

NATIVE NOTES

WEST VIRGINIA NATIVE PLANT SOCIETY

Volume 5, Number 2

December 1998

LETTER FROM THE PRESIDENT

As I write this it's raining outside and the temperature is in the mid-forties. All I can think about is what happened to summer. My parents were right, as I grow older the years do seem to slip by faster and faster. So, spring is really just around the corner after all. Now what to do until then?

Let's see. I could just sit inside and wait for spring to roll around. Or perhaps maybe write an article for the newsletter (the editor says yes!)? And maybe I could even plan and lead a field trip for the Society next year. Or maybe I could ask a friend to join our Society. There are many things I can do to keep me in touch with the world of botany this winter. How about you? Is there something you would enjoy doing that would contribute to the WVNPS this winter?

As 1998 draws to a close so does the 17th year of the West Virginia Native Plant Society. On May 17, 1981 several individuals interested in the flora of West Virginia met at Blackwater Falls State Park to form the WVNPS. And one of those interested individuals was Bill Grafton. Indeed, Bill was the Society's first president. Well, it's said that history repeats itself. And that couldn't be more true than with the election of Bill Grafton as president of the WVNPS for 1999. And knowing Bill, I'm sure he will take on the position again with all the determination and drive that he did then. Good luck Bill!

In closing, I'd like to say it's been a privilege serving as president of the WVNPS these last two years. I've enjoyed working with the other officers, directors and membership for the advancement and appreciation of West Virginia native flora. I hope to see everyone on field trips, workshops, meetings and such in 1999.

Steve Mace

**THANK YOU STEVE, FOR DOING
SUCH A GREAT JOB!**

WHY SAVE THE BLACKWATER CANYON?

In many nations of the world, forest and water resources are being exhausted much more quickly than they can be replenished. Chemical pollutants released into the biosphere have begun to impair the health of wildlife and human beings. Habitat destruction due to deforestation and development is contributing to an accelerated extinction rate. Around the globe, but especially in developed nations (that's us), gaseous emissions from the burning of fossil fuels are compromising the layer of ozone that protects the biosphere from harmful radiation, and stimulating a global climate change. As a species, we are literally eating ourselves out of house and home.

In response to the fact that the consequences of this overwhelming accumulation of environmental problems are being felt primarily in the undeveloped and developing nations, Americans remain for the most part, unmotivated to take serious action. The truth is, the energy-intensive, mass-consuming life style of the developed nations is either directly or indirectly responsible for much of the world's environmental woes. In the undeveloped nations, where people are forced to choose between environmental degradation or starvation, overpopulation has led to much of the localized deforestation and desertification of land. But in the developed world where the average person daily consumes the energy equivalent of a sperm whale (200,000), we have lots of options for change.

So, what does all of this have to do with the Blackwater Canyon? Well, everything, including biodiversity, ecosystem integrity, clean air, clean water, sustainability and even economics. If we believe that by providing conservation measures only for the remaining tracts of pristine lands, or those with the most unique and threatened species, that we are doing all that we can for the environment, then we are not thinking long-term, nor are we truly thinking ecologically. The Blackwater Canyon is

only one of thousands, perhaps a million such threads of the environmental tapestry about to be compromised by timbering, mining or development. This fact, is all the more reason for its inclusion in the protected areas, to serve a bio-reserve function. A function that may become the most important role of State/National Parks and the National Forests.

It is the few thousands of common species of bacteria, fungi, insects, plants and other animals which drive the biological engine of the earth's life-support systems. The very breath of the oceans and soils which maintains the cycling of carbon, oxygen, nitrogen and other vital elements, is tied to these species. Which of them are the most important, well, we do not know? To what degree, and how often we disturb soils, forests and impact stream quality before we do irreparable harm to ecosystems, is not entirely understood either?

Timbering the Blackwater Canyon will not as some people think, "destroy it."

The *Best Management Practices* being implemented by the timber company which purchased the land will minimize impacts. But, timbering the canyon will compromise the biological integrity of the canyon and possibly the lands adjoining it. It will impact the burgeoning ecotourism opportunities that would provide a more sustainable income for the local economy.

Effects of the environmental destruction which occurred 100 years ago seem to be all but gone. The large trees and copious wildflowers are a testament that the forest is healthy and diverse. But how healthy and how diverse in comparison to what it once was? We do not know. Species of animals like the snowshoe hare, fisher, cheat mountain salamander, northern-flying squirrel and the Indiana bat are all threatened. If the broad expanse of revolving red spruce/northern hardwoods habitat extending across the canyon from Canaan Mountain to Backbone Mountain, were left to further mature, it may provide a suitable habitat for these species and more, to thrive in again.

Large tracts of ecosystems need to remain uninterrupted, in order to maintain genetically diverse and healthy populations and to provide adequate buffers for populations. Every new opening provides opportunities for invasive-exotics to move in and squeeze out the native vegetation. Every new road compacts soil, and every tree cut down exposes soil to the drying effects of the sun and wind. Timbering large tracts of land and constructing roads through them reduces wildlife habitat. The Blackwater Canyon is not an isolated entity, unconnected to the forests on the plateau regions on either side. The canyon is an integral part of the whole uplands ecosystem. Every disturbance or fragmentation of a habitat, runs the risk of placing yet another species on the threatened list.

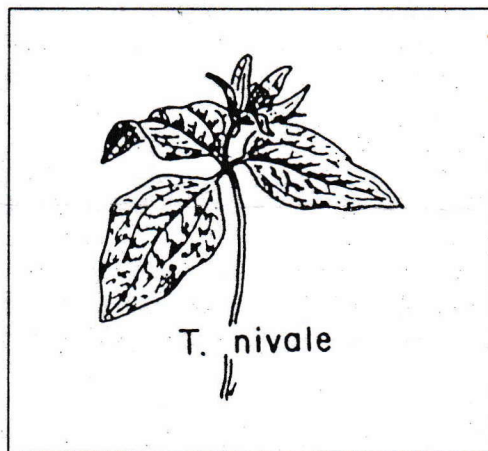
Protecting the Blackwater Canyon is more about sustainability and a healthy ecosystem - in the long term, than about forestry issues, private land owner rights or recreation wants. World-wide, economists

are calculating much higher monetary values for standing forests than for the same forest calculated as board feet. When we really consider the potential impacts of climate change, the accumulation of toxic wastes and the out-of-control population growth of people and "sperm whales," conservation of significant parcels of farmland and forested land like the Blackwater canyon should become a priority.

West Virginia taxpayers have already spent over a million dollars

to restore the Blackwater River in the canyon for trout fishing. Blackwater River is compromised even in its headwaters where the State Park and Private Ski Resorts draw water from the river for the skiing operations. Sewage from the condo developments make it questionable as to whether fish caught in Canaan Valley should be eaten. There is no good excuse for adding one more injury to an ecosystem so far on the mend. Imagine, a day when the falls in Blackwater Falls State Park have to be artificially "turned on" for the tourist season.

Please, let the Supreme Court Justices hear from you and where you stand on this issue. Yes, it's just one of many battles to be waged to protect ourselves against our own progress, against the whales we have all become. If necessary, let Mr. Crites have his Lindy Point, there are lots of views in the area. But,



we need a big cushion of trees and clean water and wildlife around us. How much longer will we compromise our landscape and our own health for things like disposable chopsticks, disposable newspapers and miles of backyard decks?

The editor.

MAN, LOOK AT THAT DOLL'S EYES

By: Barry Glick

Plants have eyes. Well, some of them do. You don't have to stretch your imagination too far to understand why *Actea pachypoda* is referred to as Doll's Eyes. The fluffy-white fragrant flowers of early spring, are magically metamorphosed by early autumn into huge alabaster white berries with black dots at each end. Each berry sits proudly on a thick red pedicel or stem. They're displayed at the terminus of each stem in erect clusters of about 30-40 berries and really do look like a dolls eyes. Another common name for these easy to grow woodland treasures is baneberry. That moniker refers to the fact that they, like so many other plants in the buttercup family are extremely poisonous if ingested.



ORNITHOGALUM
pyrenaicum

If you happen to get Excedrin headache number 33 while you are out for a hike in the wilderness and you forgot your over-the-counter pain reliever, worry not! For you may be right smack dab in the middle of

nature's pharmacy. *Gaultheria procumbens*, commonly known as wintergreen or teaberry is a natural source of salicylic acid or the compound from which aspirin is derived. Just chewing a few of its tasty, supple leaves will not only remind you of wintergreen lifesavers, but will take your headache away post haste. If you like to drink tea, collect a pocketful of leaves and let them dry. They make a great tasting tea and impart their medicinal benefits to you for years to come, if stored in a tightly sealed jar after drying.

Now that all of the spring and summer plants have died back and there is little to see on the forest floor, a few outstanding plants stand out in full view. *Chimaphila maculata* (spotted wintergreen) has wildly silvered evergreen foliage that has deep serrations on the edges. It can be found emerging from leaf litter in dry woods. The name comes from

the Greek words cheima meaning winter and philein meaning to love.

Look for big dark purple berries on *Caulophyllum thalictroides* or blue cohosh. They are about the same size and shape as the edible cultivated high bush blueberry that you buy in the store. They are not edible but they will produce a charming woodland plant if you sow them in a pot.

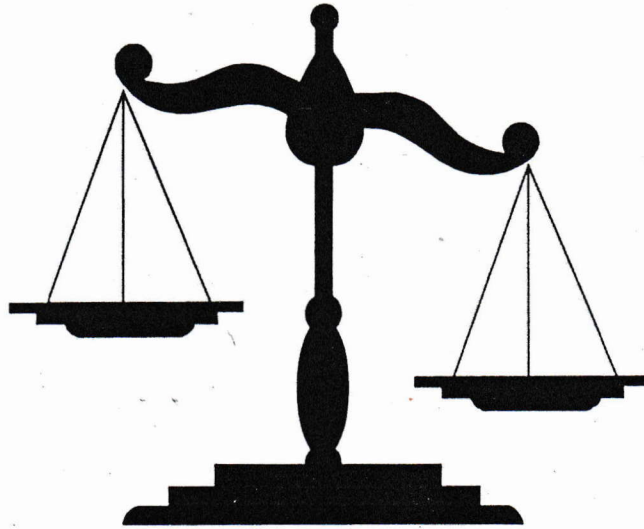
Reddish-orange fruits can mean that you have stumbled across a specimen of *Disporum languinosum* an interesting plant in the lily family, an easy plant to grow from seed. It can grow up to 36 inches and makes an outstanding specimen plant in the garden. I've heard it referred to as nodding mandarin due to the pendulous nature of the flowers.

Medeola virginiana berries are looking black as they form a nice contrast with the yellowing leaves. The roots of Indian cucumber root really does taste like cucumbers. However, it is a very labor-intensive activity as the roots are so small. It is much better to leave them in the ground and enjoy looking at them.

Stumbled across something quite interesting on the road home on Sunday. As I was scouring the roadbank for *Asclepias tuberosa* (butterfly weed) seed pods, I found an interesting small tree about six feet tall. There was nothing really remarkable about the bark or the yellowing leaves, but hanging pendulously from every branch were the coolest pink four-winged seed capsules with red berries. I collected the capsules and called my friend Peter as soon as I got home. Due to my inherent lazy side, he saves me the trouble of having to try and look new finds up in the books. Well, I struck out there as he, like myself, is more attuned to herbaceous perennials. So I called in the world famous plant explorer and naturalist, Fred Fromhart of Green Bank, WV. Fred was out changing the water in his bird baths when my call came in, but his lovely wife Joanne, pulled him away from his arduous task. Before I could get halfway through the description, Freddie exclaimed WAHOO! I mistook his seeming excitement as a sign that I had discovered something really rare that he had been looking for all of his life but what he was exclaiming was the common name for *Euonymus atropurpureus*. Looks like a plant with a lot of promise as a garden shrub, I'll keep you posted.

One of the most brilliant fall foliage colors in the woods belongs to a plant that everyone is familiar with and has probably had contact with at some point in their life, *Rhus radicans* or poison ivy. What a misnomer, as believe it or not, it's a climbing sumac and not an ivy. A related species that is more of a shrub or small tree than a vining plant is *Rhus vernix* or poison sumac. I've never seen it so I can't comment on its autumn color.

You can contact Barry on the internet where he edits THE CYBER-PLANTSMAN, a free internet on-line magazine for serious gardeners at <http://www.gardenweb.com/sunshine>



slate. There are no weeds, but also absent are the bacteria and fungi necessary to good plant growth. In revegetation work, I prefer techniques that allow the survival of seed and seedlings inoculated with



these organisms. I prefer plants that draw in animal carriers of them and/or native plant seed. Plants that help justify the cost of going back to a site are useful. (A few examples are:

Turnips sown in late summer can provide quick cover to protect slow, weak seedlings. Turnips are eaten by turkey when young. Because turnips are freeze tolerant to maybe 20 degrees F, they are like a fresh salad to deer and bear after fall frosts. Some equipment and methods useful for planting nitrogen fixing nurse crop plants from cowpeas to winter peas and hairy vetch (their seed are destroyed in a hydroseeder) allow for successful growth of black cherry seed. If I can't eat it or the animals can't eat it, then my interest in planting it is limited. When regulatory intransigence discourages the growing of more useful plants for man and/or our native wildlife, then that is something worth getting upset about.

MINE RECLAMATION AND... NATIVE PLANTS

By: Lawrence Beckerle

From all the hoopla, one might think that the biggest threat to our environment is from mining, when in reality a more serious threat may be the continued introduction of non native invasive species. Instead of lawsuits over what regulators allow, I would like to see a lawsuit over what they in effect don't allow. The argument to put the hills back where the hills were and the valleys back where the valleys were, is a value judgement. I believe it is a philosophy that is destructive both to our economy and the environment. I am troubled by how advocates ignore the impacts of approximate original contour (A.O.C.) on water infiltration, land productivity, and in-stream erosion; and lend their support to regulatory methods that prevent solving environmental issues. I prefer a philosophy of: lower the hills, raise the valleys, and common sense solutions to environmental problems to make land more productive.

Regulators now require the burning or burying of tree stumps and other woody debris, so all the living forest topsoil entwined with the tree roots is destroyed. Without this living layer there is no root sprout or stump sprout regeneration of trees, shrubs, or native forbs. Thus, one starts out with a clean

Instead of one planting plan for an entire permit, coal operators should be allowed at least four different plans to go with the natural plantings times in a year. Shotgun mixes negate the advantages of using certain species. Why can't operators have a few acres of just strawberries and crimson clover on the gentler land of each permit or plots for growing medicinal plants? Why can't they have a few 50 ft. wide strips of pure sweet clover to provide escape cover for turkey chicks. They can readily move under a sweet clover stand unlike some of their predators. While animals thrive with a diversity of food and cover types, agency regulators thrive on being rigid.

Approximate original contour laws and regulations were instituted in large part to force coal companies to back fill ugly highwalls. If there is no highwall to

back fill, in a sense there is no legal reason to.... put the hills back where the hills were and the valleys back where the valleys were. It isn't very practical to put things back that way either for economic or environmental considerations. To put a steep hill or mountain back where it was, is to engage in an optical illusion. Loose rock and dirt are not as stable as a solid rock mountain with an icing of topsoil anchored by a forest of trees. A.O.C. hills are not very supportive of our native forest vegetation, tend to erode more, and are generally useless except for the four wheelers and mountain bikers who run up and down these hills.

The fact that coal companies have to put back such steep slopes, causes them to be overly dependent on hydroseeding and hay mulching techniques. While these techniques are useful for growing some grasses, they are not tree friendly. Regulators make the problem worse by requiring the same heavy mulch and thick grass cover on gentle sloping land as on steep hillsides. Regulatory dictates and preferences are the leading cause of why (except for locust and a few pines) non native species are the rule instead of the exception in reclamation plantings. There is little incentive and often a severe penalty for coal companies to use techniques that result in the growing of native and/or more productive species. Thus, living mulch techniques such as . . . broken ground sowing of a cover crop within days or just hours of the last bulldozer tracks, nurse cropping, and relay cropping are only rarely used.

The overall emphasis on green rather than quality, results in introductions of non native invasive species that are silent, deadly threats to our native plants and the animals that need them for survival. But the real culprits here are the home owners and other folks that are still growing wineberry and similar plants that are invasive away from the lawn mower, garden plows and rototillers.

ANNUAL MEETING REPORT

By: Bill Grafton

The head quarters of the 1998 annual meeting was the DNR Lanesville Cabin. This cabin was originally built as part of an old CCC Camp sitting at the western base of Dolly Sods in the historic Red Creek Valley.

The weekend got underway on Friday Evening, September 18 with a P. J. Harmon slide-lecture on Alien Plants. This artificial plant category includes invasives most likely to pose serious threats to our native plants. Believe it or not, nearly 30 % of all WV species are non-native. As people arrived during the evening, we had the chance to get acquainted with new members and visit with old friends.

People were up bright and early on Saturday morning for a full day of activities. During the morning, part of the group joined P. J. Harmon for a fall plant identification workshop. Others joined Bill Grafton for a field trip to some old fields and wetlands in the north end of Canaan Valley State Park. The most unusual plants seen were: Balsam fir, cottongrass, Nodding Ladies Tresses, Linear-leaved gentian and Yellow Bartonias.

During the afternoon, we attempted a trip to Dolly Sods. After a ¾ mile hike, thunderstorms forced a hasty retreat to the vehicles to avoid a heavy deluge of rain. Most of the group returned to Lanesville Cabin after 20 minutes of steady rain. Some plants seen on Dolly Sods were: Bog Clubmoss, Cottongrass, Round-leaved Sundew, Three-toothed Cinquefoil, Steeplebush, Canada St. John's-wort, Mountain Holly (Nemopanthus), Linear-leaved Gentian, Yellow Bartonias, Bog Goldenrod and Pearly Everlasting.

The annual meeting was chaired by President Steve Mace and included discussions of the following:

1. Ways to reduce postage during the next several years
2. ways to increase membership.
3. Newsletter schedule for 1999
4. Alien/exotic species
5. Election of 1999 officers and Board members

The always enthusiastic, Rodney Bartgis, (WV TNC) presented a creme de la creme slide program on the Smokehole Bioreserve to end the evening. Rodney discussed the ecology of the wonderfully biologically rich and unbelievably scenic area of Grant, Hardy, and Pendleton counties that includes North Fork and Cave Mountains and the Smokehole Canyon. Some of the rare plants discussed were Woolly Hudsonia, Red Pine, Lewis' Flax, Oak Fern, Rusty Woodsia Fern, Bristly Rose, Prairie Redroot, and Senecio plattensis. Along with these unique plants, the Smokehole is also home to the Peregrine falcon and bald eagle. We could all see the huge demands for

development of this very special bioserve and why we need to support protection of this scenic and unusual part of WV. Most of Rodney's information dealt with protection strategies, easements, land purchases, and stewardship for the Smokehole Bioserve.

The highlight of Sunday was a trip to privately owned wetlands in the southern portion of Canaan Valley. Ron Fortney (Professor at Salem-Teikyo Univ. and another enthusiastic naturalist) lead this trip. Rare or unusual plants seen by the group included: Marsh Fern, Cottongrass, *Carex rostrata*, *Carex folliculata*, Balsam Fir, Turk's Cap Lily, Meadowsweet, Mountain Holly (*Nemopanthus*), Marsh St. Johns-wort, Dwarf Cornel, Blue Vervain, Hobblerod and Highbush Cranberry.

THANKS TO ALL PARTICIPANTS, OFFICER/BOARD MEMBERS, FIELD TRIP LEADERS, WORKSHOP LEADERS, AND SPEAKERS FOR A SUCCESSFUL ANNUAL MEETING. THANKS ALSO TO JOHN NORTHEIMER AT CANAAN VALLEY STATE PARK FOR HIS HELP WITH FACILITIES.

FIELD TRIP TO McCLINTIC WILDLIFE STATION

by: Chris Gatens

On July 18, 1998 the Kanawha Valley and Tri-State Chapters combined forces and attempted to conquer the McClintic Wildlife Station in Mason County, WV. A group of fourteen dedicated members attempted to roast the elusive "Moth Man" but came up empty handed. All jesting aside, this group had a serious day of botanizing in and around the wetland areas of McClintic Wildlife Station.

The area supports a variety of habitats and several uncommon plants were found at the site. The group observed gray coneflower *Ratiba pinnata* in full bloom along a roadside and the location was first noted by the late Osbra L. Eye on July 21, 1971. Poison sumac, *Rhus vernix* was located growing around one of the many ponds located within the Wildlife Station. Water loosestrife, *Decodon verticillatus* was found growing around the perimeter of pond #10. I returned to the pond on August 19, and viewed the lavender-colored blooms in full splendor.

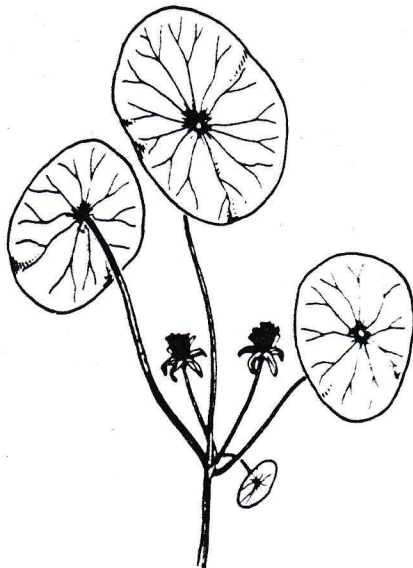
I would like to thank Steve Mace for leading the hike and sharing his knowledge of the area with the folks in the group. I also appreciate the efforts of Tri-State Chapter Romie Hughart for rounding up members of his chapter to join us at McClintic. For information about field trips with the Kanawha Valley Chapter call Chris Gatens at 304/458-2533. PS - *Homo lepidopteris* has not been found to date!

McCLINTIC WILDLIFE STATION PLANTS

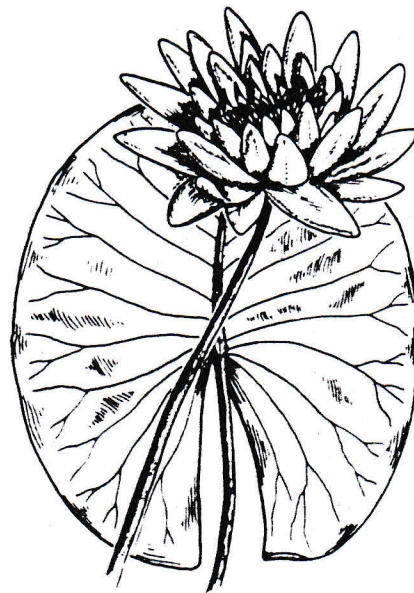
MINT FAMILY	LAMIACEAE
water horehound	<i>Lycopus americanus</i>
Virginia mountain mint	<i>Pycnanthemum virginianum</i>
American germander	<i>Teucrium canadense</i>
VERVAIN FAMILY	VERBENACEAE
white vervain	<i>Verbena urticifolia</i>
MILKWORT FAMILY	POLYGALACEAE
rose polygala	<i>Polygala sanguinea</i>
WATERLILY FAMILY	NUMPHACEAE
watershield	<i>Brasenia schreberi</i>
lotus lily	<i>Nelumbo nucifera</i>
ASTER FAMILY	ASTERACEAE
common Joe-Pye weed	<i>Eupatorium fistulosum</i>
gray coneflower	<i>Ratibida pinnata</i>
LOOSESTRIFE FAMILY	LYTHACEAE
water loosestrife	<i>Decodon verticillatus</i>
EVENING PRIMROSE FAMILY	ONAGRACEAE
seedbox	<i>Ludwigia alternifolia</i>
SAXIFRAGE FAMILY	SAXIFRAGACEAE
ditch stonecrop	<i>Penthorum sedoides</i>
DUCKWEED FAMILY	LEMNACEAE
greater duckweed	<i>Spirodela polyrhiza</i>
watermeal	<i>Wolffia punctata</i>
NETTLE FAMILY	URTICACEAE
false nettle	<i>Boehmeria cylindrica</i>

MALLOW FAMILY	MALVACEAE
swamp rose mallow	<i>Hibiscus moscheutos</i>
ARUM FAMILY	ARACEAE
sweet flag	<i>Acorus americanus</i>
skunk cabbage	<i>Symplocarpus foetidus</i>
BUCKWHEAT FAMILY	POLYGONACEAE
arrowleaf tearthumb	<i>Polygonum sagittatum</i>
CATTAIL FAMILY	TYPHACEAE
narrow-leaved cattail	<i>Typha angustifolia</i>
ROYAL FERN FAMILY	OSMUNDACEAE
cinnamon fern	<i>Osmunda cinnamomoea</i>
ADDER'S TONGUE FAMILY	OPHIOGLACEAE
adder's tongue	<i>Ophioglossum vulgatum</i>
FERN FAMILY	POLYPODIACEAE
sensitive fern	<i>Onoclea sensibilis</i>
LIZARD'S TAIL FAMILY	SAURACEAE
Lizard's tail	<i>Saururus cernuus</i>
WATER PLANTAIN FAMILY	ALISMATACEAE
common water plantain	<i>Alisma subcordatum</i>
EVENING PRIMROSE FAMILY	ONAGRACEAE
primrose willow	
SALVINIA FAMILY	SALVINIACEAE
mosquito fern	<i>Azolla caroliniana</i>
BEECH FAMILY	FACAGCEAE
pin oak	<i>Quercus palustris</i>
shingle oak	<i>Quercus</i>

	<i>imbricaria</i>
southern red oak	<i>Quercus fulcata</i>
ROSE FAMILY	ROSACEAE
swamp rose	<i>Rosa palustris</i>
steplebush	<i>Spiraea tomentosa</i>
white avens	<i>Geum canadense</i>
ST. JOHN' SWORT FAMILY	GUTTIFERAE
dotted St. Johns wort	<i>Hypericum punctatum</i>
small-flowered St. Johns wort	<i>Hypericum mutilum</i>
MILKWEED FAMILY	ASCLEPIADACEAE
green milkweed	<i>Asclepias hirtella</i>
swamp milkweed	<i>Asclepias incarnata</i>
CASHEW FAMILY	ANACARDIACEAE
poison sumac	<i>Rhus vernix</i>
ORCHID FAMILY	ORCHIDACEAE
ragged-fringed orchid	<i>Platenthera lacera</i>
FIGWORT FAMILY	SCROPHULARIACEAE
common monkey flower	<i>Mimulus ringens</i>
DOGWOOD FAMILY	CORNACEAE
kinnikinnik	<i>Cornus Ammomum</i>
CROWFOOT FAMILY	RANUNCULACEAE
marsh marigold	<i>Caltha palustris</i>
HONEYSUCKLE FAMILY	CAPRIFOLIACEAE
smooth arrowwood	<i>Viburnum recognitum</i>



BRASENIA schreberi



NYPHAEA odorata

TRI-STATE CHAPTER FIELD TRIP

Members of the Tri-State Chapter have concentrated much of their botanizing in western-Kentucky, just across from Huntington. The ecosystem type is similar to that on the West Virginia side of the Appalachian foothill region. A group of six members including Romie Hughart, Jean Gang, Gale Hammond, Richard Thompson and Mary and Pat Anderson also worked in the Yatesville Wildlife Management Area in Kentucky. A plant list is available for anyone interested.

Tycoon Lake State Wildlife Area Plant List, Rio Grande, Ohio May16, 1998

<i>OAK FOREST, WITH BEECH-MAPLES</i>			
COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Ginseng	<i>Panax Quinquefolius</i>	Putty root	<i>Aplectrum hyemale</i>
Showy orchis	<i>Orchis spectabilis</i>	Waterleaf	<i>Hydrophyllum macrophyllum</i>
Solomon plume	<i>Smilacina racemosa</i>	May apple	<i>Podophyllum peltatum</i>
Large flowered trillium	<i>Trillium grandiflorum</i>	Yellow buckeye	<i>Aesculus octandra</i>
Jack-in-the-Pulpit	<i>Arisaema triphyllum</i>	Tall white violet	<i>Viola canadensis</i>
Green violet	<i>Hybanthus concolor</i>	Black cohosh	<i>Cimicifuga racemosa</i>
Sweet Cicely, hairy	<i>Osmorhiza claytoni</i>	Bedstraw, common	<i>Galium aparine</i>
Bedstraw, four-leaved	<i>Galium circaezans</i>	Bloodroot	<i>Sanguinaria canadensis</i>
Wild ginger	<i>Asarum canadense</i>	Jewelweed	<i>Impatiens capensis</i>
Pokeweed	<i>Phytolacca americana</i>	Nettle, stingless or false	<i>Boehmeria cylindrica</i>
Rattlesnake fern	<i>Botrychium virginianum</i>	Maidenhar fern	<i>Adiantum pedatum</i>
Christmas fern	<i>Polystichum acrostichoides</i>	Black cohosh	<i>Cimicifuga racemosa</i>
Black snakeroot	<i>Sanicula canadensis</i>	Lady's thumb	<i>Polygonum persicaria</i>
Summer grape	<i>Vitis aestivalis</i>	Virginia creeper	<i>Parthenocissus quinquefolia</i>
Glade fern	<i>Athyrium pycnocarpon</i>	Poison ivy	<i>Rhus radicans</i>
Beech fern, broad	<i>Thelypteris hexagonoptera</i>	Dryopteris spp	
Rue anemone	<i>Anemonella thalictroides</i>	Sweet cicely, smooth	<i>Osmorhiza longistylis</i>
Moonseed	<i>Menispermum canadense</i>	Netted chain-fern	<i>Woodwardia areolata</i>
<i>WOOD EDGE, FADING INTO MARSHY WETLAND</i>			
Sensitive fern	<i>Onoclea sensibilis</i>	Stonecrop	<i>Sedum ternatum</i>
Blunt-lobed woodsia	<i>Woodsia obtusa</i>	Passion flower	<i>Passiflora lutea</i>
Dewberry	<i>Rubus spp.</i>		
<i>DISTURBED AREA; RECENT EARTH MOVING</i>			
Multiflora rose	<i>Rosa multiflora</i>	Ground ivy	<i>Glechoma hederacea</i>
Mouse-ear chickweed	<i>Cerastium vulgatum</i>		
<i>MOIST MEADOW INTERLUDE, WEST SIDE OF THE ROAD - MOIST, EAST SIDE - DRY</i>			
Hackberry	<i>Celtis occidentalis</i>	Wire grass	<i>Juncus tenuis</i>
Pawpaw	<i>Asimina triloba</i>	Spicebush	<i>Lindera benzoin</i>
Vetch	<i>Vicia dasycarpa</i>	Lesser stitchwort	<i>Stellaria graminea</i>
Butterfly weed	<i>Asclepias tuberosa</i>	Tick trefoil	<i>Desmodium paniculatum</i>
Sweetgum	<i>Liquidamber styraciflua</i>	Dogwood	<i>Cornus florida</i>
Sow-thistle	<i>Sonchus sp.</i>	Rose, native	<i>Rosa carolina</i>
Climbing bittersweet	<i>Celastrus scandens</i>	Long-leaved bluets	<i>Houstonia longifolia</i>
Riverbank grape	<i>Vitis riparia</i>	Evening primrose	<i>Oenothera biennis</i>
Ragwort	<i>Senecio anonymus (Smallii)</i>	Venus' Looking-glass	<i>Specularia perfoliata</i>
Speedwell, common	<i>Veronica officinalis</i>	King devil	<i>Hieracium pratense</i>
Yellow bedstraw	<i>Gallium verum</i>	Common violet	<i>Viola papilionacea</i>

New England Wild Flower Society sells more than 200 varieties

Grow Familiar or Unusual Wildflowers From Seed

Wildflowers enhance home landscapes with brilliant colors, unusual forms, and interesting textures. Gardeners will find seeds or spores of more than 200 varieties of flowers and ferns for sale in the *1999 Seed and Book Catalogue* of the New England Wild Flower Society.

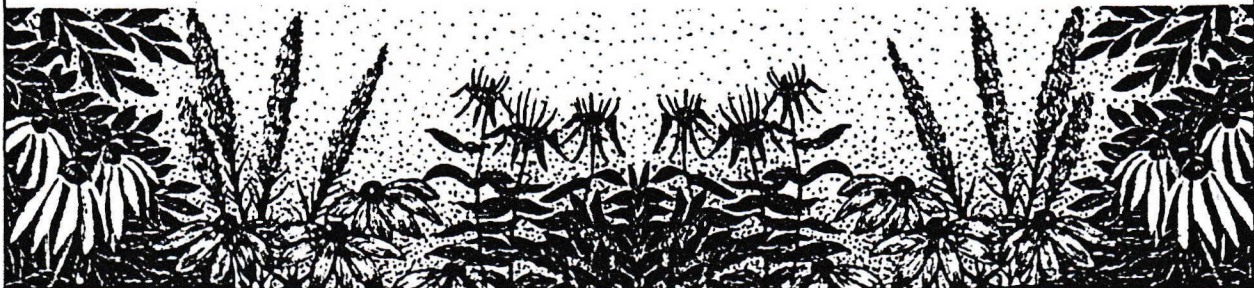
Included are natives for woodlands, wetlands, and meadow gardens. Spring blooming wildflowers add color to shade gardens, while sun-loving varieties splash vibrant hues across summer borders or along pond shores. Once established, perennial wildflowers bloom for many years.

The wide choice of seeds offers an economical way to obtain wildflowers and an opportunity for novices and experienced gardeners alike to grow native plants not usually available from nurseries. Many easy-to-grow varieties such as Jack-in-the-Pulpit (*Arisaema triphyllum*), Black-eyed Susan (*Rudbeckia* sp.), Cardinal Flower (*Lobelia cardinalis*), Blazing-star (*Liatris* sp.), and Rose Mallows (*Hibiscus moscheutos*) are ideal for first-time propagators. For more experienced gardeners, trilliums, ferns, gentians, pitcher plants, or native species of rhododendrons will be challenging.

In response to numerous requests, this year's *Catalogue* will offer four different meadow mixes--a New England seed mix for general growing conditions, a mix for dry conditions, one for moist conditions, and a tall grass mix.

Requests for the *1999 Seed and Book Catalogue* must be received by March 1 and seed sales end on March 15. Seed requests are filled in the order received, but some seeds are in limited supply. Order early for best selection.

To obtain the *1999 Seed and Book Catalogue*, please send \$2.50 to Seeds, New England Wild Flower Society, Garden in the Woods, 180 Hemenway Road, Framingham, MA 01701.



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COUPON**

Please sign me up as a member of WVNPS!

Name(s) _____

Phone: (h) _____

Address _____

(w) _____

Membership Dues:

Individual or Family (membership for all members of a household): \$12

Student \$8 Life (membership for all members of a household): \$200

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

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**



Judy Dumke
7302 County Road #15
Chesapeake, OH 45619

