



CENTER LINE

A Publication of Waukesha County's Retzer Nature Center

Winter 2009

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Upcoming Events:

- ◆ Winter Wildlife on Showsoes some Saturdays in January & February
- ◆ JanBoree January 24
- ◆ Wild Winter Night February 6
- ◆ Aldo Leopold Weekend March 6

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SEASONAL SUBJECTS IN SEASONAL SETTINGS

Salix bablonica, otherwise known as “weeping willow” is my favorite tree to bring into focus on an early spring day. Drooping branches, and beginning foliage, give the tree its “Weeping” silhouette. Later, long branches of lance-shaped leaves will hang down and flutter in the spring breezes. Leaves are green above and gray or white below. But it is the twigs of the tree which are bright yellow, and in early spring catch your attention, when the willows seem to radiate with sunshine on the still bleak landscape. Later characteristics to be aware of in the willow’s makeup include single caplike scales on the bud, separate male and female catkins or flower clusters, and noticeable projections at the bases of their leaves. Flowers are greenish, in catkins 3/8" to 1" long, and appear early in spring. Fruit, as 1/16" long light brown capsules, matures in late spring or early summer. The weeping willow loves moisture and grows best near water and wet soils. This tree was believed to be the tree mentioned in Psalm 137: “By the rivers of Babylon ... We hanged our harps upon the willows in the midst there of.” A more recent time frame finds the willow mentioned in the last two lines of a refrain composed by Anonymous:



Weeping Willow

“I’ll hang my harp in a weeping willow tree
And may the world go well with thee.”

(Everybody now, lets hear it – “There’s a Tavern in the Town.”)

As the first signs from the willows bring joy to spring sightings, summer encounters with the beautiful *Betula papyrifera* add pleasure to times spent in their company. The familiar name for this special tree is Paper Birch. Sometimes it is also called Canoe Birch. Before European immigrant settlement in our territory, Native American Ojibwe made their way across North America, finally stopping in Wisconsin. The Ojibwe had started their journey from the East coast, and were looking for land where the food grew on water. They found it when they reached wild rice country. Pure stands of Paper Birch were found in upper Wisconsin. The Ojibwe lived among the birch and made their homes with the birch. Their lodges were dome shaped, and covered with birch bark squares, sewed together with twine from the spruce root. The domes were covered with two layers of the bark, so that moss could be packed between the layers to act as insulation. Native Americans constructed a light weight canoe by stretching peeled birch bark over sheathing and ribs made of cedar. The canoe was then sealed with spruce-root pitch. The beautifully handcrafted canoe was used in transportation, for fishing, and for the gathering of wild rice. Master canoe makers could craft a work of art that was easy to maneuver, and remained durable for over thirty years. The ideal model to park under the trees. The leaves of the paper birch are dark green above, pale yellow-green below. The leaves are oval in shape, long pointed, and have double saw-teeth. Catkins of male flowers are yellow-green in drooping catkins; those of female flowers are short, greenish, and stand upright. Paper Birch thrives in moist sandy soil and often grows in burned-over areas.



Paper Birch

Not only is this tree artistically appealing with bark that is smooth, chalky white, and papery thin, the darker patterns in the decorative bark at times resemble eyes that watch you observing them. From "An Indian Summer Reverie", (1846) the poet James Russell Lowell mentions that the birch is the most shy and ladylike of the trees. This may be so, summer's setting finds the birch stand adorned with nature's charm.

Readers will not have to second guess which is my favorite tree, or the fruit thereof, for celebrating autumn's season. Years ago, Retzer Nature Center provoked this celebration with their annual Apple Harvest Festival. *Malus sylvestris* is the object of our affection, and John Chapman, aka Johnny Appleseed, was the instigator who led us into this outpouring. John Chapman was born in 1774 in Massachusetts. By the time he had turned twenty, his legend was already in the making. Little is known about the young Appleseed, but Johnny learned to read and write. He became an entrepreneur, purchasing parcels of land and starting orchards with acquired apple seeds or small seedlings.



Apple Tree

After starting numerous orchards in the East, he followed the settlers westward and helped develop orchards in Ohio, Indiana, and other points in the first westward migrations. One can truly say the apple was successfully promoted by John Chapman. Varieties of apples have descended from *Malus*

sylvestris, originally native to Europe and Western Asia. Today many varieties of apples from this one species are enjoyed by all. So when push comes to press, my favorite tree for autumn remains *Malus sylvestris*, with the fruits thereof. I raise my glass of cider and shout a toast to Johnny Appleseed and the bountiful apple orchards.

Within the normal pattern of events, winter's season brings the passing of another year. I've mentioned this before in writing, and will state the fact again, winter is no longer a favorite season. When frigid temperatures drop and icy landscapes shiver, they become impossible obstacles to overcome. Environment forces me to hibernate much of the time, like a few other Wisconsin critters. However, from my cozy hibernation, winter's favorite tree always remains the same. Called to attention is the largest conifer in eastern North America. The tree normally reaches 100 feet in height, and 4 feet in diameter, but the evergreen is long-lived, and has been known to reach heights over 200 feet. The tree grows tall and straight, and long lateral branched sweep upward in graceful curves. My favorite tree, standing at

attention in the quiet cold beauty of winter, is the Eastern White Pine, *Pinus strobus*. Needles are soft, bluish-green and are 3-5 inches long. The soft pine needles are flexible and grow in bundles of 5. On two surfaces of each needle there are 3-5 fine white lines of stomata.



White Pine

Needles remain on this pine for two years. At the time of needle shedding, the sheath of the needle bundle is shed with the leaves. Cones of the White Pine are fully grown in the summer of their second season and they will discharge the seeds that autumn. Cones are 4-8 inches long, somewhat curved and stalked. The scales of the cones, however, do not have prickles. Bark on young White Pines is smooth, greenish, and sometimes with a tinge of red. On older tree trunks, the bark becomes deeply divided, with ridges that become covered with purplish scales.

Throughout winter's season, White Pine provides a tasty diet for the red squirrels. When landscapes are covered with snow and ice, seeds from the pine cones remain accessible, delectable, and always on the menu. For other winter visitors, the Eastern White Pine holds its stately presence on Wisconsin landscapes. Bored hibernators will eventually accumulate a certain amount of dust, plus an ailment called cabin fever. All must escape into the natural environment to inhale fresh air – hopefully scented with pine. This is the time to focus in on my favorite seasonal tree, the Eastern White Pine. Don't forget your cameras!

See you on the trail,

Shirley Blanchard

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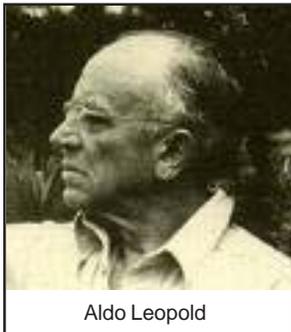
HEARTWOOD



VISITOR

As you read this, the winter is no doubt gaining ground. The days are getting short, the sun is low, and cold winds threaten to bring snow. Maybe it's hard to believe, but spring will come again. And just about the time that spring does return, a Visitor will come to Retzer Nature Center.

In Wisconsin, the first weekend of March has been proclaimed as Aldo Leopold Weekend. On this particular weekend, at nature centers, libraries, schools and other assorted venues across the state, the great Wisconsin naturalist is acknowledged and honored. His words are read and savored, and his teachings are presented and interpreted, and his legacy is proclaimed and celebrated. Here at Retzer Nature Center, on Saturday March 6th, it is rumored that Aldo Leopold—The Professor himself—will visit for awhile with kindred spirits here at Retzer. Exactly how this can occur is not precisely known—possibly, a warp in the space-time continuum, to bring Leopold among us. In any event, it is a Visit not to be missed.



Aldo Leopold

We have taught about Aldo Leopold at Retzer Nature Center since the beginning. We have used the lessons of *A Sand County Almanac* in our programs for schools and for the public, and in crafting our land restorations and management. We have given a variety of programs and workshops on the application of Leopold's teachings to environmental education. We are active with the Leopold Education Project, an organization that promotes land teaching based on Leopold's writings. In fact, we are certified to train naturalists and teachers to use the organization's school curriculum, *Lessons in a Land Ethic*.

We have made multiple trips to the Aldo Leopold Foundation's Shack property. We stock an impressive assortment of Leopold's writings in the Retzer gift shop. All in all, it's fair to say that Retzer has been very involved in trying to keep alive the legacy of Aldo Leopold.

So it was no big surprise when I was contacted by colleagues from the National Association for Interpretation, requesting that I give a program on Leopold for their regional conference in April 2010. Except that the specific program that was being requested was a big surprise. The request was that I give my **first-person** Leopold program at the conference! My response was a humble one—that I was happy to be asked, but that I did not do a **first-person** program (in which I would **appear in the persona** of Leopold).

But the request got me thinking, and it made me restless.

Why not do a first-person program interpreting Aldo Leopold?

If not me, then who?

After all, I'm a serious person with a serious interest in Leopold.

I can be very focused on a worthwhile challenge.

I'm not shy.

I'm even about the right age!

Could such a program add something new to our teaching about his message?

Would it be presumptuous to try it?

Would there be a realistic chance of success?

Could I even pull it off?

I contacted the Aldo Leopold Foundation, the proper custodians of Leopold's name and legacy. I presented my idea to them. I shared my hopes, and my fears, about such a project. I told them I thought that presuming to portray Leopold was a serious matter, and should not be undertaken without proper

(Visitor... continued)

scrutiny and proper permission. They told me to sit tight with this idea for awhile, that they would consider it. I think they appreciated my serious attitude about it. Eventually, the Foundation gave their response: although they are not in the business of “certifying” first-person Leopold interpreters, on an informal level they had no problem with my doing this. They even said that they thought I would do a good job, and were interested to see the finished program. So, with a fresh sense of confidence in the possibilities, I got back in touch with my friends from NAI—I told them that I would indeed do a first-person program interpreting Leopold, for their conference. In fact, I would use the opportunity to develop such a program as a way to advance our teaching about Leopold’s legacy.

As I write this in September, I am in the thick of preparation of a first-person portrayal of Aldo Leopold. The whole idea is daunting, and the challenges of the project are considerable. But the joys of the project are considerable too.

My aim is to test-drive the presentation at Retzer’s Aldo Leopold Weekend program on Saturday, March 6th, when Leopold will appear as a Visitor out of the mists of time, to spend awhile with kindred spirits at Retzer. Don’t miss it.

Larry



BASIC GROUNDWATER

Water is essential to life as we know it. How often have we heard this? And oh how true it is. When filtering through the ground, the most common travel is down, such as after a rainfall. This is where construction infiltration basins and their smaller cousins, rain gardens, come in handy. They allow runoff from roofs or roads to recharge the aquifer below your feet instead of artificially flooding a river via storm sewers. Water can also flow parallel to the ground or even up through it in the form of springs. In our area, this is common especially in the Kettle Moraine State Forest, where very well drained

sandy soils on hills (moraines) filter rainwater quickly down into adjacent lowlands. Sometimes the recharge is so great, it is forced back to the surface through a sandwiched aquifer or just an open area in the sod. These springs can create very unique natural communities, called fens.

A fen is a... well (more like a spring), difficult to describe and even more difficult to define. Fen literally means ‘marsh’ or ‘bog’. These titles simply will not do since they refer to different communities altogether; a marsh is composed of a mineral soil, and an acid peat forms the upper soil horizon for a bog, which is the opposite of a fen (Curtis 1959). We must back up a bit; we are definitely getting ahead of ourselves. Let us begin with the basics (in contrast to the acidics); a fen is first and foremost, a wetland. Second, it is ‘on’ a peat soil (usually), where saturation is persistent enough to impede the decomposition of organic matter. Third, the soil is of a pH of 5.5 or higher (more on this in a sentence or three). Finally (and perhaps most importantly), a fen is groundwater-dependent. They are always associated with areas of groundwater discharge (Carpenter and Zedler 2008), usually found near springs, along hillsides when bedrock forces the water to the surface, or alongside streams where the watershed flows into the waterway.

So, fens always have every component mentioned in the previous in common. Now we can get into the slight variations and describe different types of fens. Maybe we should quit while we are ahead, but you knew it wasn’t going to be that simple; it never is. It was simpler not too long ago. Most people still think mainly of Calcareous Fens (these are areas with all of the above characteristics and a soil pH above 7.0 or neutral, making them truly basic). They certainly are the most recognizable and probably the most important subgroup because of the unique plant life. Calciphiles are plants that require a basic (alkaline) soil, only growing in the influence of water high in calcium or magnesium bicarbonates

(Hoffman 2002). In our area, the water acquires these nutrients from the dolomitic limestone that makes up our Niagara Escarpment bedrock and brings them to the surface, providing the alkaline conditions necessary for these specialist plants.

Not too long ago, Poor Fens (their soils have a pH less than 7.0, on the acidic side but still not low enough to be considered acid soils) were recognized. They have a species composition more similar to that of Sedge Meadows or Wet Prairies, but are still unique communities (Carpenter and Zedler 2008). Even more recently, Prairie Fens (these have a groundwater drawdown in the middle of the growing season) were defined, having an even greater affinity with Wet Prairies (Reed, pers. comm.). It all boils down to 'where does one draw the line'?

Why, then, are we covering this topic in the frozen, cold winter when it would be arguably more appropriately addressed in the, well... spring? Fens, they say, are the most difficult community to plant from scratch. They never come as close to nature as we would like (I contest that a shaded cliff grouping of species would be more difficult to recreate, but I have never tried to plant a north-facing cliff). This past season, we did plant an area close to the stream, where the water seeps at the surface for almost three entire seasons of the year. Not having too many fen species in stock (and none of our seeds are calciphiles), we attempted more of a Prairie Fen or a Sedge



Fen

Meadow Fen, this is probably for the best, since this likely has the best chance to succeed—rather than attempting a Calcareous Fen where it does not belong. We are very interested to see how this develops in the future, and you can bet we will be keeping track of species. So, in the years to follow, join us in studying our new Sedge Meadow Forest Edge Prairie Fen; you will find it where the tractor lane meets the red trail, near the bridge by the stream. Make sure you think 'Fen' loud and clear whenever you stop by.

Mike

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A Sincere Thanks to All...

The following individuals or groups have donated to Retzer Nature Center since the last issue of CENTER LINE. Their support is greatly appreciated.

- Cash donation from Elmbook Garden Club, Inc.

Friends of Retzer

The Friends of Retzer Nature Center is a registered, 501 (c)3, organization dedicated to encouraging, perpetuating, and promoting the work of conservation and natural resource education.

The organization seeks the involvement of the community in the form of financial and volunteer support to work toward the continued growth and improvement of Retzer Nature Center. If you would like to become a member or view some of our projects and activities, please visit our updated web site at <http://FriendsOfRetzer.org>.



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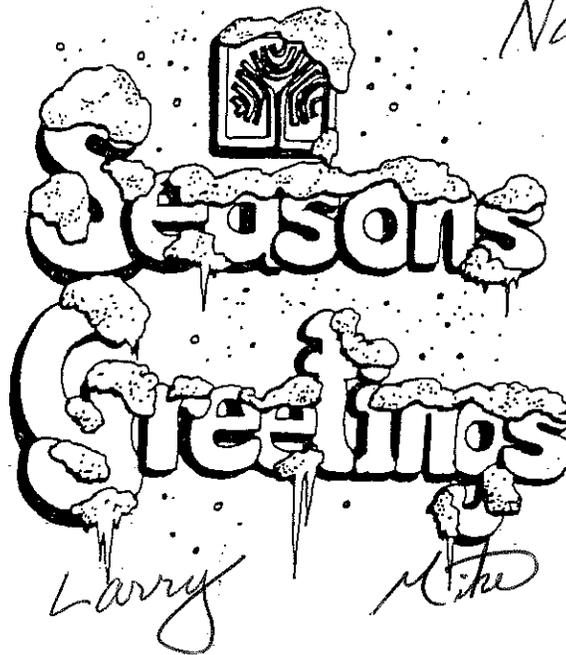
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