Letter from the President

Since it's humble beginnings in 1980, the Mississippi Native Plant Society has been here to help you to enjoy and better understand the marvelous plants indigenous to our state. The remarkable efforts from all those involved in the Society has helped transform the mystery of native plants into mainstream thought. Wax myrtles now line our streets and boulevards, stokes aster is available at discount nurseries, and area nurserymen are discovering and propagating new native plant cultivars better suited to our home environments.

We have a lot of great activities planned for you this year. You can now visit the new Mississippi Native Plant Society website at http://msstate.edu/dept/crec/camain.html. Here you will find our schedule of activities and native plant happenings.

Also, mark your calendar for our MNPS annual meeting scheduled for Saturday, June 15, 2002 at The Crosby Arboretum in Picayune, Mississippi. We will have a great day filled with lectures, tours, and other events all revolving around our favorite native plants. I look forward to serving you as President, and please feel free to contact me at any time at (601) 799-2311, extension 22, or email at crosbyar@datastar.net.

Bob Brzuszek
Trip to see the Louisiana Trillium (*Trillium ludovicianum*)
Central Louisiana  
Tuesday, March 5, 2002

Observe the true Louisiana trillium and determine if the plants in Copiah and Hinds Counties in Mississippi are the same species. Contact: Ronald Wieland, 601-354-7303

**MNPS Work Project**
Saturday, March 9, 2002
Woodland Hills Natural Area  
9:00 a.m. to 1:00 p.m.

Work will involve removing exotics from the area, clearing debris, etc. Bring work clothing, gloves, and useful garden tools. Beware of poison ivy. From Highway 55, take the Lakeland Exit (Hwy 25) at St. Dominic’s Hospital. Drive west on Lakeland. At the T-intersection, take a right onto Old Canton Road and drive North. Take the right first at the top of the hill (across from Woodland Hills Baptist Church) and continue about 100 yards until the road forks. Take the left fork and drive down the hill until the road forks again. The Natural Area, about 1 acre in size, is the narrow strip of land between the fork in the road. Contact: Ronald Wieland, 601-354-7303

**MS Native Plant Identification**
Saturday, April 13, 2002
Clinton Community Nature Center  
10:45 a.m. to 1:00 p.m.

The Nature Center, about 30 acres in size, is a block of undeveloped property in a residential area within the city of Clinton and adjacent to the Natchez Trace. It has a variety of habitats from early successional to mature forest, all of which are accessible by trails. The Center is located at 617 Dunton Rd. and difficult to find without good directions. Their phone number is 926-1104. Those wishing to car-pool from the Agricultural Museum on Lakeland Drive in Jackson should meet in the big parking lot (E. of museum, at Sports Hall of Fame and Stadium) at 9:45am. We will depart at 10am and travel to the big parking lot at Waffle House at I-20 and Spring Ridge Rd. to pick-up any others at approximately 10:30am. Look for full-size, white Chevy van. Contact: Jim Gainer, Natural Resources Conservation Service 601-965-5216

**Field Trip to Gray Center**
Saturday, April 20, 2002
Canton, MS  
9:00 a.m. to 1:00 p.m.

Join us as we continue the plant inventory of the Earth Lab and search for a reported pale ladies’ slipper orchid population. Meet at the Natural Science Museum at 9:00 a.m. Contact: Heather Sullivan, 601-354-7303

**Native Plant Swap Meet**
Saturday, April 27, 2002
Crosby Arboretum  
9:00 a.m. to 11:00 a.m.
Visitor Parking Area  
Picayune, MS

Join the fun and bring your extra native plants to our swap meet. You never know what wonderful plants will be there to share! For more information, call 601-799-2311.

**Trip to Tombigbee National Forest**
12 mi. S of Tupelo  
Saturday, May 4, 2002

Monitor the status of one of seven known locations for bur oak, *Quercus macrocarpa*, in Mississippi. Measure tree for determining champion status. See some small prairie remnants and post oak woodlands of the area. Leave Jackson 7:00 AM travel up Hwy 25 to Louisville, take Hwy 15 N to Houston, and join the Natchez Trace Parkway at VanVleet, take the Parkway to Hwy 41, go S on Hwy 41 for about 2 mi. Area is part of national forest lands on N side of road. Coming back we could daily along the Natchez Trace Parkway and stop at some of the natural area rest stops along the way. Travel time will be approx. 4 hrs. or less from Jackson. 175 miles one-way. Contact: Ron Wieland, 601-354-7307

**Alien Plant Invasions**
Friday, May 10, 2002
Crosby Arboretum  
9:00 a.m. to 4:00 p.m.
Interpretive Center  
Picayune, MS

**A Seminar on Exotic Pest Plants in the Landscape.**
Co-sponsored by the Mississippi Chapter of the Southeast Exotic Pest Plant Council and the Crosby Arboretum, Mississippi State University Extension Service. Call the Arboretum office at (601) 799-2311 for registration and details.

**Wild Edible and Medicinal Plant Walk**
Crosby Arboretum  
Sunday, May 19, 2002
Picayune, MS  
1:00 p.m to 3:00 p.m.

Join us for an enjoyable walk discussing the endless uses of native plants. Bob Bruszek teams up with Darrel Martin of Blue Boy Cottage Herbs to teach you the edible and medicinal properties of local plants. A sampling of native foods will be served after the walk. Reservations required. Call the Crosby Arboretum at 601-799-2311 to register. Program Admission: $8.

**MNPS ANNUAL MEETING**
*Return of the Natives*
Crosby Arboretum  
Saturday, June 15, 2002
Picayune, MS  
9 a.m. to 4 p.m.

Join us for a fun day devoted to discussing and learning about our favorite native plants. Don’t miss our great lectures, tours, and exhibitors on native plants. Call the Crosby Arboretum office at (601) 799-2311 to register or for more information.

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The Newsletter of the Mississippi Native Plant Society 2002
Treasures Found

by Brendix Glasgow

The thunder roared and the lightning snapped as the storm approached, typical weather for August in north Mississippi. The only things worse than the heat and humidity were the buzzing of mosquitoes and the thought of snakes in this wet, wooded ravine. The heat, humidity, mosquitoes, and snakes were familiar, to a forester. Today I was in a hurry to complete the job of designating a streamside management zone (SMZ) for a planned timber harvest in the area. As the flagging job was almost completed, I noticed several white flowers. At the time more pressing things were at hand, but sometime during the next week I thought, "What were the flowers blooming at this bog in August?". After revisiting the site, I was sure this was a colony of rare orchids.

Although I did not realize it at the time, my search for this species had begun on March 7, 1990, when by chance I met Ken Gordan with the Mississippi Natural Heritage Program. Mr. Gordan shared with me a plant of special interest in Mississippi, the White fringeless or Monkey face orchid (Platanthera integrilabia). The Monkey face orchid is native to the southern Appalachians and is considered one of North America's rarest terrestrial orchids. This particular orchid was previously located only twice in Mississippi according to records. The first report of Platanthera integrilabia in Mississippi occurred in 1863 by J.T. Stewart who found the orchid just east of Corinth in Alcorn County, MS. The only other sighting was in the early 1970's at the site of the now abandoned Yellow Creek nuclear plant in the northern part of Tishomingo County, Ms. The Yellow Creek orchid site was destroyed during construction.

Monkey face orchids generally like an area with black, mucky, acidic, organic soil. It is found most frequently in bogs at the head of streams or seepage slopes. These mucky areas need to be wet nearly all year and over most years. Most sites are under a canopy of deciduous woods with filtered sunlight. Sphagnum moss (Sphagnum sp.) is the most consistent plant associate. Other plants associated with this habitat are Small green wood orchid (Platanthera clavellata), Yellow fringed orchid (Platanthera ciliaris), Crested fringed orchid (Platanthera cristata), Royal fern (Osmunda regalis), Cinnamon fern (Osmunda cinnamomea), Nodding chain fern (Woodwardia areolata), Sedges (Scirpus sp.), several species of Rushes (Juncus sp.), and Meadow beauty (Rhedia sp.). Overstory plants include Red maple (Acer rubrum), Yellow poplar (Liriodendron tulipifera), Black tupelo gum (Nyssa sylvatica), Sweet bay (Magnolia virginiana), and Poison sumac (Toxicodendron vernix).

The Monkey face orchid is a perennial herb that grows from a single tuber. It has 2-3 large strap-shaped leaves, largest at the base and then decreasing in size as they ascend up the smooth light green stem. White flowers grow in a loose, round to elongated cluster at the top of the stem. There are normally 6-15 flowers in each cluster. Flowers are white with a distinctive unlobed smooth lip and a very fragrant sweet scent. The white silhouette of the monkey faced outline, and creamy white flowers are a striking contrast to their shaded green surroundings.

Since 1988, Lawrence Zettler, Ph.D., has been studying the rare terrestrial orchids of the southern Appalachians. In a February 1996 Orchids magazine article, Dr. Zettler discussed the mystery behind the White fringeless orchid's disappearance. He stated "By 1950, the orchid had become noticeably scarcer and during subsequent decades, Ole Monkey-face was exploited for its commercial potential by local nurseries and sold to the general public. It is unknown just how many orchids were removed from the wild, but it's clear that collectors played a major role and undoubtedly started the whole downward spiral." According to Dr. Zettler, other factors that contributed to the orchid's rarity are habitat destruction (logging, damming, cattle introduction, etc.), invasion by opportunist plants such as kudzu and browsing by deer and feral hogs. Further complicating the problem is the orchid's dependence on a single fungus species to complete its life cycle in the natural habitat.

In the summer of 1991, Margaret Shea, of the Kentucky Endangered Plant Species Program, conducted a survey of Monkey face orchid sites for the U.S. Fish and Wildlife Service. This status survey found only 30 populations remaining from the 65 sites identified from literature and herbarium specimens. These 30 populations are in 5 states: Alabama, Georgia, Kentucky, South Carolina, and Tennessee.
Mississippi Native Plants

All known populations are extirpated from Mississippi, North Carolina and Virginia. Population sizes observed during the status inventory ranged from 1-453 flowering individuals; the average number of flowering individuals was 43.

The treasure hunt was over. After five years of searching, a colony of Monkey face orchid was located in Tishomingo County. As the well-known radio broadcaster says, "Here is the rest of the story." I not only found a single specimen of a rare orchid, but an area with over 1000 orchids. This became the only known site for this species in Mississippi. In my wildest dream, I never thought I would have the privilege to search for and find such a treasure. Each time I remember this special experience I think, "What reptiles? How many mosquitoes? What dark damp bog?" Only the pictures of the little white monkey faces remain.

This story, unlike many that deal with rare plants, has a happy ending. The forest landowner chose to follow Mississippi Best Management Practices (BMP'S) by leaving a streamside management zone when harvesting timber in the area. Timber remained uncut in the streamside management zone to preserve these orchids and protect water quality in the adjacent stream. These treasures will be protected to be enjoyed on many more hot, humid August days because my father owns this property.

Editors Note: MNPS member Brendix Glasgow is a County Forester living in Tishomingo, MS.

MEMBERSHIP APPLICATION OR RENEWAL FORM

Join the organization devoted to the study and appreciation of wildflowers, grasses, shrubs, and trees native to the state of Mississippi. Members receive Mississippi Native Plants, a publication that addresses scientific and gardening issues relevant to the recognition, enjoyment, and conservation of our native plants and natural habitats.

JOIN TODAY

___ New Member   ___ Renewal

___ Student $7.50
___ Individual or Family $10.00
___ Sustaining $15.00
___ Contributing $35.00
___ Life $125.00
___ Check here if you do not want your name to appear on a Membership List.

Name________________________
County_______________________
Address_______________________
Telephone_____________________
e-Mail_______________________

Return this form and Check to: MNPS
C/O Dr. Debora Mann
114 Auburn Drive
Clinton, MS 39056-6002

The Newsletter of the Mississippi Native Plant Society 2002
MNPS MEETING
DECEMBER 11, 2001
The Duncan M. Gray Center
1530 Way Road
Canton, MS

Minutes

Introductions
The 2001 Annual Meeting of the Mississippi Native Plant Society was called to order by Ronald Wieland at around 3:00, after adjournment of the MS - Exotic Pest Plant Council Meeting. The MNPS meeting was held in conjunction with MS-EPPC for the convenience of members who are participants in both groups. Board Members attending were Bob Bruszak (past president), Senior Curator, Crosby Arboretum, Joe McGee (vice-president), Naturalist, and Ronald Wieland, Ecologist, Museum of Natural Science, (president). Not able to attend due to previous commitments were Lynn L. Bailey, Botanist, USDA Agriculture Research Service, and Dr. Debora Mann, Professor of Biology, Millsaps. Other attendees at the meeting were Dr. Vic Rudis, Forester, USFS (past president), Dr. John Byrd, Extension Weed Specialist, MSU, Jim Garner, Botanist, NRCS, James Copeland, Forester, Meridian Naval Air Station, Ruth Sullivan, Environmental Educator, Gray’s Center, Eldon Guymon, Biologist, USFS.

Old Business
Update on Club Activities
The president provided a brief review of club activities for the past year, highlighting summer and fall activities that followed the date of the last newsletter. Late in the fall of 2000, the club held a meeting at the Grand Sir roadside rest stop, US Forest Service, north of Raleigh, MS, to discuss the future of the club. This followed after a period of club inactivity during which no newsletter was completed or field activities were scheduled. The period of inactivity followed a time in which several scheduled field trips were very poorly attended. Members urged the club’s board to continue to serve the MNPS by scheduling additional field trips and activities and to restore the newsletter to a regular quarterly periodical. Since that time, several newsletters were completed (Lynn Libous-Bailey, editor) and numerous club functions were carried out. Several well attended functions were held in concurrence with the Meridian Audubon Society: a Chunky field trip (lead by Joe McGee) and a woodland hills forest hike near Meridian Naval Air Station (lead by Tohy Tisdale and Joe Miller). Additional activities during the spring were a visit to the Linden Plantation, Vicksburg, removal of exotic plants from Woodland Hills Natural Area (lead by Ron Wieland), and a botanical/ecological study of the woodlands and grasslands surrounding the Gray Center (lead by Heather Sullivan). The Museum of Natural Science, Jackson, helped to facilitate the Gray’s Center outing by providing transportation to the Center.

Recently the board recommended a donation of $100.00 to partially fulfill the costs to the Friends of Osborn Prairie for rental of a natural prairie area near Starkville used for education and research. The monies are paid to the Oktibbeha County School Board under the mandate of the Secretary of State Office (SOS). In September Mr. Bill Cheney, Senior Public Lands Attorney, SOS, who oversees the leases of 16 section lands, reported the rules for administration of sixteenth section or school lands. School lands are managed by the local school boards with supervisory/compliance issues determined by the SOS Office. There is no designation of school lands as wildlife areas. According to the present interpretation of state law, state school lands are to be leased for fair market value. School lands are classified into the following categories - residential, commercial, agricultural, catfish, and forest land. If classified as forestland, the Mississippi Forestry Commission has responsibility for management of the timber resources. On some areas subleases can be granted for hunting and fishing clubs. There are apparently few if any provision in the law for use of the lands to benefit society in general, such as using the lands for biodiversity or natural area protection. Richard Brown, Mississippi State University Entomology Program, and others have organized themselves into a The Friends of Osborn Prairie conservation group to raise money for leasing Osborn Prairie at its assessed value. Some creative options may be available to set up natural areas: such possibilities include a conservation groups leasing wetlands that have low assessed value or having the areas designated as school facility areas to be used for educational purposes.

The board neglected to produce a spring or fall newsletter after the busy spring schedule. However, members of the Jackson area continued to participate in club activities, sometimes in association with Mississippi 2020 and Jackson Audubon Society. Wieland noted that the Jackson members have functioned like a bone fide chapter of the society by conducting a flurry of local activities. As the bylaws are now written, they do not enable local groups to form chapters.

New Business
Friends of Mississippi Public Lands
The first issue of the Friends for Public Lands was sent to the MNPS president this past summer. The articles in the newsletter reviewed the objectives of the “Friends” group and the philosophies concerning the management of public lands. In general the group supports the scientific review of public land management planning.
documents and supports a concerted effort encouraging the protection of these lands from excessive timber harvest or other disturbances associated with the use of public lands. Focus is both statewide and national. For members interested in learning more about the group they are welcome to contact them at the following address: Friends for Public Lands, P.O. 3284, Mississippi State, MS 39762. MNPS establish a closer working relationship with the group. The mission of the MNPS fits that of the 'Friends' group, although has a broader scope. The second item of the MNPS mission statement reads "To work for the preservation of individual species of native plants and their respective habitats in such manner as the Society shall deem appropriate."

Development of Chapters - Change of Bylaws

Several members including Bruszsek, Rudis, and Wieland voiced the need to develop a new strategy for meeting the mission of the MNPS. Copies of the newly formatted MNPS constitution, which contains the mission statement of the Society, were distributed at the meeting. The constitution was reformatted from an old paper copy so that corrections and amendments could be executed at a later time. Present structure of the society, which assumes a statewide level of membership, suggests that each member, wherever present in or out of Mississippi, has similar or equal opportunities for participating in MNPS functions. However, due to travel distances required to participate in outings, members in the northern part of the state are less likely to participate in functions if they are held on the coast or visa-versa. Even two hour travel distances are burdensome, although some dedicated members do not object to such trips. MS-EPPC is capable to maintain a statewide program because most members represent federal or state agencies.

Over the last several years, there have been rumblings among club members about whether the Society should form chapters. Effort to amend the constitution for allowing chapters was delayed to allow a broader discussion of the proposal. Although the forum is still open for discussion on this issue, it seems clear that the formation of local chapters would enable more activity among the widely dispersed membership. A clustering of activity has occurred in Tupelo (under another native plant group), Oxford (group of friends), Meridian (Audubon Society of people who like to look at plants), Jackson (as mentioned above) and on the coast (Master Naturalist Program and the Crosby Arboretum).

MNPS has obtained the bylaws of two states with statewide-chapter formations. As indicated by the sections on chapter status in the California and Texas NPS bylaws, there are simple, clearcut amendments that can be drafted to meet the requirements of instituting chapters. Markup copies of the California and Texas NPS chapter bylaws were distributed to attendees to help address the necessary amendments to MNPS constitution. The president later delegated Debora Mann and Lynn Libous-Bailey to draft an amendment suitable for review by the board that incorporates the formation of chapters.

As a corollary to development of chapters, Bruszsek suggested that the board rotate among local chapters to reduce the burden on any one group or individual. He noted that 5-7 good people from the Society would be able conduct MNPS statewide activities for a time, perhaps a year, until another chapter would take over. This may mean that all officers and/or board members be located in the same region. The bylaws may need amending to reflect the restrictive group selection of officers.

One additional comment on the formation of the board, if chapters are created, each chapter should have a member on the board. The chapters would function under the same constitution of MNPS but the range of these functions would be limited to the local chapter jurisdiction. As is constituted in the Texas bylaws, it may be appropriate for MNPS chapters receive 15 percent of the money generated in membership dues. All local activities are then the responsibility of the local chapter and not the responsibility of the statewide board. Therefore, once chapters are formed the statewide board has a somewhat reduced role in the society in terms of developing projects and field trip activities. The statewide board would be responsible for the newsletter, providing educational materials to interested parties, and administering annual meetings or statewide functions such as native plant symposiums, etc.

Development of Web Site for the Society

In a letter faxed to the president last week, Bruszsek noted an interest in facilitating the posting and distribution of announcements and educational information. Bruszsek reiterated these concerns at the meeting and opened the discussion about creating a web page for MNPS. Bruszsek noted that Mississippi State University might be available for publishing a MNPS web page. He noted that Crosby Arboretum has a functional web page on the MSU server and regularly updates the page on a monthly basis. Information is submitted to a central facility where it is converted to the proper web format for distribution. He suggested the MNPS pursue this opportunity to help advertise the existence and activities of the club. He noted a demand for information about Mississippi from both inside and outside of the state and that the web would serve a major role in providing information to those interested. The motion that the MNPS pursue the free (or very low cost) development of a web page using the MSU server was passed unanimously. Bruszsek volunteered to supervise the construction of the web page and to serve as liaison between MNPS and the university.
Production of the Newsletter

Vic Rudis volunteered to scan all of the back issues of the MNPS newsletter and somehow in the future, make them available either as hard copy or in PDF file for display on the MNPS web site. Wieland noted that he has kept all back issues that were provided to him earlier by Rudis and will be sending the collection to Rudis in the near future.

The quarterly newsletter is one of the tasks that has been difficult to maintain over the long run. As mentioned previously, the issuance of the newsletter faltered again this summer because of the lack of time available among volunteers. Although it is certainly beneficial for the club to produce a newsletter, the process of writing, editing, and mailing are time-consuming and difficult to carry out if left to one person. Over the past several newsletters however, to reduce the burden on the editor, the mailing were conducted from the Museum of Natural Science.

Brzuszek noted that to reduce the burden of time and expense, many members could receive the newsletter through e-mail. This would reduce the burden of and costs of duplicating, stamping addressing, folding and stapling the newsletter according to the requirements of the US Postal Service. Wieland noted that more color could be included in a newsletter if it is sent over an e-mail. Actual printing of newsletters in color is prohibitively expensive. McGee noted that new members recently signed up are always asking him when the next newsletter is coming out. He also noted the need to maintain contact with members not having e-mail capabilities.

With the lack of the quarterly production of a newsletter, the club is somewhat delinquent in meeting its obligations to members in good standing. There are several dozen life members also. Within the past year there has been a trickle of dues coming in but a considerable number of persons on the roster have not paid in quite sometime. Rudis suggested there be another newsletter before additional dues are solicited. The next newsletter should be sent to outstanding members and to those in good standing. After such a period of several months (2-4), the second newsletter mailing will be sent only to those in good standing. This will undoubtedly seriously truncate the membership. Nevertheless, the club functions at present on a fairly small budget and can become even more efficient if the newsletter is e-mailed to members. Therefore the loss of members should not create a critical shortage of funds. Those non-paying individuals would lose the privilege of receiving the newsletter and the cost would be reduced accordingly.

At a later time, Wieland discussed the next newsletter production with Lynn L-Bailey. She suggested that someone else work on the newsletter this year. She offered to forward the materials already submitted to the new editor. Heather Sullivan, Botanist and Educator at the Mississippi Museum of Natural Science, offered to edit the new newsletter for the Society. Anyone interested in submitting articles to Heather, her e-mail is heather.sullivan@mmns.state.ms.us. The best software to use for submitting articles would be WordPerfect, and secondly MS Word. The next newsletter should be available soon. A special thanks goes to Lynn for her nicely formatted and attractive newsletters she produced over the years. MNPS board expresses sincere thanks and appreciation for her contributions to the Society. Lynn remains a strong supporter of the Society, and is always interested in showing visitors her colorful backyard wildflower garden.

Questions arose of the cost of membership. As indicated in the last newsletter, the dues presently stand as follows: student ($7.50), individual or family ($10.00), sustaining ($15.00), contributing ($35.00), and life ($125.00). Officially, the MNPS has $3,941.75 in savings and $1,543.51 in checking. A full report will be made available to the new president.

Vote for President

Over the past several years, the president has been actively pursuing candidates for MNPS offices. Several of the officers including the president have served for over four years. Bob Brzuszek was requested to become active on the board to meet the new vision. By unanimous vote, Brzuszek was voted in as the next term as president of the MNPS, a term that will begin immediately. Lynn Libous-Bailey and Debora Mann voted in absentia. Brzuszek suggested there is a growing awareness of the need for protecting native plants and habitats and that more frequently people are asking him for things to do for the cause. Of particular note is the Master Naturalist Program, administered by Dr. Mark LaSalle, with the Coastal Research and Extension Center, who is producing many native plant enthusiasts. The course requires 100 hours of community volunteer service, preferably in a conservation field. These students are looking for ways to help and the MNPS is one of the better places for getting them involved.

For additional information please contact ron.wieland@mmns.state.ms.us 601-354-7303

Winter / Spring 2002 Volume 20 Issues 1 & 2
Are Louisiana bluestars twinkling in Mississippi?

Ronald G. Wieland

The saga of the discovery and subsequently long absence of Louisiana bluestar, *Amsonia ludoviciana*, in Mississippi continues. The plants are also colloquially known as Creole phlox. The fifth chapter involving the mystery relating to the single known population of Louisiana bluestar in Mississippi is about to begin. The first chapter was written in the early 1800's. According to A. K. Small, taxonomist for the New York Botanical Garden, a specimen collected early in the nineteenth century by Dr. J. R. Ingalls originated from "the lower part of Mpi [Mississippi] State." Ingalls' specimen was sent along with an earlier collection by Hale (from coastal LA/MS) to Dr. John Torrey of Columbia University herbarium. The specimens languished for 75 years in storage until Vail found them in 1903. He recognized the collections represented a new species of bluestar, which he entitled *Amsonia ludoviciana*.

The second chapter began in 1926. According to John Kunkel Small, a renowned botanist, "In a forced detour from the town of Bay St. Louis, to New Orleans, via Poplarville, Bogalusa, and Picayune, Mississippi, in the course of the early stages of our iris studies in Louisiana, I met with the plant about the head of Bay St. Louis. It grew in open grassy places in rather conspicuous abundance." Small speculated whether this was the "same station where Dr. Ingalls discovered it early in the past century." He assumed it was. Dr. Small wrote the *Manual of the Southeastern Flora* in 1933. Many thousands of plants were described in the flora. He termed the southeast, "one of the cradles of botany on the American mainland." The state of Mississippi is known to contain over two thousand native vascular plants.

During the next interlude of sixty years, only a few additional collections of the plant were produced. The third chapter begins in the late 1980's. In 1987 Lemke investigated the species, made additional collections, and subsequently redescribed the Louisiana bluestar. A year later, Nellwyn Gilmore and Latimore Smith, with the Louisiana Natural Heritage Program, completed a Status Report for the U.S. Fish and Wildlife Service, and thereafter, Cary Norquist, botanist, U.S. Fish and Wildlife Service, in Jackson, completed a Status Review. Gilmore, Smith, and Norquist, conducted a brief field survey but were unable to relocate the population in the area thought to be the vicinity of the original collections.

Bluestars are members of the dogbane family (Apocynaceae), which are herbs or twining woody vines with milky sap. The southeastern bluestars (*Amsonia*), named for their tiny starlike flowers, are perennial herbs with a thickened basal node that supports several erect stems reaching 2-4 feet in height. The inflorescence usually takes the form of a terminal panicle. The flower petals are usually blue and funneled form. Its seed pod (follicle) is often a long narrow structure resembling an immature bean pod.

Rick Drake with the National Gardening Association noted that bluestars "offer delicate blossoms in spring, outstanding color in autumn, freedom from pests and diseases, and extraordinary tolerance to cold, heat, and drought." They "are easy to grow and propagate, and can go up to 20 years without needing to be divided." They can be propagated using seeds or cuttings. Bob McCartney of Woodlanders, a mail order nursery located in Aiken, South Carolina, is very please with Louisiana bluestar as a cultivar. He has noted that, "we have offered it many times and it has been perhaps the best performing *Amsonia* here."

Apparent similarities of the eastern bluestar, *Amsonia tabernaemontana*, and Louisiana bluestar create some difficulty in distinguishing the two. In papers describing bluestars by Woodson (1928) and Lemke (1987), the authors concurred that the main difference between the two species is: *A. tabernaemontana* leaves are "wholly glabrous to finely puberulent beneath," and *A. ludoviciana* leaves are "densely and persistently tormentulose beneath." An additional characteristic that may help to distinguish the two species is the degree of floral fragrance. Flowers of Louisiana bluestar are strongly fragrant while those of eastern bluestar are only moderately so.

The fourth chapter began in 2000 with David Moore and Philip Hyatt, botanists with the Kisatchie National Forest, Pineville, Louisiana, conducting monitoring studies for bluestar sites of central Louisiana. Hyatt is putting the final touches on a conservation assessment of the species for the U.S. Forest Service. He has noted additional stations where the plants are found in Louisiana, presently totaling "at least forty populations in Louisiana and about thirty in Georgia."

The story now spans three centuries. Botanists are still questioning whether the Louisiana bluestar has been extirpated from Mississippi. Being quite similar in appearance to eastern bluestar, the plants could have easily been overlooked. Ken Gordon who worked for the Mississippi Natural Heritage Program for more than

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1 Ronald Wieland is Ecologist/Botanist for the Mississippi Natural Heritage Program, Mississippi Museum of Natural Science, Jackson, MS.

The Newsletter of the Mississippi Native Plant Society 2002
twenty years and listed the species as historical in 1985, noted that "I never felt like its continued existence in Mississippi has been truly ruled out." The only specific reference to the original location is, "10 mi. NW of Bay St. Louis." He suggested that with the changes in roadway locations since 1926, the observed location may not be along avenues that are the thoroughfares of today. According to Hyatt, "when Lemke studied the Louisiana populations, he searched for 1-2 seasons before success! Despite that, and fears (at one point) that the plants may have been extirpated from Louisiana, Dave Moore and I have found several populations in the past few years, as have others before us! The plants could be lurking in roadside ditches in much of south Mississippi (they get farther north than Natchez in Louisiana)." To add to the difficulty of rediscovery, according to Gilmore and Smith, when found growing in close proximity, there is an inter-gradation in the degree of pubescence on the abaxial leaf surface of the two species. This apparent hybridization has been observed in populations found in Louisiana and Georgia.

As we commiserate the loss of native wildflowers from Mississippi, it leaves an emptiness much like the loss of a friend who has passed away or moved to a different town. While extinction means forever, extirpation means that the species has been eliminated from part of its historic range but other populations still exist elsewhere. Three other species have a historical presence in the three coastal counties but are no longer known from the state: Schwalbea americana (chaffseed), Physalis arenicola (cypress-head ground-cherry), Elyonurus tripsacoides (Pan American balsamcspale). Chaffseed, known to have occurred in Jackson County, is on the Federal endangered species list. Further field studies of other plants would undoubtedly find additions to the listing.

Will the fifth chapter confirm our fears that the species has been lost from Mississippi? Will we have the opportunity to ever again see the native Louisiana bluestar waving in the early spring breezes in the woodlands and meadows of the Mississippi Gulf coast? Science and soul are intertwined in this feature that may just have a happy ending. Fortunately, nature's attraction caught the eye of a botanist. Often was the case for early explorer / botanist to collect seeds or even live materials of unfamiliar or otherwise interesting taxa to send back to their parent institutions to grow and study. Such is the case for our Mississippi bluestar population! In 1926, on the detour made near Bay St. Louis, J.K. Small found some peculiar plants. He collected some live specimens or seed and sent them back to New York. He grew the plants in New York for at least six years, probably longer, and sent seeds to Brookgreen Gardens in South Carolina. Although the status of the original material is unknown, plants sent to Brookgreen Gardens many years ago are still thriving. Staff at Brookgreen Gardens, South Carolina, recently confirmed that the plants were still flourishing. Bob McCartney obtained some starts from Brookgreen Gardens in the 1980's and eventually propagated enough for distribution from Woodlanders, a mail order nursery. Bob explains "Gurdon Tarbox who was at that time director of Brookgreen told me that this was a rare plant which had been extirpated in the wild and that it had been grown at Brookgreen since having been given to them by the famous J.K. Small earlier in the century. I suspect that virtually all of the material in cultivation today can be traced to Woodlanders and Brookgreen."

According to Hyatt, there is a great opportunity to increase our awareness of this native plant and to possibly relocate the original population or find auxiliary groups. Since there is still a question about whether native populations exist in Mississippi, additional attempts at finding them are warranted. If plants are found, they need to be monitored and protected. However if no populations are found, Hyatt considered that there is a unique opportunity to reintroduce materials which have a confirmed genetic lineage to the original native stock. It would be an interesting scientific endeavor to determine the phenotypic and genotypic differences of the plants propagated from the 1926 collection with those of the original population if it is ever found.

It would be delightful to see a viable, self-sustaining population of Louisiana bluestars twinkling in Mississippi again. However, before the reintroduction of any rare, threatened, or endangered plants is made into wildlands, it is appropriate to evaluate the desirability of the reintroduction on a case by case basis. Maryland Department of Natural Resources (MDDNR) has established some guidelines for plant reintroductions. The MDDNR guidelines outline three main questions that need to be answered. Is the reintroduction appropriate? How will the reintroduction be conducted? How is success measured? Other questions concerning biological issues, habitat requirements, and location for reintroduction will need to be answered. Having genetic material directly linked to the original wild stock gives significant inertia to the option of reintroducing the plants into Mississippi. First, we need to get out there and find some Louisiana bluestars in Mississippi. After enough effort has been employed, we should consider plant reintroductions. In any case arboretum, native plant gardens, or back yard gardens can be enhanced by this little known plant reported by Drake to be a garden winner! And through the month of March, this years' Woodlanders catalog has our own Mississippi plants for sale.
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