

**BAYLES LAKE HOMEOWNERS ASSOCIATION**  
**P.O. BOX 38    LODA, ILLINOIS    60948**

April 2010

**“Bayles Lake Natural Habitat Area”**

The Lakes and Park Committee is recommending that the Bayles Lake Homeowners Association Board of Directors designate the south shore of the south lake of Bayles Lake as a Natural Habitat Area. This area would extend from the Lakeview Country Club driveway on the east side and follows the natural waterline and the easement, which varies in width, along the natural shoreline, all the way to the boat dock at Thompson Park on the west side.

We are looking for support from BLHOA BOD and Lakeview Country Club Board of Directors and recommendations from the Illinois Department of Natural Resources, Iroquois County Soil and Water Conservation District and Integrated Lakes Management. We are looking to see if we would qualify, through the DNR, The Illinois Wildlife Action Plan: “Defining a Vision for Conservation Success” or through their “Illinois: Acres for Wildlife” programs. We are also exploring what kind of programs the ICSWCD might have available. Cost will be minimal with signage being the biggest expense and will be phased in as our budget allows.

Developing this area would protect Bayles Lake, the lake shoreline and lake bank, the natural nesting and shelter areas for some of the wildlife at Bayles Lake and with some maintenance, controlling invasive plants and promoting the native plant population and its growth. It would be posted with the appropriate park type signage, “Bayles Lake Natural Habitat Area”. This plan would be consistent with the DNR recommendation, using the south shore of the south lake, because of its silt condition, to try and establish a Bass Fishery.

Visually, this natural habitat area should present a pleasant view for our residents as well as visitors and guests to Lakeview Country Club.

This is an opportunity to improve communication between the Lakeview Country Club Board of Directors and the Bayles Lake Homeowners Association Board of Directors. For too many years there have been questions that seem to go unanswered and hopefully this will eliminate guesswork and open an opportunity for cooperation, to exchange ideas and work together on some projects.

**Natural Areas Improve Property Values**

This is a study that addresses the issue of the value placed on open space and how it impacts the value of property to property owners and homeowners. It looks at the effects of different types of open space, including parks and golf courses and the impact they have on increasing property values. The authors divide the generic term “park” into three

categories: natural area parks, specialty parks/facility and urban parks. Natural area parks are found to have the largest statistically significance of influence on property values. Also important in influencing sale prices upwards are specialty parks/facilities, such as golf courses and urban parks.

Source: “EVALUATING THE ECONOMIC IMPACT OF COMMUNITY OPEN SPACE AND URBAN FORESTS: A LITERATURE REVIEW” by Nanette Nelson, The University of Georgia. November 2004.

### **Developing the “Bayles Lake Natural Habitat Area would include:**

#### Nature Assessment and Inventory of Native Plants and Animals

Wildlife and plants depend on certain types of ecosystems or habitats for their food, water, shelter and space to grow. These basic needs must be available to a population of animals and plants in order to survive. When part of this ecosystem or habitat is removed or polluted, the animal and plant population goes down or dies off completely.

When one population of animals or plants in an area increases or decreases, populations of other animals or plants may also increase or decrease. All the living things, plants and animals, in an ecosystem are interrelated or connected.

There are many ways we can help with the wildlife population. People that own land can plant trees, shrubs or wildlife food plots. Streams, rivers, ponds lakes and wetlands should be protected from pollution, erosion and sedimentation. Nesting boxes and bird feeders can be put out for wildlife when natural nesting areas or food supplies are scarce.

People can also have a positive impact on wildlife and plant populations through improvement and protection of habitats and ecosystems. The planting of trees, shrubs and wildflowers or native plants in the appropriate locations is one way landowners can improve a healthy habitat and environment.

The amount of suitable habitat for a species of wildlife or plants will determine the numbers that can survive in the area. Human activity has the greatest impact on the amount and quality of wildlife and plant habitat in Illinois. Wildlife habitat can be destroyed or its quality diminished as a result of urban sprawl, agricultural practices, pollution, sedimentation, or habitat fragmentation.

#### Partial inventory of animal / bird species in the nature habitate area.

|                  |                  |              |
|------------------|------------------|--------------|
| Whitetail Deer   | Great Blue Heron | Woodpeckers  |
| Ground Squirrels | Owl              | Hawks        |
| Coyotes          | Cardinal         | Wren         |
| Mink             | Blue Jay         | Humming Bird |
| Beaver           | Blue Bird        |              |
| Ground Hog       | Finch            |              |

Robin  
Sparrow  
Black Bird  
Starlings  
Canada Geese  
Mallard  
Turkey Vulture  
Morning Dove

Birds migrating through....Coot, Loon, Sea Gull, Wood Duck, Egret

Partial inventory of plant species in the nature habitat area.

(This is incomplete at the moment, we still have work to do in this area). The dominant grasses are Indian grass and big bluestem. Common spring flowers include shooting star, downy phlox and yellow star grass. Rattlesnake master, compass plant and wild quinine are typical during the summer while goldenrods and asters are abundant in the fall.

Filters, Shoreline and Bank Stabilization, Algae Control, Erosion Control

There are many different types of buffers or filter strips. While these practices may be called different names in different regions, their functions remain the same, improve and protect ground water and surface water quality, reduce erosion, and provide protection and cover for birds and wildlife.

Any strip of vegetation will be beneficial. However, the full benefits really begin to accrue when the buffer is at least 8 feet wide. Larger bodies of water require wider buffer zones. A continuous, uninterrupted buffer is preferable for water quality protection. A stabilized, plant buffer zone serves as a line of defense against threats to our lake and bio and aquatic diversity. These strips can slow water run off, trap sediment, fertilizers, bacteria, pathogens and other pollutants before reaching the water. With the nearby golf course a filter or buffer strip is even more essential.

It is also beneficial to evaluate the natural waterline and to include an additional rip rap stone buffer zone for protection and where needed to prevent wave action from undercutting and destabilizing the shoreline and homeowners may consider adding some lake bank plantings of plants, shrubs or trees plantings for additional protection.

Buffer zones and filter strips will produce environmental benefits and will protect the soil, air and water quality and improve fish and wildlife habitat.

## Restoration and Growth Potential

Once a natural area is created, restored, or enhanced, it must be maintained in order to thrive. This process must begin immediately. If a natural area is not maintained it will become overgrown with invasive and weedy species and will be aesthetically displeasing. The maintenance process involves monitoring the vegetation and reacting to changes as they occur over a period of time. A maintenance plan must be flexible as natural areas tend to change over time.

The best plans include working with Mother Nature, not against her, working together we can convert high maintenance, low function, intensive landscapes to low maintenance, highly functional natural areas that become home to our native birds, butterflies and wildlife.

## Management

Just as fire was a significant force in shaping the American landscape for thousands of years, fire is essential to the restoration of natural areas. Fire has shaped plant and animal communities that are dependent upon fire for survival. Today's prescribed fire simply continues a necessary process that nature started thousands of years ago.

Native vegetation successfully handles the challenging task of controlling erosion if the plants are given what they need for success, including fire. In fact, native plants cannot compete with cool season grasses unless there is an occasional fire. Burning eliminates accumulated dead vegetation and diseased/bacteria problems in nesting sites while stimulating new growth or diversity. The more diverse the prairie planting and wildlife habitat, the more resistant the native vegetation is to an invasion by non-native or woody vegetation.

Prescribed burns confine the fire to a predetermined area for best environmental results. Appropriate precautionary measures are part of the planning and should be done in consultation with the Loda Fire Protection District while advising nearby residents of the plan.

Proper management will prevent unnecessary burning or mowing detrimental to wildlife, trees or plants and prevent needless spraying with materials harmful to wildlife, trees or plants.

Additionally, native plants, due to their deep root systems have become highly adapted to fire, re-sprouting within weeks of burning. Our natural areas are not fire tolerant, they are fire dependant and invasive vegetation is eliminated.

A prescribed fire is the most cost effective form of natural area maintenance. It is the ideal solution to control invasive species, stimulate the growth of native

plants, reduce woody growth, and increase plant biodiversity and improve animal diversity.

The timing most appropriate for prescribed burns is March 1 to April 1 according to the DNR, IEPA and Iroquois County SWCD.

**REPORT VISIT - SOUTH END BAYLES LAKE**  
**May 5, 2010**

Thad Eshleman

Resource Conservationist, Iroquois County Soil and Water Conservation District

On Wednesday, April 28, 2010 I met Rod Cardinal of the Bayles Lake Association. The purpose of the visit was to gather information from (and to provide information to) Mr. Cardinal about the possibilities of establishing native aquatic and terrestrial plants along the south shore of Bayles Lake.

Bayles Lake lies west of Loda, Illinois. It was constructed in the late 1940's – early 1950's in the drainage channel of Spring Creek. Upon completion, a diversion canal was dug to take the majority of Spring Creek water flow east of Bayles Lake. The lake is surrounded on all but the south side by homes on small tracts. Bayles Lake is used for fishing, boating and other recreation. The south shore of the lake is bordered by a wide grassy area on the east; the south shore buffer narrows to the west, with a golf course immediately south.

Mr. Cardinal met me at the south end of the lake on April 28. He (as a part of the Bayles Lake Association) would like to establish an eight to ten foot buffer of native plants along the south shore. In addition, he would also like to establish aquatic vegetation and better the hatchery area on the lake's south portion. Erosion control is also a concern, at the shoreline and in a few places where surface water runoff from the upland has created concentrated flow areas (gullies) on the buffer area adjacent to the lake.

Mr. Cardinal has spoken to Illinois Department of Natural Resources (IDNR) specialists (Mike Garthaus and Eric Smith) about the aquatic portion of the south shore area. It is my opinion that aquatic vegetation along the shore (rely on IDNR guidance for best species), placing of Christmas evergreen trees in certain shore areas (edges of coves, below overhanging streambank trees) and the addition of a few more bank trees such as shrubby willows would all serve to benefit young bass and panfish species. I would lean strongly on IDNR guidance for the aquatic area.

The buffer area along the south shore varies from flat to moderately sloping (0-4%, occasionally with more slope in a few areas); soils consist of moderately well drained, very poorly aerated Chatsworth silty clays. Chatsworth soils tend to have little or no topsoil and are very wet in the winter and spring; organic matter is low. (A caveat: the years of leaving the buffer in grass has probably kept erosion at a much lower rate than what would typically be expected.) Native vegetation would have been scattered oaks and hickories and prairie plants tolerant of clay soils.

**NATIVE PLANT POSSIBILITIES:**

Grasses: Virginia Wildrye (cool-season; to 3'); Big Bluestem (warm-season; to 6'); possibly Little Bluestem (warm season; to 3') but it may not come in real well.

Best to use Little Bluestem with Virginia Wildrye and NOT with Big Blue as it is much less aggressive.

Wildflowers: (most in the 2-4' range unless otherwise noted)

Prairie Blazing Star    Cardinal Flower (closest to shore in low areas)  
Joe-pye Weed (to 6')    Golden Alexanders    Penstemons    Wild Quinine (5')  
Maryland Senna/Wild Senna    Sneezeweed    Tick Trefoil  
New England Aster    Prairie Bergamot    Riddell's Goldenrod  
White Wild Indigo    Michigan Lily    Obedient Plant  
Nodding Wild Onion    Sweet Black Eyed Susan regular Black Eyed Susan

Shrubs:

False Indigo    Choke Cherry    Arrowwoods (I recommend)  
Red-osier Dogwood (could overhang the bank)    Common Lilac

Trees:

Shagbark Hickory    Swamp White Oak    Bur Oak    White Oak

Whatever species you choose will grow slowly in this soil as it is one of the poorest soils in the area.

The shrub species will not tolerate a prairie burn. It may be better to plant the shrubs in clumps away from the prairie plantings. A thorough watering around the trees would be necessary when burning (older Bur Oak will tolerate a burn fine; White Oak and Shagbark Hickory are intermediate to a burn, and Swamp White Oak may not be very tolerant).

Prairie Plants: seeding periods – flower seed in fall the best (November-Freeze up); grass seed either late fall or in mid-May-June 5. Wildflower plants are fine in the spring, but I am a little skeptical about fall planting, although most will do ok.

Planting from seed: mow grass short in early Sept.; spray with Round-up after; DO NOT TILL; plant grasses and flowers in fall, just grasses in spring unless flower seed has been stratified. (if planting in spring, it does help to repeat the mow and Round-up.)

Planting plugs or larger plants: don't need to Round-up area pre planting, but Round-up application in flagged areas where you plan to plant is helpful; if you can afford it, mulch plants with wood chips after planting as this keeps the soil more moist, and keeps it cooler in summer and warmer in winter. (Many plants will frost heave in this soil due to the clay content- the mulch really helps. Unfortunately, it doesn't make for easy mowing.)

With plugs or larger plants, the need to burn is not so important. With seed, it is. You really have to pick your spot to burn. The poor soil and the slope concern me. Soil runoff into the lake after a heavy rain in the spring is possible, and a fall burn doesn't allow for enough re-generation of green material before the soil temperature gets too

cold. If burning, it is best to do small patches and stick to the flatter areas; burn in mid spring (late March thru mid April) as this sets back cool season weeds. (A later spring burn could hurt the Virginia Wildrye.)

Another possibility, with seed plantings, is to mow high (8") the first few years, and then in late August-early September each year thereafter. A rotary mower works best as it keeps the thatch from building up to where new seed can't reach the soil surface. (Burning helps remove this thatch layer. Fall burns promote flower establishment.)

Patience must be exercised with seed plantings. It will take at least 3 years before the seeding fully establishes. Typically the flowers come along faster than the grasses. Over time, the native grasses will overtake the stand without a fall burn or a (very light) fall disking. A possible better idea is to just plant flowers and rely on the bluegrass to be the rest of the cover.

I have seed sources for the species. I personally would go with our small prairie plants that the SWCD offers. The larger perennials (usually sold in gallon pots) would get expensive. Early on you get the benefit because the gallon-size plant is larger, but the smaller potted plants catch up quickly. We can sell 3 small plants for each larger perennial offered by a nursery/box store. When ordering prairie seed, always try to purchase from a grower within 100 miles north or south; any farther and the climate is different enough to affect the plants. If using potted plants, and cost is a factor, just work on one area at a time.

Erosion control (rock checks): broken concrete with no rebar or RR3 – RR4 size rock (6-15" average size) should be dug in one backhoe width perpendicular to the concentrated flow; filter fabric should be placed in the trench prior to placing the rock; the rock should just stick out above the ground. This will diffuse surface water flow energy. Place the first rock check just above where the concentrated flow is starting to form. Add another closer to the bank (no concentrated flow area should really need more than 2 checks, from what I witnessed).

If there are areas of lake bank that are steep, there are two methods. The first, and more natural method would be to establish native aquatic plants per IDNR guidance. Ideally the bank should be at a 3' horizontal to 1' vertical ratio or flatter (4:1 or more); this would require some bank shaping, which may not prove popular in the short term as it will make the south bank "ugly" for a period. The use of staked coir (coconut) logs or even straw bales (installed a few feet from the shore) can help to buffer the wave action. With coir logs, aquatic plants can be planted right on the logs; not so with straw bales. The quiet area between the bales and the bank can be planted to aquatic natives; enough room should be left between the bales to allow for small fry and frogs/tadpoles to grow in the quiet area.

The second option would be to place RR4 size rock to a height of 2-3' above average water level along the bank (Stone Toe Protection). In curved areas where erosion may be higher, or where wave action tends to occur, digging keys into the bank upstream of the



wave action area might be necessary – still use RR4 rock, 3-5' in width, and dig to 2-3' above the elevation of the stone toe RR4 protection. **NOTE: ONLY NECESSARY IN AREAS WITH LESS THAN A 2:1 RATIO OF HORIZONTAL TO VERTICAL (STEEP BANK); BANK RE-SHAPING DOES NOT NECESSARILY HAVE TO BE DONE.** As you might guess, this gets very expensive. RR4 per ton runs about \$30, and the hauling of the rock and installation will almost equal the per ton cost. An estimated 0.6 tons of rock per foot is about average. 500 feet of stone toe protection with no keys would be 300 tons of rock, with a total cost of \$60/ton installed = \$18000.00. (Talk to your neighbors, maybe one of them is a retired (or active) construction person who is well acquainted with the heavy machinery necessary to install a practice like this. Also remember that the weight of the excavator moving along the bank will compact the soil, a definite problem in a soil that already is poor.)

Grants or Government Programs: at this time I do not have any program, through either the state or federal agency. I am continuing to check with local SWCD's to see if there are any grants out there to match the Bayles Lake Association goals.

I would encourage you to talk with Dan Newhouse, Wildlife Biologist for IDNR at Gibson City, to get his ideas on establishing native plants along the buffer.

Anytime I can be of assistance, please let me know.

June 7, 2010

Rod Cardinal  
424 Wolfe Drive  
Loda, Illinois 60948

Dear Rod—

It was a pleasure meeting you at Bayles Lake on April 27, 2010 (Figure 1). From our conversation and short walk it appeared you were interested in the following management goals along the South Shoreline adjacent to Lakeview Country Club (Figure 2).

Management Goals:

- Improve bass fishery
- Provide a natural area for native birds, herps, and insects
- Maintain and Improve water quality area
- Control exotic species

#### GOAL ONE: IMPROVE BASS FISHERY

Two electrofishing runs were completed at Bayles Lake in 2009. Results indicate a need to provide spawning and forage areas (Appendix A). To meet these goals I have enclosed a publication from the Missouri Department of Conservation that details planting aquatic vegetation to improve habitat. I have crossed out the plants you would want to avoid from Bayles Lake.

Three excellent sources for aquatic vegetation include:

Spence Restoration Nursery  
<http://www.spencenursery.com/Index/home.php>

JF New Inc.  
<http://www.jfnew.com/nativeplant-nursery.asp>

Taylor Creek Restoration Nursery  
<http://www.appliedeco.com/tcrn/>

Not only does Spence nursery provide wetland plugs, they also have a Lake Edge Enhancement System that is very good. I have purchased plants for restorations from these nurseries and have been extremely happy with their plant stock.

## GOAL TWO: Provide a natural area for native birds, herps, and insects

If the edge does not flood, additional habitat for wildlife could be created by planting an 8 foot strip of prairie grasses and selected forbs along the shoreline. You could plant short prairie grasses (little bluestem, side oats grama, prairie dropseed) and forbs (spiderwort, phlox, butterfly weed, leadplant, new jersey tea, purple and white prairie clovers, round headed bush clover, and partridge pea) so not to obstruct the view of the lake from the Lakeview Country Club.

The site would require some prep. This includes a couple herbicide applications to eradicate non-native cool season grasses currently growing there as well as a prescribed fire so that the prairie seed can make good contact with the soil when planted.

The total acreage of the buffer would be a little more than ½ an acre. Cost to plant prairie would be less than \$500.00.

Planting native shrubs (hazel, sumacs, dogwoods, would provide a benefit to some shrub nesting birds (cardinal, gray catbird, brown thrasher. etc). It would also provide some shade for fish. However, I am hesitant to recommend shrubs along the south shore as you did not seem to care for the small plum thicket currently growing along the edge.

The District Wildlife Biologist for Iroquois County is Dan Newhouse. He may be able to enroll you in the Acres for Wildlife program that provides prairie seed and seedlings at reduced or no cost. In addition, the IDNR Habitat Team in Gibson City completes some management on private land. They may be able to assist if you decide to install native prairie habitat. The leader of the Habitat Team is Jim Kietzman. Both Dan Newhouse and Jim Kietzman can be reached at 217-784-4730

## GOAL THREE: MAINTAIN AND IMPROVE WATER QUALITY

The major chemical inputs to Bayles Lake include pesticides, herbicides and fertilizers. For example, I noticed during our brief walk along the south shore that the Country Club adjacent to the lake recently applied an herbicide to control broadleaf plants.

The current buffer along the south shore contained a variety of cool season grasses. It was amply wide enough to filter herbicide, pesticide and fertilizer run off. Replacement of 8 feet of that buffer to prairie adjacent to the waters edge will not diminish the areas capability to filter run off into the lake.

The majority of homes surrounding Bayles Lake (240?) probably do not have this filter strip to buffer chemicals entering the lake

Below, I have provided links to three websites that discuss lawn chemicals and lakes. It is a very common problem for lakes of all sizes.

<http://www.co.cayuga.ny.us/wqma/pproject/documents/factsheet.pdf>

<http://clean-water.uwex.edu/pubs/pdf/home.lgfert.pdf>

<http://des.nh.gov/organization/commissioner/pip/factsheets/bb/documents/bb-3.pdf>

<http://www.lawntolake.org/PDFs/employee-fact-sheet.pdf>

In general, the residents surrounding Bayles Lake should:

- Apply only label rates. More is not necessarily better
- Have application of herbicides by professionals
- Utilize integrated pest management to reduce herbicide and fertilizer runoff

The Illinois Environmental Protection Agency has an Illinois Volunteer Lake Monitoring Program. Information on this program can be seen at

<http://www.epa.state.il.us/water/vlmp/index.html>

The program helps volunteers monitor their lakes that can drive future management recommendations.

Installation of a rain garden or a rain barrel will also help to maintain the water quality at Bayles Lake. Rain gardens and rain barrels to slow the water run off -- This reduces rain runoff by allowing stormwater to soak into the ground (as opposed to flowing into storm drains and surface waters which causes [erosion](#), [water pollution](#), [flooding](#), and diminished groundwater). Rain gardens can cut down on the amount of pollution reaching creeks and streams by 30%.

#### GOAL FOUR: CONTROL EXOTIC SPECIES

There were several exotic species present within the proposed native habitat area, including reed canarygrass, Japanese honeysuckle vine, Canada Thistle, bull thistle, bush honeysuckle and red mulberry along the shoreline. Their abundances were low but they do have the ability to expand. In addition, their seed is often consumed and carried off to other sites.

Control measures for these species can be found at the Illinois Nature Preserve Commission website.

[http://dnr.state.il.us/INPC/Management\\_guidelines.htm](http://dnr.state.il.us/INPC/Management_guidelines.htm)

Control typically takes numerous years because seed remains viable in the seed bank for up to 20 years for some species.

These links should start you on your way towards meeting your management goals. Do not hesitate to contact me should you have any questions. Thank you for your interest in preserving Illinois' heritage.

Sincerely,

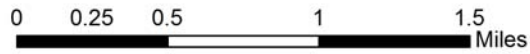
Eric L. Smith  
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# Bayles Lake And Surrounding Area



★ Bayles Lake






# Lakeview Country Club Native Habitat Area



## Legend

 Lakeview Country Club Native Habitat Area

0 235 470 Feet

A horizontal scale bar with three segments, labeled 0, 235, and 470 Feet.

**APPENDIX A:**

**2009 Bayles Lake Electrofishing Results**





# Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271  
<http://dnr.state.il.us>

Pat Quinn, Governor  
Marc Miller, Director

June 30, 2010

Scott Bayles  
1606 Lakeview  
Loda, IL 60948

Mr. Bayles,

On 16 June 2009 Bayles Lake was sampled for a total of 1 hour using DC electrofishing. The lake was divided into 2 sampling areas and each area was sampled for 0.5 hours. The first run started at the boat ramp and proceeded up the west bank. The second run started in the southern basin and proceeded up the west bank. Bluegill, gizzard shad, and yellow bass were only collected for 10 minutes during the first sample. The data provided have not been expanded to reflect the subsampling.

Looking through the records I have for Bayles Lake, I noticed after each survey the biologist recommendation was to renovate the lake and start over. The lake has the same species as it had 30 years ago. The lake has improved and we also have improved our sampling efficiency. I do not feel we need to talk about renovating the lake since this would easily cost over \$15,000 with the lake drawn down 12 feet.

Most of the fisheries in 2009 were similar to the fisheries in 2002. However, there was a great improvement in the catfish and walleye fisheries in 2009.

## **Largemouth Bass**

Catch rates for largemouth bass were 60 per hour during the first run and 48 per hour on the second run. A good goal for the lake would be at least 60 per hour. We achieved this on the first run but not on the second run. Recruitment of bass to the fishery has been a problem in this lake for a long time and is still a problem. With high numbers of yellow bass and bluegill, egg and fry survival for bass will remain low. Providing nesting cover might help. This would entail providing some aquatic vegetation near spawning sites. You can also add bass spawning structures in the southern basin where there is more silt present.

The distribution of bass sizes is good. Bass are producing year classes each year and they are growing fine. So, size distribution is not a problem and the health of the bass is not an issue. The only issue we have is numbers. In many lakes bass stockings are not improving bass populations and the sporadic bass stockings at Bayles Lake probably have

not done a lot. I would focus on habitat for bass and not on bass stockings. I would also stock other predators to help control bluegill, shad, and yellow bass.

### **Bluegill**

The catch rate for bluegill was significantly higher for the first run compared to the second run. During the 2002 survey we collected more bluegill during the second run, so I am not sure what happened to the bluegill in this area in 2009. The bluegill are reproducing fine and numbers appear to be adequate. Numbers are actually a little high in the first run. More predators in the lake would improve the size structure of the bluegill. The average size of the bluegill is around 6 inches. There are no management strategies needed to alter the bluegill. Allow people to harvest bluegill as they want.

### **Walleye**

We collected walleye during the first run and we obtained a catch rate of 10 per hour. A good management goal would be 5 per hour during a day survey in June. The walleye stocking has produced a good walleye fishery. If money is available, continue the walleye stocking.

### **Channel Catfish**

The catch rate for channel catfish improved from the 2002 survey. We obtained a catch rate of 70 per hour during the first run and 64 per hour during the second run. A good management goal would be 10 to 15 per hour, so there is a great channel catfish fishery in Bayles Lake. You might cut back on the number or times you stock channel catfish. There was a good size distribution of catfish and there are plenty of small catfish ready to grow to eating size.

### **White Crappie**

We collected 64 white crappie per hour in the first run and none in the second run. The number of crappie is high and the size distribution is poor. I would encourage anglers to remove crappie from the lake in order to reduce numbers and improve growth rates.

### **Gizzard Shad**

Shad have been an issue in the lake for a very long time. Their numbers remain high and an increase in predator density may lower shad numbers. If money is available I would stock hybrid striped bass at 20 per acre for the first year and 10 per acre after the initial stocking. Hybrid striped bass are great predators on shad. We can never eliminate the shad but we can try to lower their numbers, if nothing else you can create a bonus fishery with the hybrid striped bass.

### **Yellow Bass**

The yellow bass are very abundant and few predators want to eat them. An increase in predator density is the only hope to reduce yellow bass numbers. Stocking walleye and hybrid striped bass should help.

**Discussion**

Getting bass to spawn and recruit to the fishery is the primary goal for the management of the lake. Keep bass harvest to a minimum. The focus should also be on creating nursery areas for largemouth bass by providing aquatic vegetation as cover. You can also add bass spawning structures in areas with heavy silt loads.

Your second goal is to increase predator densities to control bluegill, shad, and yellow bass. You should continue stocking walleye and start stocking hybrid striped bass. If money is not available for both species, you should alternate stockings each year to get both established in the lake.

If you have any questions or concerns, please give me a call.

Sincerely,

Mike Garthaus  
District Fisheries Biologist  
217/784-4730 ext 232

Also From Thad Eshleman, Iroquois Soil and Water Conservation District

Timing is important when burning -- Mike G. knows more about the nesting season of wetland birds than do I. I know for our pheasant and upland birds a good burn time is March 1 - April 1; if there are multiple areas, you could burn one area one year and another the next if people are concerned about nesting habitat. If native grasses and flowers were in the area, trying to burn as late as possible is better. Many native plants prefer warmer soil (temp in at least the low 50's) to begin new growth; some need it warmer than that. Burning near the end of the period is beneficial because it sets back cool season weedy annuals and perennials and the bare soil left warms up more quickly, thereby "tricking" some of the native plants into coming up earlier than they normally would.

Burning in spring, when the period of most intense weather occurs, can be an issue as far as erosion is concerned. A temporary netting/matting that still allows sunlight and precipitation to reach the plants can be of use to combat erosion. (If you have seen the greenish matting/netting in IL Dept of Transportation projects, you get the idea. The netting needs to be stapled or otherwise held solid until the grasses and flowers green up.) Doesn't look real pretty along a lake, but doesn't need to be kept long.

I am glad that Bayles Lake has at least some people who want native vegetation. If you ever want ideas on wetland species/or native plants, talk with Mike, Dan Newhouse (he works with Mike at the Gibson City IDNR office) or me. Dan is a fantastic wildlife biologist with whom I work well. Mike and Dan are particularly good at matching native plants with wildlife species; I am good too, but it takes me a little longer to match up species and plants.

Burning is only bad when it is not controlled and done at the wrong time of year. Otherwise, the benefits of a burn to native plants are many.

General guidance varies, but generally a burn the 2nd year and then every 3rd year thereafter is sufficient. Burn the second year mostly to set back/kill cool season weedy species; burn every third year mostly to take away the dead plant material that can prevent new seed from sprouting and reduce problematic nesting issues.

From Sandy Kubillbus, Integrated Lakes Management

Thanks for the update Rod. Generally burns in natural areas are a good thing, but they should have had an IEPA burn permit to do so. Spring burns tend to green up very quickly, so the chance for erosion is pretty slim. Also the roots are still there, so the site should not really erode. I would encourage you to put up signs saying that this is a natural area - we actually have some - although of course they do not say Bayles Lake. I will

be back in the office next week and can find a photo of the sign. If you like it we can send you some.

Additional Sources:

Pizzo and Associates

Illinois Department of Natural Resources

Iroquois County Soil and Water Conservation District

Intergrated Lakes Management

Illinois Environmental Protection Agency

US Department of Agriculture

Natural Resources Conservation Service

University of Illinois Extension Service