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Published Quarterly – February, May, August and November

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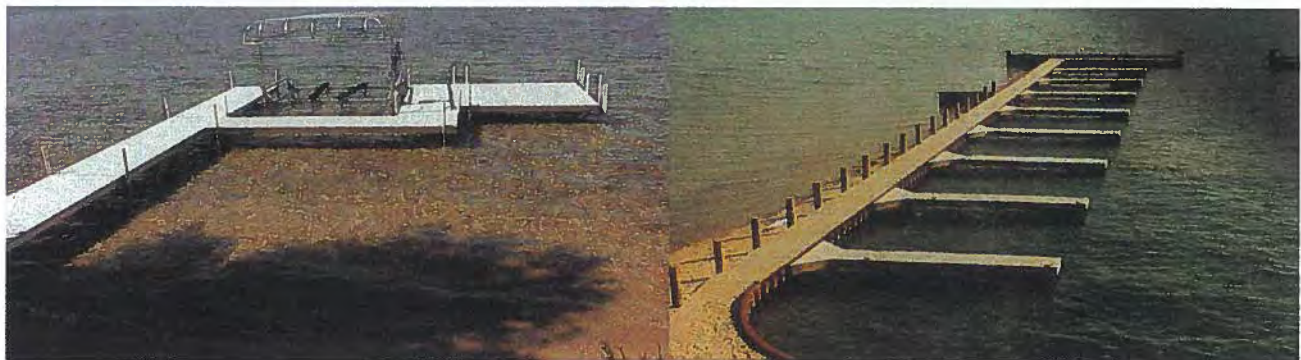
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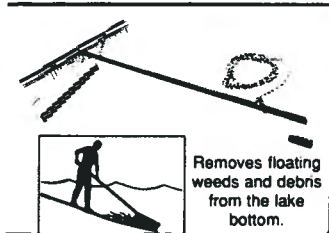
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WHAT IS THE MICHIGAN LAKES & STREAMS FOUNDATION?

The Michigan Lakes & Streams Foundation is a 501(c)(3) nonprofit, charitable organization established in 2004 by Michigan Lake & Stream Associations, Inc. (MLSA) to provide an endowed fund for developing a stable and permanent financing source to help support MLSA's many programs and initiatives.

WHY AN ENDOWED FUND?

An endowed fund ensures the principal from all gifts will always be there to help provide funding to MLSA. Only interest earned will be utilized. The principal will remain untouched.

WHY SUPPORT MLSA?

MLSA's membership consists of more than 300 Lakes & Streams Associations statewide, representing more than 100,000 members interested in

protecting the future of Michigan's water resources. For 45 years, Michigan Lake & Stream Associations, Inc., has labored on your behalf - most likely without you even knowing about it. On a national, regional and state level, MLSA represents its members through involvement in a variety of programs and issues involving state waters. Some of the key issues MLSA is currently dealing with include:

- Riparian rights • Lake and stream water quality • Controlling invasive species • Lake/stream watershed management • Other MLSA activities - MLSA is actively supporting numerous programs; MLSA is also your voice in Lansing, representing you.

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Consult your own attorney or accountant for further ideas on the most appropriate way to make your bequest. FOR MORE INFORMATION, contact Franz Mogdis, President of the Board of Directors of the Foundation, at 989-831-5261; or Pearl Bonnell, Treasurer of the Foundation, at 989-257-3583 or pbonnell@mi-riparian.org.

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COURT DECISION

Montcalm County judge applies Jacobs v Lyons Twp in a road-end case

On March 11, 2009, Montcalm County Circuit Court Judge Suzanne Hoseth Kreeger issued a written opinion in the case of *Simon, et al v Crystal Twp, et al* (Montcalm County Circuit Court Case No. 08-M-10,475-CH), wherein she applied the *Jacobs v Lyon Twp* rules.

That is, a public road end at a lake cannot be used for permanent boat mooring, anchoring or storage, private dockage, shorestations, lounging, or sunbathing.

Judge Kreeger held that one public dock could be utilized for temporary mooring if approved by the Montcalm County Road Commission.

This is one of the first court decisions rendered by Judge Kreeger, who was elected to the bench last November.

The landmark decision in *Jacobs v Lyon Twp* (after remand) can be found at 199 Mich App 667; 502 NW2d 382 (1993).

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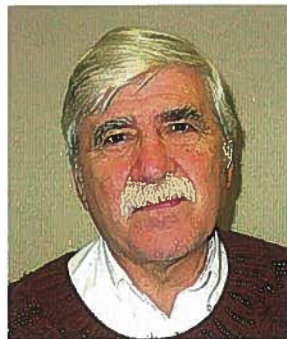
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FROM THE PUBLISHER

Change continues full speed ahead



Franz Mogdis

As I noted in the February issue of the *Riparian*, 2009 will be a year of change – not only for the *Riparian* but also for the Michigan Lake and Stream Associations, Inc. (MLSA) and its related organizations.

Significant change has already occurred. The Three Rivers and Long Lake offices of MLSA have been closed and their operations consolidated at the new central office location in Stanton. Not surprisingly, the move became a more difficult task (time-consuming) than anticipated.

That's what happens when you are dealing with over 40 years of history.

And with that, we would like to offer a sincere apology to all of you who have been loyal subscribers, readers and advertisers of *The Michigan Riparian*. The February issue was almost two months late in delivery, with a few of you out there not receiving the issue at all during this transition. We are working hard to make sure that such a delay doesn't happen again and that all who should receive a copy of the magazine receive it in a timely fashion.

The Michigan Riparian and the Michigan Lakes and Streams Foundation offices, also, will be located at the new Stanton centralized location. All should be up and running by the time you receive this issue of the *Riparian*. For the latest updates on the activities and the current status of the MLSA, the Foundation and the *Riparian* we encourage you to visit our web sites – www.mlsa.org for MLSA and www.mi-riparian.org for the *Riparian*.

Looking to the future, we will begin updating the look and content of *The Michigan Riparian* starting with the August issue. Toward that end, we need your ideas and input on how we can make the magazine even more meaningful and useful in serving your needs. Also, let us know what you currently like and what you don't. E-mail us with your thoughts and ideas. They will be great appreciated and they will be used as we move ahead.

– Editor Jennifer Churchill – Publisher Franz Mogdis

Michigan lakes, great to small

Michigan lakes vary in size from the very large Great Lakes to the very small bodies of water. Some may contain water only periodically, such as vernal ponds. Some lakes are isolated, having no tributaries or outlet streams, with small watersheds. Lakes with tributary streams generally have larger watersheds, some of which encompass the largest river watersheds in the state. The Great Lakes collect all tributaries of the state and have very extensive watersheds.

Michigan's political boundary encompasses an area of 96,791 mi² (Sommers 1977), with roughly 40% (38,575 mi²) covered by the Great Lakes, and over 1,300 mi² (1.3%) covered by inland lakes. There are 62,798 inland lakes with a surface area of at least 0.1 acres or larger, 1,148 lakes exceeding 100 acres, 98 lakes exceeding 1,000 acres, and 10 lakes over 10,000 acres (Breck 2004). Houghton Lake is the largest inland lake in the state, encompassing 20,044 acres. The Great Lakes rank among the 15 largest lakes in the world and contain about one-fifth of the world's supply of fresh water. The Great Lakes contain 95% of the surface freshwater in the United States. Lake Superior is the largest of the Great Lakes with a maximum depth of 1,333 feet and it con-

tains over 50% of the water in the Great Lakes (Michigan State University 1987).

This document focuses on lakes and areas immediately adjacent to lakes (riparian areas). Various ecological zones are typically used to describe areas within and adjacent to lakes. Each zone provides habitat (or partial habitat) for many organisms. These zones include the pelagial, profundal, littoral, and the upland portions of the lake's watershed. The pelagial zone is the open water area of the lake. The profundal zone lies below the pelagial zone and includes the bottom area where rooted plants do not grow. The littoral zone delineates the area of the lake where rooted aquatic plants (macrophytes) grow (maximum of 5-25 feet deep depending on the lake) shoreward to where the land is unaffected by lake water at the high water mark. The lake's watershed may contain various types of wetlands, other lakes, groundwater sources, and tributary streams.

The shoreline or riparian area of a lake is a transition zone between the lake and uplands, and is also referred to as the shoreline ecotone. All of these zones include habitat components for organisms dependent on the lake to survive or reproduce.

By Richard P. O'Neal and Gregory J. Soulliere

Source: SB 38 Conservation Guidelines for Michigan Lakes and Associated Natural Resources, March 2006, State of Michigan Department of Natural Resources

from the lake's morphology.

Most of the natural lake depressions in Michigan resulted from glacial activity. Many are called "kettle" lakes, formed by the melting of remnant blocks of ice that had been buried in glacial till deposits. Some formed from glacial scouring. A relatively small number of lakes, known as "karst" lakes, were formed by the dissolution of sedimentary rock. Some natural impoundments were formed by earth movements blocking stream channels. Beaver continue to create and abandon many small impoundments on streams, especially across the northern two-thirds of the state. Humans have formed many unnatural impoundments and reservoirs through purposeful damming of rivers. Reservoirs, by definition, have 50% or greater of their maximum depth maintained by a man-made dam. It is important to understand the processes that formed the lake in order to deduce how the lake and surrounding landscape should function.

Glacial terrain is characterized by a landscape of hills and depressions. Lakes can be present in many different parts of the landscape and can have complex surface and ground-water flow systems associated with them.

Although rivers often drain parts of these landscapes, many areas of glacial terrain do not contribute runoff to rivers. Instead, surface runoff from precipitation falling on the landscape accumulates in these depressions, contributing to the presence of a lake

Because of the lack of stream outlets, the water balance of these "closed" types of lakes and wetlands is controlled largely by precipitation, evaporation and ground

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JUST HOW MANY LAKES ARE THERE IN MICHIGAN, ANYWAY? (AND OTHER INTERESTING FACTS)

- There are 62,798 inland lakes with a surface area of at least 0.1 acres or larger ... and ...
- 1,148 lakes exceeding 100 acres
- 98 lakes exceeding 1,000 acres
- 10 lakes exceeding 10,000 acres
- Houghton Lake is the largest inland lake in the state, encompassing 20,044 acres
- Lake Superior is the largest of the Great Lakes with a maximum depth of 1,333 feet; it contains more than 50% of the total water in the Great Lakes
- The Great Lakes contain one-fifth of the world's supply of fresh water and 95% of the surface freshwater in the United States

Lakes form in many ways and their geomorphology plays a significant role in the ecological functioning of individual systems. The study of lake features, such as the shape of the basin and type of sediment on the bottom, is known as lake morphology. Much of the way a lake functions, including its recreational potential, can be deduced

FEATURE Characteristics of Michigan lakes



Burt Lake

water. The interaction between a lake and its ground water supply usually cannot be observed and is therefore more difficult to understand. It is determined to a large extent by the lake's position with respect to local and regional ground-water flow systems.

Lakes interact with ground water in three basic ways: Some receive ground-water inflow throughout their entire bed; some have seepage loss to ground water throughout their entire bed; but perhaps most lakes receive ground water inflow through part of their bed and have seepage loss to ground water through other parts. Lake sediments often have significant organic, relatively impermeable deposits that affect the exchanges of water, minerals, and nutrients.

Bathymetric maps provide details about

the terrain, or shape, of the lake's underwater landscape. A bathymetric map can be used to calculate several measurements that are crucial to understanding how the lake system functions, including surface area, volume, maximum length, mean width, maximum width, mean depth, maximum depth, shoreline length, shoreline development, slope of the bottom, and proportion of the basin in littoral and profundal zones.

Surface area is one of the most important morphological parameters of a lake because it not only describes the size of a lake, but also plays a major role in lake function.

Bottom slope helps in predicting how a lake's surface area will be affected with changing water levels. Lake surface area can also be used to help predict the poten-

tial effects of wind on a lake. In general, lakes with more surface area are subject to larger waves during windy conditions which can result in extensive shore erosion. This is significant because larger waves have the ability to mix water at greater depths, in some instances reaching all the way to the bottom of the lake.

The ability to create mixing at the bottom of a lake is extremely important because it can result in the re-suspension of sediments and the disturbance of submersed aquatic plants. Thermal stratification can also be prevented, affecting the level of oxygen present in bottom waters.

As a result, other lake characteristics, such as water clarity and the availability of nutrients, can be affected.

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FEATURE Characteristics of Michigan lakes

continued from page 9

Shoreline development refers to the length of a lake's shoreline relative to the length of the circumference of a circle of area equal to that of the lake. In other words, lakes with longer, irregularly shaped shorelines are considered to have more shoreline development, while circular lakes are considered to have less. (The use of the term development here does not refer to such human developments as cottages or seawalls, but rather to the shape of a lake's shoreline.)

Determining a lake's shoreline development is important because it reflects the potential for greater development of littoral communities in proportion to the surface of the lake. A greater amount of natural shoreline development provides more interface between the water and surrounding land (i.e., coves and peninsulas), often translating into more habitat for fish, birds, and other wildlife to raise their young. Irregular shorelines also absorb more wave energy and provide better substrates for plant growth.

Maximum length and width measurements are also important because they can be used to determine fetch, or the distance that wind can travel over water before intersecting a land mass.

Fetch distances can be used to predict the depth at which wave energy extends below the water's surface since the greater the fetch distance, the greater potential there is for large waves. Longer fetch and higher wind speed both create greater wavelengths and wave heights. The depth of wave impact can be estimated from the fetch distance and wind speed.

Large beds of aquatic plants can also alter sedimentation patterns in a lake in several ways. The plants themselves greatly reduce the amount of turbulence within the plant beds, resulting in an accumulation of fine particles in shallow areas that are dominated by plants. This can happen even though there may be deep areas within the lake.

Plant beds can moderate the development of waves in a lake. Thus, shallow

lakes filled with plants may not develop large waves and the fine sediments will be protected from re-suspension. Such plant-dominated lakes tend to appear clear due to a lack of turbulence that would otherwise keep fine particles and algae in suspension. Aquatic plants can significantly reduce erosion of the shoreline by waves.

The terms lacustrine and lentic are also used to describe lakes or water bodies that have still waters. Shallow lakes include basins that have never been preceded by a larger, deeper lake, and those basins that represent the terminal stages of deep lakes that have filled with sediment.

Shallow water bodies can be separated into those that are permanent, containing some water at all times of the year, and those that are temporary, in which the basin periodically has no standing water (Wetzel 1975). Vernal lake, swamp, marsh (fen), bog, mire (bog or fen), and wetland are terms that have been used to describe shallow lakes or the shallow portions of lakes.

Wetlands have received significant attention in natural resource disciplines during recent years because of their importance to the ecological integrity of natural systems, and the significant losses of wetlands that have occurred through artificial drainage and filling activities. Classifications of wetlands have been made to aid in inventory, evaluation and management (Cowardin et al. 1979).

The broadest classification includes five systems: marine, estuarine, riverine, lacustrine, and palustrine. Only the latter three apply in Michigan. Numerous subsys-

tems, classes, subclasses, and dominance types are used in classifying wetlands. Generally, wetland types are classified using floral characteristics, composition of substrate, water regime, and water chemistry. There are also specific legal definitions of wetlands for regulatory purposes. The portion of a lake that typically is referred to as a wetland includes the areas of the littoral zone containing emergent vegetation, normally at depths of five feet or less. The remaining portions are referred to as "deepwater habitats" in wetland classification systems, although the term "submerged wetland" is sometimes used to describe the portion of the littoral zone with submerged plants.

Lakes always contain some wetlands, and sometimes lakes are entirely wetlands when emergent vegetation grows throughout the lake. In lacustrine systems, wetlands are often significantly affected by human development. This occurs because wetlands predominantly occur along the shoreline where most development occurs.

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One of the exciting (and often frustrating) aspects of practicing law is that, occasionally, areas of the law that seemed well-settled and universally recognized may turn out not to be so. Right now, there is a case pending in the Michigan Court of Appeals involving a parallel public road running along the shore of Lake Charlevoix, which could turn a half century or more of precedent on its head. The outcome of the case could have far-reaching consequences for thousands (if not tens of thousands) of lakeside lots throughout Michigan.

As many riparians know, there are generally two types of public roads at lakes that cause problems. First are the so-called public road ends whereby a public road (whether improved or not) ends or terminates more or less perpendicular to a lake. Such road ends have been the subject of countless court cases throughout Michigan, and the Michigan appellate courts have weighed in regarding the scope of usage rights for road ends in many appellate decisions. Those decisions include *Jacobs v Lyon Twp* (after remand), 199 Mich App 667; 502 NW2d 382 (1993), and *Higgins Lake Property Owners Assn v Gerrish Twp*, 255 Mich App 83; 662 NW2d 387 (2003).

The second type of public road at lakes is the so-called "parallel road." Parallel roads involve situations where a public road right-of-way runs along the shore of a lake, there was no intervening land between the road right-of-way and the lake when the road was created, and there exists a "first tier" of lots fronting on the public road (opposite from the lake). For many years, legal experts (as well as the real estate market) have believed that in parallel road situations, the first tier lots along the parallel road are deemed to be riparian or waterfront lots (with full rights of dockage, boat moorage, sunbathing, lounging, swimming, etc.), subject only to an easement (or some-

thing akin thereto) for public road purpose (i.e., travel). That belief was well founded based on the courts' decisions in *Croucher v Wooster*, 271 Mich 337; 260 NW 739 (1935) (involving a parallel road that was a mere easement created by the highway-by-user doctrine) and *McCardel v Smolen*, 71 Mich App 560, 562; 250 NW2d 496 (1976), partially reversed on other grounds, 404 Mich 89; 273 NW2d 3 (1978) (involving a platted road created by dedication under the Michigan Plat Act of 1887). Based on these and other Michigan appellate cases, many individuals, as well as county road commissions, cities, and villages (generally, Michigan townships can no longer own public roads), have long believed that the public could not install docks, boat hoists, etc., along those parallel public roads (although it is possible that members of the public could use those parallel public roads for limited access to the lake involved) and that the owners of the first tier lots held the riparian or lakefront rights.

These long-held reasonable beliefs regarding parallel roads (and many long-settled court cases pertaining thereto) have now been thrown into question by Charlevoix County Circuit Court Case Judge Richard M. Pajtas in the case of *2000 Baum Trust, et al v Babel, et al* (Charlevoix County Circuit Court Case No. 07-61121-CH; Michigan Court of Appeals Case No. 284547). Judge Pajtas held that the first tier lot owners along Beach Drive, a parallel road along Lake Charlevoix, are not riparian/lakefront property owners. The implication is that the Charlevoix County Road Commission (and hence, the public) holds the riparian/lakefront rights along that road. Judge Pajtas' decision has stunned people who are knowledgeable about lake issues throughout the state. The first tier lot owners have appealed the decision to the Michigan Court of Appeals. It could take up to a year or more for the Michigan Court of

Appeals to issue a final decision in the 2000 Baum Trust case. In the interim, Judge Pajtas' decision is only binding within Charlevoix County.

The Michigan Waterfront Alliance ("MWA") authorized and helped fund a joint amicus curiae brief with the Higgins Lake Property Owners Association, which was filed in the Court of Appeals in support of the first tier lot owners and against the Charlevoix County Road Commission in the 2000 Baum Trust case. The Charlevoix County Road Commission and Charlevoix Township are being supported by a statewide road commission group called the County Road Association of Michigan or "CRAM." This case vividly demonstrates why it is so important to have statewide pro-riparian organizations such as the MWA and the Michigan Lake & Stream Associations, Inc. available to file amicus curiae briefs in support of the interests of riparians.

It is somewhat perplexing why the Charlevoix County Road Commission and the statewide road commission group are taking the position they are advocating in this case — that first tier lot owners do not own the riparian rights adjacent to a parallel road and that the riparian rights are held by the public and the local road commission. Most road commissions throughout the state have grown weary of the road end battles and do not desire to be drawn into additional controversies regarding public roads at lakes. If the Michigan Court of Appeals upholds the decision of the Charlevoix County Circuit Court and determines that first tier lot owners do not hold the riparian rights along parallel roads (and that such riparian rights belong to the public and/or the local road commission), road commissions throughout the state will be drawn into litigation battles, which will make the public road end controversies of the past seem tame by comparison.

MICHIGAN LAKE & STREAM ASSOCIATIONS, INC. MLSA NEWSLETTER



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MLSA board report

With the retirement of Pearl Bonnell and Don Winne, it has become necessary to make several changes. Among them is the relocation of the Michigan Lake & Stream Associations, Inc., offices. The northern office in Long Lake and the southern office in Three Rivers have been closed. A new central office is being established in Stanton, northeast of Grand Rapids. Chemical Bank has donated several pieces of quality furniture from branch banks which they are closing. Phones should now be operative and the expectation is that there will be an employee in the office upon its opening. Also, it was reported that more than 9,000 Michigan Riparian magazines are mailed quarterly.

Conference attendees were asked "What do you want at your 2010 conference?" The same question is extended to all members. In addition, if you are an interested and willing volunteer, much additional help is needed. Please contact Sue Vomish, President MLSA, 52513 Twin Lakeshore Drive, Dowagiac, MI 49047, or e-mail vomish@netzero.net. House Bill HB4199, sponsored by Patty Birkholz, would make it illegal to transport invasive species on Michigan highways. A fine would be imposed. Approval should be



Pearl and Bruce Bonnell hold their Recognition Awards for 30 years of service to Michigan Lake & Stream Associations, Inc., during the MLSA annual conference in April.

directed to your representative in Lansing.

HB 4542 would turn control of Michigan wetlands over to the federal government. Objections to this should be directed to your representative in Lansing.

It has been learned that non-profit organizations such as MLSA may spend 25% of their income on lobbying.

MLSA bylaws have been in process of revision for some time. A motion was made to amend the revised bylaws to state that the Executive Board shall be limited to 7-11 members. It was approved. It was also approved that Cliff Bloom, attorney for MLSA, was added to the Foundation's board.

Executive Director Don Winne has retired and Scott Brown was named the new Executive Director. He worked as assistant to Don prior to assuming the position. The Director of Operations position has been abandoned. Roger Carey replaces retiring treasurer Pearl Bonnell.

MICHIGAN LAKE & STREAM ASSOCIATIONS, INC. MLSA NEWSLETTER



Celebration of dedication

Don Winne and Pearl Bonnell, stalwart mainstays of Michigan Lake & Stream Associations, Inc., have retired in a celebration of their dedication. Don was the Executive Director of MLSA and editor and publisher of *The Michigan Riparian* magazine. In 1973, at an age when many people think of retiring, Don became active in MLSA. He worked closely with its founder, Clifford Humphries. Don is honest, sincere, tireless and always willing to enter in conversation. He is enthusiastic about lakes and streams, and became an expert on riparian law. He ably quotes and explains many landmark cases. Don, at 92 years of age, is retiring to a position as consultant to The Riparian Magazine, of which he is justly proud. He is also proud of his children and grandchildren, who attended the celebration of his dedication at the MLSA Annual Conference.

Pearl Bonnell has devoted 30 years to MLSA as Treasurer, Director of Operations, Conference Planner and a jillion other jobs. She has become the liaison person between MLSA and numerous environmental organizations, including the Michigan Department of Natural Resources, and the Michigan Department of Environmental Quality. She greets newcomers to MLSA with open arms, a smile, and an enthusiastic welcome. Pearl worked in cooperation with the DNR to create the Cooperative Lakes Management Program (CLMP) and with Michigan State University to establish the Leadership Training Course for riparians.

Don and Pearl have traveled thousands of miles over the years,

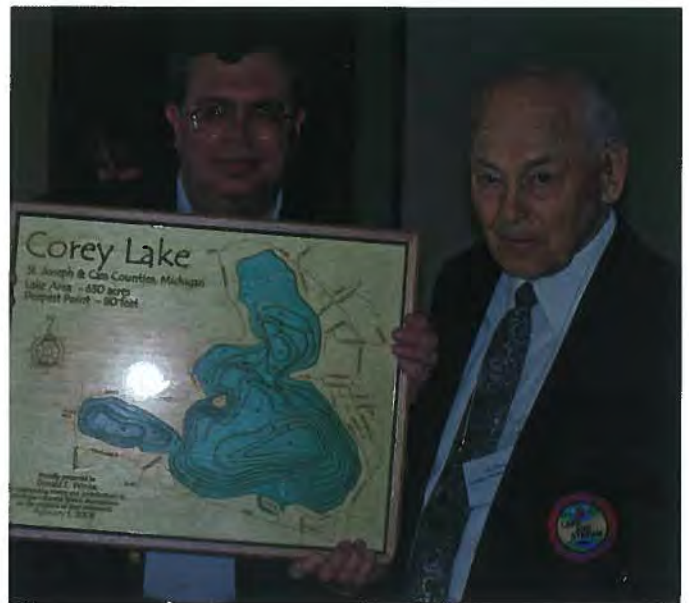
crisscrossing the state to assist lake associations and to help the regional vice-presidents. They worked as a team to increase the impact of MLSA, both in membership and as an educational organization. They sought to make MLSA the premier association of lakes, streams, and watersheds in the state of Michigan. Realizing the need for an organization to lobby for water rights at the state legislature, they promoted the creation of the Michigan Waterfront Alliance. The legacy of these two dynamic people will carry over into the transfer of leadership among MLSA officers and other volunteers.

In the background, rarely visible, was Pearl's husband, Bruce, who organized the computer setup that was the data foundation for MLSA. He worked long hours keeping the equipment updated and ensuring that it could accommodate necessary data.

The Michigan Riparian, MLSA membership, Michigan Waterfront Alliance, and friends extend heartfelt congratulations on the retirement of Don Winne and Pearl Bonnell and Bruce Bonnell from their prominent leadership roles, and extend best wishes in their new roles as consultants.

Cottage law

Cottage law is a unique niche in real estate law. A cottage, for



Cliff Bloom (left) presents Don Winne with a three-dimensional analogue of Corey Lake, his home of many years. The award was made in honor of his 35 years of service to Michigan Lake & Stream Associations, Inc.

this purpose, is "any property the owners wish to keep in the family for more than one generation."

Often it is a vacation property. David S. Fry, who is a specialist in cottage law, disclosed the following in his presentation at the 48th Annual Conference of MLSA. In the northern half of the Lower Peninsula and each end of the Upper Peninsula, 30% of the housing properties may be classed as cottages.

As children get married, that second generation now must consider daughters-in-law or sons-in-law. In a third generation, that of grandchildre, introduces yet another consideration. Control and use becomes more complicated with each successive generation.

- Who should own the cottage?
- Who should manage it?
- Who gets to use it?
- Who should pay for it?
- How is use scheduled?
- How is a buyout arranged?



MICHIGAN LAKE & STREAM ASSOCIATIONS, INC.

MLSA NEWSLETTER



- Is the cottage of great economic value?

- Is the cottage simply a retreat for family bonding or rejuvenation?

Founders and heirs may well have different goals. Each should be considered. David S. Fry recommends that interest in the cottage be kept out of the hands of in-laws. He also pointed out that if a property cannot be divided, any co-owner may force a sale of the property. Essentially, the better protection for a cottage is to form a Limited Liability Company.

Fry recommends the book *Saving the Family Cottage* by Hollander as a guide for succession planning.

A lot of excitement

A new wave of excitement runs through the Michigan Lake & Stream Associations Board. They recognize that reorganization entails months or years of hard work, but the enthusiasm for increasing membership and extending the influence and helping hand to ensure cleaner water is magnificent. The reorganization began with the retirement of Pearl Bonnell, Director of Operations, and Don Winne, editor and publisher of the *The Michigan Riparian* magazine.

The MLSA Board worked long into the night reviewing changes and future plans preparing for revitalization. The bylaws have been under revision for several months and were given unanimous approval. They are seeking transparency in operations. They want to know what problems you have, and what do you want to know? This aids the board in planning conferences, programs and workshops.

They want you to know that the MLSA website is being revised

and updated. Check it out at www.mlsa.org. If you have a website, it can be linked to the MLSA website.

Among other websites you may find of value to you are www.michigan.gov/dnr and www.michigan.gov/deq and www.msu.edu.

Next year, the Annual Conference will be held at the Radisson Hotel in Lansing, Michigan. The conference gives members an opportunity to hear speakers and see presentations and participate in workshops that enhance their abilities to manage their waters and watersheds.

50-50 winner

Dan Stock was the 50-50 winner this year at the 48th Annual Conference of Michigan Lake & Stream Associations, Inc.. His prize was \$250. He promptly donated 60% of it back to MLSA. Stock lives on Van Etten Lake in Iosco County. Congratulations, Dan! MLSA thanks you for your donation.

Value of riparian homes

Niles Kevern, Emeritus Professor, Michigan State University, says Emeritus is a Greek term meaning "old," but aside from that he is serious about the necessity of protecting the quality of our inland lake resources. He believes strongly that townships throughout the state have an obligation to take an interest in the water quality of lakes in their jurisdiction.

With the help of Gary Swier, who lives on Horsehead Lake in Mecosta County; Howard Wandell—retired from DEQ; Pam Tying—limnologist with Progressive AE; Joe Landis; John Drake; John Beck; Tom Ellis; and Dave Foley; along with Diana Sprague; and Nancy Williams

of Montcalm County; the group collected data on lakes of all sizes.

They divided the lake sizes – under 50 acres; 51-100; 101-500; 501-1,000; and over 1,000 acres. Kevern states that about 8,000 Michigan lakes are under 50 acres; over 1,700 are 51-100 acres; 101-500 acres, and the remainder are over 500 acres. Nearly 40% of the inland lakes are in the lower half of the Lower Peninsula; just over one-third are in the Upper Peninsula, and a bit less than one-third in the north half of the Lower Peninsula. They calculated the average market value for each lake-size category in each of the three areas of the state (UP; upper half of LP; lower half of LP). Extrapolating the data to all lakes in all areas gave an estimated market value of riparian property on Michigan inland lakes over \$200 billion. This yields a taxable value of approximately \$113 billion, with an annual tax income to local governments of about \$3.5 billion. When backlot properties are included, the market value soars to over \$250 billion.

Because this value is derived from the desirability of living on the water's edge, it naturally follows that it is the responsibility of local governments to take an interest in the preservation of water quality in its lakes.

It has been shown from other studies that when water clarity increases by one meter (39.37 inches) the shoreline value per front foot goes up, the value of the lake increases. Water quality is the key to the economic value of the lake.

Another, more complex, study is needed to determine the impact of lakes on local businesses.



White Lake in Oakland County



Editor's Note: White Lake was featured on the cover of the February 2009 issue of *The Michigan Riparian*.

White Lake is a beautiful 600-acre lake located in north-west Oakland County. It is a natural underground spring-fed lake with a low watershed-to-lake ratio of 2.19, which helps to ensure good water clarity. The lake has an average depth of nearly 13 feet and a shoreline of nearly eight miles.

Lakefront properties were developed individually and over many years with most trees being preserved. The lake runs mostly north-south with its longest dimension about 9,000 feet and its widest dimension more than 3,000 feet. Much of the east side of the lake is on a ridge line; the west side is more flat. Because of its shape, lakefront residents are greeted by beautiful sunrises and treated to stunning sunsets, as well as several islands, bays and inlets.

White Lake has a state and local government-

sanctioned lake improvement board (WLIB) which includes, besides Department of Natural Resources and county representatives, both the White Lake and Highland township supervisors, because the lake is in both townships.

The White Lake Citizens League (WLCL), a voluntary homeowners association, also has a very active and influential representative on the board. The WLCL representative and township supervisors have worked very well together over the past 20 years, funding and managing several dredging projects and an annual weed control program, as well as monitoring such issues as key-holing and riparian rights. Last summer's weed control program was very successful; with the exotic and nuisance weed population substantially controlled, the water clarity was very high and the fishing was excellent. Many of the long-time residents have commented that the lake quality never looked so good.

The WLCL is a very active and hardworking group. It achieved record membership and donations last year. The league has sponsored many fund raising and social events over the years. Last year, it was able to sponsor its annual pancake breakfast on Memorial Day at the historic White Lake Inn. The event was very

successful, bringing many lake residents together to commemorate this special day and to celebrate the beginning of the boating season.

The league also sponsors the annual Fourth of July fireworks display and a boat parade on the same day as the fireworks. The boat parade has always had unique and interesting themes and many residents participate in it, and many more enjoy it.

Last year, was the first year of the Harvest Festival, also held at the White Lake Inn. The event had activities for both children and adults. Pumpkin painting, pie eating and scare crow decorating were just a few of the fun events.

There are also a couple of events on the lake which are not sponsored by the WLCL but are just as special. They include the annual "Mardi Gras" end of season celebration on one of the Islands and a Chile "cook-off" at the White Lake Inn sponsored by the USMC Reserves.

The WLCL also publishes a newsletter annually in the spring, publishes an on-line newsletter for special events and maintains a hotline (248-887-5658) to keep residents informed and involved with happenings on the lake. White Lake is a beautiful and fun place to live, and is cared about by its many residents.

The Michigan DNR suggests the use of Virkon® Aquatic Disinfectant and Virucide as an effective measure against fish diseases. This product can be used for disinfection of vehicles, boats, equipment, nets, waders, dive suits, live wells, bilges, trailers, etc. It is effective at killing viruses, bacteria, fungus, and mold. It is packaged in 10 lb. containers and boxes of 25 pre-measured 1.3oz (37 gram) packets to make a 1% solution in 1 gallon of water.

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For more information on fish pathogens



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Rainbow trout: world travelers



Engbretson, Eric / U.S. Fish and Wildlife Service

The rainbow trout (*Oncorhynchus mykiss*) is a species of *salmonid* native to tributaries of the Pacific Ocean in Asia and North America as well as much of the central, western, eastern, and especially the northern portions of the United States. The ocean-going (anadromous) form (including those returning for spawning) are known as steelhead, or ocean trout (Australia).

The species has been introduced for food or sport to at least 45 countries, and every continent except Antarctica. In some of these locations, such as Southern Europe, Australia and South America, they have had very serious negative impacts on upland native fish species, either by eating them, outcompeting them, transmitting contagious diseases, or hybridization with closely related species and subspecies that are native to western North America.

The species was originally named by Johann Julius Walbaum in 1792 based on type specimens from Kamchatka. Richardson named a specimen of this species *Salmo gairdneri* in 1836, and in 1855, W. P. Gibbons found a population and named it *Salmo iridia*, later corrected to *Salmo irideus*; however, these names became deprecated once it was determined that Walbaum's type description was conspecific and therefore had precedence. More recently, DNA studies showed rainbow trout are geneti-

cally closer to Pacific salmon (*Oncorhynchus* species) than to brown trout (*Salmo trutta*) or Atlantic Salmon (*Salmo salar*), so the genus was changed.

Unlike the species' former name's epithet *iridia* (Latin: "rainbow"), the specific epithet *mykiss* derives from the local Kamchatkan name 'mykizha'; all of Walbaum's species names were based on Kamchatkan local names.

Like salmon, steelhead are anadromous: They return to their original hatching ground to spawn. Steelhead rejuvenate after spawning so they may return to the oceans to start the anadromous cycle once again. The steelhead smolts (immature or young fish) usually remain in the river for about a year before heading to sea, whereas salmon typically return to the seas as smolts. Different populations of steelheads migrate upriver at different times of the year. "Summer-run steelhead" migrate between May and October, before their reproductive organs are fully mature. They mature in freshwater before spawning in the spring. "Winter-run steelhead" mature fully in the ocean before migrating, between November and April, and spawn shortly after returning. Similar to Atlantic salmon, but unlike their Pacific *Oncorhynchus* kin, steelhead are iteroparous and may make several spawning trips between fresh and salt water. The lifespan of a rainbow trout is between one

to two-and-a-half years. Salmon is often sold as a replacement because they taste the same.

Rainbow trout have a varied diet. They are predators, eating any smaller fish from nearly the time they are born. Insects make up a large portion of the diet, along with crayfish and other crustaceans, some lake dwelling species may become planktonic feeders. While in flowing waters consisting of salmon, trout will eat salmon eggs, salmon fry to even salmon carcasses. Trout of all ages will eat nearly anything they can grab, in contrast with the legendary, selective image people often have of the animal's nutrition habits.

They are near the top of the food chain in most freshwater environments.

However, they are lower on the rung of other freshwater predators such as pike, muskie, lake trout, and chinook salmon. Rainbows will take fish up to and over 1/3 of their length. However they are not quite as piscivorous or aggressive as the brown trout or lake trout (which is actually a *char*). The rule of thumb is that rainbows consume more fish and fewer insects as they grow, but insects continue to be a part of the diet in most all populations.

Rainbow trout and steelhead are popular in Western cuisine and are both caught wild and farmed for food. It has tender flesh and a mild, somewhat nutty flavor. However, farmed trout and those taken from certain lakes have a pronounced earthy flavor which many people find unappealing; many shoppers therefore make it a point to ascertain the source of the fish before buying.

Rainbow trout are raised in many countries throughout the world. Rainbow trout that are wild have a diet of scuds (freshwater shrimp), insects such as flies, and crayfish are the most appealing.

Dark red/orange meat indicates that it is either an anadromous steelhead or a

continued on page 17

Rainbow trout

Conservation status

Secure

Scientific classification

Kingdom: Animalia

Phylum: Chordata

Class: Actinopterygii

Order: Salmoniformes

Family: Salmonidae

Genus: *Oncorhynchus*

Species: *O. mykiss*

Binomial name

Oncorhynchus mykiss

Walbaum, 1792

farmed rainbow trout given a supplemental diet with a high iodine content. The resulting pink flesh is marketed under

monikers like Ruby Red or Carolina Red. Steelhead are farmed, primarily in British Columbia and in Chile. Steelhead meat is pink like that of salmon, and is more flavorful than the light-colored meat of rainbow trout.

Rainbow trout and steelhead are both highly desired food and sportfish. There are some tribal commercial fisheries for steelhead in the Puget Sound, the Washington Coast and in the Columbia River. Most rainbow trout and steelhead harvest in Russia is supported by hatchery production.

The rainbow trout is also especially susceptible to enteric redmouth disease caused by the pathogen *Yersinia ruckeri*. There has been considerable research conducted on redmouth disease, as its implications for rainbow trout farmers are significant. The disease does not affect humans.

Steelhead trout have declined due to a number of human and natural causes. The U.S. National Marine Fisheries Service has a detailed description of threats. Steelhead that spawn in Southern Cali-

fornia streams (south of Point Conception) have been particularly decimated by habitat loss due to dams, confinement of streams in concrete channels, water pollution, groundwater pumping, urban heat island effects, and other by-products of urbanization.

Rainbow trout, and subspecies thereof, are currently EPA approved indicator species for acute fresh water aquatic toxicity testing.

Golden rainbow trout and palomino trout are artificially developed color variants of *Oncorhynchus mykiss*. Golden rainbow trout are predominantly yellowish, lacking the typical green field and black spots, but retaining the diffuse red stripe.

They were developed based on one spontaneously lighter animal. The palomino trout is a mix of golden and common rainbow trout, resulting in an intermediate color. The golden rainbow trout should not be confused with the naturally occurring golden trout.

- factual information taken from wikipedia.org



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LOVE MY LAKE ... Don Winne and Corey Lake

My name is Don Winne, and I have lived on Corey Lake for 44 years (that's my house pictured right). The first 14 years was summers only; we moved there permanently in 1977. I was elected Executive Director of Michigan Lake & Stream Associations in 1979, and became the editor and publisher of the *Michigan Riparian* that same year and continue today as the Publisher Emeritus.

Corey Lake, located in Fabius Township (St. Joseph County), is a 567-acre lake with a maximum depth of 80 feet, and an average depth of 25.2 feet. Located seven miles west of Three Rivers, it is about 45 miles southeast of Benton Harbor.

There are many reasons why I love Corey Lake. It has a plentiful supply of fish such as perch, bluegill, crappie, large and small-mouth bass, stocked rainbow trout and walleye. Sailing is a popular boating activity which takes advantage of the predominant westerly winds.

Another attraction of the area are the wild birds that nest and raise their young near

the lake. Birds seen frequently are robins, flickers, orioles, wrens, swallows, finches, hummingbirds, woodpeckers, and others that are seen year-around, including cardinals and blue jays.

One of the accomplishments of the Corey Lake Association in 1974 was to convince the Circuit Court Judge to set a new and higher (7 inches) lake level for Corey Lake. It is now 874 feet above sea level, and has not been changed for 33 years. I served as President of the Corey Lake Improvement Association during these years.

Another reason I love Corey Lake is the cooperative attitude of the residents in promoting what is good for the lake. As an ex-



ample, Ralph Vogel has been taking Secchi disk measurements (which measure water clarity) since 1974 - 34 years. Finally, I love Corey Lake because I enjoy being able to look out my front windows and absorb the beauty and tranquility of the lake.

In each issue of *The Michigan Riparian*, we invite readers to tell us why they love their lake and to share one or two photographs. If you'd like to feature your lake in a future issue, please write and tell us why you love your lake via e-mail to jchurchill14@yahoo.com or via "snail mail" to: Love My Lake c/o Jennifer Churchill, P.O. Box 44, Carson City, MI 48811. Please e-mail a large-format (300 dpi) jpg photo of your lake, or snail mail a regular photo.

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BUSINESS NEWS

Staff changes at EasyPro



EasyPro Pond Products of Grant, Michigan announces the recent addition of Rick Smith as Director of Sales. Nathan Blom, who has been the sales manager since the 2007 season, will become the Director of Marketing and will focus on marketing programs and services to support the continuing nationwide growth of the EasyPro Product line.



Rick Smith joins the EasyPro team with over 27 years experience in the Lawn and Garden industry, as well as a passion for water gardening and 15 years in the industry. Rick was formerly the Sales and Marketing Manager of the retail division for J Mollema and Son, Inc., Grand Rapids, Michigan, then served as the Great Lakes/Chicago Regional Sales Manager when Commerce Corp. purchased Mollema in the spring of 2006.

EasyPro Pond Products is excited to provide the additional support to our nearly 200 distributors in the United States and Canada.

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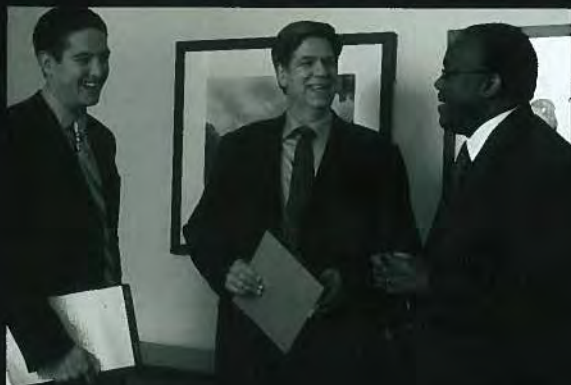
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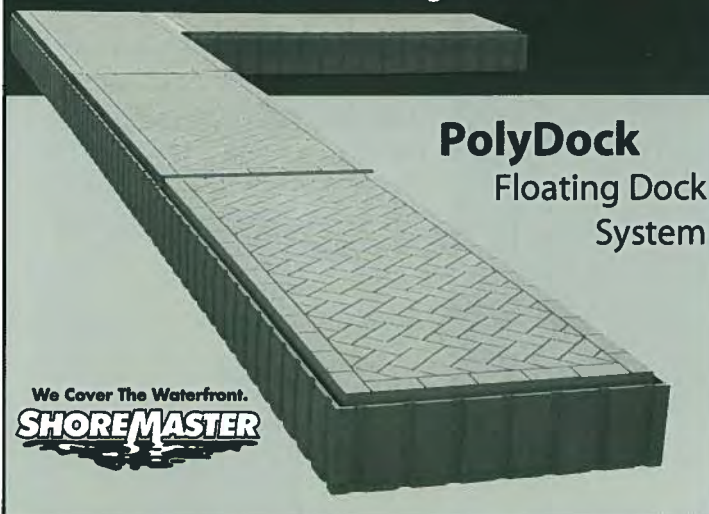


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