events depend on many hands and much generosity. Linda Conroy, our co-organizer deserves acknowledgement for doing such a great job helping to plan for this event! Her apprentices were also amazing helpers and brewed us many gallons of delicious herbal infusions to keep us all cool on a hot summer day. The Coulee Region Herbalist Institute provided lunches. Another local herbalists’ organization, the North Country Herbalists Guild sponsored the event as well. Two local herbal companies owned by teachers at the event were generous sponsors and had their products available in our vendor area—Jane Stevens’ Four Elements Herbs and Linda Conroy’s Moonwise Herbs. Corporate members Herb Pharm, Mountain Rose Herbs and Frontier Herb Cooperative provided support, as consistent sponsors of UpS educational events. Green thanks to all for making our Planting the Future conference in Wisconsin possible.

I told them I would do my very best to move them carefully and respectfully and provide them a new home, and they promised to do their best to survive the move. It was spring, so they were small, but their root systems were heavy and large, and it took numerous trips back and forth on a very hot day. I struggled on my own and was sore for days afterwards, but it sure felt good! I brought them home and replanted them as I promised to nurture and keep them safe. I told them it might be hard the first couple of years. The soil was different, but I vowed to tend them and bring in familiar neighbor plants to reassure them, and they would remain together. Every spring we congratulate each other on a job well done. They grace my garden with their loveliness, and I protect them from the deer in early spring. Every task of hand watering is an opportunity to check in, reconnect and feel blessed.

It is wonderful to organize a group of willing volunteers to save that last stand of native medicinals, and I hope you will do that in your communities, but know that even as small a gesture such as this one counts. The humble act of one person listening and responding makes a difference to the green community.

Mindy Green served two terms on the board of directors for UpS and is now chairperson for the Advisory Board. Visit Mindy’s website at www.greenscentsations.com

PLANTING THE FUTURE - WISCONSIN (CONT’D)

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PLANT RESCUE

by Mindy Green

Mine is a humble story, but I think it counts. I can’t claim to have saved a huge stand of endangered plants on the verge of being bulldozed at a new freeway onramp, but to me and to the plants I moved from just a block away, it was worthy. I live in a relatively new housing development where cut-up lots slice into oak groves, and new construction replaces a variety of trees and fern groves. Amongst them are plants that are common and abundant, such as motherwort, mullein, wormwood and wild catnip. Even though I know that the house will provide shelter for a loving family and children will play in the backyard, it breaks my heart to see the trees and ground cover razed. When new construction began nearby my house, I checked out the lot one evening and saw a group of ferns. They were among many other common plants, but they were the ones asking to be saved. I heard them loud and clear. Now, it could be argued that there were still many other stands of ferns in the region on lots that hadn’t yet sold, but these plants were asking, begging to be saved. They were a family, growing in a ring—mother, baby, elders—all requesting to stay together, and there were a lot of them. It was a big job for one person, and I felt very honored. So I sat with them a while, and we conversed. I had just finished landscaping my yard, but I would find a place for them. It was just me, my shovel and wheelbarrow—no big crew of rescuers volunteering a week of time to save the last stand of rare native medicinals, but to me and to them, it counted.

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UPDATE FROM THE HAWAIIAN ISLANDS

Susan Leopold, Executive Director of UpS, plans to be in Hawaii for the month of January to connect with UpS members and engage in a discussion about working towards native sandalwood conservation. Richard Liebmann, past Executive Director of UpS, is offering an exciting internship program on his farm. For more information, visit the UpS website at www.unitedplantsavers.org or visit www.lokahigardenssanctuary.com. Another opportunity not to be missed is Goddard College’s course, Big Island, Little Planet: Global Perspectives on Nature, Culture and Healing. This course is being taught by Ethnobotanists Kathleen Harrison and Momi Subiono on March 17-28, 2012. Register online by December 1st, 2011 at www.goddard.edu/study_polkynesia_hawaii/.
The theme of community gardens in this issue of the Fall Bulletin demonstrates the unique ways the intentional act of planting medicinal herbs can be healing and inspirational. Jennifer Cordier writes about the creation of an ethnobotanical garden at the Georgia Mountain Research and Education Center. Amanda Dainow from Nova Scotia tells us about saving the plants from her local neighbors, and Jennifer Young in Keene, New Hampshire demonstrates how she reached out in her local community to find a place to plant medicinal herbs by contacting her local farm and University. Kathleen Myron charts the transformation of a small lot in suburban Oregon into a haven for birds and humans, and Mindy Green tells the tale of how she listened to the ferns that asked to be rescued. All of these gardens have stories that draw from the communities where each person lives.

UpS has over the years funded many community gardens through its grant program, and each project has its own unique story. I recently had the opportunity to travel to LaVale, Maryland where UpS member, Kelly Martin, through her local watershed organization, had arranged the adoption of an abandoned lot from her town. The local residents set out to transform this lot into a native medicinal plant garden. Ethnobotany students from Frostburg State University came to plant medicinal herbs, such as boneset (<i>Eupatorium perfoliatum</i>), butterfly weed (<i>Asclepia tuberosa</i>), and wild bergamot (<i>Monarda fistulosa</i>) to name a few. The project brought together young students and senior residents who lived on Helman Drive with the common mission of creating a community garden that would beautify an empty lot and create a medicinal plant sanctuary that could heal and educate. A wise woman at the planting told me that the benefit of living some place for a long time is that when she looks out into her garden she not only sees the plants she tends, but all her friends who have given her plants over the years.

I also had the opportunity to travel down to Huntsville, Alabama in the heat of July to the 2nd annual American Council for Medicinally Active Plants, hosted by A&M University. I was invited by herbalist Phyllis Light to give an evening dinner talk on how science and conservation can work together. ACMA is a new organization bringing scientists from universities across the country to converge on research in regards to medicinal plants. One topic that resonated was Jeanine Davis’s talk on a collaborative project that included practitioners, herb schools, and growers working together to establish local sources of Chinese Medicinal Herbs in North Carolina. As the growth of Traditional Chinese Medicine (TCM) in the U.S. continues, the concern for the safety of and quality of imported Chinese herbs increases. Therefore the demand for domestically produced Chinese herbs is increasing. At this year’s Planting the Future conference in Wisconsin, Carol Willis presented the talk “Save on Shipping: Cultivation of Asian Herbs.” Although the UpS mission is focused on native medicinals of North America, the market demand in China for the importation of American herbs has directly impacted the need for conservation, and therefore looking at the reverse relationship of Americans’ demand for Asian herbs is an important topic to explore and raises some interesting questions. Thus the motto of “conservation through cultivation” rings loudly in Steve Byers’ article on ginseng conservation based on Asia market demand. Brian Weissbuch, a practitioner and teacher who uses TCM, writes a wonderful article on the historical use of medicinal orchids. He suggests alternatives to these orchids since they should no longer be harvested from the wild. Finally Peg Schaefer sent in an excerpt from her forthcoming book on the conservation of Asian botanicals that provides an overview of the conservation issues facing native plants in China. The problems sound very familiar—shrinking habitat and the overuse of wild collected plants. Can growers in the U.S. be part of the solution?

GINSENG CONSERVATION THROUGH CULTIVATION  
by Steve Byers

Since the 1970s, many states in the U.S. have regulated the collection of American ginseng. In 2009, a two-year investigation by the Ohio DNR Division of Wildlife led to the confiscation of 180 lbs. of illegally collected or traded ginseng and the arrest of thirty-six people facing a total of 61 criminal charges. Many other states have prosecuted similar offenses. I’ve often wondered if there could be more proactive conservation efforts than just under-budgeted attempts to catch criminals and reactive responses to solve the problems with more paperwork.

Currently in Pennsylvania, a researcher and program director at Shaver’s Creek Environmental Center named Eric Burkhart is creating a culture of forward thinking ginseng growers through his approach called “Conservation Through Cultivation.” A recent graduate student of the University of Pennsylvania School of Forest Resources, Burkhart’s dissertation on “Conservation Through Cultivation” describes it as “an approach to wild plant conservation where individuals are encouraged and/or facilitated to transition
from a purely extractive-based exploitation (e.g., wild-harvesting) to a more intentional, and sustainable, plant husbandry.” This idea is based on his research conducted between 2002 and 2009 when he surveyed ginseng sellers (collectors and growers) and dealers, ran field habitat studies, and examined financial models to explore the profitability of various medicinal plants grown with forest cultivation methods.

Burkhart found that field cultivation of ginseng with artificial shade has potential for economic opportunity though it can be very expensive. Also, “woods-cultivated” ginseng densely grown in raised beds includes high production costs such as tractors, pesticides, and soil amendments but has a faster profit return than “wild-simulated” cultivation, which is the most accessible financial option for landowners as a low investment with a moderate sized harvest in 10 years. Sustainable ginseng cultivation practices can reduce harvest pressure on wild populations and offer a more dependable and responsible alternative that can provide supplementary income and increase general land stewardship.

Primarily, Asian markets drive the demand for American ginseng at prices between $400 and $1,000 a pound, which currently makes forest cultivation models a profitable option. Yet some of the roadblocks to grower profitability have been limited by top-down state regulations that are not connected with current grower needs and market trends. Burkhart hopes for bottom-up partnerships involving the voices of stakeholders as the industry evolves and in turn reduce secrecy as well as strengthen the market transparency and viability. Currently the state of Pennsylvania labels ginseng as either “wild” or “cultivated”. Limiting these categories may result in profitability losses and decreasing interest in forest cultivation. Many growers in PA wanting a premium for “forest cultivated” ginseng are turning to a 3rd party certification system through the PA Certified Organic agency that is already equipped to certify wild crops like mushrooms and maple syrup. Burkhart considers these premiums essential to helping the market transition from wild to forest cultivated sources. But growers also want government legitimacy to gain protections against poaching, bans on ginseng exports, and the land threat of Marcellus shale natural gas extraction. Burkhart believes educational efforts, product certification, and an adapting state attitude can help increase the profitability of forest cultivated ginseng and increase the conservation of this very important plant.

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We old timers remember, back in the 60’s and early 70’s, when medicinal orchid roots/tubers were a staple in our pharmacopoeia. We learned of the wonderful benefits of these herbs from our mentors and classic texts like Felter/Lloyd’s King’s American Dispensatory. We never imagined this love affair with Cypripediums (lady’s slipper) and Gastrodias (Tian Ma in TCM) would end with virtual extirpation of these species in the wild. Back in those days herbs and herbalists were marginalized, with minimal harvest allowed for ethical wildcrafting, and very low volume of use worldwide. Times have indeed changed! Hopefully, we have learned something along the way and can convey this to the next generation of herbalists.

Just as our bodies have anastamosing blood vessels providing back-up circulation when parallel vessels fail, Gaia provides back-ups when certain herbs are no longer available. We have several excellent alternatives to Cypripedium and Gastrodia that we wildcraft or grow, or obtain from far away places.

1. Armillaria mellea, the edible and medicinal honey mushroom of the Pacific Northwest, Eastern US, and Eurasia. We have learned that Armillaria is a mycorrhizal symbiont with Gastrodia and other orchids, and Gastrodin glycoside and phenolics (vanillyl alcohol, vanilline, et al) are elaborated in fungal mycelium and conveyed to the orchid via the subterranean mycorrhizal network. Thus, Chinese herbalists knew that Tian Ma Mi Huan Jun, honey mushroom, could be used instead of Tian Ma, Gastrodia orchid tuber. I find that Armillaria is best used for Liver Wind Neuropathy. For Cold conditions (TCM diagnosis), I switch to:

2. Epipactus gigantea, the giant stream orchid, native to the Pacific Northwest. This orchid is an uncommon, gorgeous streamside inhabitant, stabilizing sandy banks against erosion during high water. Thus, it should never be wildcrafted! It is, however, widely available in native plant nurseries and “easily” grown in sunny areas free from gophers, with continuously damp soil. Both Armillaria and Epipactus have significant benefit in cases of neurasthenia (chronic, unrelenting stress), with Epipactus being slightly stronger in the TCM category of Nourish Heart, Calm Spirit. For treatment of children and what Michael Moore referred to as “closed cycle panic” with his recommendation of native peony root, I prefer combinations including peony, licorice, and:
MEDICINAL ORCHIDS (Cont’d)

3. *Vanilla planifolia* style, vanilla beans (Bai Tian Ma). As noted above in #1, vanilla provides a genetic template for these active phyto-chemicals. Per TCM texts, vanilla can usually be substituted for gastrodia. Caveat: Because vanilla strongly nourishes Heart Yin, it is too cloying in cases of Wind Phlegm in which Phlegm Misting the Orifices / Pericardium predominates.

We’re indebted to Subbhuti Dharmananda Ph.D. (Institute of Traditional Medicine, Portland, OR) for his fine treatise on medicinal applications of *Armillaria mellea*. And we’re grateful for the work of Mycology Professor Tom Volk Ph.D. (University of Wisconsin-La Crosse) for his elucidation of speciation in the Armillaria Clade, and identifying the actual range of *Armillaria mellea* (personal discussion with author).

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Illustration: Scanned ink drawing of *Epipactus gigantea* flowers and leaves by Nora Fanshel, artist and organic herb grower extraordinaire. Published with the permission of the artist.

CONSERVATION AND CULTIVATION OF ASIAN BOTANICALS
by Peg Shafer

Fueled by strong market demand, the worldwide trade for Eastern medicinal plants is expanding at an annual rate of 10 percent. The traditional medicine and pharmaceutical industry markets are increasing, within China as well as internationally, placing unrelenting pressure on Asia’s already depleted wild reserves. This has resulted in 15–35 percent of all Asian medicinal plants currently considered to be in endangered status.  

Factors and Reasons for Concern: China has approximately 30,000 endemic plant species—about twice the number native to North America. The majority of Chinese herbs are still wild-harvested.

Unsustainable wild-harvesting and climate change, along with loss of habitat contribute to declines in wild medicinal plant resources. While some of the more opportunistic botanicals maintain healthy populations, others are becoming increasingly rare and some are on the brink of extinction.ii

As the global herbal community faces these challenges, it is more imperative than ever that everyone takes a conscientious role in the conservation of these treasured medicinal plants. Every stakeholder—from the people who collect and cultivate to the people who engage in trade, including consumers—we all need to come together to address sustainable resource management and long-term species survival. We can engage in conservation and meet the demand for Asian medicinal plants with applied agro-ecological cultivation, sustainable wild-collection practices, and responsible trade.

Cultivate to Conserve: To bring wild species under cultivation will require time and support. In the United States the land grant colleges used to take the role of crop introduction, but unfortunately those schools are now heavily financed by large corporations to conduct research on proprietary products that are often genetically modified or patented. As a result, it is community-based, small-scale, entrepreneurial agricultural operations—such as the Medicinal Herb Consortium and the Sonoma County Herb Association—that are taking the lead, often in conjunction with innovative medicinal plant product businesses. For a win-win situation where growers and consumers support each other and the environment, the cultivated herbs will have to be efficacious and available in sufficient quantities—and the buyers have to pay the cost of producing them. The alternative is that no one wins.

How to Be Part of the Solution: As herb users, the first solution is to avoid purchasing endangered or threatened wild-harvested species. Unfortunately, origins are often difficult to determine. Transparency and accountability are key components; be vigilant and inquire of suppliers: Is the product labeled with the origin? Are the genus and species listed? When were they harvested? Remember that you as the consumer are the motivating factor in commerce—voices will be heard when customers vote with their money.

Another option is to buy domestically grown medicinal plants and their products. The shorter supply chain experiences fewer quality failures. Shorter travel distances coupled with smaller businesses, and a culture of openness and accountability, usually mean fresher products.

