



PRESERVE!

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Friends of the Lakeshore Nature Preserve Newsletter

Dedicated to the Preservation and Stewardship of our Woodlands, Wetlands, Prairies and Shorelines

More Than Just a View of the Lake

by John J. Magnuson, Emeritus Professor of Zoology and Limnology

Observing the Lakeshore Nature Preserve from Lake Mendota is instructive. If you do not have a boat simply walk to the end of the pier at Limnology (Arthur D. Hasler Laboratory of Limnology) and look to the west and to the east to compare and ponder the differences. When the lake laboratory was sited in 1963, Art Hasler and campus planners chose a location that provided not only excellent lake access for research and teaching, but also a barrier to further development westward along the Lakeshore Path. The view from the Limnology pier provides evidence that the plan worked.

To the east toward Memorial Union you see the edge of a bustling campus where the shore is protected from erosion by boulder fill and cement shoreworks. The campus and the city crowd up against the shoreline as it sweeps to the east and north.

To the west toward Picnic Point you see a largely natural shoreline with overhanging and fallen trees, a large bay, and a wooded peninsula. The mark of natural processes prevails along the water's edge of the Preserve which seems appropriate. Shorelines protected from the force of the waves driven by the stormy northwest winds have become wetlands in University Bay and a tangle of fallen trees along the wooded east shore of Picnic Point. On shorelines facing the brunt of the northwest storms where the wave action dominates, geological processes have created a wave-swept sandy beach on the west side of Picnic Point and a line of low rocky bluffs farther westward.

On closer inspection, the shoreline between Limnology and the University Bay is a transition between the more human dominated and the less human dominated shores of the campus. Along the ever widening Lakeshore Path, the Path squeezes the narrow line of trees along the water's edge, the storm sewers bring sediment and debris from the campus during flash floods, installed boulders and cement debris slow erosion, and scenic viewpoints occur as attractive wooden overlooks or as eroded paths formed by unplanned access to the lake edge.

The inner part of University Bay is a flooded wetland lying behind an earlier shoreline that likely was breeched when the lake was raised by five feet in 1847 when the Tenny Park dam was first built. The inner bay is not a welcoming place for powerboats - the old and now submerged shoreline surprises many. The area is a habitat for many aquatic plants and water birds and a nursery area for young fishes.

The wooded eastern shoreline of Picnic Point provides a maze of fallen trees and branches that limnologists name coarse woody habitat. Fishes thrive here with advantages of both sanctuary and food for the small and predatory attack sites for the large. Fishermen know this and the shoreline is a favorite. I have boated the entire shoreline of Lake Mendota to count the fallen trees in the water. The Preserve's wooded shoreline is a treasure in that regard. Along the entire urbanized area that forms the greater majority of the shoreline, I counted only two fallen trees. This loss of coarse woody habitat along most shorelines results because residents reduce the density of trees on their properties and remove trees that fall into the lake.

The wind swept side of Picnic Point provides not only a delightful and secluded beach, but also habitats for aquatic animals and plants that live in sandy areas. Here the fallen trees tend to be washed away by the waves and currents.

The line of low rocky bluffs extending farther westward provides yet another suite of storm-exposed watery habitats dominated by boulders near shore, undercut bluffs, and an occasional small beach. There are few fallen trees because they are washed away.

The Preserve is a place to view the lake and a place to view the shore. As when we view the lake from the land, viewing the land from the lake provides an appreciation for nature, a certain wonder, and peace of mind. The shoreline of land and water forms a rich zone dominated by natural processes and is geologically and ecologically diverse. A well-designed and managed natural area should protect and restore these two views of the Preserve along Lake Mendota's shore.

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Lakeshore Nature Preserve**

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Friends of the Preserve

is a 501(c)(3) non-profit organization

**We Welcome Submissions
to the Friends of the
Lakeshore Nature Preserve
Newsletter and Web Site**

The Friends welcomes the submission of articles and announcements for our newsletter. We encourage people to share their checklists and other relevant Lakeshore Nature Preserve materials on the Friends of the Lakeshore Nature Preserve Web Site. For information on submitting material, call Roma Lenehan at 238-5406 or send your articles or checklists to rlenehan@charter.net. To reserve space in our next newsletter, please tell us about your material by January 23, 2007. The submission deadline is February 14.

Kennedy Gilchrist – Buckthorn Warrior

Since his retirement after 30 years at the UW Medical School, Kennedy Gilchrist has spent much time volunteering at the Preserve. Kennedy is a founding member of the Board of the Friends of Muraviovka Park, which is affiliated with the International Crane Foundation. Muraviovka Park, located in the Russian Far East, is an international model for sustainable land use, rare species conservation, and environmental education.

Kennedy joined the Friends of the Preserve Board in 2005. He attends almost every field trip, bringing his binoculars and his telescope to see birds and other animals. He is always ready to lend a hand in planting or weeding.

This summer Kennedy devoted 129 hours to removing buckthorn and jewelweed from Bill's Woods. He notes that parts of the planting area had a "regrowth of numerous buckthorn...plants amidst a sea of jewelweed plants.... Pulling up the jewelweed, growing usually as dense stands at heights of three to six feet, revealed a forest of buckthorn plants." He hand pulled and dug out all the buckthorn plants, both new



Kennedy in Tuxedo Shirt and Helmet Removing Buckthorn to Uncover Native Plants in Bill's Woods (GD)

seedlings and head high resprouts, opening the area to allow our plantings to survive and thrive.

In the future, Kennedy hopes to promote multiple-user activities in the Preserve, including taking advantage of its proximity to the UW Health Sciences Center complex for potential benefit of patients and their families. Vegetation improvements at the Class of 1918 Marsh will make strolls more interesting for these families.

Buckthorn in the Preserve

Common Buckthorn, a non-native shrub or small tree from Eurasia, grows in dense thorny thickets shading the forest floor and decreasing forest understory diversity. Buckthorn also does not hold the soil well, increasing erosion. Buckthorn gets leaves early in the spring and retains them until late in the fall. Spring wildflowers, native shrubs, and tree regeneration are all decreased in areas of abundant buckthorn.

Buckthorn has male and female plants. Female plants produce numerous berries. These berries are eaten and spread by animals. Unfortunately, buckthorn berries are low in protein and cathartic, passing rapidly through the digestive system, and thus not as nutritious as most native berries.

In Bill's Woods volunteers removed the female, or berry producing, buckthorns early in the project to increase sunlight and stop seed production. Some of the buckthorns were treated with herbicide to prevent resprouting with mixed success. Other buckthorns have been repeatedly recut to kill them. Several years of repeatedly cutting resprouts kills the buckthorns. After native shrubs were established, male buckthorns were removed. In the meantime, hundreds of buckthorn seedlings sprouted when the area was opened up. These need to be hand pulled when they are still fairly small.

Volunteers like Kennedy Gilchrist prevent our restoration from returning to an impenetrable buckthorn thicket which would kill our plantings. Unfortunately, removing these seedlings is very time consuming and we need many volunteers to keep even a relatively small area free from buckthorn.

Won't you join our ongoing invasive species battle? Only with continual maintenance will we be able to restore native habitats in the Preserve. To volunteer, contact Glenda Denniston (denniston@wisc.edu or 231-1530).

Big Woods, a Hidden Jewel

by Tom Brock

Big Woods is the hidden jewel of the Lakeshore Nature Preserve. While it was not part of the “official” Campus Natural Areas shown in the 1996 Kline-Bader report, Big Woods had been managed by the Arboretum as part of these areas. Glenda Denniston and Thomas Brock reminded the Lakeshore Preserve Committee of this history and Big Woods was reincorporated into the boundaries of the Preserve when the recent campus Master Plan was completed.

Big Woods is all that remains of a much larger forested area that early in the 20th century was slated to become the University of Wisconsin Arboretum. Although the area would have made an excellent Arboretum, the times were not right, and instead the land fell under the domain of the College of Agriculture. For years this area was used by the Ag School for general farming and fruit growing. In one small corner, a pharmaceutical garden was established for research on the production of drugs from plants. Eventually, after World War II, all the experimental farm work situated in the Madison area was moved to Arlington in Columbia County. Most of the area surrounding Big Woods was then turned into faculty and student housing (University Houses and Eagle Heights Apartments). Fortuitously, Big Woods was left out of this development, and remains relatively undisturbed. Some of the largest trees on campus grace this area. Unfortunately, years of neglect have taken their toll, as Big Woods also has some major infestations of garlic mustard.



Large Oaks in Big Woods (GD)

In the original survey of this area, a 40 acre tract was defined at what would become the northwest corner of Lake Mendota Drive and University Bay Drive. In 1895 John M. Olin, the founder of the Madison Park and Pleasure Drive Association, purchased this land and used it briefly as a nursery for shrubs and trees that were to be planted along his newly developing Lake

Mendota Drive. After Lake Mendota Drive was completed, Olin probably no longer had need for his nursery and around 1900 he put in a new road and had the wooded area surveyed for a real estate plat. However, the plat was never completed, and instead in the 1909 to 1911 period John Olin sold his 40 acres to the University of Wisconsin, which was at that time buying up all of the available land between Willow Creek and University Bay Drive. The part of the Olin land at the corner of Lake Mendota and University Bay Drives was used to establish the Pharmaceutical Gardens and the rest remained untouched.



Rich Spring Ground Layer Vegetation of Big Woods (GD)

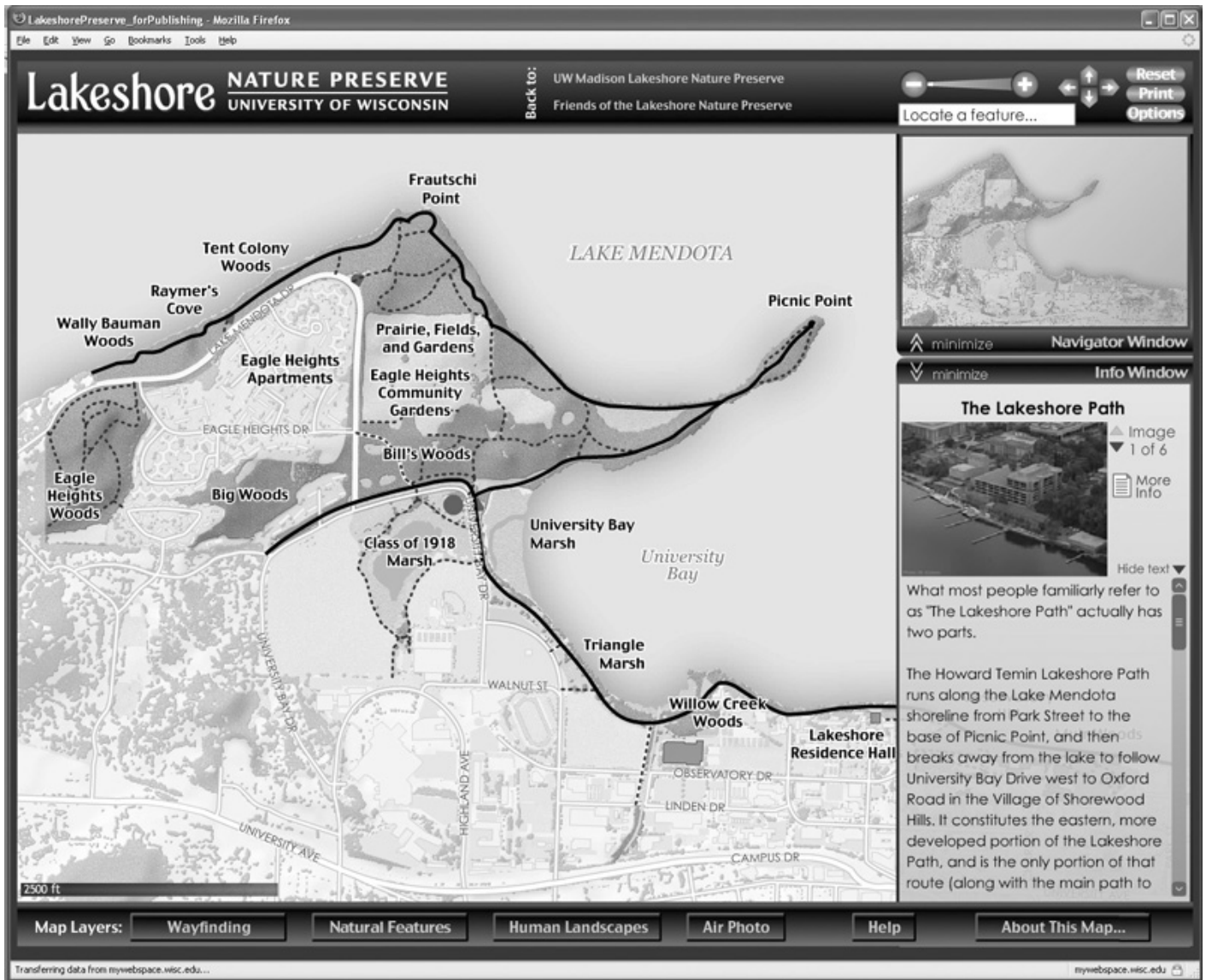
Little change took place in this area for many years, but in the post-World War II era some major events unfolded. In 1946-47 the Wisconsin Alumni Research Foundation built apartments, now University Houses, for faculty housing just east of Big Woods. Even more importantly, in 1957 the first group of Eagle Heights Apartments was built on 11.53 acres of the old Pharmaceutical Gardens. In 1958 more units were built on 7.34 acres on the top of the hill above Big Woods. Further units were built in 1959 and 1963. Also, another group of University Houses was built in 1952.

By 1963 University Houses and Eagle Heights Apartments occupied virtually all of the old university farm land as well as most of the John Olin land. These developments had little impact on Big Woods. I can speculate on why this natural area was saved. It was on a fairly steep hillside and contained quite a few large trees, making it difficult to develop, whereas the rest of the property had already been cleared for agriculture and required little site preparation.

In the 2005 UW Master Plan, Big Woods is not only protected but is actually expanded, since an area between the main woods and Lake Mendota Drive has been included. This makes possible a continuous tree corridor for birds and other animals connecting across Lake Mendota Drive into Bill’s Woods.

A New Map and Website for the Preserve

by Bill Cronon



For the past several months, a team of programmers, Preserve staff, and members of the Friends have been hard at work creating the first official UW-Madison website for the Lakeshore Nature Preserve. Supported by a very generous gift by Eleanor and Peter Blitzer, the university's new site has been designed to complement the Friends' longstanding website, which is itself being given a facelift so the two sites will appear clearly related to each other but still recognizably distinct.

The goal for both sites is to make as much information about the Preserve accessible to as many people as possible, to encourage newcomers and longtime visitors alike to deepen their understanding and appreciation of this special place. The Blitzers believe that these websites will be important tools not only for education and outreach, but for promoting a

community of committed supporters who will work to protect the Preserve for all time to come.

Perhaps the single most exciting feature of the new website is an interactive on-line map that offers a large number of cartographic tools for exploring many aspects of the Preserve: trails, topography, watersheds, soils, vegetation, archaeological sites, historic features, and old aerial photographs, to name just a few. Produced by the UW Cartographic Lab, the map has been hailed by early testers as one of the best such on-line resources for any natural area in the United States, so that it seems likely to attract attention to the Preserve from far beyond the boundaries of campus.

The release date for the new map and website has not yet been set, but if all goes well we hope to release it later this fall or by early spring at the latest.

Muir Woods and the Social Science Building Controversy

by Daniel Einstein, Preserve Program Manager

(The following text is an abridged version of an article that Daniel wrote for the new Preserve website. The full web article offers additional narrative on natural history and restoration efforts, old photos, and links to historic documents.)

The north facing seven-acre wooded slope on Bascom Hill has been known by several names. The earliest reference was simply University Woods. It appears that the name Bascom Woods was first used sometime in the 1920s, following the renaming of nearby University Hall to Bascom Hall. The current name, Muir Woods, probably came into use beginning in the early 1960s, following the formal designation of this wooded area as John Muir Park.

It is fitting that this area was named for John Muir, the famed naturalist and conservation leader. During the early 1860s, Muir was a student at the university, living and studying in North Hall. The window in his dormitory room looked directly out towards the place that would one day bear his name.

In 1918, four years after Muir's death, the university first acknowledged his important contributions to the nation's nascent conservation movement by designating the knob of land across from North Hall as Muir Knoll.

The second time the university honored Muir came as a consequence of a controversial proposal to construct a new building in a natural area. No doubt, the land conservation values invoked during this controversy were similar to the arguments Muir would have used in his many land conservation battles out West (if not similar in scale, certainly in passion).



View of Muir Woods, ca. 1940.
(UW-Archives, series 8/14, CLP-A0154)

In the late 1950s, a plan was developed to construct a Sociology-Anthropology-Economics Building in an area of Bascom Woods north of the Carillon Tower. The ensuing controversy over this proposal lasted for several years pitting angry faculty against the Board of Regents and the Campus Planning Commission.

Faculty members debated, prominent citizens wrote editorials, environmental organizations circulated petitions. Architect Frank Lloyd Wright, a one-time student at UW Madison, wrote a blistering editorial. Estella Leopold, the widow of the legendary wildlife ecologist Aldo Leopold protested:

I can hear what Aldo Leopold would say about this ruthless destruction of the small natural beauty on our campus... I wonder if there is no 'Ecological conscience' among our university men, and 'no state of harmony between the men and the land.'

The faculty advisory Committee on the Campus Wooded Areas, headed by renowned botanist. J. T. Curtis, developed a proposal that it hoped might thwart the entire project. In early 1959, this committee approved a resolution recommending the establishment of a John Muir Park—to include most of what was then Bascom Woods. The committee also recommended that the new park be augmented by additional wooded "outdoor biological laboratories."

When the proposal to establish a John Muir Park was eventually implemented, however, the boundaries of the park were drawn in such a way that the new academic building was allowed to intrude upon the western portion of the wooded area. Despite broad opposition, construction of the Social Science Building was completed in two phases in 1962 and 1966.

While a portion of the former Bascom Woods was lost to construction, this campus land-use controversy was an important turning point for university planners. Indeed, it might be said that the impetus for the creation of the Lakeshore Nature Preserve can trace its origins to the hopes and values expressed nearly 50 years ago by faculty and citizens who cherished this place and fought for its preservation.

Read these clippings to learn more about the controversy:

- Mrs. Aldo Leopold, "Public Protest to Regents Urged On Bascom Woods," *The Capital Times*, Feb. 4, 1959, pg. 10.
- "Wright Flays Regent Attitude on Woods," *The Capital Times*, Feb. 12, 1959, pgs. 1, 4.
- "Faculty Group Demands Bascom Woods Be a Park," *The Capital Times*, Jan. 10, 1959, pgs. 1, 3.
- "Haugen Denies Faculty Has 'Given Up' Fight For Woods," *The Capital Times*, Feb. 5, 1959, pgs. 1, 4.
- "New Building Fits Into Campus Scene Neatly," *Wisconsin State Journal*, September 29, 1962.

Around the Preserve

Migratory Bird Surveys

The Lakeshore Nature Preserve was one of seven Wisconsin sites selected for migratory bird surveys this past spring as part of a Citizen-based Monitoring Partnership Program grant. All seven sites have been nominated as Important Bird Areas (IBAs). The IBA Program identifies sites that provide critical habitat for birds and strives to maintain those sites through voluntary, collaborative approaches. IBA Coordinator Yoyi Steele organized the surveys in order to provide data about the use of the Preserve by passerine migrants. These data are necessary to determine whether the site meets the criteria to qualify as an IBA. The IBA Technical Committee will review these data at their October meeting.

Two teams of volunteers combed the Preserve weekly from April 26 to May 23, counting all the birds they found. These volunteer counters recorded 120 bird species, some 90 of which were migrants.

Although a late migration and a lack of a large “fall out” kept numbers down in the Preserve, observers found a diverse set of warblers and other neotropical migrants. They identified 25 species of warblers, 18 of which were found four or more times. The most common warblers, Palm (maximum of 34) and Yellow-rumped (maximum of 51), peaked on May 19. Rarer warblers included 3 Cerulean, 3 Orange-crowned, and 2 Canada Warblers. Thrush numbers continued to be low with only Wood Thrush (which has nested in the past) seen on more than 3 days. Counters found other unusual birds including 1 White-eyed Vireo, 2 Rusty Blackbirds, and 1 Orchard Oriole (2 days).

Thank you to all the skilled volunteers who donated over 51 team hours (70 total volunteer hours) of their valuable spring mornings to conducting these surveys: Kim Benton, Craig Brabant, John Feith, Roma Lenehan, Andy Paulios, Tom Prestby, Kristin Repyak, and April Sansom.

Announcements

Tent Colony Woods Project

This winter Rebecca Kagle, who supervised the Muir Woods restoration, will begin restoration of the Tent Colony Woods along the north shore of Lake Mendota. The Tent Colony Woods Restoration will be funded by the 50th Reunion Gifts donated by the Class of 1955.

Initially, a grid system, similar to one developed for use in Muir Woods, will be set up to divide the woods into identifiable areas. Once some of the grid work is in place, removal of invasive plants can begin and plans can be developed. Planting will begin in spring 2007.

Announcements *(continued)*

New Staff at the Preserve

The Lakeshore Nature Preserve recently hired a Restoration Specialist, Lars C. Higdon. A second year graduate student in Restoration Ecology, he has had experience restoring prairies, savannas, woodlands, and wetlands, mostly in the Kettle Moraine area. He received his undergraduate degree in Natural Resources Management at the UW-Stevens Point in 2004.

Initially he will continue the work in Muir Woods while planning and implementing projects along the Lakeshore Path. His emphasis will be on the removal of invasive species and adding shoreline plantings. He is particularly interested in training volunteers for restoration work. Eventually, he will also be involved with the Tent Colony Woods project.

The Preserve is extremely fortunate to have such a talented and enthusiastic addition to its staff.

New Preserve Bird Checklist

New short (seasonal) and long (by month) Preserve bird checklists are available on the Friends' Web Site (waa.uwalumni.com/lakeshorepreserve) or from Roma Lenehan (3317 Lake Mendota Drive/Madison, WI 53705 – please send a stamped self-addressed envelope). The new checklist includes 257 species, 12 of which are accidental. One change is that the Red-headed Woodpeckers have become scarcer. Several new birds have been added, including Snowy Egret and Townsend's Solitaire. Finally, the species order has changed, reflecting recent taxonomic changes.

Burdock Tragedy



Goldfinch Killed in Burdock at Frautschi Point (GD)

Burdock burs catch and kill small birds and bats. In addition to this beautiful Goldfinch, people have found a Small Brown Bat and a Red Bat caught in burdock in the Preserve. In order to protect bats, hummingbirds, and other small birds, prevent burdock from producing burs and spreading. Burdock, a non-native biennial, can be removed by digging in its first year. Once its roots get big (they can be eaten), it may have to be cut several times because its long tap root is difficult to remove. Protect our animals – don't let burdock seed in your yard or park! Know and remove first year plants.

Fungus Among Us

by Glenda Denniston

A Different Form of Life

Life is not as simple as it seemed when I first learned about biology. Rather than categorize life forms as either plant or animal, biologists now recognize at least five distinct biological kingdoms: Monera, Protista, Fungi, Plantae and Animalia. Fungi are a division unto themselves, rather than one category of the plant kingdom.

Fungi cannot make their own food, but must eat other living or dead organic material. They live within their food source and absorb nutrients through their surface cell walls. Molds, yeasts and mildew are part of the Fungi kingdom, but here I discuss only what are popularly known as “mushrooms” or “fungi.”

Mushrooms are Fruiting Bodies

What most of us know as “mushrooms” or “fungi” are only part of the fungal organism, namely the spore-producing fruiting body. The main part of the organism consists of a large mass of tiny filaments (hyphae) which together are known as mycelium.



Coral Mushroom,
Clavaria sp.,
at Picnic Point (GD)

Because many fungi consume dead plants and animals they are extremely important in breaking down organic matter into its recyclable components. Only then can other life forms use the material. Fungal mycelia also serve an important function in holding soil components together and helping soil retain moisture. Fungi are essential to terrestrial life in all its variety.



Shelf Fungus:
Artist's Conk,
Ganoderma
applanatum,
in Bill's Woods (GD)

Fungi in the Preserve

Fungi come in many shapes, colors and textures. Thousands are found in the Preserve. Some of the familiar capped mushrooms have gills below the cap, while others have pores or teeth. Some mushrooms have rings around their stem or cups at their base, while others do not.



Cap Mushroom: *Amanita muscaria* Morel, *Morchella esculenta* GD

Findable in all Seasons

Fungi can be found in the Preserve in all seasons, but it can be difficult to identify them. Identification often cannot be done without microscopic analysis by an expert mycologist. Even so, finding and photographing mushrooms of the Preserve and trying to identify them can be pleasurable, even in the dead of winter.

Join the Friends of the Lakeshore Nature Preserve

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Your donation is tax deductible to the full extent of the law.

Restore Willow Creek Woods

by Michael Adams

Reading the Landscape

The current landscape of the Preserve provides us with not only an immediate, real-time image at this point in time, but also gives us clues as to the fascinating catena of changes (both for better and worse) that have occurred over historical and pre-historical periods.

Willow Creek Woods

A group of open-grown oaks directly north of the Natatorium and east of the Lakeshore Path bridge over Willow Creek, recently re-named Willow Creek Woods, tells of a different time when fire and/or grazing kept the land an open oak savanna. This (undoubtedly) once-beautiful stand of scattered trees, 23 in number, is now choked with the growth of numerous weedy, woody species.

The oaks themselves represent several species--Bur Oak, White Oak, and Black Oak (with possible introgressive hybridization involving Whites and Burs). The area also supports an important ceremonial mound

collection, indicating prolonged usage by Native Americans.

Restoration of an Oak Opening

This overgrown area gives us an opportunity to restore a native oak opening ecosystem before it is too late. Restoration of this important site through selective clearing and burning should be a high priority. The lawn at the east end of the site should be eliminated. Areas with oak regeneration (both active and potential) need to be identified. This work should be done with help from the Ho-Chunk nation, because of the importance of the ceremonial mounds.

Oak openings can include some mix of other native trees (J. Curtis, *Vegetation of Wisconsin*, 1959, Appendix, page 567), such as the large open-grown Shagbark Hickory present here. In restoring this area, attention should be given to re-establishing the correct ground layer species composition, to include at least some of the 46 species that Curtis listed (Curtis, 1959, Appendix, page 568).

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Time to renew October and
November memberships