

Lakes as Life Forces

~ Bill Jones

Connecting with Lakes

At the 2009 North American Lake Management Society (NALMS) annual symposium, I attended a session entitled “Lakes as Life Forces: Literary, Spiritual and Societal Aspects of Lakes.” This session really spoke to me, so much so that I asked presenters and several others to write articles for a special issue of the NALMS quarterly magazine, *LakeLine*, in spring 2010 called “Reflections.”

You are reading this issue of *WaterColumn* because you care about lakes. We care about lakes because we have a personal connection with lakes or, possibly, with one lake in particular. It is the depth of these personal connections that define our commitment to the ongoing battle to preserve and protect lakes.

What is your lake connection (Figure 1a-c)?

Perhaps you grew up along a lake and learned to appreciate it at a young age? Or perhaps you retired to live the good life on the lake? Are you an avid angler, swimmer, or boater as your primary connection to lakes? Do you go to the lake for peace and quiet? Many people report having a feeling of calm come over them as they sit alongside the lake. Still others may be in the business of managing lakes.

While living at Walden Pond, Henry David Thoreau developed a deep connection with his “lake” and described it as “...earth’s eye; looking into



Figure 1a. Quiet contemplation. Photo by Lowell Klessig.



Figure 1b. Majesty of the wildlife. Photo by Robert Kirschner.



Figure 1c. The sheer beauty of it all. Photo by Jane Boston.

which the beholder measures the depth of his own nature.”

My own personal “lake story” includes many hours spent sitting on a stump alongside a pond at Dunn’s Marsh while I was an undergraduate student at the University of Wisconsin at Madison. I retreated to that place often to contemplate classes, relationships, my future. I could really relax and think at that quiet spot – far away from the noise and craziness of campus. I suspect that this personal connection so long ago led me to seek a career in limnology and lake management.

Taking the path down to the lake is more than a simple walk (Figure 2). Writing in the spring 2010 *LakeLine*, my friend Tom Gordon describes going to the lake as a pilgrimage – from descending by car through the watershed to the cabin, then again on foot to the shore, and finally to immersion in the lake itself.

Losing the Connection

Our connections to lakes are many and strong...but they aren’t always permanent. The Aral Sea in Central Asia, once the World’s 4th largest inland sea, has dried up due to excessive water diversion for agriculture and other human uses (Figure 3). Lake Mead’s water level plunged nearly 100 feet over the past decade due largely to drought but also to water withdrawal commitments. Lakes throughout Indiana and North America suffer from eutrophication due to excessive nutrient runoff. We’ve let our lakes become overgrown with algae, unusable, and, in some cases, toxic (Figure 4). Many people were connected to these lakes, but apparently the policymakers weren’t. Water pollution control isn’t a priority anymore and members of Congress are proposing large cuts in EPA authority to enforce the Clean Water Act.

My friend, Ken Wagner, writing in the spring 2010 *LakeLine* observed that moving to the lake should be about building stronger



Figure 2. Taking the path down to the lake is a pilgrimage to many. Photo by Tom Conry.



Figure 3. Fishing boats and people’s lives were left high and dry at the Aral Sea.



Figure 4. Grand Lake St. Marys (OH) is but the latest lake to make national headlines due to poor water quality.

connections – but this is not what appears to be happening. Instead, people build huge mansions on the shore, usually with a view of the lake but often with limited access to it, and frequently with swimming pools and many other diversions that make the lake secondary to life on the shore. They are connected to the house...not the lake! I’ve witnessed the same phenomenon at re-developed shorelines all around Indiana over the past several years (Figure 5). In addition to breaking the connection with the lake, such lakeshore mega-mansions can negatively affect shoreline and

in-lake habitats, and can increase nutrient runoff.

Making connections with the natural world are, unfortunately, in greater peril among young people. In his 2005 book entitled *Last Child in the Woods*, author Richard Louv coined the term “Nature Deficit Disorder.” While not a formal diagnosis, Louv used the term to draw attention to the trend that children are spending less time outdoors, resulting in a wide range of behavioral problems. Evidence that children spend less time outdoors than did their parents is pervasive.



Figure 5. Does this property promote a lake connection or a house connection? Photo by Jeremy Price.

- The *2008 Recreation Participation Report*, based on a survey of 60,000 Americans, found a decline of more than 11 percent of participation in outdoor activities among young people age 6 to 17.
- Only 6 percent of children age 9-13 play outside on their own in a typical week.
- Bicycle riding is down 31 percent.
- The *Oxford Junior Dictionary* has replaced dozens of nature-related words such as “beaver” and “dandelion” with words like “blog” and “MP3 player.” As noted wildlife artist and conservationist Robert Bateman observed, “If you can’t name things, how can you love them? And if you don’t love them, then you’re not going to care a hoot about protecting them....”
- A 2010 survey by the Kaiser Family Foundation reported that young people spent 53 hours a week with electronic media (cell phones, iPods, computers, television). This amounts to 7 hours and 38 minutes *every day!*

As a member of the Baby Boomer generation, I suspect that in my youth I spent much of those 53 hours per week outdoors, rather than with electronic media.

What are the causes of this Nature Deficit Disorder? Besides

the obvious lure of the screen, others have suggested that parental fears play a large role. The nightly television news begins each broadcast with a string of robberies, assaults, car accidents, etc.; leaving the viewer with the message that the world is a dangerous place. It is best to keep

the kids indoors. Another factor is the poor understanding that most adults have of nature. Nature isn’t neat, it is messy...but it is generally safe. Sure, there are snakes and spiders and other animals out there, but they are more scared of you than you should be of them. There are also bacteria and microbes in the soil so keep the hand sanitizer at the ready. Actually, studies report that children growing up on farms or who spend more time outdoors are generally healthier because they’ve been exposed to a wider variety of bacteria and have

developed defenses against future infections.

Solutions?

What can be done to re-connect people, especially young people, with lakes and nature as a whole? Let me suggest three areas where we need to make progress:

1. Better public understanding of lake ecology
2. Get kids outside
3. Foster a greater sense of community

1. Understanding lake ecology. When you look at the picture in Figure 6, what do you see? What you see depends upon your understanding of lake ecology. Some may see “weeds.” Others may see a messy lakeshore. Anglers will see a good place to fish. An ecologist will see a healthy slice of a lake’s ecosystem – a place where plants and animals can live and interact with their water environment.

If you saw weeds, a mess, or a place to fish, you view the lake as something to meet your own personal needs. We’ve seen time and time again that meeting human needs alone is not necessarily good for nature. What we must strive for is to create



Figure 6. What do you see here?

sustainable lake ecosystems. This is a lake environment that can persist, without human intervention, in a relatively stable and natural state. There are many hundreds of plants and animals that depend on the lake for survival...and their needs are different than human needs. When all the lake ecosystem parts are healthy and interacting, we get a lake that most all of us would like; one where nutrients are sufficient to support some algae and rooted plants, where a variety of fish, zooplankton, and aquatic macroinvertebrates (insects) interact to create a balanced food chain.

Now I realize that it isn't likely that all lakes can be sustainable on their own. We humans have caused simply too much damage with our nutrient runoff, destruction of habitat, introduction of invasive species, and other impacts. The point I'm trying to make is that when we finally develop plans to reduce our impacts and to manage the lake, we must do so not for human needs, but for the lake ecosystem needs. This requires a solid understanding of lake ecology.

Here are just a few good, plainly written resources to help you learn more about lake ecology:

"Managing the Water's Edge: Making Natural Connections" – available from http://www.indiana.edu/~clp/documents/ManagingtheWatersEdge_final.pdf

"Sustainable Lake Shorelines" – factsheet available from: <http://www.indiana.edu/~clp/documents/Sustainable%20Shorelines%20Factsheet.pdf>

"A Citizen's Guide to Lake Protection" – booklet available from: <http://www.shorelandmanagement.org/depth/citizen.pdf>

Managing Lakes and Reservoirs – book available from the North American Lake Management Society at www.nalms.org

2. *Getting kids outside.* Since Richard Louv's book was published, there have been several organized actions to reverse the trends.

- A national grassroots movement called, "No Child Left Inside" has formed.
- The Association of Fish and Wildlife Agencies (AFWA) has presented recommendations listing children and nature as No. 2 on their list of Priorities of a National Agenda for State Fish and Wildlife Agencies.
- A National Children and Nature Research Summit, sponsored by Yale University and the University of Minnesota was held in 2009.
- The Indiana University School of Medicine and the University of Washington reported that "green" neighborhoods are associated with lower childhood obesity.
- Organizations such as the Sierra Club, National Wildlife Federation, the Conservation Fund, National Audubon Society,

Hooked on Nature, the Trust for Public Land and others are supporting programs that connect kids to nature.

While these national programs are encouraging, there are many things that you, as individuals, can do:

- Limit TV and video games to 1-2 hours per day (for you and your children).
- Take a child outside and create the opportunity for your children to have unstructured time to play outdoors every day.
- Be a role model. As you participate in outdoor activities, take along your child, grand children or neighborhood children. Let them learn by your example.
- Organize an outdoor outing with your child's school.
- Take a daily or weekly walk together with your family after dinner.
- Register your child for an outdoor summer camp (Figure 7).



Figure 7. Students examine aquatic insects during a summer nature camp at Camp Pyoca near Brownstown.

- Plant a garden and let your kids help.
- Get involved with one or more of the many youth nature advocacy groups in Indiana (Figure 8).
- See the Children & Nature Network (www.childrenandnature.org) for more information.

3. *Creating community.* The word “community” conjures up images of people, neighborhoods, and cities, but this is too restrictive a definition. We are all part of the same community – with the plants, animals, fish...yes, even the fish! Until we include our lakes and streams in our definition of community, we can’t ever achieve ecological sustainability.

Aldo Leopold is quoted so often in this area because he said it first and said it best.

“We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.”

I mentioned earlier in this article that the time I spent along the shores of Dunn’s Marsh pond in Madison, Wisconsin was one of the defining moments in my life. The other one was when I read Aldo

Leopold’s *A Sand County Almanac* for the first time. Leopold reminds us that “ethics” rests on the premise that the individual is a member of a community of interdependent parts. Ethics prompts humans to cooperate for the better of the community...to adopt an ethical behavior. Leopold’s “land ethic” expands the scope of human ethics to include the greater community in which we live.

“The land ethic simply enlarges the boundaries of the community to include soils, waters, plants and animals or collectively, the land.”

We must broaden our concept of community to include lakes and their watersheds. This recognition will remind us that we are a part of nature rather than apart from nature. When we can do this successfully, we can better connect to lakes.

Have you checked out the Indiana Clean Lakes Program Web page lately? Take a look at <http://www.indiana.edu/~clp/> and see what’s new and happening with the program and with Indiana lakes!

WaterColumn is Going Paperless

In an effort to become more “green” (and to require less greenbacks), we plan to cease printing and mailing this *WaterColumn* newsletter after 2011. It will be offered in its electronic form only. If you currently receive a printed *WaterColumn* in the mail, you will need to e-mail Editor, Bill Jones (joneswi@indiana.edu) by the end of this year with your e-mail address so that you can continue receiving this publication.

You might notice that some of the photos in *WaterColumn* lose their impact when printed in black & white, as we must do with the printed version. With the electronic version, all images are printed in full color. The electronic version is also suitable for printing in color on your home computer if you like holding this newsletter in your hands to read it.

Changing of the Guard

This past spring, Indiana University offered an early retirement incentive to faculty and staff in order to reduce the university’s budget in these harsh economic times. While I wasn’t planning to leave IU, this incentive



Figure 8. “Fishing with Pride” brings kids from diverse backgrounds in Indianapolis and Martinsville to Bradford Woods to learn how to fish.



Figure 9. Aldo Leopold at his sand county shack.



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was too good to pass up. So, on June 30, after 33 ½ years here, I officially retired from IU. However, since our current Indiana Clean Lakes Program (CLP) contract runs until May 2012, I will continue to lead the program until that date.

After that time, my colleague of 11 years, Melissa Clark, will assume directorship of the Indiana CLP. Melissa was a graduate student of mine and earned her M.S. in Environmental Science from SPEA in 1999. Since then, she has managed my laboratory, helping to train the many fine graduate students that keep the CLP running so well and efficiently. Melissa has been an integral part of the CLP for these past 11 years and is uniquely qualified to lead the program. I'm certain that you will enjoy working with Melissa into the future.

Melissa has taught SPEA courses on environmental sustainability, aquatic habitat analysis, and

environmental science.

With my retirement, she will now teach the limnology laboratories and the lake and watershed management courses that I have been teaching for the past 20 years. So, when you get a chance, please welcome Melissa Clark.



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Perspectives

Conservation is a cause that has no end. There is no point at which we say, "Our work is finished."

~ Rachel Carson