

NATIVE NOTES

WEST VIRGINIA NATIVE PLANT SOCIETY

Volume 7, Number 1

April 2000

SUMMARY OF WVNPS BOARD OF DIRECTORS MEETING – FLATWOODS, WV

By: Bill Grafton

On April 8, 2000, six Board Members, Romie Hughart, Gay Brown, Richard Thompson, Donna-Ford Werntz, Bill Grafton and Emily Grafton met to conduct the business of the WVNPS. Helen Gibbins, PJ Harmon and Lawrence Beckerle also attended the Board Meeting. Before the meeting was over, two of these individuals were elected into service on the Board. Helen Gibbins was approved as Recording Secretary and Lawrence as a Board Member for one year.

We discovered what we hope is a temporary crisis. Only 60 members have paid their dues for the year 2000. We do not send out regular notices, which is for many people a necessary reminder. So, those who have not paid will receive a reminder in this newsletter. If you are leaving the organization, we would sure like to know why. The treasury balance is at \$4913. However, incoming dues will not meet our current expenses for the year, unless a majority of the other sixty members get their dues in.

A new recruitment brochure will be printed now that PJ has located the missing artwork. Bill Grafton and PJ Harmon have worked on this project.

Seeds of plant species native to West Virginia have been ordered from the Ernst Seed Company in Pennsylvania. Chris Gatens and Romie Hughart are coordinating the plantings of "highway wildflower plots" which will be located near Charleston and Huntington. Donna Ford-Werntz did the initial organizational work on this project.

The next Board meeting will be held on July 8, at the Cedar Lakes Conference Center.

CARNIVOROUS PLANTS

By: Emily Grafton

Deception, entrapment and fatal attraction are just a few of the terms that people use to describe the ingenious insect-consuming adaptations that evolved separately in several plant genera, from unrelated plant families. Any plant species that has developed the physiology and structures for attracting, entrapping and digesting insects, is considered a carnivorous plant. However, in most ways carnivorous plants are no different from any other flowering plant. They have retained photosynthesis as their primary means of making sugars for building plant tissues, and, they produce leaves, flowers and seeds.

Carnivorous or insectivorous plants found in bogs, marshes and wetlands throughout West Virginia illicit wonder and curiosity in most people. Sundew, with its glistening-jewel-like tentacles found in highland bogs, is perhaps the most widely known of the insect eating plants? The largely unseen members of the genus *Utricularia* (bladderworts) may be the most common and widespread insectivore. There are nearly 600 species of carnivorous plants found in similar habitats around the planet. We have five species of carnivorous plants native to West Virginia.

UTRICULARIA
geminiscapa



Most carnivorous plants irrespective of their genetic lineage or latitude live in bogs, swamps or rainforests. Acidic bogs and marshes are nutrient poor due to the high acidity and resulting slow rate of

decay of dead plant material. In rainforests, most nutrients are tied up in living tissue. Very little is available in the soil and decay is actually quite rapid. Nitrogen, essential for building proteins, is usually not available or in very low supply in such habitats. Plants with the ability to digest the proteins in insects are able to assimilate the amino acids and utilize these for reconstructing their own proteins. These are used for added growth, especially for developing flowers and seeds. Unlike animals, plants produce proteins primarily only in their reproductive structures and fruits.

Four Species of bladderworts, species *Utricularia*, are found in West Virginia. They are tiny little herbs living submerged in shallow water with irregular-shaped, 5-8 mm long flowers and alternate, finely dissected leaves that bear tiny bladders. Usually, only the flowers occur just above the water surface. The somewhat egg-shaped bladders have an opening with a trap door near the narrow end that is surrounded by tiny trigger hairs. When an insect brushes against the trigger hairs, the trap door flies open in an instant, drawing water and the insect into the chamber. In less than a second the door slams shut and protein-digesting enzymes reduce the insect's tissues to nutrients that will be absorbed by the plant.

Sundews, genus *Drosera*, are like ruby-colored jewels forming dense mats in bogs. The main plant consists of a rosette of spoon-shaped leaves covered with glandular hairs that turn bright red. The glands secrete a clear-sticky-sweet-smelling digestive fluid that attracts and entraps insects. An insect will be attracted to the nectar but once its feet touch the fluid, it becomes stuck. In response to vibrations from the struggling insect other hairs curl inward dousing the victim with more fluid. Within twenty-four hours, the plant will have assimilated the dissolved nutrients from the insect's body.

Drosera rotundifolia, round-leaved sundew is the only species native to West Virginia. This same species is found in the Arctic region from Alaska to Newfoundland. Several years ago, two other species of *Drosera* were found in one location in Cranesville Swamp. It was determined that someone brought these plants into the bog. At the time, it created a bit of a controversy in the botanical community. Some folks were incensed at what they considered to be a "biological contamination" of a natural area. Today, only one of these species persists in a boggy area. The other one has apparently disappeared.

In addition to the trap door and flypaper tactics, there are the pitcher plants, genus *Sarracenia*, which produces a pit-fall trap. Large leaves of this plant are fused together to form a goblet-shaped structure with a large hood-like sheath rising above the back lip of the goblet. The inside of the goblet remains filled with a protein-digesting fluid. The top half of the red-streaked hood is lined with downward-pointing hairs and covered with nectar, which acts as an insect attractant. Below the hairs, the hood becomes a smooth slope with cells that slough off when the feet of an insect touch the surface. So, once attracted by the nectar, an insect will land on the hair-covered surface from which it will slide down onto the smooth surface. The cells break free and the insect tumbles down into the fluid where it becomes food for the plant.

Sarracenia purpurea is the only species of pitcher plant found in West Virginia. It is almost certain that man introduced this species to the state in this century in at least three separate bogs, Cranberry Glades, one on Backbone Mountain, Tucker County and near Terra Alta in Preston County. However, this species occurs naturally in bogs in Maryland and Pennsylvania near the West Virginia border.

Most carnivorous plants are quite small. The Venus fly-trap found in more southern bogs and the tropics may reach two feet in height or width. This particular plant has been the subject of science fiction movies. Built to a larger scale they have starred as man-eating plants. The taco-shaped-green-leaves bear large spines along the full length of the rims of each leaf. The leaves fold inward trapping insects attracted to the nectar-lined inner leaf surface.

Unfortunately, carnivorous plants have been collected from the wild as additions to gardens and terrariums. The flowers of pitcher plants have been used in the cut-flower industry. If you have a great interest in these plants and would like to grow them, there is a source of nursery-propagated carnivorous plants. There are also two delightful web sites with information about carnivorous plants. These references are listed below.

Nursery Sources For Carnivorous Plants:

Redtail.unm.edu/cp/othercps.htm#nurseries

The Carnivorous Plant FAQ

www.sarracenia.com/faq.html

International Carnivorous Plant Society

www.carnivorousplants.org

**NATIVE PLANTS IN THE
LANDSCAPE
“Issues and Opportunities”
SYMPOSIUM**

By: Emily Grafton

As part of my work with the Canaan Valley Institute I organized a symposium to address opportunities and issues related to the cultivation and use of native plant species in landscaping and reclamation efforts and to identify solutions to mitigate the negative impacts depleting the native plant communities of the Mid-Atlantic Highlands, particularly within the State of West Virginia. A steering committee with representatives from the US Forest Service, State Soil Conservation Agency, DNR, DEP, WV Garden Clubs, WV Dept. of Agriculture, Natural Resources Conservation Service, WVU Extension and the West Virginia Herb Growers Association provided invaluable guidance and suggestions for speakers and content of the event. The symposium was held from March 21 – 23, at Canaan Valley Resort and Conference Center. It began with a pre-conference workshop on native plant propagation, presented by our own Peter Heus, owner and operator of *Enchanter's Garden*, native plant nursery.

The intended goals for the symposium included increasing communication between all stakeholders involved in growing, cultivating and planting trees, shrubs and herbs within the region, building broader networks of people to address the concerns and needs related to native plant species and to identify ways to enhance the utilization of native plant species in place of exotics and invasive species where possible. In order to achieve the desired outcomes, the following objectives were incorporated into selecting and scheduling the sessions:

- Raise awareness about the environmental and economic values of native plants
- Get nursery growers, landscapers, consumers, gardening aficionados (Garden Club members; Master Gardeners, home gardeners); state and federal reclamation specialists and highway administrators exchanging information about their needs
- Present the “tried and true” tips from those experienced in propagating native plant species for commercial sale and landscaping
- Present information about which native species of shrubs, herbs and trees show great potential for cultivation for placement in a wide range of habitat types and soil conditions

- Discuss the current threats to our native flora and natural areas, and how best to protect plant resources
- Explore the latest research about which species are known to work well, and the ways to incorporate native plant species in reclaiming disturbed sites including highways, strip mines and development sites
- Discuss the epidemic of invasive plant species across our landscape and raise awareness about the most problematic species and discuss ways to control or eliminate invasive plant species from the marketplace

Nearly 200 people, representing six states and a wide spectrum of stakeholders attended the symposium. Participants had access to sixteen exhibits with attending specialists throughout the duration of the symposium. The exhibits included seed manufacturing companies; native plant nurseries; engineering firms with experience in ecosystem restoration work; a US Army station whose staff has been replacing old fields with native plants; experts on soils, West Virginia Department of Natural Resources highlighting their education programs about using native plants in backyard gardening and publications on invasive species; West Virginia University Herbarium, West Virginia University Extension Service. Catherine Arsenault brought a display all the way from New Jersey, where she operates a native plant nursery.



MONOTROPSIS
odorata

From the pre-conference workshop Tuesday evening, to the closing session at 2:30 PM on Thursday, the atmosphere in the conference center was buzzing with the intense energy and discussions among the participants. People networked within and across disciplines, sharing common goals and debating great differences of opinions about many of the issues presented by the speakers. More questions than answers were posed about the problems of invasive species. There were differences of opinions about

how to regulate invasive plants and what species to classify as noxious weeds. There were many differences of opinion about the role of cultivars and exotic (imported) species in our landscaping and reclamation efforts.

The economic and environmental issues and points of view expressed by each speaker and participant had validity and needed to be addressed. However, one thing that most agreed upon was the negative impact that our expansive human population and land-altering activities are having on the natural balance within the soils, plant communities and streams – the very life support systems that sustains us. We all need to work together to identify common sustainable solutions in our use and propagation of plants, resource extraction and building and construction. Many new partnerships need to be built and many more avenues for educating the general public about the value of native plants need to be prepared and connected.

Thanks again to all the speakers, the steering committee, co-sponsors, Canaan Valley Institute Board of Directors for their financial contribution, support staff, exhibitors and participants for making this event a stimulating and challenging one. The comments and suggestions are also much appreciated and will assist in preparing the second annual “Native Plants in the Landscape, Issues and Opportunities” symposium, a happy and successful planting season to all.

MISSING JOBS

By: Lawrence T. Beckerle

The West Virginia state tree nursery is on a “pay as you go” basis. This state policy may seem innocent enough as it saves taxpayer dollars for other needs. But the result of such a policy is that the nursery produces only what it is sure it can sell. The nursery staff and their supervisors can take no leadership role in developing new industries for West Virginia. That lack of leadership is further reinforced by policies of the Department of Environmental Protection (DEP).

DEP readily accepts the planting of European black alder on disturbed land, so companies and landowners demand and buy what they know DEP will let them plant. Meanwhile, many plants that naturally grow in or around West Virginia are not allowed, because they are new to DEP. Landowners and companies are not allowed to plant new crops

without proof of what the final yields will be. It is an effective “Catch-22,” they can’t plant crop plants



EPIGAEA repens

without the required data and they can’t get the data without doing years of experimental work.

European black alder increases land fertility by fixing nitrogen. With the help of special bacteria, nitrogen is taken out of the air and made available to be taken up by the plant to be converted to plant tissue. Later, as the plants die and the organic matter decays, much of the nitrogen becomes available to other plants. Other than fixing nitrogen, European black alder has little value to wildlife and West Virginia’s economy.

By contrast, the following plants native to the United States not only increase land fertility by fixing nitrogen, but they have other values including the following: Yellowwood is a rare tree, preferred for making gun stocks. Northern bayberry produces good bird food and wax used to make bayberry candles, silver buffaloberry produces good wildlife food and is used to make pies and jellies, indigobush attracts butterflies, New Jersey tea and redroot are to make herbal teas, prairie acacia unlike most acacias is thornless and readily eaten by livestock and deer.

The missed opportunities include plants that don’t fix nitrogen. West Virginia has three species of chokeberry, red, purple and black. California has an industry based on chokeberry, but not West Virginia. Maine has an industry based on low bush blueberry, but not West Virginia, though it is a common plant at higher elevations. West Virginia does not have a controlled burn provision in its fire protection law. Species like the blueberries thrive when subjected to periodic burns. Europeans buy 500 tons per year of dried elderberry flowers for medicinal and other purposes, yet I do not know of any West Virginian selling this product to Europe. Black haw is used in making pharmaceuticals and is reported to bring as much as \$4.50 per pound.

Given the changing legal climate in West Virginia, is there hope of a more productive environment? In the consent decree negotiated between DEP and anti mining plaintiffs, only a few trees are approved for planting on commercial forestland including red oak, white oak, white ash, sugar maple, black cherry, yellow poplar and native hickories. Without a change in topography, only about 12% of West Virginia's mined land will be reclaimed to commercial forestland with the method mandated by the consent decree. More diverse eco-friendly plantings and alternative methods are in effect outlawed.

When restoring mined land to forestry or commercial forestland, it will be illegal to plant black walnut, butternut, cucumber tree and many other species. The plaintiffs used only out-of-state experts (Dr. Burger, Dr. Handel and Mr. Morgan) to help them write rules for West Virginia. This might explain some of the bias.

Announcing a New Publication:

**BIOLOGICAL DIVERSITY:
The Oldest Human Heritage**
By: Edward O. Wilson

At the close of the twentieth century we are facing one of our greatest challenges as citizens of earth. Many experts agree that we are facing the sixth mass extinction in geological history. The current extinction rate is compared to the Cretaceous-Tertiary extinction event, which killed the last of the dinosaurs. The difference now is that the cause of the extinction is not an asteroid, but the activity of one species: *Homo sapiens*. Human activity is impacting species in profound ways, whether by introducing new species in habitats they were not previously found in, by cutting down tracts of forest, or by the overuse of environmental resources. In the 1990s, people have become increasingly aware of biodiversity loss.

In response to these concerns, Dr. Edward O. Wilson, Pelligrino University Research Professor and Honorary Curator in Entomology at Harvard University, has written *Biological Diversity: The Oldest Human Heritage*. The new educational book describes the importance preserving biodiversity along with state-specific examples of threatened species and habitats. Published by the New York State Biodiversity Research Institute and the New

York State Museum, this introduction to conservation biology is intended to educate young people about the importance of biodiversity today, the threats to it and what we can do about these threats.

Biological Diversity: The Oldest Human Heritage is a 58-page book with a full glossary, bibliography, original natural history illustrations by Patricia Kernan, illustrator, New York State Museum, and thought provoking discussion questions. Teachers and students in high school biology classes in particular will find it a useful resource, as well as anyone interested in preserving the integrity of earth's delicate ecosystems through awareness and education.

For ordering information, visit the New York State Biodiversity Research Institute (BRI) website at www.nysed.gov/bri.html. You can order with a credit card by phone at 518/402-5344. The cost is \$4.50 per booklet, plus a \$4.00 shipping and handling fee for the first volume. Each additional volume has a \$1.00 shipping fee.

Announcing a New CD-Rom

NORTHEASTERN FERN IDENTIFIER
By: Richard S. Mitchell, Ph.D
& Laurie Danaher
Programming: George Steeves
IBM-compatible computers (SVGA)

If you are a fern aficionado, this CD-Rom may be for you. The following features are included:

- Full color illustrations of all 70 fern species of the northeastern U.S. and eastern Canada, growing in their native habitats
- Easy point and click identification, activated by mouse or keyboard
- Color photo-enlargements of spore-bearing fronds and other critical characteristics
- Name search and slide-show options
- Text on ecology, variation, similar species, common names, previously used scientific names and geographical distribution of the species

After learning about five terms from a help screen, you may now identify almost any fern in northeastern North America by simply choosing from a friendly menu of the plant's features. A slide show of all ferns is available at any time during the identification

process, so that you may even compare species without choosing characters if you wish. Color photos and text, including discussion of similar species, verify or help troubleshoot your identification.

With a hand lens and this guide, either at home or with a laptop computer when out hiking, anyone may now identify a northeastern fern. A fascinating plant group, formerly notoriously difficult for the novice, has now been opened up for everyone to enjoy. You may order from the New York State Museum, Publication Sales by phone with a credit card by calling 518/402-5344. Or call this number to receive an order blank to order by check. The price of the CD-Rom is \$19.95 with a \$4.00 shipping and handling fee.

UPCOMING TRI-STATE CHAPTER FIELD TRIPS

Call Romie Hughart (304/429-7358) for complete details.

- April 29 – 10:30 am – Rock House Shelter Trail, Lake Vesuvius. Meet at Nature Center. Take SR 93 N from Ironton, Ohio
- May 20 – Field Trip to Ice Mountain, Hampshire County. Meet at 9:30 am at four-way intersection of West Virginia Route 45 and County Route 3 at Slanesville.
Overnight accommodations: Hampshire house – Bed & Breakfast – 304/822-7171
Colonial Motel – 304/289-5040
- July 15 – 9 am – Green Bottom, Meet at Plantation House. North of Huntington on Rt. 2
- August 5 – 10 AM – Chaparral Prairie RT 52 to RT 125. 0000rt. 247 N. of West Union, 1st road on the left (Chaparral Road), 2 ½ miles gravel road off Chaparral road in sharp turn, Hawk Hill Road.
- August 26 – Compass plant tour, located North of Symmes Valley High School on Rt. 141,
 - If interested, contact Judy Dumke – 740/894-6859

FIELD NOTES

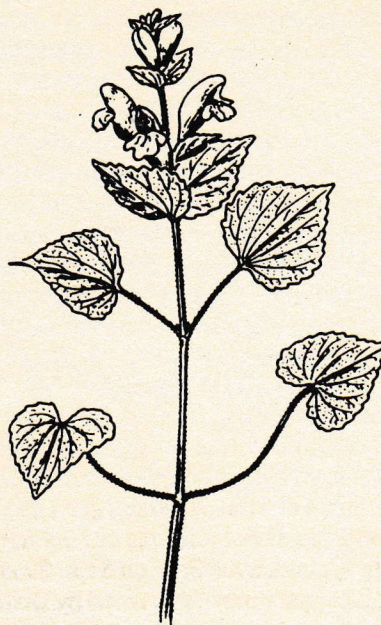
By: Bill Grafton

Stan Bentley knew something was different as he viewed an odd looking coralroot in Monroe County in 1996. Four years later the plant was named *Corallorhiza bentleyi* by John Freudenstein, an orchid expert at Ohio State Univeristy.

Bentley's Coralroot is most closely related to *Corallorhiza striata*, whose closest population to West Virginia is in central New York. The flowers are cleistogamous (fertilized in the bud without the flower opening) and bloom during mid-to-late July. In 1996, there were four plants and in 1999, there were 27 plants at the site.

What a treat that new plants can still be discovered! Congratulations and Kudos to Stan. Be on the lookout for any odd-ball or strange-looking plant. You may be looking at a new species or variety. Stan is actually quite an expert in orchids and is in the final steps of publishing a book on Virginia's orchids.

Kevin Campbell of Walker, WV, sent in two plant sightings. *Matteuccia pennsylvanica* (ostrich fern) was found on Shaver's Fork in Randolph County. *Lycopodium obscurum* var. *dendroideum* (groundpine) was found on Spider Ridge in Wood County.



SYNANDRA hispidula

TWO PUBLICATIONS IN FINAL PREPARATION—WV FLORA ATLAS

&

WV BRYOPHYTE CHECKLIST:

By: Donna Ford-Werntz

The West Virginia Flora Atlas, being produced in collaboration with P. J. Harmon, WV Heritage Botanist, is in its final stages of editing. Work on this project is funded through June 2000 by a grant from the WV Division of Natural Resources (DNR) for two part-time project technicians. Recent emphasis has been on processing notable backlog collections from Grafton, Rossbach, Bush, and miscellaneous recent additions. Specimens are being mounted by grant-supported Verónica Sutherland (10 hours/week) and volunteer Mary Longanbach (4 hr./wk.) Rachel Bell has done Atlas data entry in the past year (summer and fall, 4 hr./wk.) and Eric Kleiss (spring, 6 hr./wk.). The computerized files now contain over 55,000 records (5,371 input in 1999), an estimated two-thirds of the West Virginia specimens in the collection! Draft maps for the WV Flora Atlas have been produced and are being circulated for review prior to publication and marketing.

For the past 3 years, Dr. Susan Studlar (WVU Adjunct Associate Professor) has been working on a Checklist of West Virginia Bryophytes, also funded by the WV DNR. There is a wonderful collection of almost 20,000 specimens in the WVU Herbarium, but the study of bryophytes in the state has been neglected for decades. Sue has collaborated with P.J. Harmon (DNR) and Steve Stephenson (Fairmont State College), as well as benefited from the labor of student assistants Shanda King, Kim Conway, and Veronica Sutherland. To date she has identified and coined common names for 378 species of bryophytes in the WVU Herbarium. Specimens were annotated, old packets replaced, and species information (synonyms, geographic distribution, rarity, and herbarium and literature documentation) entered into the computerized checklist database. Label information for 1,500 collections have been input to the database, and hundreds more await repackaging and entry. Dedicated professional and amateur bryologists coming to Watoga State Park on Sept. 29 and Oct. 1 for the Blomquist Foray (sponsored by Duke Univ.) will use a draft version of the Checklist of West Virginia Bryophytes during field trips. Based on their feedback, the Checklist will be modified, bound, and offered for sale.



CASTILLEJA coccinea

RESEARCH AND FACILITY GROWTH: The Herbarium participated in global botanical research by providing specimens for 12 loans (649 sheets) and 25 label data requests to 12 West Virginia, 21 out-of-state, and four international users. Thirteen outgoing ginseng loan returns (758 sheets) were sent and seven incoming loan returns (1,143 sheets) were received. The Herbarium had 35 visits for on-site specimen consultation by seven local investigators, six other West Virginia researchers, and ten out-of-state users. There were 29 gifts of 3,433 specimens—all except 173 from Bill Grafton! The remainder came from Eleanor Bush, Gordon Tucker, Bernard Cyrus and six additional donors. Rachel Bell, a new taxonomy graduate student, has focused her interests on *Allium tricoccum* (ramps) and is preparing her plan of study. Rachel is particularly interested in ramp populations in the Potomac River and Ohio River watersheds. **Anyone with information or knowledge to share about ramp populations or harvesting is asked to contact her in the Herbarium. Call 304/293-5201 x2549.**

Brendan Johnson, undergraduate honors program student, is working to complete his revision of *WV Polygonum* this year. A new project is taking place at the herbarium thanks to an award from the Virginia Flora Committee Harvill Grant Program. The funds are supporting a student employee, Lee Webb (6 hours/week), to inventory WVU specimens for Virginia collections through summer. An additional ten herbarium cases were obtained used from Delaware State University Herbarium and arrived in March. This adds critically needed collection space

and brings the herbarium to storage capacity for the new Life Sciences Building. Great appreciation goes to Melvin Brown and Consol, Inc. for generous financial supports that make such purchases possible. The Davis Herbarium Endowment proceeds bought a handheld GPS unit to identify geographic coordinates for future collections. Also of note are two donations of color photographic slides by the Birch family and by Wilbur Jones. Additional charitable contributions or staff position applications (work-study help, course credit interns, or volunteers) are welcome at any time!

SERVICEBERRY – A CLOSER LOOK

By: Emily Grafton

Particularly during the month of April, you have seen the slightly reddish-tinged-white bursts of serviceberry blossoms dotting the landscape. Serviceberry owns the distinction of being the first shrub or tree to bloom along the span of the Appalachian Mountains, and its blossoms brings the promise of warm, sunny days ahead. Many of us are familiar with the host of folklore associated with its name and valuable food source its fruits provided to the Native Americans and early settlers.

Have you ever taken the time to look closely at an individual flower from one of the five species that occurs in West Virginia? If not, you must hurry out and try to find a blossom that has not yet been pollinated. Take your best hand lens and in full sunlight peer into the wondrous beauty of radial symmetry and contrasting colors that will delight your eye. Your first magnified glimpse of the flower will reveal a miniature world of complexity and depth that will hold your gaze for some time. As you peer down into the center of the flower, five shiny-light-green pistils arise from what appears to be a five-chambered ovary. Your gaze is then drawn out to a dark yellowish-green colored ring around the receptacle; nearly twenty red-tipped stamens arise around this ring arching away from the center of the flower. As your eyes follow the stamens you will immediately see the ½ inch long strap-shaped white petals, alternating with the dark-green sepals. The swollen, bell-shaped ovary rests just beneath the receptacle. Within the base of each of the five stigmas, there are two ovules, making a ten-chambered ovary.

Common serviceberry (*Amelanchier arborea*) has the widest range of distribution and is more likely the

species you will see on roadbanks along interstate highways. Multiple-one-inch blossoms occur in loose drooping racemes at the ends of the stems. After the flowers have been pollinated, the receptacle develops into a delicious-fleshy protective cover around the developing ovary. This type of fruit is called a pome, and its development is similar to that of an apple. In most fruits, the outer wall of the ovary develops into the fleshy edible part of a fruit. Within the ovary of all *Amelanchier* species, ten seeds will grow. The seeds are as edible as the fruits, having their own distinct flavor.

Serviceberry has nearly as many names as it has pistils including shadbush, sarvice and Juneberry. With each name comes a story tied to its historical significance or use. The name shadbush or shadblow, as some east coast residents call it is tied to a species of herring called the American shad. As Europeans established towns along the eastern seacoast, they learned about the spring migrations of this fish from the sea up the fresh water rivers to their ancestral spawning grounds. When species of *Amelanchier* started to bloom, folks knew it was time to start watching for the appearance of the shad to fill their bellies and their larders.

The term Juneberry is an easy one. The pea-sized fruits on most species ripen during the month of June. These fruits have an absolutely delicious and unique flavor. I cannot help but think that some enterprising entrepreneur could make a decent living marketing serviceberry or Juneberry jams and pies and muffins as delicacies in the European or Asian markets. Ironically, once they became popular abroad, Americans would then discover this wonderful fruit and market demand might grow in this country as well.

Native Americans used the fruits in a multitude of ways. Native American women would gather the fruits and dry them. The dried fruits could be stored and mixed with meat or vegetables over the long winters. Pounding dried meat with dried serviceberries and solidifying this mixture into cakes with animal fat made a hard, non-perishable food called pemmican. This food was especially reserved for hunters who made long journeys.

By the time you receive this newsletter, most serviceberry trees will have finished blooming. I seem destined to remain two to four weeks behind on getting this newsletter out from my original publication deadline. However, a few blossoms may be found on trees growing at the highest elevations. A chance to get a close look at serviceberry blossoms

may be a good reason to head over to the highlands to catch early spring again.

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NATIVE PLANTS

In the landscape @

MILLERSVILLE

**THE 10TH ANNUAL NATIVE PLANTS IN THE
LANDSCAPE CONFERENCE**

June 8-10, 2000
At Millersville University
Lancaster County, PA

Native Plant sale, Plenary Speakers, Break-out sessions, field trips, and much more.

Past conference attendees say:

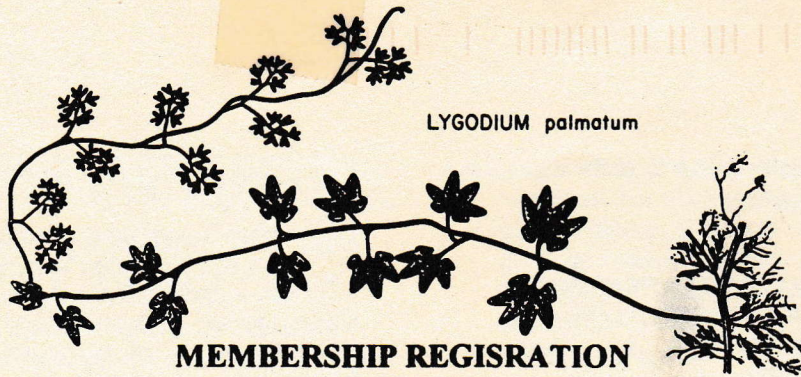
“subject matter that truly matters – ecological thinking and understanding underpinning of our every act as it has to do with plants – is covered very well”

“I loved the camaraderie and cooperative friendly people; the relaxed schedule that allows lots of time for talking and exchange outside of events... excellent speakers on interesting and topics built around a theme.

For registration information: contact
Department of Continuing Education, Millersville
University at 717/872-3030
Email – roma.savre@millersv.edu

**NATIVE PLANT RESCUE SWAT
TEAMS FORMING NOW!**

When is the next strip mall, housing development or Walmart due to be erected in your neighborhood? Are you aware that many of these kinds of developments can consume up to 40 acres in a single gulp? What happens to the rich diversity of native herbs, shrubs and trees? They usually get crushed and buried. Mark English in conjunction with the WV Herb Growers Association is planning to rescue plants from the new lake that is being built near North Bend State Park. Many of the plants will be re-located in the Park. Other projects are forming around Corridor- H development. If you would like more information about participating in these projects or organizing one in your community contact Emily Grafton 1/800-922-3601.



LYGODIUM palmatum

**MEMBERSHIP REGISTRATION
COUPON**

Please sign me up as a member of the WVNPS!

Name (s) _____

Phone: _____

(h) _____

Address _____

(w) _____

Membership Dues: The membership term is for one calendar year (Jan 1 - Dec 31)

_____ Regular Membership: \$12.00 (membership for all members of a household)

_____ Student Membership: \$8.00 (any student, college age or below)

_____ Life Membership: \$200.00 (includes all members of a household)

Chapter membership: Kanawha Valley (Charleston) - \$6; Tri-State (Huntington) - \$5 * Must be a member of the state organization in order to join chapters.

I wish to make an additional contribution to the WVNPS in the amount of _____

This is a gift membership. Please include a card with my name as donor: _____

**WVNPS
PO BOX 75403
CHARLESTON, WV 25375-0403**



Judith D. Dumke
7302 County Rd. 15
Chesapeake OH 45619

