



LakeFront

Quarterly Newsletter of the Whitefish Lake Institute

Fall 2013

The Wetland Experience

Editors note: On July 13, 2013 the Whitefish Lake Institute opened The Living Wetlands Interpretive Nature Trail in the Averill's Viking Creek Wetland Preserve. The following are notes from Lori Curtis, WLI's Science and Education Director...



Fall colors on display in the aspen forest along the Living Wetlands Interpretive Nature Trail- Crestwood Park Satellite Trailhead.

As part of my job, I walk the trails checking that each trail segment is clear and safe, keeping the trail guide boxes full of guides, and whatever else needs to be done to offer a good visitor experience. It has been my pleasure to stop and chat with trail visitors. While every visitor has a reason for using the trail, some have been more memorable to me. I share these examples with you:

One beautiful late summer day I ran into a senior couple who appeared to be enjoying lunch on the main trailhead bench. What I learned from this couple was that they were on a date having a "progressive lunch" using all six of the hand crafted benches along the trail. They had each sixth of their meal neatly wrapped with a different half bottle of wine for each part of the lunch. They said they were thrilled to have a beautiful environment which was easy for them to navigate with comfortable spots to relax and enjoy their special date.

Then there was the *(continued on page 2)...*

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Whitefish Lake
INSTITUTE

Whitefish Lake Institute
635 Denver Street
Whitefish, MT 59937

Voice: 406.862.4327
 Fax: 406.862.0686
 info@whitefishlake.org
 www.whitefishlake.org

Founded in 2005

The Whitefish Lake Institute is committed to acquiring scientific research and engaging the local citizenry to protect and improve the Whitefish area lake resources of today, while providing a collective vision for tomorrow.

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Cover Photo:

Aerial view of Whitefish Lake looking towards Big Mountain. Courtesy gravityshots.com.

(*Wetland Experience continued from page 1*)... three generation family I ran into at interpretive sign #4 "*A Changed Fishery: Brook Trout Rein.*" The grandfather was holding a set of papers which I later learned were "study notes" about the trail. The father had a questionnaire from which he was quizzing his young son. The son seemed to be answering the questions correctly. The father explained to me that he was using the *Living Wetland Interpretive Nature Trail* and companion Trail Guide to teach his son about wetland ecosystems. The father also noted that he himself had most of the Trail Guide content memorized! Whatever your reason for visiting the trail, we hope you enjoy your time there.

Fall Wetland Visitors

August brought our friends and neighbors Margaret Murdock and her daughter Sharlot Battin—owners of the 215-acre Murdock Nature Conservancy Easement—to the Interpretive Nature Trail. Their easement borders WLI's wetland preserve to the north and east, offering

a large contiguous area for wildlife movement and calving. Margaret and Sharlot have been amazing community stewards as evidenced by their receipt of WLI's 2010 Lifetime Achievement Stewardship Award. Margaret's wheelchair rolled freely along the trail as we strolled between interpretive signs and benches. The two women come from a matriarchal lineage of hard working, visionary women. Margaret retired in 1985 after 36 years of teaching in Columbia Falls and Sharlot continues to make shoes for Broadway productions.



WLI Executive Director Mike Koopal with Margaret Murdock and her daughter Sharlot Battin. Behind the trio is a wind thrown spruce displaying its shallow root structure that now provides micro-habitat for smaller wetland animals and plants.

In late **September**, WLI was thrilled to host Muldown Elementary School 2nd grade classes. About 120 youngsters, accompanied by their teachers and parent helpers, traveled by bus to the *Living Wetland Interpretive Nature Trail* for their *pond unit* field trip. WLI staff created three learning stations for the students.

Executive Director Mike Koopal discussed animals at his station which was set up at interpretive sign #6: *Tree Carving for Bears Only* which showcases aspen trees with healed bear scratches. He shared with the students recently collected zooplankton from Whitefish Lake, and a brook trout "borrowed" from Viking Creek on the wetland property. (*continued on page 3*)...

(Fall Wetland Visitors continued from page 2)...



He also had a western toad and a long-toed salamander on hand (literally!) for the kids to view. Large mammals commonly found in the wetland like bear, mountain lion, moose, elk, and deer were referenced using photos from the trail cameras in the wetlands. Mike had many fun and informative facts about creatures large and small to reveal to the kids.

Science & Education Director Lori Curtis introduced students to field journaling as a fun way to learn about life in the wetland. Journal pages included information and drawings about North American beavers, frogs, toads, and water striders. Students gathered at interpretive area #3: *Nature's Engineers* which houses a tree felled by a beaver, interpretive area #8: *The Living Stream* which illustrates the lives of aquatic insects, and at one of the hand crafted benches near the creek. Students received their own sample field journal pages to take home.

All six Muldown Elementary 2nd grade classes got a chance to visit the Averill's Viking Creek Wetland Preserve.

Environmental Scientist Josh Gubits had the aquatic insect station, always popular with kids of all ages. Josh shared with the kids a plethora of aquatic bugs he collected early in the morning. Students had the opportunity to discover bugs in large tubs of creek water, and spoon them into individual ice cube tray sections for identification and viewing. Josh makes learning fun as he asks kids to join him in dances representing each insect's movements, the most popular being the "Mayfly Mambo."

In **October**, WLI was excited to share the wetland trail with Lynda Saul, Wetland Program Coordinator for the Montana Department of Environmental Quality. Lynda was in town for the Montana Watershed Council meeting



During their visit, 2nd Graders rotated between three stations featuring aquatic insects, wetland animals, and field journaling.



Lynda Saul, Wetland Program Coordinator for the Montana Department of Environmental Quality and WLI Science & Education Director Lori Curtis in front of the Trail-head Kiosk. The DEQ Wetland Program provides state leadership to conserve wetlands for their water quality, water quantity, habitat, and flood control benefits.

where WLI Executive Director Mike Koopal presented to the group about the wetlands and nature trail development. It was great that Lynda made time to visit with us. She was excited about the educational aspects of the trail and interpretive stations highlighting that wetlands perform important water quality functions and aren't necessarily wet all the time. She believes those are concepts that are sometimes hard to get across to the public. It didn't hurt that it was also a beautiful fall day!

If you would like to save WLI printing and mailing costs by getting your future issues of *LakeFront* electronically, please contact jen@whitefishlake.org.

WLI Conducts Aquatic Plant and Substrate Survey

In September, WLI staff conducted a 395 point shoreline macrophyte and substrate survey. The entire shoreline was surveyed with each survey point approximately 200 feet apart and 20-30 feet from the shoreline. Methodology included a visual inspection at each survey point and a minimum of one rake throw at survey points where aquatic plants were present.

Objectives of the survey were to 1) Identify the percentage of shoreline that harbored macrophyte communities, 2) Identify aquatic plants and relative density along the shoreline, 3) Classify substrate type based on size, and 4) Monitor for the presence of Aquatic

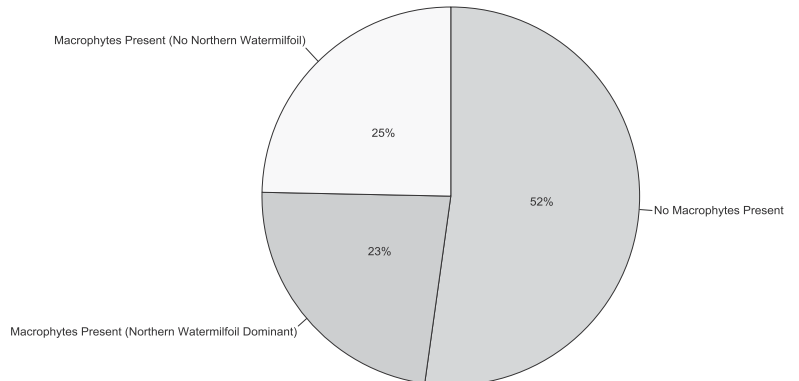


WLI Environmental Scientist Josh Gubits checking an aquatic plant sample.

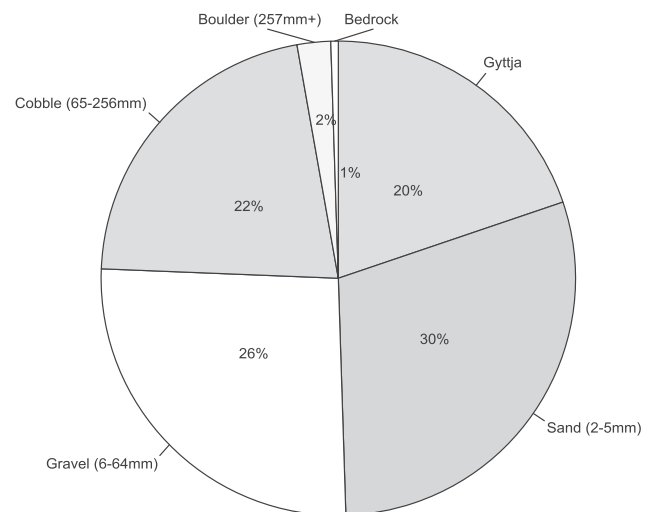
Invasive Species (AIS) and identify shoreline areas that are potentially suitable for AIS colonization and habitation. Fortunately, no AIS were found during this survey. Some of the most common plants found in the survey included northern milfoil, Richardson's pondweed, variable leaf pondweed, American pondweed, buttercup and elodea. A total of 30+ plant species were found in Whitefish Lake. WLI plans to repeat this comprehensive survey every five years to determine whether there are changes occurring among shoreline plant communities. In addition, WLI will be checking select shoreline areas annually to monitor for the presence of AIS. This survey was made possible by an AIS funding partnership with the City of Whitefish.

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Overall Macrophyte and Northern Watermilfoil (Native) Distribution on Whitefish Lake Shoreline



Dominant Substrate Type Whitefish Lake Shoreline



NWMTLVMN Wraps Up 2013 Field Season

Another great season for the Northwest Montana Lakes Volunteer Monitoring Network (NWMTLVMN) wrapped up thanks to all of the dedicated volunteers that continue to monitor the 42 lakes in the program.

A total of 33 volunteers assisted in the summer collection of water chemistry samples, Hydrolab profiles, and plankton tows! The 2013 Summary Report will be available in the spring of 2014, and will include data collected in 2013 and fall Hydrolab profiles from the past three years.

The NWMTLVMN is a partnership between WLI, Montana Fish, Wildlife & Parks, and the Flathead Basin Commission. If you would like to become a volunteer, please contact josh@whitefishlake.org. For more information about the program, please visit www.nwmtlvmn.org.



Volunteer Jill Fanning drops the Secchi disk into Hanson Doyle Lake.



2013 Intern Logan Seipel and volunteers Lauren and Craig Shotnik on Bitterroot Lake.

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Whitefish Lake Institute ♦ 635 Denver Street ♦ Whitefish, MT 59937

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