# NATIVE NEWS

*Newsletter of the Maryland Native Plant Society*

VOL. 6, NO 3 SUMMER 1998


THIS ISSUE



**The Maryland Native Plant Society**

(MNPS) is a non-profit organization that uses education, research and community service to increase the awareness and appreciation of native plants and their habitats, leading to their conservation and restoration. Membership is open to all who are interested in Maryland's native plants and their habitats, promoting Maryland's natural heritage, increasing their knowledge about native plants, and helping to further the Society's mission.

MNPS sponsors monthly meetings, workshops, field trips, and a fall conference.

Roderick Simpson-President

Carol Allen-Past Vice President

Linda Aronica-Second Vice President

Samuel Jones-Secretary

Charlotte Crawford-Treasurer

## LETTER FROM THE PRESIDENT

*Dear Members,*

*I am very pleased to announce that after years of hard work and through the efforts of thousands of individuals and nearly 100 organizations, Governor Glendening and the state of Maryland have made a commitment to purchase much of the exceptional Chapman Forest. Under this agreement, the state pledges 25.3 million dollars for 1,875 acres of the 2,250 acre site. The Conservation Fund has assumed the task of raising the additional 2 to 4 million dollars needed to purchase the remaining 375 acres. The official contract will be signed in early October.*

Getting to this stage was an uphill battle all the way, particularly because the Charles County commissioners and planners arbitrarily created a development district out of the ecologically sensitive Pomonkey and Mattawoman watersheds, of which Chapman Forest is an integral part. By making development the priority in an area, virtually all reasonable environmental concerns, like protecting dwindling *groundwater reserves or wildlife, are dismissed at the local level.*

*This isn't to say that other Maryland and Virginia counties aren't* overbuilding and allowing development in the wrong places. Clearly, regional planning that makes sense and adequately protects natural resources is largely absent from our region.

We still have a ways to go before Chapman Forest is fully preserved. The remaining 375 acres (forested land and wetlands along the Potomac River) need to be purchased from the developer and the entire 2,250 acres must be officially designated as a natural area or "wildlands" to ensure effective preservation of the site. The Charles County commissioners have already expressed plans for ballfields and other high-impact recreational uses for some of the property, and we all saw what happened to the Wilson Farm (now Cooke Stadium) that was *purchased with Open Space funds. Please call Governor Glendening's* office at (800) 811-8336 and ask that the state prevent ballfields and the *like on the property by designating Chapman Forest as a "wildland."* This is not free land for Charles County to play with! Tax dollars bought this property with the strict intention that it be set aside as a natural area.


Continued on page 15

# Myrtle Point Park
## An Opportunity for Preservation and Restoration

By John M. Parrish

In March 1998, the Maryland Native Plant Society (MNPS) began an inventory of the flora of Myrtle Point Park. Myrtle Point has varied habitats which provide an excellent opportunity to study natural succession at work. In the interest of fostering the "healing" and maturation of the ecological communities present, we suggest that the park be left almost entirely undeveloped. Given the rapid pace of land development locally, all that will be left of forested habitat is what we preserve and restore today.

During the first two weeks of March, a preliminary plant list was compiled based on site surveys of the park. Since the herbaceous flora had not yet emerged, an assessment of woody plants was the primary focus.

Some of the dominant woody species in the park include Virginia Pine, Loblolly, American Holly, Spanish Oak, and Sweet Gum. Red Cedar is abundant throughout the peninsula and occurs in magnificent, mature stands on the eastern side. Black Cherry, Black Locust, and Persimmon are also common, especially in areas that were formerly open fields. Some of these trees are quite old now and are being succeeded by *Sweetgum, Tulip Poplar, Red Maple,* and Spanish Oak. Common understory plants are *American Holly, Sassafras, Shining Sumac,* Dogwood, Black Haw Viburnum, and thorny Angelica-tree.

Several pockets of old, relatively undisturbed forest occur around the coves and at the periphery of the peninsula. Beech, Serviceberry, Mountain Laurel, Low and Highbush Blueberries, and Black Huckleberry grow here, along with several oak species not found elsewhere in the park. The youngest woods favor a mixture of Loblolly, Virginia Pine, Black Locust, Shining Sumac, Red Cedar, and Sweetgum, with a generous amount of the invasive Multiflora Rose and Japanese Honeysuckle. Areas in transition from old fields to young woods have the highest concentrations of invasive species. These exotics decline rapidly with each stage of forest succession. English Ivy is an exception. It can thrive as the forest matures. It is perhaps the biggest threat to native plant communities in Myrtle Point Park.


*"Conservation is a state of harmony between men and land."*
*-Aldo Leopold*

Two trees on Maryland's Rare, Threatened, and Endangered Plants list have been located at Myrtle Point. They are American Chestnut (*Castanea dentata*) and Chinquapin Oak (*Quercus muhlenbergii*). Chinquapin Oak is found in the northwest part of the park in a mesic site. Two of these trees were observed within a short distance of each other. The larger of the two is bearing acorns. Occurring with the Chinquapin Oaks were Dogwood, Red Maple, Spicebush, and Tulip Poplar. The Chinquapin Oak is ranked S-3, a "watchlist species" in Maryland. "Watchlist species" are considered rare to uncommon, but not as scarce as plants listed as "threatened" or "endangered." American Chestnut, also an S-3 "watchlist species," was found in the southwest part of the park. One healthy American Chestnut was observed on the southwest edge of the

**Myrtle Point Park** Continued on page 12

# WHY DEER MANAGEMENT IS IMPORTANT FOR NATIVE PLANT CONSERVATION

By William Bridgeland

Those of us concerned with native plant conservation are acutely aware of the precarious status of populations of many native plant species caused by a complex variety of factors, including human development of natural areas for agriculture and urbanization, invasive exotic plants, and pollution from artificial chemicals and excess nutrients. One of the other ecological consequences of the history of land use throughout much of the eastern United States is the overabundance of white-tailed deer. The term "overabundance" is currently applied to this traditionally highly valued animal to indicate that in some areas its population density has reached levels where problems such as deer-auto collisions, damage to ornamental plantings and crops, and correlated abundance of deer ticks are reaching intolerable levels.

However, the problem of particular concern to many is the effects overabundant deer can have on native plant communities. Deer are adaptable, generalist herbivores, which simply means that they will readily shift their diet to exploit available plant species. Plants that are the most nutritious and palatable are preferred, but the lack of those species will not limit deer population growth if less preferred, but nutritiously adequate plants are still available. As the deer population grows, preferred food plants can be completely eliminated from the landscape, resulting in lower plant species diversity. Other animal species that may depend on those missing plants will also disappear and continue a chain reaction of local extinctions. Habitat structure is also simplified, especially in forests where shade limits understory plant growth, as the low plants are removed by the deer, and animals such as ground nesting birds lose needed cover. In extreme cases, forest tree seedlings are all eaten and there is an interruption of forest regeneration. These ecological effects of deer overabundance are being documented throughout the eastern U.S. by researchers and are perhaps the most disturbing but least appreciated (by the general public) impacts. The most recent compilation of much of this research is in a special edition of the Wildlife Society Bulletin (Vol. 25(2)) issued in the summer of 1997.

Some people might reasonably ask why this is such a problem since white-tailed deer and our native plants have co-evolved for millenia. But there is compelling evidence that the current combination of conditions is unprecedented in the evolutionary history of our native communities. Overall deer numbers in the eastern U.S. are probably higher than ever before, primarily due to the massive changes in the landscape wrought by human activity in the last couple centuries. The current landscape, composed of early to middle successional plant communities, provides excellent cover and food for deer. In addition, the abundance of certain exotic plants (e.g. Japanese honeysuckle, meadow fescue, and many common ornamentals) provides improved winter forage for deer, allowing better winter survival. And, of course, the increased deer feeding pressure on native plants is above and beyond the tremendous losses that have resulted from direct habitat reduction caused by all types of land development.

**Deer Management** Continued on page 13

# MNPS EARTH DAY AT BATTLE CREEK CYPRESS SWAMP

By Sam "Chainsaw" Jones

On the morning of May 23, many volunteers from The Nature Conservancy and MNPS (saws in hand) converged on Battle Creek Cypress Swamp. Our mission was to remove noxious, introduced weed pests, namely Russian Olive (*Elaeagnus umbellata*) and Tartarian Honeysuckle (*Lonicera tatarica*). The large shrubs were cut and the stumps painted with herbicide. Spicebush and Arrowwood Viburnum, donated by MNPS, were planted as replacements for the removed plants.

Why all this fuss for a swamp? The best way to find the answer to this is to pay a visit. Battle Creek Cypress Swamp is a 100 acre nature sanctuary near Prince Frederick in Calvert County, Maryland. Sweetspire and New York Fern can be found in abundance, along with the highly state-rare Red Turtlehead. However, the main plants of interest are the Bald Cypress trees towering overhead, among them the state champion. Bald Cypress is unusual among conifers because the foliage and branchlets are deciduous. Battle Creek is one of the northern-most stands of Bald Cypress in the country and the only one on Maryland's Western Shore. A 1,700 foot boardwalk leads through part of the cypress grove. The boardwalk allows close inspection of the columnar knees which are only formed when the trees are growing in wet areas. High overhead one can hear the sounds of Kentucky, Worm-eating, Prothonotary, Parula, and Hooded Warblers.

*Bald Cypress Drawing by Sam Jones*

The primeval beauty of the swamp was once the haunt of animals like the Mammoth. The Mammoth is gone, but thanks to monies raised by the Federated Garden Clubs of Maryland in 1957 the sanctuary is preserved. Shortly thereafter, the sanctuary became Maryland's first acquisition of The Nature Conservancy. The nature center was built and staffed by Calvert County. For hours and directions call (410)535-5327.

## *Summer*

*"The deep dense banks of green grow yet deeper and denser. Whole kingdoms of Ceanothus rise high above sedges and ferns like yellow stars on a green sky. Spikes of purple mints eight feet in height shoot high above the common green. Family groups of starry Compositae glow on the meadow, and every other feature of plant beauty joins in the late summer glory."*

*-John Muir*

# Some Thoughts About Grasses And Their Companions

By Nancy Adamson

*To Turn Back*

*"The grass people bow*
*their heads before the wind.*

*How would it be*
*to stand among them, bending*
*our heads like that...?*

*Yes...and no...perhaps...*
*lifting our dusty faces*
*as if we were waiting for*
*the rain...?*

*The grass people stand*
*all year, patient and obedient --*

*to be among them*
*is to have only simple*
*and friendly thoughts,*
*and not be afraid."*

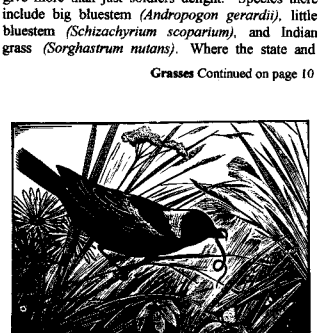
(John Haines, *The Owl in the Mask of the Dreamer: Collected Poems*, 1993)

Thinking of grasses in the United States, one generally thinks of prairies, where drought, fire, and grazers such as buffalo have been part of the evolution and dominance of species "unafraid" of very harsh conditions. Fossil evidence suggests that grasses gained dominance in our western plains after the rise of the Rocky Mountains, with a C4 photosynthetic pathway and morphology adapted to higher temperatures. Deep roots, meristematic tissue at every node, perennial culms, and stoloniferous growth all help grasses recover quickly from fire or the close clipping of buffalo or other grazers (even John Deere). Their long narrow leaves, often hairy, capture light while minimizing water loss; and where water loss becomes too great, they go dormant. The open plains encourage the wind to pollinate and carry the relatively light seeds, whose awns when blessed with moisture, may twist to take hold in small crevices.

In the eastern United States, places with an abundance of grasses tend to be highly disturbed or inhospitable because of to thin, toxic, or hydrated soils. Barrens with serpentinite soils, riverbed scours, mountain balds, marshes, sandy pinelands, and dunes host many of Maryland's native grass or grass-associated species, though oddballs like Virginia wild rye *(Elymus virginicus)*, bottlebrush grass *(Hystrix spp.)*, and slender wild oats or spangle grass *(Chasmanthium spp.)* can be found under our woodland canopies. Where native Americans created disturbance by burning or lightening strikes did their work, we "develop," mow, and control fires. Where native grasses might have dominated disturbed areas in the past, exotic grasses or other invasive species are often the current squatters.

Though introduced cool season grasses (among other exotics), planted for forage or to prevent soil erosion, dominate our open fields and roadsides, a tremendous variety of native grasses is still found throughout the state. Some natives might be happier with a little more heat, such as those among fire-adapted pines on the Eastern Shore. Controlled burns at the Soldier's Delight Serpentine Barrens have helped to invigorate the grass-dominated plant communities there, and a late summer or fall visit will give more than just soldiers delight. Species there include big bluestem *(Andropogon gerardii)*, little bluestem *(Schizachyrium scoparium)*, and Indian grass *(Sorghastrum nutans)*. Where the state and

**Grasses** Continued on page 10



# ANNOUNCEMENTS

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**MNPS WEB SITE**

Everyone is invited to visit the MNPS web site created by Carol Allen and Nancy Adamson. This site, dedicated to protecting, conserving, and restoring Maryland's native plants and habitats, features informative articles, a photo gallery of plants, and current information on MNPS meetings and field trips. It also includes events of plant societies and native gardens across the United States. A must see for members and non-members alike!

http://www.geocities.com/Rainforest/vines/2996

**CHAPMAN FOREST & ICC WEB SITE**

Be sure to visit Mark Robinowitz's web page featuring the exceptional Chapman Forest. This site includes a photo gallery of the forest, the latest information on the giant steps taken to preserve it from a massive development proposal, why it's important, and how you or your organization can help.

This site also features Maryland's proposed Interstate 370, also known as the Inter County Connector (ICC), that is part of an effort to piecemeal outer beltways around Washington, D.C. It includes informative articles, maps, and a "virtual tour" of ancient trees, wetlands, rivers, and communities in the path of the ICC.

A special thanks to Mark Robinowitz and John Parrish for their years of hard work and technical expertise in depicting the enormous environmental impacts of the ICC.

http://www.igc.org/icc370/chapmans.htm

**A GUIDE TO NATIVE PLANTS OF PRINCE GEORGES COUNTY**

The Maryland-National Capital Park and Planning Commission's publication *Native Plants of Prince Georges County, Maryland* is now available. For copies of this publication, please telephone (301) 952-3195. The cost is $3.50 (including postage and handling).

**TREES: AN IMPORTANT ELEMENT OF OUR ENVIRONMENT**

Saturday, November 7, 8:30 am - 3:30 pm

A seminar presented by the Adkins Arboretum and the Chesapeake Community College.

This seminar, held at the college, will include topics on the natural history of the Delmarva Peninsula, forest conservation, old-growth and champion trees, managing public open space, tree care in the landscape, and gardening under the forest canopy.

Registration Fee: $55.00. For more information, contact the college at (410) 822-5400.

## MNPS EVENTS

**NATIONAL PUBLIC LANDS DAY**

Saturday, September 26 10:00am – 4:00pm

Dr. Marc Imlay will be leading a field trip to remove invasive species that threaten native flora at Ruth B. Swann Park. Marc is a biologist and environmental resources manager for the Army National Guard, so this will be a good opportunity to learn about controlling invasive exotic species.

Gloves, long sleeved shirts, and pants are recommended. Please bring bag lunches. For more information contact Marc at work (703) 607-7989 or home (301) 283-0808.

**MNPS 7TH ANNUAL FALL CONFERENCE**

October 9 - 11

Charles County Community College, LaPlata, Md.

The purpose of this conference is to compare the effectiveness of restoration to land preservation and to examine the situations where restoration of habitats is appropriate. The forests and wetlands of southern Maryland will be used as case studies.

The keynote speaker will be Leslie Sauer of Andropogon Associates. Many informative lectures, workshops, and field trips will be offered.

For more information call Karyn Molines during the day at (410) 741-9330 or evenings at (410)286-2928.

## MNPS MONTHLY GENERAL MEETINGS

**Native Plant Identification**

Before each MNPS general monthly meeting, from 7:00 pm-7:30 pm, Joe Metzger will be on hand to identify plant specimens. This is a new and popular feature for MNPS.

**NATIVE PLANTS FOR WILDLIFE HABITAT**
**JULY 28, 7:30 pm**

White Oak Library

Rod Simmons will give a slide presentation on grasses, sedges, summer and fall wildflowers, and shrubs that attract and support wildlife. Refreshments and door prizes. Pot luck refreshments welcomed.

DIRECTIONS TO THE WHITE OAK LIBRARY: From 495, take Rt. 650 (New Hampshire Avenue) North. The library will be on your right just beyond the intersection of Rts. 29 & 650. Park behind the library and enter through the lower level doors.

**SUMMER WILDFLOWER**
**AND WEED IDENTIFICATION**
**AUGUST 25, 7:30 pm**

*Oregon Ridge Nature Center*

Joe Metzger will conduct an informative discussion on identifying summer wildflowers and weeds. Bring any specimens you wish identified. Refreshments and door prizes.

DIRECTIONS TO OREGON RIDGE NATURE CENTER: From the intersection of Rt 83 and 695 (Baltimore Beltway), take 83 north and exit at Shawan Road west. (This is a country road.) Make a left at the 1st traffic light. Bear to your right and follow the signs to the Nature Center.

**DESIGNING HABITAT FOR BIRDS**
**SEPTEMEBER 29, 7:30 pm**

White Oak Library

Fred Fallon, naturalist and chairman of the management committee of Partners in Flight, will give a slide presentation and lecture on the many native plant habitats for birds in Maryland. Discussion on the recently published *Habitat Management Guidelines For The Benefit Of Land Birds* and improving bird habitat with native plants for homeowners will be a main part of the presentation. Refreshments and door prizes. Pot luck refreshments welcomed.

**NATIVE PLANTS OF MARYLAND'S**
***BARRENS AND DRY HABITATS***
**OCTOBER 27, 7:30 pm**

White Oak Library

Joe Metzger will give a slide presentation and lecture on the many fascinating and colorful native plants that inhabit dry, barren-like conditions. Some emphasis will be placed on using these plants in dry, tough conditions in the home landscape. Refreshments and door prizes. Pot luck refreshments welcomed.

**MNPS COMMITTEE CHAIRS**

| | |
|---|---|
| **Conservation** | **Lou Aronica (202)722-1081** |
| **Field Trips** | **Tina Schneider Amy Doll** |
| **Flora of Maryland** | **Joe Metzger, Jr. (410)775-7737** |
| **Invasive Exotic Plants** | **Marc Imlay (301)283-0808** |
| ***Newsletter*** | ***Rod & Teresa Simmons* (703)256-7671** |
| **Nominations** | **Gordon Brown (301)589-5086** |
| **Annual Conference** | **Karyn Molines (410)286-2928** |
| **MNPS Library and Web Site** | **Nancy Adamson (301)277-5905** |
| **Membership** | **Joe Metzger, Jr. (410)775-7737** |

# Chesapeake Country

By Wilbur H. Rittenhouse

The counties of Kent, Queen Anne's, Caroline, and Talbot are the Chesapeake Country because they are tied to the Chesapeake Bay ecologically, economically, and culturally. Most of the land is within a short distance of the Bay itself or of the tidewater rivers, creeks, and coves that dissect the uplands. All is in the Bay's watershed. Recreation and the economy depend on the Bay. This guide will attempt to show some of the connections between uplands, wetlands along rivers and streams, and the Bay.

Chesapeake Country is a land of family farms and small towns. The region's colonial heritage is evident on the courthouse squares, in centuries-old churches, and in old brick dwellings. Natural areas exist in wetlands, along rivers and streams, and in an intermittent lace-work around farm and town. Bits of marsh within the boundaries of two-or-three century old villages are still inhabited by rails, blackbirds, and muskrats. Hedgerows and roadsides support a variety of birds and small mammals. Extensive forests still occur. Particularly toward the south and east of this region, woodlands are an important part of the landscape. The Chesapeake Country is crossed by a boundary between the flat, sandy southeastern pine forest and the eastern broadleafed forests. Southern shrubs, northern wildflowers, birds of the pine woods, and birds common in the central states all occur. A drive from Federalsburg in southern Caroline County illustrates this transition in the natural vegetation, in land use, in types of farming, and even in the language of the people.

### *Upland Forests*

Upland forest composed of hardwoods was once the principal feature of the landscape on the central Eastern Shore. Now, although the rich, well-drained soils of these woods have mostly been transformed into farmland and home sites, large fragments of these forests still exist. Upland hardwood forests in Mill Creek Sanctuary, Pickering Creek Environmental Center, and Tuckahoe State Park are open to the public. The canopy trees of this forest type include a dozen species of oaks, four types of hickories, beech, and numerous others. Tulip poplar and sweet gum join these on slopes and ravines. Since beech


seedlings are more adapted for growth in the forest shade than other trees, beech often becomes more common when a forest is undisturbed for decades. Young beeches can be seen from the highway growing among the mixed forests near the intersection of Routes 50 and 301 near Queenstown. A mature upland hardwood forest sometimes has an understory of flowering dogwood and shadbush. The latter displays early spring bloom in late March. It is characteristic of this forest type to be open, with little growth below the understory. Shrubs and wildflowers are common, but scattered through the forest or concentrated in wet spots. Pink azalea, mountain laurel, mapleleaf viburnum, and others comprise an intermittent shrub layer several feet high. Pink lady slipper, wood violets, spotted wintergreen, cranefly orchid, and partridge berry are wildflowers of the forest floor. The flute-like harmony of the evening chorus of wood thrushes, as the sun drops through the trees, is one of the memorable sounds of the Chesapeake Country. Wood pewees perch on exposed branches, flying out to snap an insect, then back to the perch. The black and red scarlet tanager contributes flash to the treetops, feeding on berries and caterpillars in the canopy.

Pine woods and mixed forests of oak and pine cover recently reforested land, especially on the sandy soils east of the Choptank River and Tuckahoe Creek. Martinak and Tuckahoe State Parks and Idylwild Wildlife Management Area have upland pine forest and mixed woods open to the public.

**Bottomland Forests**

Forests of large, deciduous trees inhabit the flood plains of Eastern Shore rivers and streams. Here, species that can thrive with the winter flooding and with occasional high water in the growing season produce the most diverse ecosystem in the mid-Atlantic region. A heavy rain in the spring floods these swamps with muddy water loaded with topsoil and nutrients. As the water spreads over the bottomlands and is slowed by the dense growth, the suspended sediments drop out, depositing soil and nutrients that enable the bottomland vegetation to flourish. The same soil flowing unimpeded to the estuary smothers navigation channels, oyster beds, and aquatic plants; and causes other difficulties. Nitrates, phosphates, and other nutrients that get through the bottomlands and other wetlands cause a profusion of problems in the Bay and great rivers.

While the bottomland forest grows on the small flood plains of numerous creeks and streams, the greatest bottomlands in the Chesapeake Country occur along the rivers with larger watersheds. At the farthest reach of the tidal influence, the Choptank, Marshyhope Creek, and Tuckahoe Creek have each formed an unbroken swamp forest of hundreds of acres on the flood plains.

**Cripple**

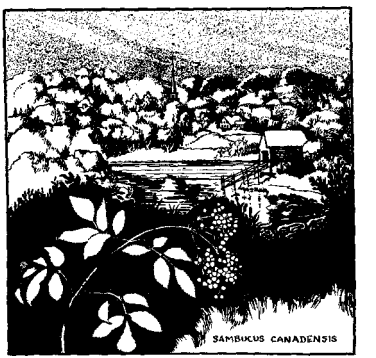
Cripple is a strange, intertidal swamp in which each high tide floods between the elevated, gnarled roots of the stunted trees. Here a few species from the bottomland survive the daily inundation and an occasional intrusion of brackish water. Green ash is the principal tree. The ashes, old trees just five or six inches in diameter, are mixed with a few red maples and sweetbay magnolias. A few species of shrubs cling to the tops of the islets formed by tree roots, accompanied by a few wildflowers and tussock sedge. Cripple is restricted to a limited zone of high freshwater tides, but it is frequent along the Choptank north and south of Denton. Watch for it when crossing the Choptank on Route 404. Launch a canoe from Crouse Park in Denton or from Martinak State Park for a closer investigation.

**Salt Marsh**

The salt marshes of the Chesapeake Bay are an indispensable and extremely productive element of the estuarine ecosystem. They are a nursery for some part of the life cycle of numerous marine and estuarine species. The vigorous annual growth of the marsh plants is the beginning of a complex web of food chains.

Unlike the uplands, few animals feed directly on the living vegetation. The marshes take in nutrients and sediments that pollute the estuary and export enormous amounts of fine particles of partially decomposed plants. This detritus is the foundation that supports a large part of the life of the Bay. The salt marshes of the Chesapeake Bay are composed of a number of species that are specialized for this biologically stressful environment. A few of these species - smooth cordgrass, saltmeadow cordgrass, needlerush, and the invasive pest Phragmites - dominate most of the salt marshes of our region. The salt marshes of the Chesapeake Bay are one of the continent's important ecosystems. Large expanses of salt marsh are found near Kent Narrows and nearby Eastern Neck National Wildlife Refuge. The Wildfowl Trust of North America include portions of these marshes that are open to the public.

**Chesapeake Country** continued on page 13




*"Nature is for us nothing but existence in all its freedom."*
*-Schiller*

**Grasses** Continued from page 5

federal highway administrations reduce mowing to once a year or less, many native grasses are reappearing. Eastern gama grass *(Tripsacum dactyloides)*, switch grass *(Panicum virgatum)*, and Florida paspalum *(Paspalum floridanum)* are some of the easiest to spot right now along Routes 301 and 50 because of their tall stature, bunch-forming habit, and distinctive seed-heads. Purple-top *(Tridens flava)*, broomsedge *(Andropogon virginicus)*, and flat-stemmed panic grass *(Panicum anceps)* are also abundant. Wild rice *(Zizania aquatica)* is in full bloom along many Chesapeake Bay tributaries, waiting to show off for the canoers who find it before the birds do.

Grasses are generally grouped as cool or warm season, bunch or turf-forming. Most of our introduced lawn (turf) grasses are cool season varieties which thrive in fall and spring, produce seed by late spring, and go dormant in summer, with a few, like Bermuda grass, thriving in summer. Most warm season grasses are bunch grasses, requiring warm temperatures for germination and growth, generally benefiting from periodic low intensity fires, and producing seed by late summer or fall. Bunch grasses provide excellent habitat for ground birds and other wildlife, providing shelter and ease of movement. When allowed to go to seed, all grasses provide valuable food for birds and other animals. A close look at the seed-heads of the wild ryes and bottlebrush grasses drying out right now reveals a host of small spiders and other insects inhabiting the plants and enriching the diets of more than a few animal species.

Although there are journal entries made by early explorers describing open areas and meadow species in this region, evidence of large open meadows or grassland type landscapes in the east prior to colonization is sparse. Our best sources of information regarding pre-colonial open spaces are the plants themselves. When organizations such as the Nature Conservancy have been allowed to burn areas where a history of fire is suspected, many plants show renewed vigor and it may be that certain plants are rare now only because fire has been suppressed. Likewise, many meadow species are found under power lines and areas that are only periodically cut back and where use of herbicides has been reduced to spot treatment. These are important sources of seed.

Recently, several organizations have taken an interest in gathering, conserving, and using native grasses. Habitat creation and restoration, the President's Executive Order requiring the use of native plants in federally funded projects, state regulated restoration requirements, and broad interest in ecologically sound landscaping have all had a role in current efforts to find seed sources and learn more about our eastern grasses and their companions. The Wetland Science Institute in Patuxent, Maryland and the Plant Materials Center in Beltsville, Maryland (both part of the U.S. Department of Agriculture's Natural Resource Conservation Service) initiated a program to collect native warm and cool season grass seeds from throughout the region (Md., Va., De. and Pa.). They enlisted the help of Dr. Harry J. Swartz at the University of Maryland (Department of Natural Resource Sciences) who has collected about 500 samples from nearly 200 sites throughout the region and has been testing seeds; trying to understand their germination requirements (cold, wet stratification, for example) and eventually selecting seedlings which will be made available for commercial use. Ducks Unlimited of Canada has sponsored the creation of a grass manual describing grasses of the northeastern United States (address included below). Maryland's

state highway administration is in the process of testing mixes of native grass and forb seeds with a variety of nurse species, (temporary cover crops which shade out weeds until desired species gain ground), since little is known about establishment of these species.

Plantings of meadow species, both grasses and forbs, have been encouraged by Ducks Unlimited, the National Wildlife Federation, Maryland's Bayscapes program, native plant societies, and many other organizations for their wildlife value, tolerance to droughty conditions, and other ecological benefits. As you know, most of the grasses and wildflower plantings we see along roadways are non-native species. Although many nurseries in Maryland offer native plants, finding large quantities of local seed is difficult. Seeds for some varieties of wildflowers native to Maryland are available through local nurseries and catalogs, but only a few mail-order nurseries keep records of seed origins and few offer straight species. Local ecotypes (seeds gathered within Maryland) for large-scale plantings are not currently available. Park or preserve staff and individuals planting meadow species must gather local seeds themselves or order seeds from other states. Since prairie restoration and xeriscaping in Texas, Wisconsin, and other western states has become popular, demand for seeds there has created a market, helping to lower seed prices over the last ten years or so and establishing a demand for source record-keeping. This process has just begun in the mid-Atlantic states. Currently, only one grower has found his way into this niche, though many growers propagate seeds for specific projects and many groups gather local seeds for community-level restoration projects.

The State Highway Administration and our National Park Service receive a lot of feedback from the public regarding roadside plantings. If you like to see uncut areas and want to see more native species, you need to let them know. For those of you looking to start a business, we need seeds!

I would like to thank Dr. Harry J. Swartz on behalf of the Maryland and Virginia Native Plant Societies for very generous donations of grass plants which will be used for restoration projects in both states and to raise awareness of native grasses.

**Nancy Adamson is a geographer and student of horticulture interested in ecological restoration.**

Some addresses which may be of interest:

For more information about vegetating with native grasses in northeastern North America, check out:

http://www.ducks.ca/habitat/plants/select.htm.

To order send $15.00 ($20.00 in Canada) to:
Ducks Unlimited Canada
Oak Hammock Marsh Conservation Centre
P.O. Box 1160
Stonewall, Manitoba
Canada
R0C 2Z0

To give positive support to less cutting along National Park roadways, write to:

John Hale, Acting Superintendent
National Park Service
1900 Anacostia Dr., SE
Washington, DC 20020

To give positive support to less cutting and more natives along Maryland roadways, contact:

Parker F. Williams, Administrator
Maryland State Highway Administration
Phone (410) 545-0400, Fax (410) 209-5009
Contact Person: Gerry Fletcher
David L. Winstead, Secretary
Maryland Department of Transportation
Phone (888) 713-1414, Fax (410) 865-1334

For more information regarding habitat:

Backyard Habitat Program
National Wildlife Federation
8925 Leesburg Pike
Vienna, VA 22184
http://www.nwf.org/nwf/habitats/index.html

Bayscapes
U.S. Fish and Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrane Dr.
Annapolis, MD 21401

**Myrtle Point Park** Continued from page 2

park growing in dry forest with Chestnut Oak, Serviceberry, Low Blueberry, Black Huckleberry, Virginia Pine, Holly, and other oaks.

The majority of the park's acreage is in a transition to a more stable stage of forest maturity. Much of this acreage has been undisturbed for fifty to one hundred years. The aging pioneer species, such as Virginia Pine, Red Cedar, Black Cherry, and Persimmon, are being succeeded by a species that will form the new canopy. Since it takes decades for a relatively stable forest community to develop, the forest needs to be left alone if it is to achieve this state. Canopy closure by late seral hardwoods (Black Oak, White Oak, Spanish Oak, Beech, Tulip Poplar, Black Gum, and Red Maple) can occur only if the forest is given time and land clearing is not allowed.

The more tolerant of the forest interior dwelling birds (Wood Thrush, Wood Pee-Wee, Red-Eyed Vireo, and Acadian Flycatcher) are capable of living at Myrtle Point and likely occur there from late spring to early autumn. However, if roads, bike trails, and other facilities fragment the peninsula, forest interior birds will decline. To further enhance the habitat for these and other sensitive species, existing old roads should be eliminated. For example, existing roads can be reduced in size and maintained as foot trails. The park as it is currently managed is exacerbating fragmentation of habitat. Exotic plants are being encouraged by land clearing. Bush-hogging and mowing can be reduced and still accommodate picnic areas and small grassy places for children to play. However, boat landings, ballfields, and bike paths will destroy precious habitat on this peninsula.

The conservation and enhancement of native, natural communities depends on this park being managed as a wildlife refuge with strict guidelines. Here is an opportunity for the public to participate. Volunteers can remove English Ivy, Multiflora Rose, Privet, Japanese Honeysuckle, and other exotics from the forested areas. Open areas can be revegetated with native trees and shrubs. MNPS has initiated and participated in community service projects like this. We gladly offer our help!

Any future management goals for Myrtle Point Park have to respect the goals of the Chesapeake Bay Critical Area Program. The goals to "substantially improve the quality of the water and habitats of the Chesapeake Bay" and to "conserve fish, wildlife, and plant habitat" are best served by managing the park as a "wildland" refuge for native biodiversity. As stated in the Forest and Woodland Protection Program guidelines, park policy should "maintain and increase forested vegetation of the critical area" and "conserve forests and developed woodlands and provide for expansion of forested areas." Park policy will best serve the Resource Conservation Area guideline to "conserve, protect, and enhance the overall ecological values in the critical area, its biological productivity, and its diversity" only if Myrtle Point Park is managed as a "wildland."

If the diverse flora and fauna historically present in the lower Patuxent region are to remain, places like Myrtle Point need to be allowed to revert to as natural a condition as possible. Myrtle Point offers us an educational opportunity to teach about the effects of past land use in relation to native biological communities. This peninsula currently serves as a valuable food source for migrating birds. In addition, many short distance migrants winter here. The dense thickets provide shelter and food for numerous small animals as well. One has only to open their eyes and look at the surrounding area near Myrtle Point to realize that forested waterfront areas of any significant size are virtually gone. Past assessments of the biological communities of Myrtle Point failed to offer a vision and failed to assess the potential benefits of preserving this park as a biological refuge. They also failed to locate any rare species. Undoubtedly, more will be found. We need a vision that allows for a healing of the land. MNPS offers its help towards that end.

***John Parrish is a botanist who has extensively surveyed plant communities and native flora in Maryland.***

**Editor's Note:** The above text was John's testimony, on behalf of MNPS, at a public hearing earlier this year on the future management of Myrtle Point Park.

**Chesapeake Country** continued from page 9

**Fresh and Slightly Brackish Marshes**

Fresh marshes are scattered over the Chesapeake Country. Marshes composed of soft rush develop in a few seasons in wet meadows and fields, sustaining unsuspected rails and snipe and trapping nutrients and sediments high in the watershed. Other marshes, flooded for most of the growing season and undisturbed for years, are more complex. The marsh above the lake in Tuckahoe State Park is inhabited by a lush variety of plant and animal life. Tree swallows, bluebirds, and woodpeckers nest in the snags above the smartweeds, arrow arum, and elder. Beavers, otters, and moorhens live unobserved among the marsh plants; pickerel and carp in the shaded water. The bottom, when disturbed by a paddle, gurgles methane and hydrogen sulfide, the waste gases of bacteria decomposing plant fragments in the sediments, producing the characteristic fragrance of wetlands. This beautiful marsh is very accessible and should be visited by more people.

Freshwater marshes flourish along the upper and middle sections of tidal creeks and rivers that drain a watershed large enough to provide an adequate flow of fresh water and sediments to build the marsh. Such marshes are scattered along the upper Chester River and lie at the heads of Stillpond, Morgan, Kings, and Miles Creeks. Fresh tidal marshes line the bends and fill the backwaters of Coptank River and Tuckahoe Creek from where they join, north to Greensboro and Hillsboro.

Slightly nearer saltwater in the large rivers, the occasional intrusion of slightly brackish water permits these plants to be joined by others. Thousands of acres of such marsh border the Choptank River between the old village of Choptan and the mouth of Tuckahoe Creek ten miles upstream. The diverse community of mallows, three-square rushes, tearthumbs, the giant grasses Phragmites and big cordgrass, and dozens of others results in a stable ecosystem of high productivity. The boardwalk on The Nature Conservancy's Choptank Wetlands Preserve permits both close investigation and a broad overview of these marshes.

**Wilbur Rittenhouse is an ecologist, a founding member of MNPS, and past director of the Adkins Arboretum. He is an eastern shore native.**

**Editor's Note:** This article, adapted from *A Naturalist's Guide to the Chesapeake Country*, is the first in a regular series of articles to be published in *Native News* featuring the flora and ecology of Maryland's Eastern Shore.

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**Deer Population** Continued from page 3

Biologists recognize that the root cause of deer overabundance is human-induced habitat modification on a broad landscape level. They further acknowledge that these conditions favoring deer are not likely to change significantly for many years and in the interim active, direct management of deer populations is justified to prevent the loss of native plant species. I therefore propose that the Maryland Native Plant Society support such management practices provided they are based on scientific wildlife management principles, have specific and attainable population targets that are below the levels generally considered to result in irreversible ecological effects, and are humane. I also recommend that plant population at risk from overabundant deer be systematically identified to prioritize localities in need of deer management. Should direct reduction of deer numbers be infeasible in areas where plants are at risk or not likely to be accomplished in time, other protective measures such as fencing should be implemented.

**William Bridgeland is an urban wildlife biologist who specializes in resolving conflicts between people and wildlife. He is an instructor at Johns Hopkins University and is the president of BioTrek Naturalists. He has served on the board of the Maryland Native Plant Society for several years.**

**Note:** This was written in response to a request from Howard County's Department of Parks and Recreation which is currently soliciting public comments for their deer management plans. MNPS is currently considering this as its official policy on the problem of deer overabundance in Maryland. We invite comments and suggestions. Please send to P.O. Box 4877. Silver Spring, Md., 20914.

# Distinctive Butterfly-Plant Associations On The Coastal Plain

*By Richard H. Smith*

| Butterfly Species | Larval Hostplant(s) | Adult Nectar Visitation Plants |
|---|---|---|
| Rare Skipper *Problema bulenta* | Salt Reed Grass | Buttonbush, Common Milkweed, Swamp Milkweed, Dogbane |
| Aaron's Skipper *Poanes aaroni* | Salt Cord Grass | Dogbane, Saltmarsh Fleabane |
| Broad-winged Skipper *Poanes viator* | Common Reed, Wild Rice | Common Milkweed, Swamp Milkweed, Dogbane, Buttonbush |
| Dion Skipper *Euphyes dion* | a Sedge *(Carex hyalinolepis)* | Pickerelweed, Common Milkweed |
| Salt Marsh Skipper *Panoquina panoquin* | Saltgrass | Dogbane, Salt Marsh Fleabane, Cranberry |
| Zebra Swallowtail *Eurytides marcellus* | Pawpaw | Highbush Blueberry, Dogbane, New York Ironweed |
| Palamedes Swallowtail *Papilio palamedes* | Redbay | Water Hemlock, Swamp Milkweed |
| Cloudless Sulphur *Phoebis sennae eubule* | Partridge Pea | Spotted Jewelweed |
| Little Sulphur (or Yellow) *Eurema lisa* | Wild Sensitive Plant | Sennas *(Cassia)* |
| Sleepy Orange *Eurema nicippe* | Wild Sennas | Sennas *(Cassia)* |
| Bronze Copper *Lycaena hyllus* | Water Dock, Curled Dock | Dogbane |
| Great Purple Hairstreak *Atlides halesus* | Mistletoe | Water Hemlock |
| King's Hairstreak *Satyrium kingi* | Sweetleaf | Common Milkweed |
| Striped Hairstreak *Satyrium liparops strigosum* | Highbush Blueberry, Hawthorn | Dogbane, Common Milkweed |

| Butterfly Species | Larval Hostplant(s) | Adult Nectar Visitation Plants |
|---|---|---|
| Red-banded Hairstreak *Calycopis cecrops* | Fallen leaves of Sumacs (e.g., Winged, Staghorn Sumac), Wax Myrtle | Dogbane, Trefoils |
| Hessel's Hairstreak *Mitoura hesseli* | Atlantic White Cedar | Highbush Blueberry, Sweet Pepperbush |
| Frosted Elfin *Incisalia irus* | Lupine, Wild Indigo | Lupine |
| Henry's Elfin *Incisalia henrici* | American Holly | Highbush Blueberry |
| Gulf Fritillary *Agraulis vanillae nigrior* | Passionflower | Passionflower |
| Variegated Fritillary *Euptoieta claudia* | Violets *(Viola)*, Passionflower | Lance-leaved Goldenrod |
| (Southern) Pearly Eye *Enodia portlandia* | Giant Cane, Switch Cane | (only nectars on tree sap, rotting fruit) |

**Richard Smith is a field entomologist, lecturer, and secretary of the Maryland Entomological Society.**

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**President's Letter** Continued from page 1

For further information on how to help, please contact the Friends of Mount Aventine at (301) 283-2948.

Earlier this summer, conservationists and the Maryland Department of Natural Resources finally persuaded Anne Arundel County to abandon plans for a ballfield complex on the edge of the Arden Bog in Crownsville. This bog is a very rare, coastal plain relic of the Ice Age that contains boreal species like Northern Pitcher Plant, Cranberry, and Leather-leaf. DNR will trade land nearby for the county's land adjacent to the bog. For further information on this site, contact Glen Gardner at (202) 586-8893 or Kenneth Shanks and Jonathan McKnight, MD DNR, at (410) 260-8416.

Conservationists and the Eastern Branch Conservancy were dealt a setback in June when the Prince Georges County Council reversed its decision to deny approval for the 1,200 acre Beechtree development in Upper Marlboro. Apart from a myriad of procedural and legal issues that have accumulated, this is an especially damaging project because it plans to clear and grade many acres of forest, steep slopes, and ravines in the watershed of the Patuxent River. Moreover, the pristine, forested East Branch, which is perhaps the healthiest remaining habitat in Maryland for the state-endangered Stripeback Darter, is to be dammed to create a 30 acre lake that will serve as both irrigation and stormwater retention for the Greg Norman golfcourse, a key feature of this project. "Fossil" water from deep in the Patuxent Aquifer, which should be used only for drinking, will be pumped into the lake to keep it filled because the East Branch cannot provide enough water for the golfcourse. Almost every aspect of this project illustrates what's wrong with using engineering to extend development beyond sensible limits. Please contact Mary Kilbourne at (301) 627-3741 for more information on how you can help. MNPS will continue to support and assist these and other important conservation issues.

Sincerely,
*Rod Simmons*