

## Mukwonago River Restoration Project

by Nancy Gloe

Though some of you may know much of this story, for the benefit of those who do not, a little history is in order.

**Rewind:** In the 1960's a developer set out to build a "dream" resort called Rainbow Springs on approximately 1,100 acres in the Town of Mukwonago (upstream from WCLC's recently purchased Davis property). In the process of building two 18-hole golf courses, the Mukwonago River was "moved around a bit," to say the least. The "mainstem" of the river was re-routed to accommodate several "greens". In addition, it was restricted by seven corrugated steel culvert pipes under bridges to accommodate golf cart paths. The new, unnatural stream channel produced degraded, slower-moving, warmer water.

Apparently due to financial difficulties, the partially-built resort never opened. The property changed hands several times, though, and the golf courses operated for over 40 years. During that time the river was relentlessly trying to cut its way back to its natural channel. This, of course, caused excessive erosion and further deterioration of water quality. Also, during rainy periods fertilizers and pesticides washed into the river.

The Mukwonago River, it should be noted, is one of the few high quality streams remaining in the heavily populated Southeastern part of Wisconsin. According to the DNR, **"Over 15 miles of trout waters are located along stretches of the Mukwonago River and its tributary Jericho Creek. The Mukwonago River is among the cleanest and most biologically diverse streams in southeastern Wisconsin and provides critical habitat for a number of rare, threatened, and endangered species of fish and invertebrates... At least 53 species of fish, including the state-threatened longear sunfish (*Lepomis megalotis*) and state-endangered starhead topminnow (*Fundulus dispar*) have been found in the river. In fact, the two-mile stretch of river from the natural area downstream to its confluence with the Fox**



**River contains the last known self-sustaining longear sunfish population in Wisconsin.**

**This may be the least disturbed watershed in the Southeast Fox River Basin. There are diverse and unique populations of warm water forage fish, game fish, mussels, amphibians, and invertebrates."**

[Note: development in this watershed continues to increase rapidly so the river is in on-going need of protection]

**Fast forward:** In 2010 the property was sold to the WI-DNR and it became known as the Kettle Moraine State Forest-Mukwonago River Unit. In 2012 the DNR began to restore the river to a more natural state. DNR Fisheries Biologist Ben Heussner (and others) deserve a huge amount of credit for taking this on! The project required quite a bit

*(Continued on Page 2)*

Above:  
Water is bypassed around roadway so culvert can be removed.

Right:  
Longear sunfish



of careful earth moving and land stabilization activities to avoid further damage to the river. Two of the seven culverts were removed in fall of 2012. The removal of these culverts allowed DNR technicians and contractors to “by-pass pump” the entire river around the location of the next phase of the project. In 2013 they were able to work “in the dry” to remove the remaining five culverts and to capture much of the fill used to maintain the cart paths over the years. It took (in case you’re interested) three high capacity pumps, moving approximately 12 cubic feet per second, to move the river around the work site.

And while the project managers did the best they could to put the river back where it belonged, there was, inevitably some “fine tuning” that needed to be done. This fine-tuning began in fall 2013 and most of it was done by DNR staff and volunteers, especially young people who were studying at the neighboring Nature’s Classroom and Montessori School.

For example, after the culvert removal in one area, it was noted that the stream was still too wide and flat. DNR technicians drove stakes into the river bottom and installed “biologs” (shoreline stabilizers that will eventually break down) where they wanted the new bank to be.

This past April and May a number of work parties have made significant progress in creating this new “river bank.” Volunteers and DNR staff cut invasive brush (buckthorn) on the property and pressed the brush into the muck behind the stakes. [Note: ...and you thought buckthorn was useless...] As the river rises and falls, the imbedded brush will trap and cause deposition of sediment, creating the new bank.

The various groups of young people, it should be noted, demonstrated an impressive amount of hard work and drive on the project and they accomplished quite a lot! Nature’s Classroom deserves lots of credit for giving young

students an opportunity for hands-on experience to improve natural areas. The value of this work cannot be overstated!

After the new bank becomes solid enough, vegetation will be planted for further stabilization (sedges perhaps to provide seeds for migrating birds and other wildlife?).

The bottom line: For over 40 years, that stretch of the high quality Mukwonago River existed as a “nuisance that was pushed out of the way.” Water quality was poor and the natural movement of fish up and down stream was restricted. Canoeists and kayakers had to portage around the culverts. The river is now much cooler and cleaner in that area. Long suppressed springs are beginning to flow again and the river is now able to create new habitats so that many species of fish and other creatures can now recolonize the area.

This segment of the Mukwonago River now runs free to the benefit of the many aquatic creatures that can, once again, call it home.

{ Authors note: Special thanks to Natalie Dorrier of Nature’s Classroom and Montessori School and Ben Heussner of the DNR for their assistance in writing this article and for providing photos.}



Students from Nature’s Classroom assist the DNR in the restoration of the Mukwonago River.

# 2014 Annual Meeting

at the  
**Red Circle Inn**  
Nashotah WI



Speaker Mariette Nowak with Marlin Johnson and Chris Gloe

## Program

### “Gardening with Native Plants to Attract Birds”

Speaker: Mariette Nowak  
former Dir Wehr Nature Center  
and author of “Birdscaping in the Midwest”



Dave & Susan Frazer with Dee and John Burlingame



Dale and Mary Graves at the Annual Meeting



Photographer Ralph Curtis with his wife Diane and Board member Phil Hinman.

Ralph Curtis provided the excellent wildlife photos that were shown during the 2014 Annual Meeting. Copies of his photos may be viewed and purchased at his web site:  
[www.ralphcurtis.com](http://www.ralphcurtis.com)

In addition to providing excellent photos for the slide-show and for use in our newsletters, Ralph also manages the Waukesha County Land Conservancy's hunting permit program.



Barb and James Injeski talk with Board member Donna Meyer

Annual Meeting photographs are courtesy of Gee Esslinger.

**The Waukesha County Land Conservancy is proud to share the success that donations from our members have helped to achieve:**

- Over **2700** acres of environmentally significant land in Waukesha County saved.
- Over **1600** donors: individuals, corporations, foundations.
- **All membership donations used for land purchase and management.**

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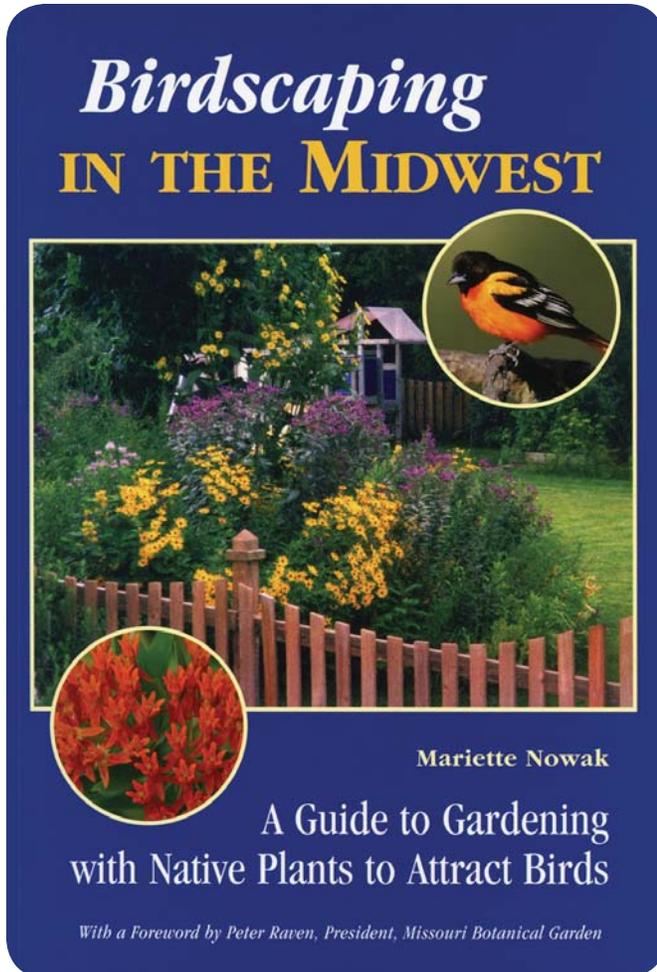
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# A Review of Mariette Nowak's "Birdscaping in the Midwest"



Cover from Mariette Nowak's book.

Mariette Nowak, the former Director of Wehr Nature Center and author of "Birdscaping in the Midwest" was the featured speaker at the Waukesha County Land Conservancy's 2014 Annual Meeting at the Red Circle Inn. Photos of native plants and the birds they attract illustrated her fascinating talk, just as they illustrate her informative book. I assumed many WCLC members would enjoy reading and using Ms Nowak's book as a reference when landscaping their yards.

In her introduction to "Birdscaping in the Midwest," Ms Nowak writes, "There are 40 million backyard bird watchers in the United States and they spend over two million dollars a year for bird food. But birds need more than sunflower seeds, suet and sugar water...."

By landscaping with a diversity of native plants, you'll offer a year-round smorgasbord of insects, seeds and berries – in effect making your entire yard a supersized bird feeder."

Some of the handiest sections of "Birdscaping in the Midwest" cover specific bird habitats with lists of appropriate plants, and include the foods these plants will provide for birds in your yard. For instance, there is a chapter titled "Bird-Friendly Plants for your Woodland Garden" in which there is a list of trees appropriate for woodlands that provide seeds, of shrubs that provide nuts for woodland birds, of groundcovers providing fruit in woodland habitats, and so on. Photos of a Great-crested Flycatcher and one of the fruit of a White Baneberry plant illustrate this chapter. Also included is a planting plan for your Woodland Bird Garden that includes nine of Ms Nowak's recommended tree species (such as Red Oak and Black Cherry) and ten shrub species (including Hazelnut and Viburnums).

As I live on a wooded lot, the chapter on woodland gardens was most informative for me. Other habitats are equally well addressed. For instance, there are chapters on building a Prairie Bird Garden, a Wetland Bird Garden, even a Migratory Bird Garden. In the chapter on Birdbaths and Water Gardens there are extensive instructions for constructing, planting and maintaining a pond to attract birds to your yard. To quote Ms. Nowak:

"The aim of this book is to inspire every bird lover to go beyond the bird feeder, dig up some lawn and begin planting some of our midwestern native plants. Whether you're transforming a small city lot, a suburban spread or a larger rural property, you'll be rewarded with a bounty of birds, the beauty of a natural landscape and the satisfaction of helping to heal the Earth around your home."

So get out your shovel and start digging up some grass!

by Ellen Gennrich

**Land Letter**



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Indigo Bunting  
Photo by Ralph Curtis

**Save The Date:**  
**Picnic on the Prairie**  
**September 13, 2014**

**Watch for your Invitation for Details**

Hike the prairie, gather seeds and enjoy the food and company at the UW Waukesha Field Station located on Waterville Rd, Oconomowoc WI south of Highway 16.