



# IROQUOIS ENVIRONMENTAL NEWSLETTER

## IN THIS ISSUE

- \* Re-Introduction of Critical Fish Species
- \* Recreational Boating and Water Levels in the St. Lawrence River
- \* Evict and Exile Mice



*This young sturgeon is part of the Assessment of Lake Sturgeon Project. Read more on Page 3.*

## Eastern White Pine *The Rest of the Story*

Many people today know of the history behind the Tree of Peace. The tall white pine that was planted to represent the Great Law of Peace. It's five needles that symbolized the Five Nations unified, under one law to form the Confederacy that is the oldest constitutional government in the world that is still in operation. But aside from the symbolism of the white pine, just what is this tree?

### GENERAL INFORMATION

**Scientific name:** *Pinus strobes* (Pronunciation: PIE-nus STROE-bus)

**Common name(s):** Eastern White Pine

**Family:** *Pinaceae*

**Origin:** native to North America

**Uses:** Bonsai; hedge; screen; shade tree; specimen; Christmas tree

**Height:** 50 to 80 feet

**Spread:** 25 to 35 feet

**Crown shape:** oval; pyramidal

**Crown density:** moderate

**Growth rate:** fast

### INTRODUCTION

Eastern white pine has soft blue-green needles and is the only eastern pine with needles borne in groups of five. It is the provincial tree of Ontario and the state tree of Maine and Missouri. In the 18<sup>th</sup> Century, the Royal Navy exploited the valuable trees for use as ship masts. The white pine was also useful for building materials and furniture. History recorded that the Iroquois used the inner bark as an emergency food source. They also used the whitish resin mixed with beeswax, to seal the seams of their canoes.

Songbirds, red squirrels, chipmunks and mice feed on the seeds and soft needles. Inner bark is a preferred winter food of porcupine and deer browse the twigs. Rabbits may eat the bark of young trees. Snowshoe hares, white-tailed deer, and cottontails browse the foliage. Young black bear cubs use large White pine to practice their climb

IROQUOIS  
ENVIRONMENTAL  
NEWSLETTER

*Published Spring and Fall of each year by the St. Regis Mohawk Tribe, Environment Division. The mission statement of the IEN is to inform and educate Iroquois Nation people and to network with other members of the Iroquois Nation regarding environmental issues in our territories.*

*The IEN is funded by the U.S.E.P.A, under the General Assistance Agreement Program.*

*The viewpoints contained in this newsletter are not necessarily those of the USEPA or the St. Regis Mohawk Tribe. The IEN encourages free and open discussion of all environmentally related issues. We encourage submission of letters, comments, and articles from our readers so as to promote a greater awareness among our people about environmental issues and to foster the free exchange of information, technology, and culturally relevant values of all Iroquois people.*

IEN  
St. Regis Mohawk Tribe  
Environment Division  
412 State Route 37  
Hogansburg, NY 13655-9702

Director.....Ken Jock  
Assistant Director.....Les Benedict  
Administrative  
Assistant.....Denean Cook

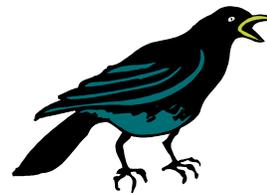
Editor.....Lornie Swamp  
Circulation.....Teres Thompson

Phone: (518) 358-5937  
FAX: (518) 358-6252

Internet:  
lornie\_swamp@srmtenv.org  
www.srmtenv.org

## West Nile Virus Testing

Beginning in July 2004, the SRMT Environment Division began collecting dead bird samples for West Nile Virus (WNV) testing. The New York State Department of Environmental Conservation Wildlife Pathology Unit offered their services to provide for the analysis. To date, there have been 6 samples sent in for testing. None of the samples tested positive for WNV. In St. Lawrence County there have been 2 reported positive bird cases for WNV and no cases reported in Franklin County.



---

## Correction

In the last issue of the IEN (Spring 2004, Issue #22) we mistakenly didnt cite the source of information contained within the article, "Get the Lead Out-Lead Harms loons and other waterbirds" Special thanks goes out to Nina Schoch, Program Coordinator of the Adirondack Cooperative Loon Program for her informative submission.

# Solid Waste Program News

Written by:  
Laura J. Weber

Director- Solid Waste Management



*Transtor units transfer refuse at the St. Regis Mohawk Tribe Transfer station*

It is fall time and this means that we are busy picking up materials for the Tribe's third annual fall cleanup. The cleanup began on Seskehko:wa/September 13 and will go until Kentenha/October 29. Residents on the reservation are allowed to put out large bulky items for collection. Bulky items collected thus far range from refrigerators, stoves, washers, couches, and other miscellaneous building materials.

This is the first time that we have been able to dispose of the collected bulky items at the Tribe's transfer station. We are discarding the non-recyclable bulky items into the two Transtors containers. The Transtor containers are 53 cubic yards each and can hold a variety of materials. When the containers are full, the Tribe contracts with a hauler who brings roll-off boxes to the transfer station. The contents of the Transtors are then tipped into the roll-off boxes and the hauler transports the materials to a landfill.

We are also bringing all the collected refrigerators, freezers, and air conditioners to the transfer station and storing them inside the building. The Freon will be removed from these after the fall cleanup and then the units will be taken to a scrap metal dealer. The other non-Freon scrap metal is being recycled at a local scrap metal yard.

Beginning Kentenhko:wa/November 1, we will begin collecting garbage and recyclables at all the Tribal buildings and the Akwesasne Mohawk Casino. The Tribe purchased 6-cubic yard containers and has been installed at all the Tribal buildings and the Casino. The containers are similar to the containers used at the Tribe's recycling depot. We are working with personnel from each Tribal building and the Casino to increase recycling and encourage waste reduction and reuse.

We have some unfinished work to be done at the transfer station before we can open to the community. Computer software to operate the scales will be installed sometime in Kentenha/October or early Kentenhko:wa/November. We are also in the process of reviewing applications for the Scale House Operator and hope to hire this person by the end of Kentenha/October. Additionally, we need to install the composting toilet and the remainder of the office equipment prior to opening. Although we don't have an exact date as to when the transfer station will open, we anticipate that it will be before the end of the year.

In closing, let us share that we truly appreciate your support and patience as we continue to develop the best possible solid waste program that provides you with the best quality service that you can afford.

## Re-Introduction of Critical Fish Species Remains a Priority

The SRMT Environment Division has been working with the United States Geological Survey (USGS) on project called the Assessment of Lake Sturgeon Rehabilitation. This project is part of a larger USGS effort in New York State. This fall SRMT will work with USGS on the release of 2,000 sturgeon fingerlings in Raquette, St. Regis and St. Lawrence Rivers. This project coincides with another USGS partnership project that is re-introducing Atlantic salmon in the St. Regis River. Later this fall the Division will assess the survival of 12,500 salmon fry released earlier this year. The selected release sites are the most suitable for fingerling survival and virtually free of direct contamination from local industry. Once a self-sustaining population of sturgeon and Atlantic salmon is established in the tributaries, the SRMT and other agencies will plan ways to allow these anadromous (migratory) fish to pass over dams that currently block spawning activity.



*Jim Snyder holding a muskie he caught earlier this summer*

### Well Water Sampling Continues

The Water Quality program has been working with SUNY Potsdam on establishing baseline levels of natural trace elements in groundwater. Many community members on both sides of the border use well water as their primary drinking water source. These results will enable the Tribe and other agencies to better manage drinking water supplies. Presently, two-thirds of the results have been received from the lab and so far, they look good. SRMT staff is preparing a report that will be distributed once all the results are in.

The water quality of wells is solely determined on potential adverse health effects, or Maximum Concentration Limits (MCLs). There are secondary MCLs for cosmetic reasons such as the discoloration of baths and machine washed clothes, but SRMT is only presently concerned with effects on health. As this program grows we can begin to better manage these elements even in trace amounts. Thanks to all who participated in the sampling program. We may be knocking at your door again in the future.



*USGS Intern Mark Chalupinicki holding a Muskellunge caught while working on cooperative sturgeon project in St Regis River*

# Regulated Water Levels in the Upper St. Lawrence

Quantifying impacts on Important Tribal Natural Resources

The International Joint Commission (IJC) appointed the International Lake Ontario-St. Lawrence River Study Board (Study Board) to undertake a comprehensive five-year study to assess and evaluate the current criteria used for regulating water levels on Lake Ontario and in the St. Lawrence River.

Environmental factors, recreational boating and tourism, shoreline erosion and flooding, commercial navigation, water uses and power generation are areas that are being studied.

In late 2003, the St. Regis Mohawk Tribe's Wetlands Protection Program and the US Geological Survey's Tunison Laboratory, Cortland, NY were awarded a one-year grant through the International Joint Commission to conduct a study on the St. Lawrence River and its tributaries. The goal of the project was to develop a necessary baseline on fish assemblages and the associated abiotic conditions, such as water level and flow.

This summer, staff from the Wetlands Protection Program, spent considerable time on the river collecting data for the study. The study area encompassed the Grasse River and Moses Saunders Dam down to Christatie Island complex for a total of 27 sites. To make the most efficient use of time and money, other objectives were



included as well.

The study consisted of four objectives:

- Collect data on fish assemblages,
- Collect data on hydrologic regimes,
- Collect data on habitat compositions, and
- Format data for use in the Study Board's Shared Vision Model.

To collect fish assemblage data, a large seine (net) was used. The seine was 40 feet long and made of quarter-inch mesh with a bag in the center for corralling the fish. The quarter-inch mesh size was chosen to increase odds of catching both small minnows and



larger fish. Collection was done by hauling the seine a distance of 45 feet, first in one direction, then in the opposite direction.

Organisms caught in the seine bag were sorted. Fish species were identified, measured for total length and tallied. Any fish that were unknown were labeled and sent to a laboratory for identification. Other organisms such as turtles, tadpoles and crayfish were tallied but not identified.

Benthic cores were collected and preserved in alcohol. Cores are measured samples of sediment that contain aquatic insects. The insects are an important part of the food chain for fish and other organisms. As part of the grant, Tunison Laboratory biologists trained SRMT Wetland staff on how to identify fish and aquatic insects using species keys.

Water chemistry and physical characteristics were recorded at each site. A multiparameter data logger was used to measure pH, dissolved oxygen, turbidity, temperature and conductivity. A digital flow meter recorded water



## New Kid on the Block

The Environment Division recently hired a new water quality technician, Matthew Thompson. A recent graduate of St. Lawrence University in Canton NY, Matthew has a degree in Chemistry and Mathematics. Matt enjoys sports especially hockey and is an avid Canadiens fan.

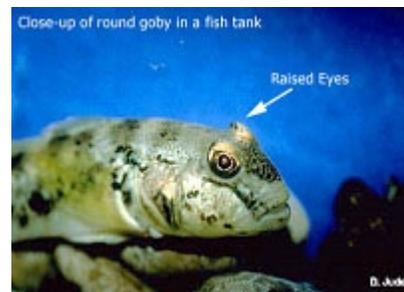
## Round Gobies Invade St. Lawrence River

Over the past few years there have been many types of invasive species that have found their way to the St. Lawrence River such as Purple loosestrife, Zebra mussels and Sea lampreys. One of the latest species is the Round goby (*Neogobius melanostomus*). This fish is native to the Caspian Sea and its introduction to the St. Lawrence Seaway and Great Lakes may have been when ships emptied the ballast water they carried over into the lakes and rivers.

The goby has similar features to the sculpin, which is native to the St. Lawrence River and the Great Lakes. The color of the goby may be brownish gray with black spots along the whole fish. The goby also has one pectoral fin whereas

sculpins have two separate pectoral fins underneath. The eyes of the goby are also located near the top of its head.

Gobies easily adapt to different types of habitats but prefer areas that have rocky bottoms with a steady current. Unlike native fish that spawn once a year, gobies spawn several times a year which allows goby populations to boom compared to native species. Native fish are at another disadvantage because gobies have a voracious appetite and will eat anything from small fish and fish eggs to zebra mussels. During the summer of 2004 several gobies were caught in the St. Lawrence River below the Moses-Saunders Power dam near the shores of G.M. and near St. Regis Island.





Common reed



Garlic Mustard



Japanese Bittersweet



Spotted Knapweed

## Invasive plants in Akwesasne

Throughout the years there have been a few plants that have been identified as invasive to our area. The first one that comes to mind is purple loosestrife. Other types of plants that are being labeled as invasive include the common reed, garlic mustard, Japanese knotweed, oriental bittersweet, spotted knapweed, common buckthorn and swallow-wort.

From the list garlic mustard, buckthorn and Japanese knotweed are some plants which have already been established in the Akwesasne area. Introduction of these plants sometimes happens when these plants are used for landscaping and ornamental or herbal gardens around homes. The common reed is an example of this type of introduction; because of its rapid growth some home owners used it as a natural fence along property lines. Japanese knotweed was also used as a decoration around properties.

Since these plants do not have anything to keep them in check they tend to get everywhere in a short time. Many of these plants usually go unnoticed until they become planted along roadsides or fields. Controlling the growth of these plants usually means the use of herbicides or manual labor. If the plant population is noticed early enough it maybe easy enough to go in and pull the plants out by hand. However, once the plants take over herbicides may become the only solution.

Here is a brief description of each of the plants listed above:

**Common reed:** Grows up to 15 feet tall with a large plume on top. Found in patches along roadsides and wetlands.

**Garlic mustard:** grows up to 3 feet high and has triangular to heart-shaped coarsely toothed leaves that smell like garlic when crushed. Garlic mustard also has small white flowers in the summer.

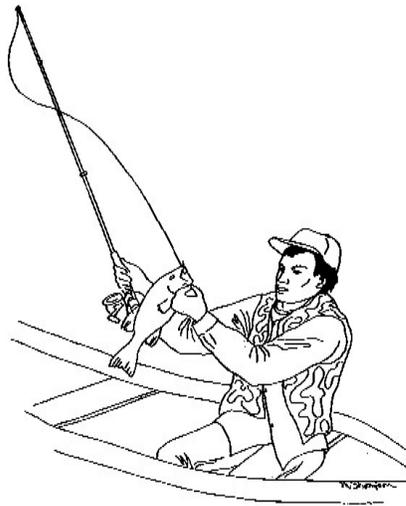
**Japanese knotweed:** A shrub that can grow up to six feet high. Knotweed has large oval shaped leaves and a row of tiny white flowers that grow in rows between leaves.

**Oriental bittersweet:** A woody vine with leaves that are shiny green, round and toothed. Flowers are greenish-yellow.

**Spotted knapweed:** Grows one to three feet high with erect branches that are rough around the edges. Thistle like flowers forms on the tips of branches, and are typically purplish-pink.

**Common buckthorn:** Small tree or shrub with thorny branches. Buckthorn may grow up to twenty feet in height, and the leaves are green, shiny and oval.

**Swallow-wort:** A vine that grows up to six feet long usually wrapping itself around other types of vegetation. Leaves are dark green and flowers are dark purple, almost black.



## Recreational Boating and Water Levels on the St. Lawrence River

Included with a previous issue of this newsletter was a green questionnaire asking local residents about their boating experiences on the St. Lawrence River downstream of the Moses Saunders Power Dam. The purpose of the survey was to describe the impacts of water level changes on recreational boaters on the St. Lawrence River below the Dam as far downstream as Snye Marsh. The information will help the International Joint Commission and its International Lake Ontario – St. Lawrence River Study Board, who are currently evaluating criteria used to regulate outflows from Lake Ontario through the St. Lawrence River, better understand the problems boaters face in this unique section of the River. Cornell University worked with the St. Regis Mohawk Tribe Environment Division on this study, which was funded by the International Joint Commission. We sent out the questionnaire because we wanted to know about boating activities on the River and any problems local residents might be having with water levels. Unfortunately, not many residents

responded, so we can only describe problems people reported to us; we cannot estimate the total magnitude of those problems. People described problems in which water levels fluctuated over the course of the day, causing docks to be unusable, or shoals normally under water, which became exposed, creating dangerous boating conditions. The problem identified with perhaps the most persistent/dominating impact to recreational boating in this stretch of the St. Lawrence River was the impact of large commercial vessels. About one-third of our respondents indicated that large boats were a problem, but more importantly, these respondents were impacted almost every day that they went boating. A copy of the full report may be requested from the Human Dimensions Research Unit at [hdru@cornell.edu](mailto:hdru@cornell.edu) or 122B Fernow Hall, Cornell University, Ithaca, NY 14853.

## Assessment of Damages to Natural Resources Continues with Study

By Barbara Tarbell

The Natural Resources Damages Assessment Program is attempting to identify, evaluate, and assess the impacts that industrial contamination to the surrounding natural resources has had on our community. Through a Cultural Impact Study, the SRMT and Dr. Taiaiake Alfred are working toward the goal of identifying, evaluating, and assessing the impacts of environmental contamination on cultural life in Akwesasne. The information collected will provide both a foundation for making conclusions about what the lifestyle of the Kanien'kehaka would have been if the Companies' discharges of hazardous substances had not occurred, and for the design of a valid and coherent framework for cultural restoration, as well as providing specific proposals and options for restoration.

The main activity has been the establishment of a Community Advisory Committee. Knowledgeable and respected elders and people with experiences directly related to the issues being investigated were approached and apprised of the NRDA process, and over time were recruited to the Committee. It was explained that this element of the project was to ensure the integrity and validity of the overall project and to improve it and ensure that the research process is proceeding in a manner acceptable to the community. The Committee is made up of people representing a solid cross-section of views encompassing the majority of Akwesasro:non.

Responsibilities of the Community Advisory Committee. The Akwesasne Community Advisory Committee meets with Dr. Alfred and the project team on a regular basis and provides the following assistance and input to the project:

- Review and comment on research findings
- Translate and interpret materials as needed
- Identify additional or overlooked sources of data
- Discuss and develop restoration options

Dr. Alfred and the project team have worked closely with personnel from the Akwesasne Task Force on the Environment and various other organizations and concerned individuals. Although, the Community Advisory Board is not formalized, the SRMT would like to welcome any additional community members who wish to participate in this process. For further information or general update on the progress of this study, please call Barbara Tarbell or Jari Thompson at SRMT Environment Division 518-358-5937. Nia:wen.

## Environmental Incident Report

By Craig Arquette

April 2004 - September 2004

This is the bi-annual installment of the Environmental Incident Report to the Iroquois Environmental Newsletter (IEN). An updated incident report will continue to be in all future issues of IEN. The purpose of this report is to make the readers of IEN aware of the numbers and types of incidents that our Environmental Response Team responds too. If you are faced with a spill at night or weekends, you can contact the Tribal Police at 358-9200 and they will contact the Response Team to assist you.

The St. Regis Mohawk Tribe's certified Environmental Response Team members include Ken Jock, Les Benedict, Shawn Martin, Craig Arquette, Laura Weber, Lornie Swamp, Angela Dunn, Marie Benedict, Aimee Benedict-Debo, Denean Cook, Teres Thompson, Jim Snyder, Tom Debo, Adrian McDonald, Joyce Barkley, Evan Thompson, Jari Thompson, Jessica Jock, Russell Philips and Bobby Phillips.

There is no incidents to report for this quarter.

Issue #23

9

Fall 2004

---

## Evict and exile MICE

---

### Cute, but potentially dangerous

The house mouse is one of the most frequently encountered rodent pests found near people and buildings. Unchecked, it can become a long-term inhabitant of your home.

Less common rodent houseguests include the deer mouse and white-footed mouse. Together, mice, rats and their parasites transmit dozens of diseases to humans. House mice may also cause fires and incapacitate appliances by chewing on electrical wires. Their urine, musky odor, and gnawing can ruin food, clothing, papers, woodwork, insulations and plumbing.

To evict mouse guests and prevent future invasions, use a sustainable approach that combines methods to minimize risks to human health and the environment:

- **Inspect your home**
- **Eliminate food and shelter**
- **Evict them**
- **Exile them**

#### 1. **Inspect your home**

Look for the telltale signs of rodents; droppings and urine stains, gnaw marks and shavings, burrow holes, noises and tracks.

#### 2. **Eliminate food and shelter**

Store food, birdseed, pet food, garbage and recyclables in secure metal, glass, ceramic or heavy-duty plastic containers with tight-fitting lids. Feed pets at scheduled times and put unfinished food in the refrigerator. Promptly clean up spills and crumbs. To eliminate their nesting sites remove cardboard boxes, if possible. Move firewood, garbage cans, debris piles and discarded appliances away from the house. Maintain a foot-wide gravel border that's free of vegetation around the foundation.

### Information Systems Being Upgraded through Grant



The Environment Division is pleased to announce that it has received funding for two 2-year grants totaling \$450,000 from the National Environmental Information Exchange Networking program sponsored by the U.S. Environmental Protection Agency. The objectives of the funding will focus on

developing Information Systems (IS) technology for the St. Regis Mohawk Tribe and the Haudenosaunee Confederacy. The Division will build a data exchange node to U.S.E.P.A. national air and water quality databases. It will also provide Geographic Information Systems (GIS) equipment and training.

These goals will be accomplished by the creation and operation of an Information Systems Lab, *Onhwentsà:ke* (World, on the ground). The lab is being established at the Environment Division offices in Raquette Point.

*Onhwentsà:ke* will add 3 computer workstations. These workstations will be available for:

- Searches and downloads from internet including the Exchange Network site.
- Online training
- Geographic Information Systems – Data, ArcGIS, Image Analysis & Processing, Historic Map database.
- Access and store documents including Quality Assurance Project Plans, Standard Operating Procedures, Forms, Grants, Regulations, Permits, Manuals, Advisories, maps, pictures and Newsletters.
- Web page authoring and editing including programming and image management.

**“Info Systems,” cont. on on Pg. 15**

**“Exile Mice,” cont. pg. 14**

## “White Pines,” from front page

skills and to climb to safety.

Bald eagles and osprey build nests usually at a main branch located below the crown top. White pine, especially those with broken tops, provide valuable habitat for cavity-nesting wildlife.

### GROWTH

Although white pine can grow 100 to 120 feet tall with a three to five-foot-diameter trunk and spread 50 to 60 feet, it is typically seen from 50 to 80 feet tall. Growth is very rapid at first but slows down with age. Several branches on a young tree normally originate from the same point on the trunk forming layers or whorls of foliage. Although young trees are pyramidal and usually grow with one central leader, the whorls of horizontal branches give white pine a distinctive appearance in middle and old age.

In the springtime, white pines and other conifers that are growing along highways may have red needles. Although the needles look terrible, the buds, twigs and trees are not dead. The needles had a rough winter and they were discolored by winter injuries. Buds are well protected during the winter and will grow once spring arrives. During the dormancy of winter, tree needles need and use liquid water. When water, stored in twigs and needles, is gone, cells and tissues become progressively more dehydrated and start dying. Affected needles turn red or brown from the tip down and, often have dark bands or a mottled appearance. In late winter, the needle discoloration intensifies and becomes more noticeable. Normally, snow cover prevents winter injury of young conifers by providing shelter from drying winds and from the glare of the sun.

Undoubtedly the most evident damage occurring on white pines growing along highways is caused by the application of de-icing salts. Passing cars send up clouds of water with a little salt dissolved in it. Salt

is absorbed into individual needles, accumulating to toxic levels in the needle tips and killing the needles back, starting at the tips. Trees within 150 feet of a highway can be easily reached by salt spray. De-icing salt damage usually occurs on the side of the tree closest to the road. Spring rains will rinse off accumulated salts, new shoots will develop in May and June and the dead needles will be shed so that by summer these trees will look reasonably healthy. Trees with thick wax layers on needles, large resinous buds and/ or with thick, robust needles are more resistant to salt spray damage.

People often worry when the needles of their white pines turn yellow and then brown in late summer to early fall. White pines do suffer from a variety of insect and disease problems, many of which cause the needles to turn yellow or brown. However, the natural process of shedding two- to three-year-old needles causes the yellow needles you see on most white pines in the fall. And this process happens every year.



So how can you tell the difference between a natural, seasonal process and yellow needles that are the result of something far more sinister? Master gardener, Paul James, recommends a careful inspection of the needles to determine the cause. A number of pests and diseases affect the needles at the tips of the branches. If the tips of the branches look healthy and there are no visible signs of rust due to fungal diseases and no sign of insect damage, chances are the tree is fine. Also, if the yellowing is taking place towards the middle of the branch and in a somewhat random pattern over the entire tree and other white pines in the area are showing the same symptoms, then the tree is probably fine.

The white pine's root systems are usually shallow and highly branched with many fine roots close to the surface of the soil. Young white pines are quite tolerant of half-day shade while mature white pines prefer a sunny location and tolerate loamy, moist,



## An Update on Fluoride

*Fluoride Action Network*

**Editor's Note:** The following facts are reported by the Fluoride Action Network and are reprinted with permission.

Issue #23

12

Fall 2004

### Did you know?

- The vast majority of Western Europe has rejected water fluoridation.
- The fluoride chemical added to water is an unprocessed, industrial waste product from the pollution scrubbers of the phosphate fertilizer industry.
- A growing body of evidence indicates that water fluoridation is both ineffective and unnecessary.
- Fluoride's 'benefits' are primarily topical, not systemic. Thus, there is no need to swallow fluoride.
- Two-thirds of the communities in the United States, when given the chance to vote, have voted against fluoridation. Over 60 of those communities have rejected water fluoridation since 1999.
- Excessive exposure to fluoride has been linked to health problems, including arthritis, hip fracture, hypothyroidism, cancer, Alzheimer's disease, and reduced IQ.
- Children are receiving too much fluoride today, not too little. There is a need to reduce, not increase, current exposures.
- As a result of excess exposure to fluoride, near-epidemic numbers of children are developing dental fluorosis (a poisoning of tooth-forming cells).

For more information, see Fluoride Action Network at <http://www.fluoridealert.org/>

well-drained soils. They do not grow well and often die on clay or on soil with a pH above 7. Trees appear to have little tolerance for drought, soil compaction and heat. Eastern White Pine is sensitive to air pollution (particularly ozone and sulfur dioxide). Although it sometimes grows in pure stands, white pine generally associates with hemlock, spruce and various hardwoods.

## DISEASES

White Pine Blister Rust, caused by the fungus *Cronartium ribicola*, is one of the most important diseases of white pine in the northeastern United States. White pines, especially young trees, are susceptible to the disease.

## SYMPTOMS

On white pines, the initial symptoms appear in late summer or autumn as small, yellow spots on needles. The infection spreads down the needle and into the twig, where slight swelling and yellowing develops during the next growing season. Numerous pale yellow blisters break through the infected bark in mid-April to mid-May a year or more after the bark first becomes infected. These blisters rupture and release large numbers of dry, yellow-orange spores. Blisters disappear after spore discharge and form again the next year.

## MANAGEMENT

Branches with blisters should be cut off where they join the next healthy branch. This cut should be made at least six inches beyond the yellowish margin of the blister. This margin can be easily detected by rubbing the area with a wet cloth. Lower branches are most commonly infected. If lower branches are removed, the probability of infection is greatly reduced. Infections on trunks can be eliminated by removing all bark 2 inches on each side and 4 inches above and below the blister margin. The area can then be treated with a tree wound dressing for cosmetic purposes.

Gardening by the Yard: Episode GBY-802.

Gilman, E.F., Watson, D.G., October 1994, Fact Sheet ST-473, Eastern White Pine.

Karasevich D.M., 4/96, Extension Associate/Plant Disease Diagnostician. Minnesota Department of Natural Resources, 2004.

Rook, J.S., 2004, White Pine.



*Bald Eagles, like this one seen in Raquette Point, nest in white pines*

### 3. Evict them

Snap trapping is recommended *but keep traps out of reach of children and pets!* Try concealing snap traps inside coffee cans or PVC pipe. Set traps at night, when mice are most active and check or remove them in the morning. It's better to trap intensively for a few days than to set only a few traps for a long time. Place the traps within travel routes, in corners, or near holes or nests. Traps set in pairs are more effective than single traps. A dab of crunchy peanut butter on the trigger is an enticing lure.

Space snap traps every 5-10 feet along the route, at a right angle to the wall. The trigger should snap towards the wall. Snap traps can also be attached to rafters with nails and to pipes with wire or Velcro strips.

### 4. Exile them

Exclude mice from your home. Seal all of their points of entry from ground level to at least three feet high because mice are good climbers. Prune branches away from the roof. Install door sweeps and weather-stripping, around garage doors too! Repair holes in walls and screens by stuffing steel wool or wire mesh into the holes. Caulk can be applied to strengthen the barrier. Seal gaps around water, gas and heating pipes, air ducts, and electrical openings.

*This information was developed by the Community Integrated Pest Management (IPM) Program, which is funded by Cornell University, Cornell Cooperative Extension and the NYS Department of Environmental Conservation. To get more information about the IPM Program visit their website at: [www.nysaes.cornell.edu/ipmnet/ny](http://www.nysaes.cornell.edu/ipmnet/ny)*

velocity. At 15 sites, sensors were installed underwater to record temperature and pressure. The pressure data was then converted into inches of water to track the changes in water level.

In addition, habitat conditions were noted. This included type of bottom substrate, shoreline type and dominant vegetation, and submerged aquatic vegetation. Substrates ranged from sandy to rocky to deep mucky bottoms. Submerged aquatic vegetation (SAV) was recorded as percent cover. A majority of sites had less than 10% SAV, but a few had more than 85% SAV cover.

All of the information collected will be input into various modeling programs to explore the data and identify distinct patterns. In general, the process will involve computation of basic descriptive statistics about each fish assemblage, such as diversity, richness and relative abundance. Analysis will determine the relative arrangement of distinct assemblages along environmental gradients and identify the environmental factors that most strongly influence assemblage structure.

#### Grantees:

James H. Johnson<sup>1</sup>, James E. McKenna<sup>1</sup>, and Joyce L. Barkley<sup>2</sup>. <sup>1</sup>Tunison Laboratory of Aquatic Science, Great Lakes Science Center, U.S. Geological Survey, Cortland, NY 13045. <sup>2</sup>St. Regis Mohawk Tribe, Environment Division, 412 State Route 37, Akwesasne, NY 13655.

For more information on the Lake Ontario-St. Lawrence River Study Board, go to [www.losl.org](http://www.losl.org). For more information on the SRMT Wetlands Protection Program, please visit our website [www.srmtenv.org](http://www.srmtenv.org).

*Onbweñsià:ke* will be staffed and managed by the IS Program Manager, Information Technology Technician, Data Entry Clerk, Web Designer and a Data Archivist.



*Karla General collected geographic coordinates using GPS equipment for the Residential Well Water Sampling project and worked as an intern for the Wetlands program in the summer of 2004.*

The Tribal Association for Solid Waste and Emergency Response (TASWER) will be partnering with the SRMT to build an Information Clearinghouse with Solid Waste and Emergency Response documents relating to cost estimates for projects, funding opportunities, policies and procedures.

The Natural Resource Damage Assessment program has documents relating to cultural resources and historic preservation. Included in this project is the Names-Places project. The purpose of the Names-Places Project is to preserve Tribal culture by visiting important historic sites and recording video, audio, and still photos of Tribal Elders who describe the site in both English and Mohawk languages. Locations of these sites are added to the Tribal GIS. The GIS allows computer files to be linked to map sites that are accessed with a simple mouse click. Database information in the forms of digital video, audio, and still photos of the site are interconnected with the map. Interested community members are encouraged to submit Mohawk names and translations for places around the World.

The goal of the Names-Places Project is to link geography, language, and knowledge of the Six Nations territory for the preservation of Tribal Culture.

Online, all these documents would be instantly available to the community, Tribes and Tribal projects across the Nation.

Global Positioning System (GPS) equipment will be made available by loan to create and collect, and improve locational data. The handheld equipment uses space satellites and radiobeacons in the St. Lawrence River to collect geographic coordinates, latitude and longitude, within an

accuracy of 1 meter. The use of the equipment requires a 3-hour training session that is offered by the Division’s GIS program.

Community members are invited to bring in documents, maps, and pictures that they would like scanned in and stored. The owner of the document can decide whether to keep the information private or share it with other community members via the internet web site or on the lab computers.

*Onbweñsià:ke* is expected to open in late November. It is our goal that the grant activities will increase the amount and quality of environmental and historic information by:

- Integrating the use of information systems into the activities of Native Sovereign Nations;
- Fostering the use of information systems in projects;
- Reducing the financial burden on Nations in the purchase of costly software, equipment and training expenses;
- Utilizing existing technology (such as GPS) and internet resources; and
- Reducing repetitive data collection, gathering and storing.

If you have any questions or would like additional information, please do not hesitate to contact the IS Program Manager, Aimée Benedict-Debo at [aimee\\_debo@srmtenv.org](mailto:aimee_debo@srmtenv.org) or call 518-358-5937.

PRESORTED  
STANDARD  
U.S. Postage  
Paid  
Hogansburg, NY  
Permit No. 3

# Iroquois Environmental Newsletter

St. Regis Mohawk Tribe  
412 State Route 37  
Akwesasne, NY 13655  
518-358-5937  
[www.srmtenv.org](http://www.srmtenv.org)

Postal Patron

Issue #23

16

Fall 2004