



Photo: Martin Neptune

Penobscot Indian Nation Department of Natural Resources www.penobscotnation.org/DNR/DNR1.htm

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Water Resources Trainees

7381

What Happens During and After Ice-out on a Lake?

Spring 2006 ~ Issue 2

Remember why ice floats? Back in Issue 2 of the Winter 2005 DNR newsletter we described the fact that water differs from most other compounds because it is less dense as a solid than as a liquid. So as long as the air temperatures at the surface of a lake stay below freezing the water on the top will be less dense than the water below and continue to float. In fact, near the end of winter, the water near a lake's bottom will usually be at 4°C and water above that layer will be cooler, approaching 0°C just under the ice.



But as we know so well, in the spring things warm up! When this happens the ice melts. The surface water heats up and therefore it decreases in density. When the temperature (density) of the surface water equals the bottom water, very little wind energy is needed to mix the lake completely. This is called turnover. For a while winds may still mix the lake from bottom to top, but eventually the upper water becomes too warm and too buoyant to mix completely with the denser deeper water.



Also as we mentioned in the article last winter, if there are low levels of oxygen in the bottom waters of a lake during the winter it can result in a release of phosphorus from the sediments. When a lake turns over in the spring, this phosphorus provides a food source for all plant life present like those that either grow from roots in the sediment or float on the surface (macrophytes) and still others that float in the water column (phytoplankton). Large amounts, or blooms, of phytoplankton in the summer can also result in fatally low levels of oxygen.

Look for future articles on what is happening during the summer!

Conservation Camp Time Again!

 ${f I}$ t's that time of year again. The Piscataquis County Soil and

Water Conservation District is having their annual "Conservation Camps." This is a great opportunity for **children ages 7 to 10** an opportunity to explore the natural resources of the region and have fun learning!

MORNING SESSIONS: 9:00 am - noon

THE FIRST WEEK OF CAMP: JUNE 26 - JUNE 30 NATURAL RESOURCE ACTIVITIES

GATHERING LOCATION: Foxcroft Academy Student Center, Dover-Foxcroft

<u>AGENDA</u>

Monday:

Subject - Entomology Entomologist Clay Kirby, from University of Maine, will present a



slide show about insects and how to capture them, allow the children to handle various specimens, and, weather allowing, take the children outdoors to catch and release insects native to our own backyards. **Tuesday:**

Subject - Soils More hands-on learning when Soil Scientist Ron Olson, of Natural Resources Conservation Service, teaches the kids how to dig a soil pit in the forest.

Wednesday:

Subject - Forestry

Gordon Moore, of the Maine Forest Service, will teach the children how to measure trees to estimate their age and how to identify different types of trees.

Thursday:

Subject - Water Quality

Dan Kusnierz, Water Resources Program Manager for the Penobscot Indian Nation, will speak about water quality and the kinds of critters that live in and near healthy waters.

Friday: Subject - Wildlife

Learn about pelts, skulls and tracks with Doug Kane of Inland Fisheries and Wildlife.



REGISTER NOW! Enrollment limited to 30 per session

THE SECOND WEEK OF CAMP: JULY 10 - JULY 14 AGRICULTURAL TOURS

GATHERING LOCATION: Foxcroft Academy Student Center, Dover-Foxcroft

<u>AGENDA</u>

Monday: Buffalo & maple syrup at Breakneck Ridge in Blanchard.

Tuesday: Pick new crops at Stutzman's Vegetable Farm, Sangerville

Wednesday: Learn about raising game birds at Three Rivers Wing Shoot in Milo.

Thursday: See cows, calves and the milking process, Gilrock Dairy Farm, Sangerville.

Friday: Learn about horse care and equestrian skill at Infinity Farm, Dover-Foxcroft

Enrollment in the district would have been limited to fewer children without the many donations of time, money and supplies from the community including:

- Funds and materials that make it possible for the children to create natural resource-based crafts during camp are supplied, in part, by Palmyra Wal-Mart.
- Save-a-Lot Food Store in Dover-Foxcroft and Horizon Organics are providing snacks.
- The Milo Garden Club and Dover-Foxcroft Kiwanis also assist in providing funding for this camp.
- The guest speakers who donate their time to put on presentations, farm families willing to open their homes to the children and parents able to help provide supervision.

COST: \$25 per child per week. PIN DNR may be able to help with expenses for Penobscot Tribal

community members. Please call Dan at 817-7361 for info. REGISTRATION: Fill out the form included on the next page and send to the address listed. Call 564-2321, ext. 3 with questions.

Children should wear sturdy shoes that can get muddy - AVOID OPEN-TOED SHOES! Water bottles, sun screen and insect repellent from home are welcomed.

CONSERVATION CAMP REGISTRATION

Please fill out this form and send it back with a check for \$25 per child, per week, by June 21 to:

Piscataquis County SWCD 42 Pine Crest Drive Dover-Foxcroft, ME 04426

Parent/	Guardian N	Name:	

Address:

Email:

Phone#:		Emergency Phone #:
Child/Children's Name:	Age	Does your child have any medical conditions that we should be aware of (i.e. diabetes, asthma, allergies, etc.)? Yes No If yes, please exlain:
		Parents and

If your child requires a behavioral specialist while in school, please provide adult supervision on the days he or she attends camp.

Parents and friends are welcome to attend.

Due to the risk of Hoof & Mouth Disease, students who have been out of the country 2 weeks prior to summer camp will not be able to participate on the Agricultural Tours.

The Piscataquis County Soil and Water Conservation District, program presenters and Agricultural Tour farm owners will not be held responsible for injuries or damages.

Please do not send your child to camp in open-toed shoes for their own safety. Shoes that can get wet are recommended for Water Quality Day.

Discipline policy: Our rules are simple. Be polite to the guest speakers. Don't do anything that could hurt you or somebody else, such as running, throwing rocks, swinging sticks. Any child who cannot follow the rules after verbal warnings will be asked to skip the next day of camp. If they still can't follow the rules upon their return, they will be asked to leave the camp for the week.

Which week/progra	m would your child be inte	rested in: Check one or bot	<u></u>
June 26 – June 30 July 10- July 14	Natural Resources Agriculture Tours		For more information, please call 564-2321, ext. 3
Would you be willin	e attending the tours: Yes_ g to volunteer on certain d	/	

Do we have permission to photograph your	child for possible	publication in local n	ewspapers
event posters and District newsletters: Yes_	No		

Warning!

Guidelines for eating fish from Penobscot Territory Waters

To prevent possible harm from mercury, dioxins, and PCBs due to eating freshwater fish, we offer this advice:

All children under 8 and women who are nursing, pregnant or could become pregnant,

the most sensitive population from health effects of mercury,

