

## The Picture that Changed a Million Minds

In August 1973, the Fisheries Research Board of Canada conducted a “living” experiment on the impact of phosphorous on lake habitat. Scientists divided a lake with a plastic curtain and added phosphorous to one side, but not the other. The results are dramatic: the side with added phosphorous has a massive algae bloom.

The photo has been called “the single most powerful image in the history of limnology\*.” The image convinced skeptical legislators about the role of phosphorous in fish-killing algae blooms and led to the banning of high-phosphate laundry detergent.

The experiment was led by **David Schindler**, an American-born ecologist who headed the Experimental Lakes Area in northern Ontario from its inception in 1968 to 1989. Schindler, who died earlier this year, was an influential research scientist who helped shape many public policies on freshwater ecosystems.

The **Experimental Lakes Area** is a natural laboratory composed of 58 small lakes and their watersheds set aside for scientific research located in a sparsely populated region of northwestern Ontario, Canada. By manipulating these small lakes, scientists examine how all aspects of the ecosystem—from the atmosphere to fish populations—respond. Pretty cool!

\*Limnology is the study of inland aquatic ecosystems, including lakes, reservoirs, ponds, rivers, streams, wetlands, and groundwater.



**What can you do?** To prevent phosphorous from entering our Raymond lakes, here are a few tips:

- **Use phosphorous-free fertilizers:** See “Keep Lawns Green, Waters Clean” below.
- **Manage erosion.** Build check dams on roads and paths to prevent rainwater from carrying sediment into your lake.

- **Maintain shoreline planting.** Leave existing shoreline vegetation in place and/or plant shrubs to absorb runoff.
- **Septic systems.** Build new septic systems 100 feet from the shoreline to avoid groundwater seepage.
- **Call RWPA** for a free evaluation of erosion issues on your property. RWPA provides tips and resources for remediating erosion issues.

## Keep Lawns Green, Waters Clean

Phosphorus is like junk food for algae causing it to grow out of control, turning lakes green, lowering water quality, and even killing fish. Even if you live far from the shorefront, all storm water eventually makes its way to our waters, with half draining into lakes and the other half draining in rivers and bays.

The easiest thing you can do to limit phosphorous in our lakes is to use “phosphorous-free” lawn fertilizer. Every bag of fertilizer has a 3-digit number on the label. Make sure the middle number is 0. For example, 10-0-10 has equal parts nitrogen and potash but no phosphorous. Use that!

According to Maine Department of Environmental Protection (DEP), most soils in Maine have enough phosphorous to keep a lawn lush and green. They recommend phosphorous only when establishing a new lawn, re-seeding, or when recommended by a soil test from a lab. They also recommend using only half the amount of fertilizer recommended on the bag; if the response isn't suitable,

apply the remainder. More is not necessarily better.

Rather than fertilizing, the Maine DEP recommends leaving grass clippings on established lawns to serve as natural fertilizer. New lawns need more nitrogen so a 10-0-0 mix is ideal. We know many lakefront

owners are replacing lawns with natural and native plantings. Who wants to mow a lawn when you can be swimming, fishing, or resting comfortably in a hammock?

For more information, see <https://www.maine.gov/dep/land/watershed/fertilizer/index.html>.



## Win the RWPA Tree at the Raymond Village Library!

RWPA has contributed a decorated holiday tree to the Raymond Village Library for its tree raffle fundraiser. RWPA board members Lisa Hall and Holly Hoglund created the tree. They added lots of water- and nature-related items, including a gift certificate for two half-day kayak rentals from Sebago Trails Paddling, a miniature kayak with Santa paddling it, medallions with maps and photos of the lakes and ponds in Raymond, stamp shapes of

frogs and leaves, a miniature pontoon 'DASH' (Diver Assisted Suction Harvesting) boat like our divers use when they remove invasive variable milfoil from Raymond's waters, floating key chains, a fishing bobber, and much, much more! It's to the right as you enter the library. Take a look! You'll be amazed at all the neat items! And purchase some raffle tickets to support the library. Maybe you'll win the RWPA tree!



## Annual Loon Count

The loons on Raymond's lakes continue to maintain a consistent presence. The numbers are slightly down from last year, but we still have a healthy population of loons.

Lake	Adults	Chicks	Observers
Crescent Lake Total	4	1	12
Notched Pond Total	2	1	1
Panther, Tenney Total	9	0	8
Raymond Pond Total	7	2	7
Thomas Pond Total	3	1	5
Raymond Total	25	5	33

## Special Thanks

The RWPA Board extends a special thanks to:

- The Town of Raymond, Public Works Dept. for again storing our DASH boat for the winter
- The Town of Raymond, Fire Dept. for again allowing our divers to refill their air tanks, thus avoiding travel to Portland
- Port Harbor Marina for providing a mooring slip for the DASH boat and other support services
- Sebago Trails Paddling Company for giving our divers access to the river, for providing kayaks for RWPA board members to inspect the fantastic work our DASH crew has done, and for sharing passes to hang on the RWPA holiday tree given to support the Raymond Village Library
- Kevin Wood of Jordan River Marina Condo Association for collaborating with RWPA in efforts to control invasive variable milfoil
- RWPA board members Lisa Hall and Holly Hoglund for preparing the RWPA holiday tree (see photo elsewhere in this newsletter)
- RWPA board member Neil Jensen for preparing all the DASH boat and equipment for winter
- And all the RWPA board members who volunteered as Courtesy Boat Inspectors.

## Time to Donate?!

To keep our lakes pristine and free from invasive plants, please consider making an annual donation to RWPA. We are a 501(c)(3) corporation so your gift may be tax deductible.

**Milfoil doesn't take a year off, why should you?**

**[CONTRIBUTE HERE!](#)**

Or send your donation to RWPA, PO Box 1243, Raymond, ME 04071.

## RWPA Board of Directors and Members

- Peggy Jensen – President (Panther Pond)
- Locke Macdonald – Vice President (Crescent Lake)
- Marie Connolly – Treasurer (Panther Pond)
- Lisa Hall – Secretary (Crescent Lake)
- Neil Jensen – Member (Panther Pond)
- Wayne Eckerson – Member (Panther Pond)
- Elwood Beach – Member (Raymond Pond)
- Holly Hoglund – Member (Thomas Pond)

If interested in serving, let us know! To be removed from our mailing list, contact us at [info@raymondwaterways.org](mailto:info@raymondwaterways.org).

## About RWPA

Founded more than 50 years ago, the Raymond Waterways Protective Association is dedicated to protecting and improving the water quality of Raymond's lakes, ponds, rivers, and streams and fostering watershed stewardship.



Our web site: [raymondwaterways.org](http://raymondwaterways.org)

Contact us: [info@raymondwaterways.org](mailto:info@raymondwaterways.org)

Our mailing address: PO Box 1243, Raymond, ME 04071



Raymond Pond (lower left), Crescent Lake (middle right), Panther Pond (middle-left), Thomas Pond (middle top- barely visible), and Sebago lake (top).