NATIVE



NOTES

WEST VIRGINIA NATIVE PLANT SOCIETY

Volume 5, Number 1

June, 1998

LETTER FROM THE EDITOR

It would seem that the issue of invasive alien plants is not going away. As you will discover in the succeeding articles, invasive plants are no longer just an ecosystem problem, invasive alien species are posing threats to people and their activities. There seems to be a growing concern that will hopefully, unite people with different values and interests in West Virginia's landscape, to organize themselves into one problem-solving body to tackle this issue.

When biologists first take note of changes in the ecosystem, society-at-large is usually not too interested. In fact, a segment of society always insists "there is no problem." However, when the changes begin to affect them, people become interested. Biologists and naturalists know that when noticeable changes are observed in the ecosystem, it is just a matter of time before "the ripple effect" cause these changes to impact human communities.

On a recent WV Native Plant Society hike through a wetland in Canaan Valley State Park, we were both impressed and repulsed at the dense colonies of yellow iris, a beautiful non-native species. Numerous populations have appeared in wetlands and in wet ditches along roadsides throughout West Virginia, within the last two years. The native sedges and rushes woven into the fabric of our wetlands provide valuable food and cover for wildlife. It would seem that this plant has no natural insect pests or competitors. What will be the consequence to wildlife which depend on the native sedges and rushes for food and cover if the expansion of this species is left unchecked?

When invasive alien plants replace most of the native species in a community, more is at stake than just the plants. The whole biological community including the insects, amphibians, reptiles and mammals associated with that community and interdependent upon the plants may disappear as well. We may need a Native Plant Society Task Force to garner volunteers to go

into places like the Canaan wetlands, to physically remove invasive alien populations before they completely take over a native plant community.

OH DEER!

During a recent conversation with Ken Spence, editor of the West Virginia Farm Bueau News, the subject of deer damage came up. Ken has been listening to naturalists, scientists and farmers across the state who repeatedly relate their observations and concerns about the decimation of our state's native flora due to overgrazing by the abundant deer herd. Ken suggested devising a means to emphatically get this message to the forefront of the legislature, to initiate some action.

If a committee of the state's top botanists and ecologists were to draw up a draft statement addressing specific concerns and observations relative to this issue, to be submitted to the state legislature and to the Wildlife Division of DNR, would you sign it? I know that many of you have probably been thinking of writing your own, or may already have.

This is another complex environmental problem with no easy solutions, but one that is reaching the critical stage. Like most wide-ranging environmental problems, it may be a challenge to find suitable solutions with the diverse-conflicting interests and values involved. But I believe that we are at a point where the majority of those affected have one point of view - Caution! Current deer populations are hazardous to our economic, physical and ecosystem health. REDUCE THE DEER HERD, NOW!

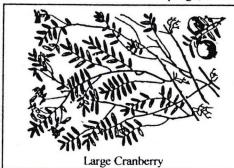
Please send me a copy of your field trip notes. We are keeping a file of the species lists for future reference.

Send newsletter items and inquiries to:
Emily Grafton, Editor WVNPS
456, West Virginia Ave.
Morgantown, WV 26505
Address all other inquiries to the Corresponding
Secretary; address on the front of the newsletter.

WVNPS ANUUAL MEETING September 18-20, 1998 - CANAAN VALLEY

If the weather cooperates we shall be in one of West Virginia's prime botanical wonderlands. Our main headquarters will be the DNR cabin at Laneville. We have the use of a larger meeting room at Canaan Valley State Park for the annual meeting and the

Saturday evening program.
The weekend will open at 7:00 PM, Friday, at the Laneville Cabin with a social and slide program on Invasive Plants.
P.J. Harmon will bring his guitar to liven the evening with music; all singers, other musicians and spectators invited.



There will be at least two concurrent workshops and. hikes on Saturday. P.J. will offer a Plant ID workshop. We plan to do some intensive wetland botanizing in areas of Canaan Valley. We hope to increase the knowledge about the plants in certain wetlands in Canaan Valley State Park. Some of the interesting rare plants that we will search for includes balsam fir, (Abies balsamea), glaucous willow (Salix discolor), (Viburnum trilobum), nannyberry (Viburnum lentago), alder-leaved buckthorn (Rhamnus alnifolia), glade spurge (Euphorbia purpurea), queen ladies slipper (Cypripedium reginae), swamp saxifrage (Saxifraga pennsylvanica), purple avens (Geum rivale), Jacob's ladder (Polemonium vanbruniae), oak fern (Gymnocarpium dryopteris), vervain thoroughwort (Eupatorium pilosum), sweetscented Indian-plantain (Cacalia sauveolens), wood horsetail, and we hope to be dazzled by the bright-red berries of the highbush cranberry.

Asters, goldenrods and cottongrass will be at their prime. The cranberries should be ripe and even a few blueberries may still be clinging to the bushes.

If folks are interested, field trips may be organized to Dolly Sods. Rare or unusual plants to look for there, include small cranberry (Vaccinium oxycoccus), oceanorus (Zigadenis leimanthoides), three-toothed cinquefoil (Potentilla tridentata), bleeding heart (Dicentra exima), dwarf cornel (Cornus canadensis), northern stitchwort (Stellaria calycantha), rose azalea (Rhododendron roseum), sundew (Drosera rotundifolia) and goldthread (Coptis groenlandica). Mountain ash (Pyrus americana) will be in all its glory

with the orange berries fully matured. Crinkle grass and Danthonia grasses will be waving in the perennial breeze. The Bird Banding Station will be open from 6:00 AM until 12:00 PM both mornings.

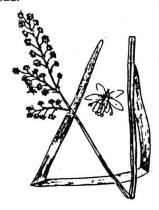
The Saturday evening program will be presented at 8:00 PM by West Virginia's own superb naturalist, Rodney Bartgis. Rodney is currently with the West Virginia Chapter of The Nature Conservancy. The program will be on the exciting discoveries in the

Smokehole/Northfork/Cave Mountain Bioreserve.

The annual meeting will be held from 6:30 to 8:00 PM, Saturday evening just before the program. We will be discussing a possible small increase in the dues. The costs of maintaining the organization have caught up with the amount of revenue coming in. The board has considered raising the

dues structure so that both a family and an individual membership be \$12.00. Many folks with individual memberships include members of their families on outings anyway. If you have some comment or concern, please attend the meeting and voice your opinion. Remember, next years officers will be voted on at the annual meeting.

There are ten beds available in Laneville cabin on a first come, first serve basis. One bed is already reserved for Rodney. There is room for one or two tents beside the cabin, and for those more adventurous souls, free camping is available in the wilderness area just up the road.



OCEANORUS

There will be a registration fee of \$4.00 per person to cover the Friday evening social and a Saturday lunch. You are on your own for all other meals. Cooking facilities and a refrigerator are available in the

Laneville Cabin. Please send your registration fee and the names of those attending to: Bill & Emily Grafton, 456 West Virginia Avenue, Morgantown, WV, 26505, or call 304/292-0229 or 304/293-4797 x 2493 for more information. We would appreciate knowing how many will be attending by Wednesday, September 16, in order to have an adequate amount of food for Friday evening and Saturday lunch.

There are several motels and bed & breakfast establishments in the local area. Contact the Tucker County Convention and Visitors Bureau at 1/800-782-2775, or WV Tourism 1/800-callwva for phone numbers and locations.

BOTANIZING WHILE RECUPERATINGBy: Bill Grafton

On my first trip across town after a mild heart attack (May 10th), I realized the expanding diversity present in my hometown. A major "university" town is filled with lots of international personalities, almost any profession, numerous hobbies with enthusiastic supporters, restaurants representing most areas of the world, and "cosmopolitan" plants.

The first plant to catch my eye was the Amur honeysuckle in full bloom (named after the Amur River that separates parts of Eastern Russia and China). The honeysuckle was rare 20 years ago, but is now very common throughout Morgantown. There were also numerous Norway maples which have escaped from yard trees. They were loaded with seeds waiting to become our next generation of American urban forests. On the old rock walls and steps of the hillside were the dark green vines of English Ivy. The hill was formerly kept in

grass but now is in brush and trees to shield homes from the noise of a busy 4-lane road that speeds people in and out of town.

We had barely gotten onto the 4-lane University Avenue when I remembered finding lots of beautiful hanging clumps of Chinese wisteria along the banks of the Monongahela River a few years ago. And in the old railroad yard ditches (now Caperton Rail Trail), is a nice patch of an as yet unidentified exotic beakrush (Eleocharis spp.) from some unknown land. As we drove University Avenue, we passed the Mountain People's Coop (natural food store) where many have marveled at the Imperial Tree (Paulownia) with its huge hairy, heart-shaped leaves. Seeds of Imperial Tree were used to pack valuable and fragile goods from China and Japan. People kept the goods and tossed out the seeds. Now, you know the rest of the story!!

As we continued out Beechurst Avenue, we passed several Siberian elms (planted and escaping) at the old Catholic School complex. Where I used to watch Jerry West play basketball, is a parking lot now lined with Japanese knotweed. Next we passed the road to the old football stadium where Sam Huff and other notables thrilled the crowds. Standing guard on the roadbank were several white mulberries with their lacy, and very shiny leaves.

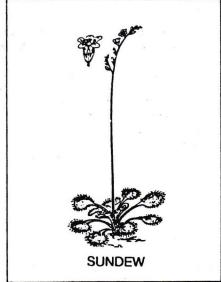
We next passed the "infamous" hillside on "Mon" Boulevard where huge boulders annually tumble down to threaten motorists. The hill is an exotic tangle of multiflora rose (Japan), Morrow's honeysuckle (Japan) and Tartarian honeysuckle (western Asia). There is also a dense clump of privet which I've looked at for 10 years. One day I'll climb up the steep bank and

collect a sample to identify. Many of the trees shading the hillside are Tree-of-heaven or Ailanthus, straight from the Orient where it is called Chinese Sumac.

It seemed best to return home by a different route. We were barely back on University Avenue when we saw vines of the Japanese Clematis, more Tree-of-heaven and Siberian elm. Closer to home we passed the old cemetery on Dorsey Avenue and there were last year's vines of kudzu reaching to the tops of the trees.

As we parked at home after this 6 mile trip it was surprising to note our neighbors forsythia (Eurasia) had become

completely overrun by Japanese honeysuckle during the past year. In our yard were the old stems of petunias that had grown from seeds that fell out of hanging baskets on the porch. Snapdragons were in full bloom in the concrete cracks between the house and the driveway. They had survived the winter. Was it El Nino? Will they survive another winter?



A fast look at the neighborhood revealed Norway spruce, Norway maple, burning bush, Japanese yew, yellow dayflower and peonies (all exotics). A large sycamore and a black walnut (native American trees!) almost seemed out of place.

I was tired, so I went to the back yard to sit on the deck and reflect on this massive invasion of foreign plants. At least here we have a small garden of native species. There are wild ginger, cinnamon fern, goldenseal, royal fern, ramps and Greek valerian (a native) in our tiny plot. We also planted smooth arrowwood, service berry, trembling aspen, flame azalea and green dragon. We do enjoy our little native paradise. But creeping over the rock wall from our neighbor is yellow stonecrop (Europe) and rose-of-Sharon (Asia) seeds germinate in every bare spot of soil along the rock wall and in the flower beds. A

bright yellow flower tells me the Indian Strawberry (India) is alive and well under the apple tree (Europe).

The competition between native and exotic is as fierce as the Olympics, and as exciting as the Sugar Bowl. However the spectators are few and there are no multi-million dollar contracts or commercials. Nearly 30

percent of our West Virginia plants are exotics. They are major players in the ecosystem. They battle for a place to grow. They have a major impact on what birds and animals are present.

And yes, there will be a final show someday, just as in Seinfeld, Cheers and Mash. Will the survivor be the mighty oak or a Tree-of-heaven?

THE WORLD'S PLANTS AT RISK

(From Common Ground: Conservation News from the Conservation Fund)

The first worldwide assessment of vascular plants paints a grim picture. One of every eight plant species is at risk of extinction. In the US, 29% of the nation's 16,000 plant species are threatened. On the tiny island of St. Helena, 41% of native plants could be

wiped out. In Jamaica, 22.5% are at risk. In Turkey, 21.7% are in jeopardy.

The major culprits are loss of habitat and the introduction of non-native plant species. "The ICUN Red List of Threatened Plants" (\$52.65), published by ICUN-The World Conservation Union, represents a 20-year research effort led in the US by The Nature Conservancy, National Museum of Natural History and New York Botanical Garden.

This first-ever assessment of plants, which takes its place alongside the "ICUN Red List for Threatened Animals," comes to a conclusion that is obvious but bears repeating: "Plants are the foundation of all life on earth, without which we cannot survive."

SILENT GREEN INVADERS

The WVNPS has a set of slides with a script on

to groups with some interest in the environment,

that this program is available for loan. We have

several members who are willing and qualified to

present the program. The program has beautiful

are natural plant communities and what are not.

identified. Contact P.J. Harmon at 304/637-0245

for more information.

slides and emphasizes the distinction between what

Several of the most problematic invasive plants are

Invasive Alien Plants. We need to get the word out

THREATEN **AGRICULTURE**

From: West Virginia Farm Bureau News

infestations to U.S. agriculture has escalated from around \$5 billion annually in the 1950s to \$15 billion annually in the 1990s, largely due to the introduction of non-native species. Growers are losing money both to yield

losses from increased weed competition and higher costs of controlling weeds, according to a soon-to-bepublished report.

The report, a joint effort of several agencies including the U.S. Department of Agriculture, the Department of Transportation and the Environmental Protection Agency, describes a "silent green invasion" of nonnative plants. With no natural enemies, these invasive species spread quickly through a new area, says Dr. Randy Westbrooks, national weed coordinator with USDA's Animal and Plant Health Inspection service and author of the report.

Non-native species may originate overseas, such as Kudzu or leafy spurge. But the term also covers species that move from region to region, Westbrooks says. The main problem is a growing and ever more mobile human population.

"Weed seeds can move from one area to another in contaminated crop seed or wool," Westbrooks says. "Or in soil sticking to vehicles or farm equipment."

"Controlling these alien species requires innovative strategies, relying first on prevention," says Dr. Elizabeth Churnesky, Director of Stewardship for the Nature Conservancy. "A successful program will need to include partnerships and cooperation at the federal, state and local levels."

Editors note: The agricultural problem has even greater potential impacts. The increased use of herbicides will no doubt impact human health and the health of other living organisms.

WADING INTO WETLANDS

By: Emily Grafton

One is never far from a source of water in West Virginia. Due to this abundance of water, and certain physical aspects of the landscape, the state has a rich



variety of wetlands.
Recently, the Army Corps
of Engineers wrote a
statement "muddying the
waters" on the definition of
wetlands, instead of
establishing better
guidelines on wetlands as
they had promised. It may
now be easier for
landowners to drain or fill

certain wetland areas which had previously come under some protection.

Due to the unique nature of wetland plants, we botanists find an excursion into a wetland to be an exciting opportunity. On the other hand, wetlands have not elicited a positive response from most members of the human race. Wetlands breed mosquitoes, they have posed barriers to the free movement of people, to agricultural and to highway construction. Since the days of the first settlers, wetlands have been drained, filled and considered to be "good for nothing," except trash dumps.

In spite of all the efforts to suppress and eradicate them, every county in the state supports a few wetlands. They vary in size from 2 to 2000 acres or more. During the past 20 years, the term wetlands has become a popular term due to media coverage of the increasing political, economic, cultural and ecological conflicts over the protection and preservation of wetlands.

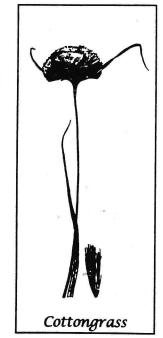
The United States Fish and Wildlife Service (FWS) basically defines wetlands as areas where the soil is saturated with water periodically throughout the year. Specifically, the FWS definition states "land where water is the dominate factor that determines the nature of soil development and the types of plant and animal communities living in the soil and on its surface." In West Virginia, most natural wetlands develop where the underlying rock layer prevents normal drainage of rainwater. Alluvial deposits adjacent to streams, or in abandoned stream channels also generate wetland habitats. Wetlands are also created when some physical barrier like a railroad bed, highway or beaver dam restricts water drainage.

Wetlands generally receive constant replenishment of nutrients from the water draining from surrounding land into them. They are usually highly productive in plant biomass and therefore able to support a diverse array of wildlife species. Wetland habitats have been found to play a valuable role in minimizing floods during heavy rains by absorbing and slowly releasing large volumes of water back into the water cycle.

Your definition of a wetland may reflect the kind of wetland habitat that you are most familiar with. Most wetlands in West Virginia can be categorized as either a swamp, bog, marsh or wet meadow. These four types differ primarily in the kinds of vegetation growing in them, and in the amount and duration of standing water at or near the surface throughout the year. There are a multitude of community types within each of these wetland categories, depending on

the diversity and types of plants which dominate the habitat.

Bogs are very special and unique wetland habitats that are restricted to the higher elevations of the state. A true bog is composed primarily of species of Sphagnum and Polytrichum mosses, lichens, sedges, rushes and scattered ferns and small shrubs, which grow on clumps of accumulated moss or peat. Bogs will be filled with water throughout much of the year, at or just below the surface.



Unlike most other wetlands, bogs are nutrient-poor environments The bog environment is very acidic due to the accumulation of partially decayed moss and lichen organic matter. Many bogs are situated in low lying headwaters of mountain streams or on poorly

drained upland plateaus. These areas also remain cooler than the surrounding landscape throughout the year. Typical plants associated with the mosses include cinnamon fern, interrupted fern, speckled alder, bog goldenrod, smooth alder, wild raisin, black chokeberry and glade St. Johnswort.

Bogs contain species of plants that are found more abundantly and more widespread at much higher latitudes. Many of these plants are separated by hundreds of miles from their nearest

relative including bog rosemary (Andromeda glaucophylla), gold thread (Coptis groenlandica), bog buckbean (Menyanthes trifoliata), round-leaved sundew (Drosera rotundifolia) and oceanorus to name a few. Dr. Maurice Brooks said that our bogs are much like the muskegs of Canada and further north.

White beakrush

Marshes are wetlands that are covered with water throughout the year. The water level may go up or down in response to changing rainfall patterns. Marshes are usually fed by rivers or larger streams. Marsh vegetation consists mainly of herbaceous plants. The roots of marsh vegetation are submerged; the upper portion of the plant may be submerged or emergent. Some species float on the waters surface. Typical marsh plants include species of duckweed, arrowhead, sedges, cattails, bladderworts, and pond lilies.

Swamps are wetlands composed primarily of woodystemmed plants like shrubs and trees. The soils of swamps are inundated seasonally from winter through spring. They may be fairly dry in the summer. Typical swamp species includes swamp white oak, black gum, red maple, willow, black ash, and buttonbush. Swamps are more frequent in the western hills section of the state in the Ohio River Valley and surrounding tributaries, except for the red spruce swamp forests occurring only at the highest elevations in the state.

A wet meadow is a habitat that is flooded only seasonally. The dominant vegetation includes sedges, grasses, cattails and a wide variety of herbaceous species. Wet meadows include habitats like the Beaver Farm in Barbour County, which has been studied by Eleanor Bush and Kathy Gregg for several years. This wet meadow supports an array of native orchid species.

There are many places where more than one type of wetland habitat exists. The 6,000 or so acres of wetlands in Canaan Valley are composed of all four wetland types. The swamps are composed of shrubs, primarily alder. These areas have been found to be rich in species diversity and to support many species of birds and other wildlife.

If you have a favorite wetland habitat that you have been monitoring and/or enjoying over the years, you may wish to check the status of the wetland in terms of what goals the landowner has for the area. We were

just getting to a point where many landowners were proud of the fact that a unique habitat existed on their land. When people show a deep interest and appreciation for something, that often influences the values and attitudes of others towards that entity, even if they regarded it negatively before.

Conservation easements would be a good way to keep wetlands as they are, and houses on less productive land. The Farmland Trust, The Nature Conservancy and the West Virginia Land Trust are organizations dedicated to preserving the natural diversity and productivity of our landscape. If there is a wetland you believe should be preserved, send the information to the WVNPS newsletter editor.

WILDFLOWER - NOT YOUR AVERAGE MAGAZINE

Wildflower is the premier magazine devoted to the study, conservation and cultivation of the native flora of the North American continent. This beautifully illustrated magazine provides information on wildflower gardening, ecosystem restoration, plant rescue, pollination biology, conservation of rare and common native plants, book reviews, original botanical art, native plant societies, wildflower photography, native plant seed sales and more!

If interested, the magazine subscription rate is \$30.00 per year or \$55.00 for two years. This magazine gives you your money's worth and more. To subscribe, write to *Wildflower*, Box 336, Postal Station F, Toronto, ON M4Y2L7. Payment by check or visa accepted. Payment is in US dollars.

NEWS FROM THE TRI-STATE CHAPTER

By: Romie Hughart

Saturday, June 18, members of the Tri-State Chapter of the WVNPS visited Lake Katherine State Nature Preserve located outside of Jackson, Ohio.

The main attraction was bigleaf magnolia (Magnolia acrophylla Michx.). It has the largest simple leaves of any native North American tree, reaching a size of 32" by 10". The leaves are lobed at the base and are hairy on the underside. This slow-growing, medium-sized magnolia grows in sheltered, damp-wooded ravines. Its large, showy and fragrant flowers are cup-shaped and cream-colored, with petals 6 to 8 inches long. The flowers are pollinated by beetles. The fruit is globe-shaped and hairy, with red seeds which dangle from the fruit by fine transparent threads when mature.

Bigleaf magnolia's primary range is across Mississippi and Alabama, with a scattered distribution in other southeastern states.

Those in attendance from the WVNPS were Mary and Pat Anderson, Kitty Bolen, Judy Dumke, Jean Higgins-Gang, Helen and Neal Gibbons, Gail Hammond, Romie Hughart, and Richard Thompson.

McCLINTIC WILDLIFE REFUGE FIELD TRIP

Co-sponsored by Tri-State and Kanawha Valley
Chapters of WVNPS

When: July 18, 1998 Time: 10:30 AM

Where: Meet at Camp Conly Mart/Exxon Station.

Directions: From Point Pleasant, take RT 62 north.

Go about two or three miles where you will see Camp

Conly Mart on the left.

Who: Call Romie for more information. Romie - 304/429-7358

WVU HERBARIUM UPDATE

By: Donna Ford-Werntz

A highlight of 1997 was the establishment of the Hannibal and Tyreeca Davis Herbarium Endowment. The fund is named for an amateur botanist husbandwife team (both mathematicians by profession) whose many and notable plant collections made a great contribution to the knowledge of West Virginia's

Flora. The endowment was founded by two of their children (Wayne Davis and Elizabeth Swiger) and will provide long-term support from interest revenue for general herbarium operations. It is indeed an honor to have such recognition of the facility's important teaching, research, and service activities, some of which are summarized below.

Herbarium utilization (specimens, plant presses, books, tours, etc.) for coursework, included students from six WVU classes and from three other institutions. The herbarium contributed to furthering botanical research by providing 13 loans (1,153 collections) and 27 label data requests to 18 West Virginia and 20 out of state users. There were 21 gifts of over 2,800 specimens and seven exchanges (823 collections received and 844 sent). The herbarium had 32 visits for on-site specimen consultations by nine local investigators, eight other West Virginia researchers, and five out-of-state users.

A proposal for the WV Flora Atlas Project was funded by the WVU Public Service Grant program, providing support for entry of herbarium specimen label information into the computer database by two half-time technicians. Four volunteer days were also held to help with organizational tasks. Together in 1997, the participants sorted updated nomenclature, and entered 30,677 records representing almost 1,600 species (nearly two-thirds of the state flora)! Collectors are encouraged to submit voucher specimens for missing county records (indicated in the draft atlas version distributed last year). Typed labels must be included with the sample form shown below on the next page.

In addition to teaching and research contributions, the herbarium offered important services by providing various types of plant information to the University community and general public throughout West Virginia. During the year, the curator was consulted for 63 plant identifications and for 68 other botanical inquiries, including 28 out-of-state and four international requests. General curation (mounting, filing, and accessioning) continued at a steady pace based on student and volunteer labor. In total, for the year there were about 1,300 specimens repaired or mounted, and 27,667 collections received, accession stamping and geographic tally. Additional staff (work study help, course credit interns, or volunteers) and/or financial contributions (to the general or endowment funds) are always welcome. Anyone interested in the possible opportunities, please call Dr. Donna Ford-Werntz at 304/293-5201 x 2549 or stop by Books Hall, Room 425 on the downtown campus.

SAMPLE LABEL

PLANTS OF WEST VIRGINIA

Genus species (variety, if applicable)
COUNTY: Locality (include elevation and geographic coordinates if known

HABITAT: wetland, oak forest, meadow, etc. (Collector Name (s)) (Collection Number) (Date) Ex. Donna Ford-Werntz # 823 6 April 1998

NATIVE PLANT SOCIETY FIELD TRIP TO OLSEN BOG - JUNE 21, 1998

By: Chris Gatens

On June 31, the WVNPS held a field trip at Olsen Bog (Big Run Bog) near Thomas, Tucker County, West Virginia. The field trip was led by P.J. Harmon and Steve Mace. Also present on the field trip were Neil and Helen Gibbons, Rick and Martha Gerse, Charles and Martha Oliver and Christopher Gatens. The field trip started at 9:00 AM and lasted until about 1:00 PM, on this sunny, 70 degree day. The following plants were seen. KUDOS TO ROMIE HUGHART FOR PLANNING AND ORGANIZING THIS EVENT AND THE WVNPS BOARD MEETING!

	Common Name
	Polypodiaceae
	Dennstaedtia punctilobula
	Thelypteris noveboracensis

Scientific Name Fern Family Hay-scented fern New York Fern

Yew Family

American Yew

Taxaceae Taxus canadensis

Pine Family
White Pine
Red spruce
Eastern hemlock

Pinaceae Pinus strobus Picea rubens Tsuga canadensis

Arum Family
Golden club

Araceae Orontium aquaticum

Quillwort Family
Quillwort

Isoetes engelmanni

Gentian Family
Bottle gentian
Buckbean

Gentianaceae Gentian andrewsii Menyanthes trifoliata

Honeysuckle

Caprifoliaceae Family Viburnum cassinoides

Wild raisin

Aquifoliaceae Ilex montana Ilex verticillata Nemopanthus mucronata

Holly Family
Mountain Holly
Winterberry
Wild holly

Corylaceae Betula lenta Betula alleghaniensis Hazel Family
Black birch
Yellow birch

Magnoliaceae Magnolia acuminata Liriodendron tulipifera

Magnolia Family
Cucumber magnolia
Yellow poplar

Cyperacèae Carex foliculata Carex rostrata Carex lurida

Sedge Family sedge sedge sedge

Orchid Family

Large-round-leaf

Orchidaceae Planthanthera orbiculata

Pogonia ophioglossoides Calopogon tuberosus Listeria cordata orchid Rose pogonia Grass pink Heart-leaved-

Saxifragaceae Parnassia usarifolia

Grass pink
Heart-leavedtwayblade
Saxifrage Family
Kidney leaf grass
of parnassus
Rose Family
Wild black cherry
Black chokecherry
Smooth serviceb.
Dewberry

Rosaceae Prunus serotina Pyrus melanocarpa Amelanchier laevis Rubus hispidus

Maple Family
Red maple
Striped maple
Sugar maple

Aceraceae Acer rubrum Acer pennsylvanicum Acer saccharum

Rhododendron maximum

Heath Family
Great laurel
Mountain Laurel
Lowbush blueberry
Large cranberry

Kalmia latifolia Vaccinium angustifolium Vaccinium macrocarpon

Ericaceae

Clubmoss Family
Bog clubmoss
Slender clubmoss
Shining clubmoss
Common clubmoss

Lycopodium inundatum Lycopodium tristachyum Lycopodium lucidulum Lycopodium clavatum

Royal Fern

Osmundaceae Family

Osmunda cinnamomea Cinnamon fern



Native Shrubs

...in wildlife landscaping

Published by

West Virginia Native Plant Society West Virginia Nongame Wildlife Program

BUTTONBUSH

Buttonbush - Cephalanthus occidentalis

Form: Shrub 3 to 9 feet tall. Coarse branching habit.

Bark: Twigs reddish-brown becoming grayish-brown.

Leaves: Deciduous, simple, opposite or occasionally in whorls of 3, 3 to 6 inches long.

Flowers: June-August. White, borne in showy round heads slightly over I inch in diameter.

Fruits: Dry seeds clustered in a head, greenish or red tinged in early autumn, disintegrating

as winter approaches.

WV RANGE: Probably in every county.

NATURAL HABITAT: Swamps and stream margins.

WILDLIFE USE:

Flowers attract bees, butterflies and moths. Deer browse the foliage and twigs. Ducks, especially the mallard, eat the seeds.

HORTICULTURE:

Uses: Shrub border and for naturalizing in wet sites. Light: Medium to full sun. Soil Moisture: Wet to moist. Soil pH: Acid to neutral. Problems: Short lived and loses its form after a few years and must be cut back to let resprout.

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Illustration from Flora of West Virginia, Strausbaugh and Core

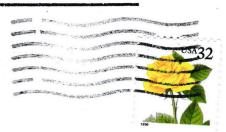
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