

NATURAL RESOURCES NEWSLETTER

January–March 2012

INSIDE THIS ISSUE:

Botany/ Wetland In- formation	1-7
Water Information	8-9
Wildlife Information	10-11
Solid Waste Information	12
Air Information	13
Natural Resources Information	14

PHENOLOGY PROJECT

“Pheno-WHAT?” **Phenology is the study of the timing of natural events.** For many years, people have noted the dates when migratory birds return the first flower dates for plants, dates of ice-on and ice-off of lakes and dates of first sightings of mammals after winter hibernation. Un-

derstandably so, phenology has also been called “nature’s calendar” and “the pulse of life.” Such timing is critical for plant and animal interactions. For example, when a young chick hatches, it needs caterpillars and other food to eat and an emerging caterpillar needs to eat developing leaves.



Phenology is a key indicator of climate change. The first blooms of the compass plant now appear almost three weeks earlier than they did 70–80 years ago.

The timing of phenological events is also important for:

- Agriculture (planting and harvest times)
- Human health (allergens and infectious diseases)
- Natural resource management (timber and water)
- Recreation (fall colors and wildflower displays)
- Understanding hazards (monitoring and predicting drought and fire risks)
- Conservation (abundance and diversity of plants and animals)

Phenology has also been described as a key tool in monitoring the impacts of global climate change. As Earth warms, plants are flowering earlier, birds are migrating sooner, and the interactions, distributions and abundances of plant and animal species are changing. We can use carefully and consistently collected phenological data to predict the impact of the changes on natural systems and people.

With the help of One Prospect, the FCPC Natural Resources Department has started a project to keep track of phonological data on tribal lands and surrounding areas to both monitor climate change and engage the public in observing the natural world. We will be making our own phonological observations available online for people to view, includ-

ing links to photos, videos and websites. In addition, we are inviting FCPC members to contribute observations of their own observations to the website as part of a citizen science effort. We will be updating the website with new observations on a weekly basis so that people can see what is new in nature each week.

Through this long-term project, tribal members can help monitor the effects of climate change on FCPC lands

WWW.FCPOTAWATOMI.COM/PHENOLOGY

To see what is new in nature each week, go to **WWW.FCPOTAWATOMI.COM/PHENOLOGY** (or, from the FCPC home page, go to “Government”, then “Natural Resources” and “Phenology” will be on the left side of the page) and scroll through the list of observations. Each observation contains a date, location and description of what was seen or heard. In addition, there will

be photos and links to related websites. For example, click on the thumbnail of “plantain sedge” to see a larger image of the plant in flower, or click on “eastern phoebes” to be automatically directed to a website with a sound clip of this bird’s song. We will be updating the website regularly with what is happening with plants, animals, and more!

Observation Date: ▲	Location	Observation	Photo	Photo 2	Photo	Notes	Observed By:
Mar 29, 2012	Forest Co.	Plantain sedge in flower				Plantain sedge is in flower. This plant is easily identified by its conspicuously seersucker-like leaves. Photo by H. Stricker	H. Stricker, FCPC EPA
Mar 21, 2012	near King Lake, Forest Co.	Eastern phoebes				Eastern phoebes are back and singing near King Lake. If you listen carefully, these birds sing their name. "PHOE-be, Phoe-BEE!"	A. Fehrenbach, FCPC EPA

When

Where

What

Photo

Notes

Who

Links to a sound clip!

WANT TO PARTICIPATE?

Submit your observation to us by clicking “add” at the top of the phenology web page, or contact us by email or phone: [Ashley.Fehrenbach@fcpotawatomi-nsn.gov/](mailto:Ashley.Fehrenbach@fcpotawatomi-nsn.gov) (715)478-4193 or [Heather.Stricker@fcpotawatomi-nsn.gov/](mailto:Heather.Stricker@fcpotawatomi-nsn.gov) (715)478-4196. Please note that all observations submitted online will be reviewed before being posted to the website.



The FCPC Phenology Project is a great tool for increasing awareness and inspiring curiosity about what is going on outdoors. In addition, carefully and consistently collected observations by both Natural Resource Department staff and tribal members can serve as a valuable means for monitoring and predicting the impacts of climate change on FCPC lands.

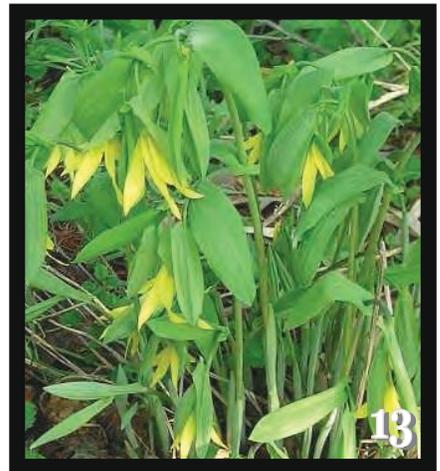
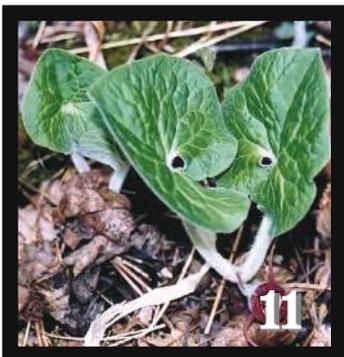
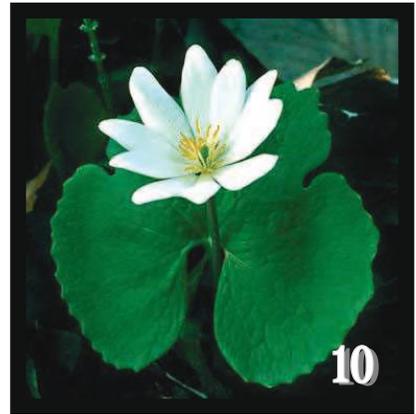
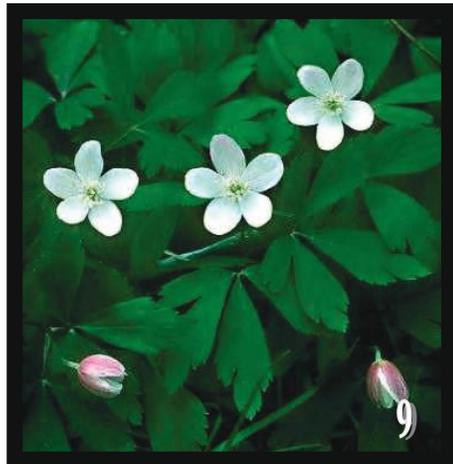
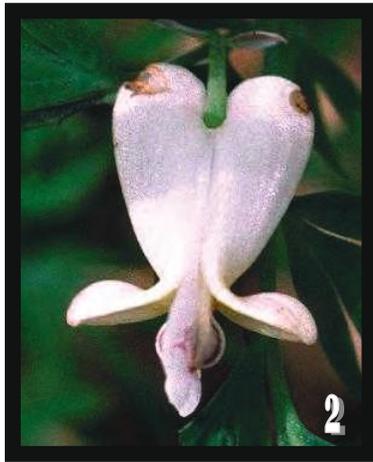
Interested? Check out WWW.FCPOTAWATOMI.COM/PHENOLOGY

SPRING WILDFLOWERS STARTING TO BLOOM

If you take a walk out in the woods this spring, you will notice that many of our spring wildflowers are starting to bloom. Spring ephemerals, also called short-lived wildflowers, are a special group of plant species that play an important role in our northern forests. Shortly after snowmelt and long before leaves on the trees are out, spring ephemerals take advantage of the high light conditions to quickly produce flowers and fruits and then die back into the ground until the following spring.

Even though they are only above the ground for four to six weeks, spring ephemerals play important roles in our forests and in the culture of many Native American tribes. They prevent soil nutrient loss, provide nectar for the bees and other insects that pollinate them and their underground plant organs provide food for small mammals.





Dutchman's breeches (1) and Squirrel corn (2) are both related to the common garden plant known as bleeding heart. The root tubers of both Dutchman's breeches and squirrel corn resemble corn (hence the name) and provide food for small mammals.

The flowers of the **spring beauty (3)** are white, with light pink to dark pink streaking on the petals. The tubers of spring beauty are also eaten by humans and other mammals.

The flowers of **round-leaved hepatica (4)** vary from white to purple, and have dense hair along the stems and flower parts to prevent condensation, thus protecting the plant from frost.

Cut-leaved toothwort (5) is a member of the mustard family and uses special roots called *rhizomes* to form large colonies.

Skunk cabbage (6) is the earliest plant species to flower in Wisconsin. The flower produces a smell similar to rotting meat, which attracts certain species of flies to pollinate it. The process by which the plant produces this scent generates heat, which will melt any snow that is on top of the plant.

The **trout lily (7)** has mottled green leaves and yellow flowers. Trout lilies accumulate nutrients in their leaves and return those nutrients back to the soil when the leaves die back.

Wild leeks (8) send up their leaves very early in the year, and use energy captured by those leaves to send up flowers a few weeks later.

Wood anemones (9) are very common spring wildflowers. Their thin stems often cause them to tremble in the wind, earning them the nickname, "Wind Flowers."

Bloodroot (10) leaves cup around the stem, trapping warm air and protecting the stem from frost.

Wild ginger (11) has a red and cup-shaped flower. The flowers rest on the ground where they attract pollinators such as flies, ants and beetles. Often seen blanketing the landscape in spring.

Large-flowered trillium (12) petals change from white to purple as the season progresses.

When it has flowers, **large-flowered bellwort (13)** appears to be wilting, but after the flowers drop, the plant has a much more lush and robust appearance.

If you venture into wetter habitat, the gold flowers of **marsh marigold (14)** are striking splash of color in areas where other plants have not yet started to leaf out.

Canada mayflower (15) is abundant in the forests of northern Wisconsin. The white flowers are fragrant and produce red fruits.

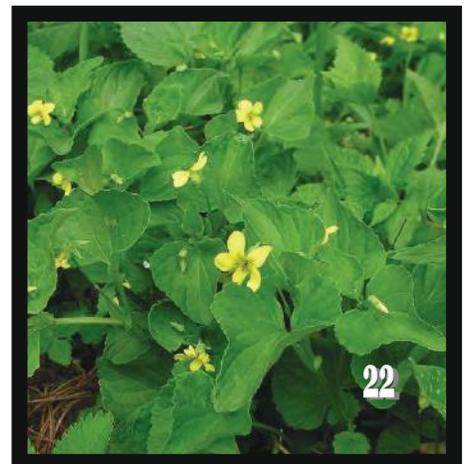
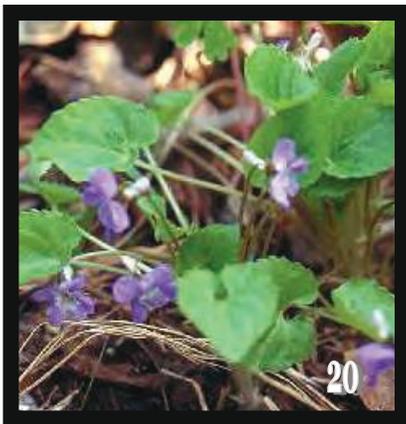
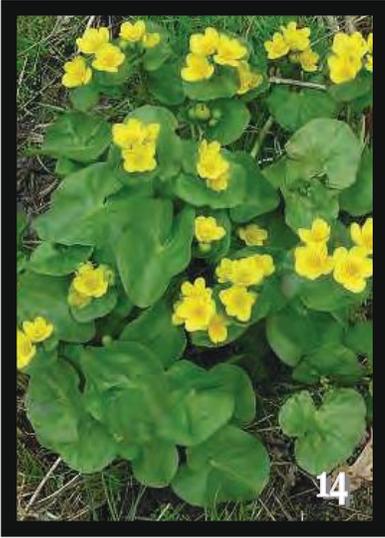
Named for its **fruits (16), blue-bead lily (17)** has colorful yellow flowers as well.

Jack-in-the-pulpit (18) is an interesting plant because it can switch between producing mostly male flowers one year (in which case the plant is smaller in size) and producing mostly female flowers (in which case the plant is considerably larger and sometimes called a Jill-in-the-pulpit) another year. These changes in flower production are driven by environmental conditions.

Named for the whitish spots on the leaves resembling water stains, **Virginia waterleaf (19)** is another common plant in our northern forests. There is no doubt that you will come across many different species of **violets** outside.

The three main colors of violets are purple, white and yellow; the species below are **Selkirk's violet (20), Canadian white violet (21), and downy yellow violet (22)**.

It's important to note that digging up these plants from their natural habitat will likely kill the plants and take away a valuable food source for the animals and insects that depend on them, but many of these species are available from native seed catalogues. Happy hiking!



2012 BUG AND DEVIL'S LAKE WINTER FISHEREE'S

The FCPC Natural Resources Department (FCPF NRD)



once again hosted the annual Bug Lake Winter Fisheree on January 7th, 2012. After a nearly fishless Fisheree in 2011, the Water Program decided to hold the Fisheree earlier in the winter in hopes to improve fish catching success.

The new event date and mild winter weather appeared to increase Community turnout and improve fishing success. The total number of fish registered this year far surpassed what was registered at last year's Bug Lake Winter Fisheree. Jamie Tuckwab started the morning out right hauling in a 36 3/8" northern pike which would ultimately end up as the largest fish of the contest making him the Grand Prize winner taking home a new Jiffy Propane Powered Ice Auger. Dave VanZile and Jason Spaude also caught northern pike taking 2nd and 3rd, respectively in that category. In the youth division, Dean Pauliot caught the largest northern pike, while Kalista Brown received 2nd prize and Tehya VanZile placed 3rd.



In the trout category, adult winners were James and Dillon Crawford at 1st and 2nd place, respectively, while Aaron Morris and Don Werle tied for 3rd. In the youth division Hunter Tuckwab earned both 1st

and 2nd place, while Ryon Alloway received 3rd place. John Alloway caught the largest yellow perch in the adult category with George VanZile and Jason Spaude also placing. Hunter VanZile caught both the largest and third largest yellow perch in the youth category, while Lily VanZile caught the 2nd place perch. It felt more like spring than winter at the Devil's Lake Fisheree on February 4, 2012. Clear, sunny skies and temperatures above 40°F made for a comfortable day of fun and fishing on the ice. Many contestants began the fisheree with some success



as most of the fish were brought in for registration before noon. The bite slowed down some as the afternoon progressed, yet the total number of catches registered still exceeded 40 fish. For the second consecutive Fisheree, Jamie Tuckwab went home with the Grand Prize (a new pop-up fishing shelter and a Vexilar FL-8 flasher). His winning catch was a 14" largemouth bass. Jamie also took 3rd place in the adult largemouth bass category and 1st place in the black crappie category, while George Tuckwab IV placed 2nd in the largemouth bass category. Joe Brown Sr. was able to locate a school of healthy bluegills and swept the entire bluegill category in the adult division. Robin Spencer was able to pull a hefty yellow perch through the ice to win that category in the adult division. That happened to be the only perch of the day registered. Aaron Marty and Louie Spaude received 2nd and 3rd place, respectively, in the black crappie category.

Hunter Tuckwab took home 5 of the 6 prizes awarded in the youth division after sweeping the black crappie category and nearly sweeping the largemouth bass category. Israel Alloway managed to land a largemouth bass that placed 3rd on the board, keeping Hunter's complete sweep at bay. No other fish categories were registered for the youth division. Cash Prizes were awarded to all adult contestants, while gift cards to Smith Sport & Hobby were awarded to all youth contestants. 1st place winners received \$50, 2nd place winners received \$30, and 3rd place winners received \$20 in each category. Thanks to all who participated in the Fisherees this winter and we look forward to seeing you at the Annual Summer Fisheree in August 2012.



TAKING A QUICK LOOK AT TORPEE

With the completion of the new road crossing on Torpee Creek and Hwy 32 between Wabeno and Carter in October of



2011, changes are slowly, but noticeably taking place in the stream channel. What was once a backed-up, silty stretch of creek upstream of the crossing, is now a free-flowing section more suitable to native fish species like brook trout. Spring runoff and rain have helped flush out the silty substrate and the channel appears to be finding its natural meander once again. Summer vegetation will improve stream bank



stability and provide cover for fish. Flowing water will keep the stream cool in the hot summer months. FCPC's Water Program staff are anxious to survey this stretch of Torpee this summer to document what changes have already taken place.

OTTER CREEK BROOK TROUT FEASIBILITY PROJECT



Inter-Fluve, Inc. is an environmental engineering firm that specializes in sustainable design, restoration and construction of river, lake, wetland, dam removal, and aquatic ecosystems. Among many aspects of study design and data collection for the Otter Creek project, some of the most interesting and useful information collected may likely be from a few dozen continuous temperature loggers set in the stream throughout the entire watershed. These temperature monitors collect a temperature reading every 10 minutes from April through October. Average stream temps, along with daily minimums and maximums are then calculated. Stream sections that get too warm for brook trout to survive can be identified and prioritized for restoration. Stream restoration efforts can then be focused on the highest priority sections resulting in the greatest positive impact on the Otter Creek system. After looking over many well written proposals for the Otter Creek Brook Trout Feasibility Project, the FCPC NRD chose Inter-Fluve, Inc. as a partner in studying the possibility of restoring Otter Creek to a cold water system, making it once again suitable for brook trout.



DEER SPOTLIGHT SURVEYS

With the onset of winter came the close of several field surveys and the start of data analysis. Last fall, 63 miles of road were surveyed for deer utilizing spotlights and sophisticated range finders. Estimates from last fall's deer spotlight surveys identified an average density of **29 deer per square mile** within and around FCPC tribal land. This number is somewhat higher than the Wisconsin DNR's estimate of 20 deer per square mile for Forest County, however that number represents the average of the entire county rather than just localized areas. Twenty-



nine deer per square mile represents a very dense and high-numbered population of deer for the northern wooded habitat. High deer population may make hunters in the area smile, however such high numbers can be detrimental to forest regeneration, can cause loss of forest forbs including culturally significant plants, and generally degrade the local environment. This survey is the first of its kind for the FCPC Wildlife Program, therefore surveys will be conducted annually to more closely monitor this trend and eventually guide management practices for the area.

CARNIVORE CAMERAS

Several motion and infrared triggered cameras were deployed throughout the winter (January – March) to survey the distribution and diversity of carnivore species on FCPC tribal land. Cameras captured pictures of coyotes, bobcats, foxes, bald eagles and more. The most interesting species detected, however, may be the rare golden eagle, which was detected in a



pair on several of these cameras. Golden eagles are rare around here, but even more amazing is that the pair, in at least some of the pictures, appears to be an adult and a juvenile. That would suggest that there is an adult pair breeding on or very near FCPC tribal and historic lands, an event that has not been documented in this area for several decades.

UPCOMING SPRING SURVEYS

The snow is gone, the birds are singing, and the frogs are croaking. With spring upon us, FCPC Wildlife crew will be conducting several surveys out and about in the woods. These surveys are all a part of the Biodiversity Assessment aimed at taking measure of the kinds of critters out there on the reservation. Some of these surveys include:

Continued on page 11....



Frog and Toad Surveys

Conducted in the early to late evening hours, several frogs can be heard this time of year, especially spring peepers, chorus frogs, leopard frogs, and more.

Bird Surveys

These surveys are conducted in the very early hours of the day when birds are most frequently singing. Some of the birds heard and seen so far include bald eagles, several woodpecker species, Wilson’s warbler, black-throated green warblers, and ovenbirds.



Turtle Surveys

Turtle surveys will consist of a catch-and-release type survey using what are called “basking traps”. Common species around this area include snapping turtles, painted turtles, and possibly wood turtles.



Bat Surveys

Another night-time survey, bats are detected using sophisticated equipment that detects and records ultra-sonic frequencies emitted by bats. Those frequencies are then analyzed by experts in Wisconsin and a record of bat species detected is generated.

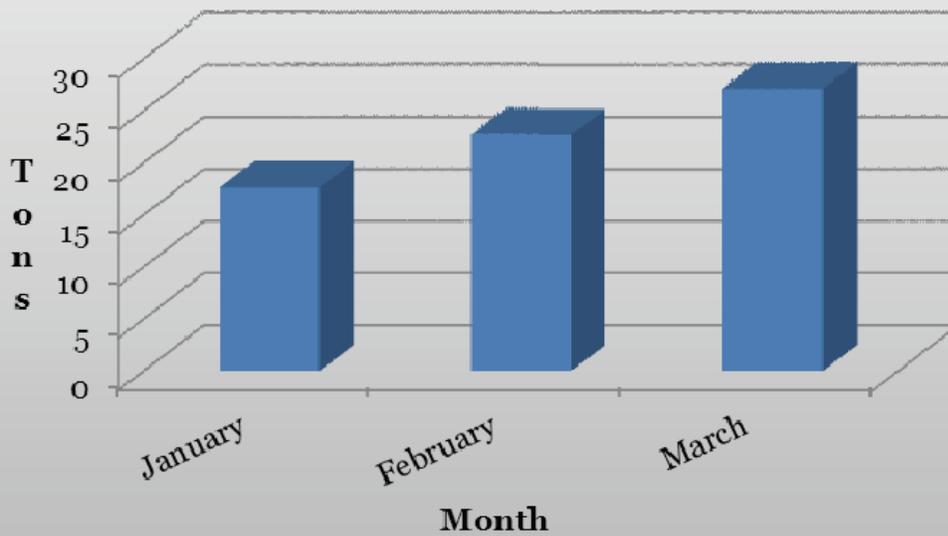


SOLID WASTE

A total of 33.98 tons of cardboard, paper, glass, aluminum, plastic and tin were collected and recycled in the first quarter of 2012. This amount

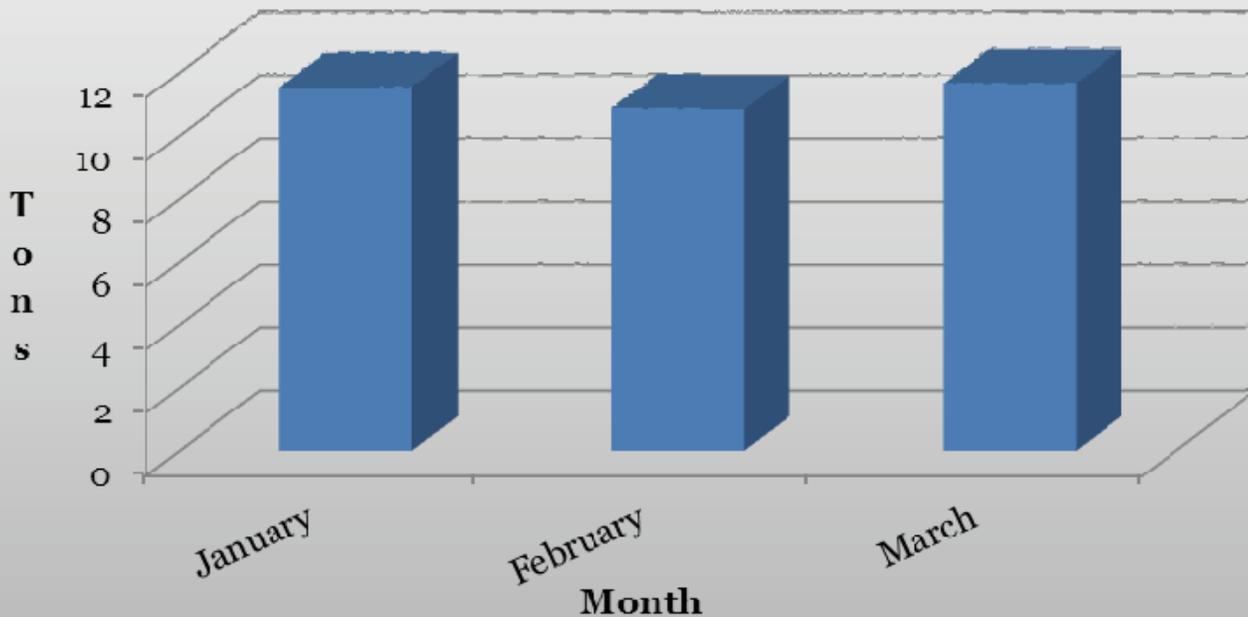
is slightly higher than the 33.43 tons that were recycled in the first quarter of 2011.

1st Quarter 2012 Solid Waste Tonnages



The Solid Waste Program processed a total of 67.36 tons of municipal solid waste in the first quarter of 2012. This tonnage is slightly greater than the 66.39 tons processed in the same quarter of last year in 2011.

1st Quarter 2012 Recycle Tonnages



AIR MONITORING SITE ACTIVITIES

Clearing of the woods around the Air Monitoring Site located on Sugarbush Hill was taken to near completion this quarter.



The next phase of the project will be to take the cleared area to a rough grade. This will be necessary to be able to maintain the cleared area in the future.

Approximately 3 acres of tree are being removed to enhance the quality of the wind speed and wind direction data recorded at the site.



The trees are being utilized by tribal members for firewood, and tribal projects in the form of wood chips for landscaping. Air Monitoring Staff worked together with Forestry Staff to make use of the new wood chipper, and pulp truck purchased by the Forestry Department.





BE BEAR AWARE!



A fed bear is a dead bear...

Black bears are a part of the natural ecosystem and the culture of northern Wisconsin. As a clan animal, black bears represent an important part of Potawatomi heritage and can be a beautiful and mysterious visitor to our back yards. Unfortunately however these bears can sometimes become “conditioned” to human dwellings and residential areas, attracted by garbage, pet food, and other smells. These bears can quickly become nuisance animals, and may occasionally become aggressive towards humans and pets. Unfortunately, all too often these black bears must be removed by **lethal means**, particularly if capture and relocation is unsuccessful.

In the Stone Lake and Carter areas of Forest County, we are fortunate to have a very healthy black bear population. However, this means that incidences of black bears in backyards and residential areas can be quite high. This also means that capture and relocation efforts of nuisance bears is less effective, because removal of one problem bear simply leaves an opening for others to move in and resume nuisance behavior. Therefore, **the best solution to nuisance bears and bear problems is prevention.**

Prevent nuisance bears in your yard

- DO NOT feed bears. This causes bears to become less afraid of humans, and will likely result in the bear being killed.
- Do not leave garbage outside – place garbage out on the morning of pickup. Store garbage in the garage, shed, or other secure area.
- Use a bear-proof garbage container if possible.
- Do not leave pet food outside over night.
- Bring bird feeders in at night.
- Clean grills after use and do not dump household grease in the yard.
- Do not put meat or sweet foods in compost piles.
- If you see a bear in your yard, yell at the bear, bang pans, throw rocks or make other loud noises to let the bear know it is not welcome in your yard.
- Do not approach bears or attempt to feed them. Do not corner a bear and be aware that mothers will protect cubs.

Is the bear a nuisance bear?

Not all bears are nuisance bears. Sometimes a bear may casually cross into your yard where you have the rare chance to watch a bear in its natural habitat. A bear that appears in your yard does not necessarily pose a threat, and does not warrant removal due to simply being present.

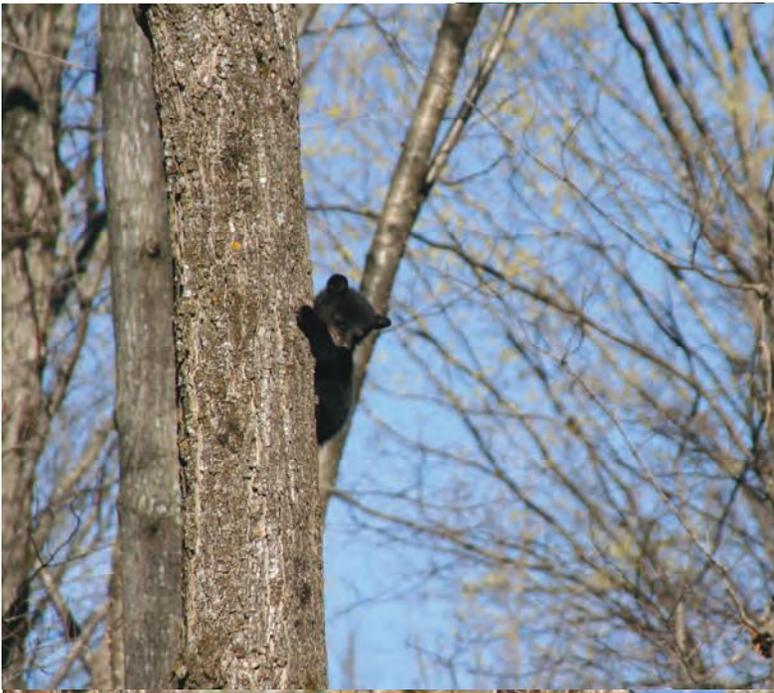
If you feel the bear is posing a personal threat (aggressive behavior such as chomping, huffing, or charging at humans) or is consistently destroying personal property, the bear has developed “problem” behaviors. Call the FCPC Wildlife Resources Program immediately for assistance on resolving the situation.



WHAT TO DO IF YOU HAVE A PROBLEM BEAR

- **FIRST**, be sure that **ALL** preventative measures have been taken to eliminate bear problems on your property.
- If the bear is aggressive and posing a threat to human safety, immediately call FCPC Wildlife Resources Dept.
- FCPC Wildlife Resources, partnering with USDA Wildlife Services, can capture and relocate problem bears, however this will not solve the problem if measures for preventing further damage are not taken.

FCPC Wildlife Resources Program: 715-478-7222



**FOREST COUNTY
POTAWATOMI
NATURAL
RESOURCES
DEPARTMENT**

5320 Wensaut Lane
P.O. Box 340
Crandon, WI 54520

Phone: 715-478-7222
Fax: 715-478-7225

[www.fcpotawatomi.com/
government/natural-
resources](http://www.fcpotawatomi.com/government/natural-resources)



**NATURAL RESOURCES DEPARTMENT
PERSONNEL**

Name	Position	Telephone
Ashley Fehrenbach	Botanist/Wetlands Program Director	715-478-4193
Ben Koski	Aquatic Biologist	715-478-4436
Bill Alloway	Natural Resources Technician	715-478-7210
Danielle Fatla	Administrative Assistant	7715-478-4192
Ericka McGeshick	Receptionist	715-478-7222
Frank Shepard	Wildlife Technician Advanced	715-478-4942
Greg Kitchell	Solid Waste Crew Member	715-478-7330
Heather Stricker	Wildlife Resources Program Director	715-478-4196
Jason Spaude	Natural Resources LTE	715-478-7210
Jeff Marshall	Solid Waste Program Director	715-478-4817
Joe Cebe	Air Monitoring Specialist	715-478-4435
Joe Shepard	Wildlife Technician	715-478-4962
Lawrence Daniels	Natural Resources Administrator	715-478-7213
Matt Steinbach	Water Resources Program Director	715-478-7361
Natalene Cummings	Air Resources Program Director	715-478-7211
Nate Guldan	Deputy Natural Resources Administrator	715-478-7205
Nitty Shepard	Solid Waste Crew Member	715-478-7330
Phillip Wamego	Solid Waste Crew Member	715-478-7330
Tony Daniels	Solid Waste Crew Leader	715-478-7330

**NATURAL RESOURCES
NEWSLETTER**

April–June 2012

**INSIDE
THIS ISSUE:**

Water Department Information	1-3
Air Program Information	4-5
Solid Waste Program Information	6
Wildlife Program Information	7
Botany Program Information	8-10
April-June 2012 Events	10-11

2012 FISH POPULATION ASSESSMENTS

FCPC Natural Resources staff utilized fyke netting equipment to conduct fish population assessments on Bug and Devil’s Lakes from April 30 – May 11, 2012. By clipping the caudal (tail) fin of each captured fish, we are able to identify these fish during subsequent samplings. This allows us to compare the total number of fish captured during the entire sampling period to the number of fish that were captured on more than 1 occasion. When analyzing this data, we are often able to use a mathematical

formula to estimate the population of each individual fish species. Nearly 1,000 fish were captured during the entire 11 night sampling period between Bug and Devil’s Lakes. We were unable to calculate population estimates for game fish in either of the lakes due to a lack of recaptured fish, but enough yellow perch were captured in Bug Lake and enough bluegill were captured in Devil’s Lake to calculate population estimates.

(Continued on page 2)



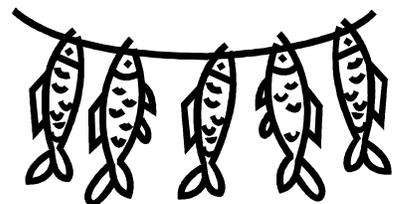
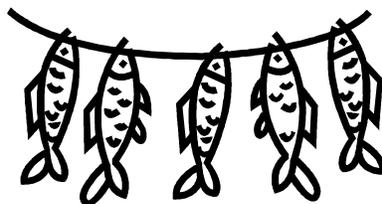
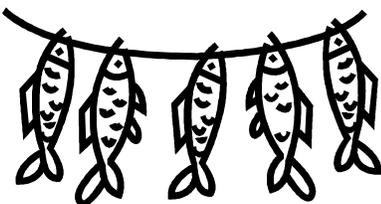
Jason Spaude and Ben Koski holding an adult northern pike captured in the survey, 37.5 inches, 19.6 pounds, the largest fish ever observed in Bug Lake.

After the most recent Devil's lake fyke netting survey in 2010, the Water Resources Program was concerned that the yellow perch population levels in the lake appeared to be gradually declining. It appears that the population may be improving however, as there were nearly seven times as many yellow perch captured in the 2012 Devil's Lake survey than in the 2010 survey. This seems to have confirmed the program's perception that there appeared to be more yellow perch registered over the past couple of Devil's Lake fisheries and that the population may be rebounding. The bluegill population in Devil's Lake has remained very stable with several 9-10 inch fish being observed in each of the past several surveys. On the other hand, the black crappie population in Devil's Lake does not seem to be doing well since stocking was continued several years ago. The department decided to cease stocking efforts in order to monitor the reproductive success of the black crappie in Devil's Lake. However, there appears to be very little natural reproduction occurring amongst the species, as fish scale aging data indicates poor year classes in years in which no stocking took place. There were several 1-2 year old fish observed in the 2012 survey, indicating that there is some natural reproduction occurring however. The Water Program will continue to monitor the black crappie population in Devil's Lake to see if the crappie and perch populations continue to rival each other.

The total number of fish captured during the 2012 Bug Lake fyke netting survey dropped substantially when compared to the 2008 and 2010 surveys.

This drop appears to be directly related to a decrease in the number of yellow perch captured in the 2012 survey. There are several possible reasons for this. The first and most likely reason is that the drop could be related to the early ice-out that we observed in 2012. The ice was out on Bug Lake for over one month before this year's fyke netting surveys. This is an issue because yellow perch typically spawn immediately after ice out as this is the time when the water temperatures are typically within their preferred spawning temperature range. This seems to be a feasible theory because there were no fish observed creating eggs during the survey.

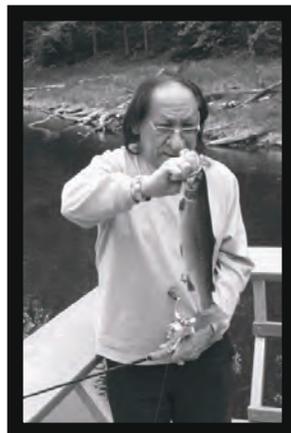
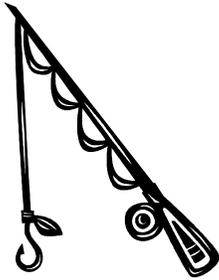
Typically, the sex of yellow perch can be easily determined during spawning, indicating that spawning was likely completed during the 2012 survey. Fyke netting during spawning is much more successful because spawning beds are generally located in shallower water, which happens to be where the nets are also located. Therefore, missing the spawning period can result in a substantial decline in captured fish, especially with fish species that tend to spend a majority of their time suspended in deeper water. It is also possible that the yellow perch population is actually declining in Bug Lake. This is a possibility because there has been a substantial decline in the amount of shallow, spawning habitat available in Bug Lake due to the drought that lasted for several years in the area through 2010. Much of the lake area that was once great spawning habitat is now completely out of water and as a result, much of the shoreline that exists today contains very steep drop-offs that are much less desirable for spawning. There were several adult northern pike captured in the survey, including a 37.5 inch, 19.6 pound fish that is the largest fish ever observed in the lake. The fish appeared to be eating quite well on a diet that likely includes many rainbow trout. We will continue to monitor the fish community in Bug Lake to ensure that the community remains healthy.



2012 ELDERLY FISHING DAY

On May 22, 2012 the FCPC Natural Resources and Elderly Departments co-hosted an elderly fishing day for Tribal Elders at Bug Lake. Each year the Genoa National Fish Hatchery stocks approximately 2,000 trout in Bug Lake. The timing of this year's stocking, which occurred one week before the fishing event, combined with wonderful weather conditions to create an excellent day for fishing. The event appeared to be very popular with the Elders, as well as FCPC Elderly Department staff as many rainbow trout and even one largemouth bass were reeled into the new handicap accessible fishing pier. Tribal Elder participants included Lillian Kelty, Willie Shepard, Wayne Tuckwab, Arnol Wensaut, Clarice Ritchie, Norman Tribbett, Cindy Miller, Ron Barney, and Donnie Cornell. The

Natural Resources Department would like to extend a special thanks to Ryon Alloway for taking time out of his schedule to volunteer to assist with this event. Ryon worked hard to clean over 50 rainbow trout so they could be distributed to the Tribal Elders to take home and also assisted with netting the fish and baiting hooks for the Elders. The FCPC Water Resources Program would also like to thank all of the staff from the Natural Resources and Elderly Departments who helped make this event so successful. We hope to continue the Elderly Fishing Day as an annual event so please keep watching these bulletins and the Potawatomi Traveling Times for more information on upcoming FCPC Natural Resources Department events.

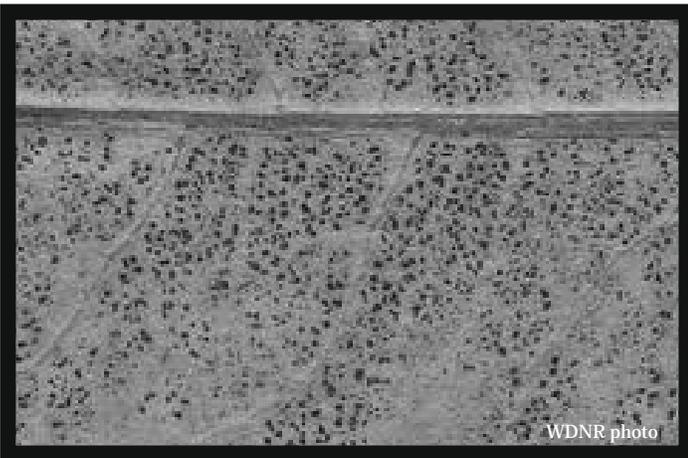


ADDING AIR QUALITY RELATED VALUES (AQRVs) UNDER FCPC'S CLASS I AIR DESIGNATION

In the 1999 Class I Agreement with the state of Wisconsin, the Forest County Potawatomi Community was asked to establish Air Quality Related Values (AQRVs) – that being a resource that could be adversely affected by a change in air quality. In 1999, concerned with the high levels of mercury found in Reservation waters, FCPC listed water quality and aquatic systems as its first AQRV. The Tribe was also allowed to change or add AQRVs once every 10 years, based on the agreement. In 2008, the U. S. Environmental Protection Agency finally approved redesignation of the FCPC airshed to Class I and the FCPC and Wisconsin Department of Natural Resources have been working since to iron out the details of how Class I works for the Tribe and for the State when issuing pollution control permits to manufacturers and industry that could impact air on the Reservation. Moreover, the window for adding AQRVs has been open, giving the Tribe the opportunity to seek greater protections for its natural and cultural resources.

Executive Council passed a resolution in August of 2011 to add to the FCPC list of AQRVS, “vegetation” and “visibility” as resources that could be impacted by changing/degrading air quality.

VEGETATION



The importance of plants to the FCPC goes without saying and protecting plants from the impacts that pollutants such as ozone can have on them is crucial to protecting the Potawatomi culture and heritage. Too much ozone can damage plants and/or inhibit their growth, weakening



the plants and their medicine. Plants most studied for their sensitive to ozone are choke cherry and aspen, as well as milkweed. The photo below shows markings distinctive of ozone pollution damage to a milkweed leaf. The Natural Resources Department plans to initiate a program in the near

future to survey these sensitive plants for signs of ozone damage.

VISIBILITY

While there may not be grand vistas in FCPC country that offer views of expansive landscapes, mountains or buttes; the rolling hills, curving roadways and scattered wetlands offer smaller glimpses of beauty in the serenity of an open field on a hot summer day, the sparkling waters of a cool blue lake, or a fall colored hillside that peaks out from around a bend.

When the air quality is degraded, especially in an area considered to be pristine, it is noticeable, as the two comparative photos illustrate.

And if the air doesn't look good, you can bet it probably isn't good to breathe either.

(Continued on page 5)



WATER QUALITY AND AQUATIC SYSTEMS

The oldest of the AQRVs, water quality and aquatic systems was named in the 1999 Class I Agreement with the state of Wisconsin with the intent of protecting tribal members from the high levels of methyl-mercury found in



the fish inhabiting FCPC lakes and streams, in particular Devil's Lake. Mercury and sulfur are carried on the wind and deposited into water where it begins its way up the food chain, ending up in fish and then humans.

In the spring of 2012, the FCPC Air Resources Program contracted with experts in their field to draft reports for each of the Tribe's AQRVs and develop what are called "thresholds" for each of them – the level at which a pollutant could impact the resource, such as vegetation or water quality. The FCPC is now negotiating with the WDNR regarding these additional AQRVs and what the effective threshold levels will be. Sources wishing to obtain a pollution control permit would be required to project what their potential impacts on FCPCs AQRVs, as they do for other federal Class I areas in the region.

AIR MONITORING SITE ACTIVITIES

Summer is the time of year when we get the chance to share what we do with tribal youth workers. They spend time working with all the different programs within the department.

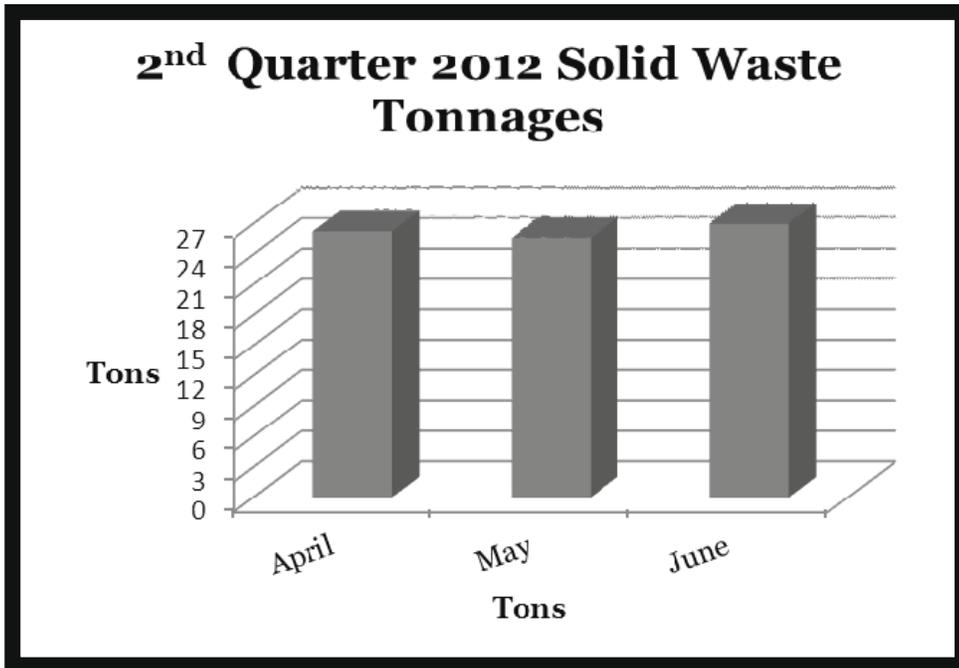
At the Air Monitoring Site, the youth workers help with grounds maintenance such as eliminating bees nests and ant hills, mowing, and repair of the various platforms used to support the sample collectors. They are also trained to assist the Air Monitoring Specialist with some of the sample collection duties.

Below, Economic Support Employee Ian Waubanasum collects particulate samples from a monitoring instrument at the Air Site.



SOLID WASTE

The Solid Waste Program processed a total of 67.36 tons of municipal solid waste in the second quarter of 2012. This amount is 12.44 tons less than the 79.8 tons processed in the same quarter of last year in 2011.

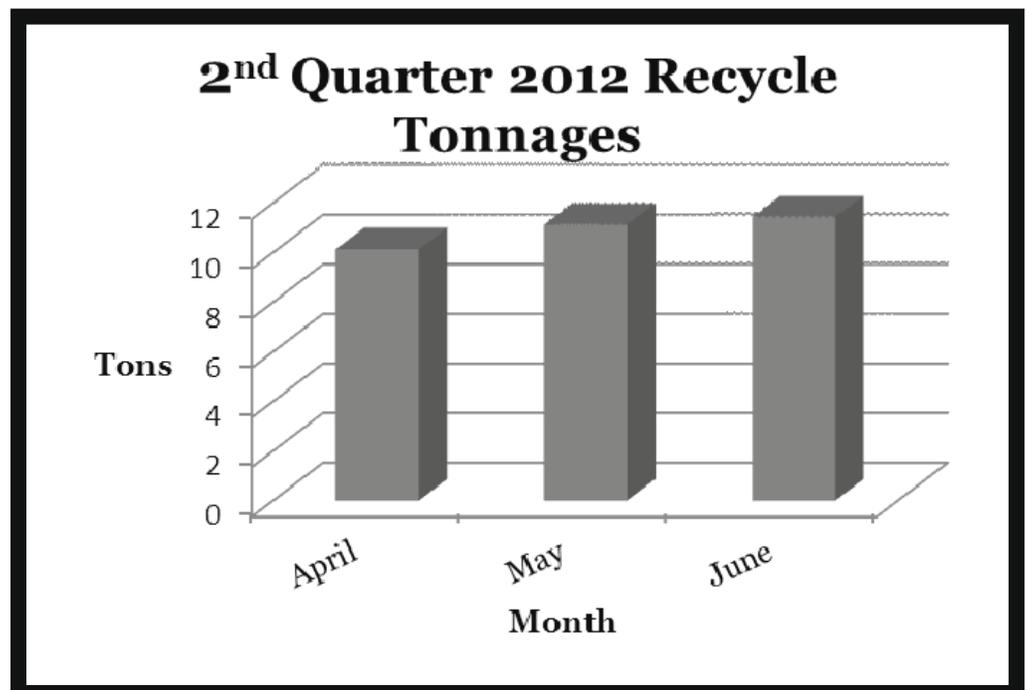


RECYCLING

A total of 33.98 tons of cardboard, paper, glass, aluminum, plastic and tin were collected and recycled in the second quarter of 2012. This amount is 1.59 tons more than the 33.32 tons that were recycled in the first quarter of 2011.

ELECTRONIC SCRAP

The Solid Waste Program assists the community and government departments by disposing Electronic Scrap. Electronic Scrap includes: Cell Phones, Computers, Monitors, Keyboards, Mice, Scanners, Speakers, Printers, DVD Players, VCR's, Flash Drives, and Televisions.



Carnivores represent a unique aspect of our world. Often misunderstood and feared, these



secretive and elusive animals are vital to a functioning and healthy ecosystem.

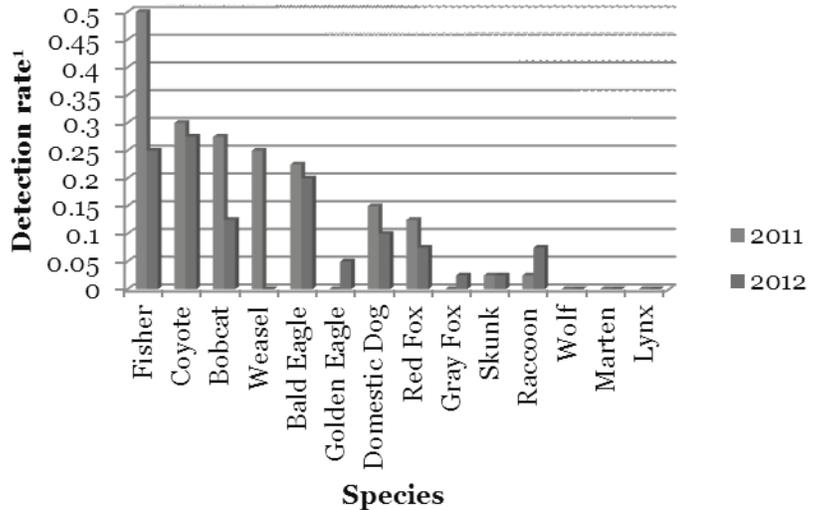
Not only do carnivores add to overall ecosystem biodiversity, carnivores are able to control populations of rapidly breeding animals such as herbivores and rodents, carnivores have the ability to directly and positively affect the health of plant communities and forest regeneration in an area. They can even control other predators.

For example, in an area devoid of wolves, coyotes often become the top predator which allows their populations to grow and expand. An overpopulation of coyotes can lead to a decrease in gray fox populations, snowshoe

hare, and other lower-order animals.

Carnivores may also have an effect on local deer populations and may interact negatively with humans in the area. It is therefore important to monitor the diversity and abundance of carnivores in an area to assess the health, function, and balance of the local ecosystem.

To do this, FCPC Wildlife Resources has deployed motion-triggered game cameras on tribal land during winter months for 2 seasons and will continue to do so in future



years. Such cameras can detect species presence, species interaction, and assess distribution of each species.

After assessing this year's data, 9 fur-bearing mammals have been detected, as have bald eagles and golden eagles. Wolf, marten and lynx have not been detected on FCPC game cameras.

Comparison of detection rates¹ (proportion of camera sites where species was detected) between 2011 and 2012 camera surveys on Forest County Potawatomi Community tribal lands.

PAINFUL PLANTS!!

At the Natural Resources Department's Summer Kickoff Event, I had a request for some information on poison ivy and how to identify it. This is the time of year when people are outside enjoying favorite summer activities such as camping, fishing, swimming and hiking; knowing how to identify poison ivy (and a few other painful plants) will allow your outdoor adventures to be filled with more fun, and less "OUCH!"

Poison Ivy (*Toxicodendron rydbergii* and *T. radicans*)

In Wisconsin, we have two types of poison ivy: one type that grows as a low shrub, and another that grows as a climbing vine. Almost all of the poison ivy we have here in Forest County grows as low-lying shrubs in full to partial sun—for example, in openings, forest edges, and river banks. **There are sizable populations of poison ivy near the boat landing on King Lake and on the hill on the east side of Cloud Lake (by the campground).**



Poison ivy as a low shrub. Notice the 3 leaflets held high on the plant, and the "teeth" along the edges of the leaflets.

Some may have heard the saying "leaves of three, let it be." Although this is a poor descriptor of other three-leaved plants (think trilliums, strawberries, goldthread), it is a good way to remember the most visual characteristic of the poison ivy plant. Poison ivy has **three leaflets** which have "**teeth**" along their edges. In open areas, the leaves take on a **shiny appearance**, and in the fall, the plants turn **red**. Poison ivy can also **vary considerably in height**.

The "poison" in poison ivy comes from a compound

known as urushiol, which causes an allergic reaction when part of the plant comes into contact with the skin, or when skin comes into contact with something else that came into contact with poison ivy (i.e. a pet, firewood, shoes). Please note that burning poison ivy plants releases urushiol into the air, which can be very dangerous if inhaled. Some people may react to poison ivy right away, some may develop an allergy to poison ivy over time, and others may never react to poison ivy at all.



Poison ivy, again as a low shrub. The shrub form is the most commonly found form of poison ivy in Forest County. In sunny areas, the leaves of poison ivy can be shiny.

Those who do react to poison ivy develop itchy and painful rashes as soon as four hours and as late as ten days after contact with the plant. The severity of the itching and rashes depends on one's individual sensitivity to the plant; for some, the rash goes away after a few days while others experience severe rashes for several weeks and need to see a doctor for a prescription treatment. If you do find yourself developing a rash after exposure to poison ivy, one of the most widely recommended over-the-counter treatments is a lotion called Tecnu, (available at Walgreens in the first aid section). Tecnu can also be used to wash any clothing or pets that have come into contact

with poison ivy.



In the fall of the year, poison ivy leaves and stems turn red.

Tecnu, an effective treatment for poison ivy on skin, clothes and pets.



The stems and leaves of both wood and stinging nettle are covered in many, fine hairs. These hairs contain several substances (among which are formic acid and histamine) that cause a stinging sensation when the hairs come in contact with the skin. This stinging sensation can last from only a few minutes to several days, depending on exposure. Applying a paste made from baking soda and water usually effective in reducing the stinging; however, an often more convenient treatment is to apply the sap of the **jewelweed (touch-me-not)** plant to the stinging area. Coincidentally (and fortunately), jewelweed is often found growing with or near wood and stinging nettles. To get the most sap, break a stem of jewelweed at the ground, and then using a fingernail to create a slit up the stem.

WOOD NETTLE
(*LAPORTEA CANADENSIS*) AND
STINGING NETTLE
(*URTICA DIOICA*)

Another group of painful plants are the nettles: wood nettle and stinging nettle. Wood nettle is found in wooded areas



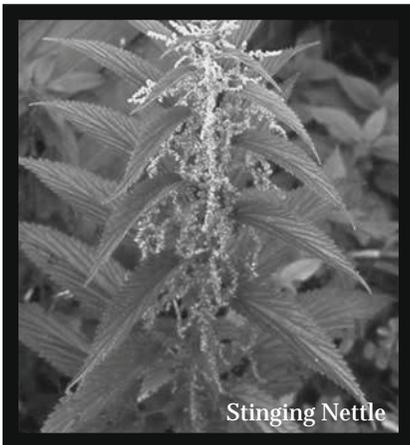
Wood Nettle

Sap of the jewelweed plant can be used to relieve wood nettle and stinging nettle stings.



WILD PARSNIP
(*PASTINACA SATIVA*)

Even more painful and bothersome than poison ivy and the nettles is wild parsnip. While nettles and poison ivy are plants native to Wisconsin, wild parsnip is a species originally from parts of Europe and Asia, and has become ecologically invasive in the United States. Wild parsnip grows in open, disturbed sites such as fields and roadsides. Wild parsnip looks similar to the native plant golden alexander, or like a yellow-flowered version of Queen Anne's lace. Unlike golden alexander and Queen Anne's lace, however, wild parsnip is not safe to touch: if skin comes in contact with any part of the wild parsnip plant, chemicals in the plant (furocoumarins) can cause painful rashes, burns, and blisters, which worsen when exposed to sunlight (*phytophotodermatitis*).



Stinging Nettle

of moderate moisture and rich soil. They are also quite common along old logging roads. The leaves of wood nettle are alternately arranged on the stem, toothed, and broadly oval-shaped with pointed tips. Groups of flowers branch out from where the leaves attach to the main stem. Stinging nettle is most often found in moist sites such as along streams, woodland clearings, ditches, and in disturbed areas such as roadsides and old fields. The leaves of stinging nettle are narrower than those of wood nettle, opposite and toothed, with groups of flowers branching out where the leaves attach to the main stem.

Continued on page 10.....

In severe cases, resulting skin discoloration and scarring can last from several months to years. If you come in contact with wild parsnip, wash the area with soap and water as soon as possible to remove the plant juices. In the event of burning and blistering, apply a cool, wet cloth to the area and avoid exposing the area to sunlight. Do not pop or peel back the blisters as they protect the area from becoming infected. For severe blistering and discomfort, consult your physician; he or she may recommend a systemic or topical steroid treatment.

Whether it is poison ivy, nettles, or wild parsnip, an encounter with a painful plant can quickly make your time outdoors less pleasant. By knowing how to recognize some of these painful plants and how to treat their effects, you will be well-prepared to enjoy the rest of your summer.

If you have any questions on painful plants, please contact Ashley Fehrenbach (Botanist/Wetlands Program Director) at 715-478-4193 or via email Ashley.Fehrenbach@fcpotawatomi-nsn.gov

Rashes and Burns caused by Wild Parsnip



Wild Parsnip

EVENTS THAT HAPPENED THIS QUARTER



May 2012 Lake Clean Up



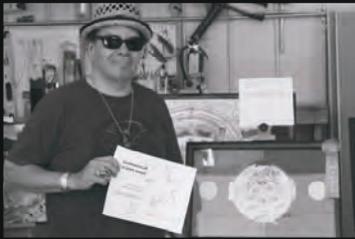
June



Summer



Kick-Off



Event



2012



**FOREST COUNTY
POTAWATOMI
NATURAL
RESOURCES
DEPARTMENT**

5320 Wensaut Lane
P.O. Box 340
Crandon, WI 54520

Phone: 715-478-7222
Fax: 715-478-7225

[www.fcpotawatomi.com/
government/natural-
resources](http://www.fcpotawatomi.com/government/natural-resources)



**NATURAL RESOURCES DEPARTMENT
PERSONNEL**

Name	Position	Telephone
Ashley Fehrenbach	Botanist/Wetlands Program Director	715-478-4193
Ben Koski	Aquatic Biologist	715-478-4436
Bill Alloway	Natural Resources Technician	715-478-7210
Danielle Fatla	Administrative Assistant	715-478-4192
Ericka McGeshick	Receptionist	715-478-7222
Frank Shepard	Wildlife Technician Advanced	715-478-4942
Greg Kitchell	Solid Waste Crew Member	715-478-7330
Heather Stricker	Wildlife Resources Program Director	715-478-4196
Jason Spaude	Natural Resources LTE	715-478-7210
Jeff Marshall	Solid Waste Program Director	715-478-4817
Joe Cebe	Air Monitoring Specialist	715-478-4435
Joe Shepard	Wildlife Technician	715-478-4962
Lawrence Daniels	Natural Resources Administrator	715-478-7213
Matt Steinbach	Water Resources Program Director	715-478-7361
Natalene Cummings	Air Resources Program Director	715-478-7211
Nate Guldan	Land & Natural Resources Division Director	715-478-7205
Nitty Shepard	Solid Waste Crew Member	715-478-7330
Phillip Wamego	Solid Waste Crew Member	715-478-7330
Tony Daniels	Solid Waste Crew Leader	715-478-7330

LAND & NATURAL
RESOURCES NEWSLETTER

July–September 2012

THOUGHTS FROM THE LEAF PILE....

This year, it seems like Fall, *fell*, really quickly! Within a matter of a week, it seemed as though the trees on Sugarbush and East Hills went from having vibrant displays of fall color to being completely leafless, all except for the evergreens that is. Why do some trees lose their leaves and not others? Why do leaves change color in the fall? What exactly makes leaves fall, anyway? If these are the things you contemplate while raking your yard (or while jumping into the leaf pile that you just raked), read on!

Why do leaves change color?

Leaves get their color from substances known as pigments, which are produced by cells inside the leaf. The three pigments that give leaves their color are *chlorophyll* (green color), *carotenoids* (yellow, orange, and brown), and *anthocyanins* (red). In addition to giving leaves their green color during spring and summer, *chlorophyll* also helps the plants turn energy from sunlight into food. Through the same process, known as photosynthesis, plants are also able to turn carbon dioxide from the atmosphere into the oxygen we breathe. The pigments known as *carotenoids* give carrots and corn their bright orange and yellow colors, and *anthocyanins* provide the red color to strawberries, cranberries and cherries.

Leaf cells contain the green pigments and the yellow, orange, and brown pigments throughout the growing season, but the green pigments cover up the other pigments (which is why we do not see yellow and brown leaves during the summer). As the amount of daylight hours decreases in the fall, the cells in the leaf stop producing chlorophyll, gradually revealing more and more of the other colored pigments underneath. The red pigments are produced only in the fall, in response

to the seasonal changes in light and temperature. These red pigments also provide protection to the tree by helping the plant recover nutrients in the leaves before they fall off.

Why do leaves fall?

Specialized plant cells known as vascular tissue transport water and nutrients throughout a tree, similar to the way veins and arteries do in a human body. When fall temperatures drop below freezing, water in these tissues freezes. Sturdier parts of the tree, like the trunk, branches and roots, can withstand extended freezing, but leaves, made up of sap and water-filled cells, cannot. As the temperatures drop, the “veins” that carry water in and out of a leaf gradually close. At the same time, something known as the separation layer forms at the base of the leaf stem. When the separation layer is fully developed, the leaf is separated from the cells that held it to the branch, and it falls.

Why don't the pine trees lose their leaves?

Yes, pine trees have leaves. So do spruces, balsam firs, cedars and hemlocks- we just refer to these leaves more commonly as “needles.” These trees do, in fact, lose their leaves every year as well, just not all of them. It is estimated that evergreen trees lose about one-third of their needles every year (with the notable exception of the tamarack, which, following a brilliant display of golden color, loses all of its needles). The needles on evergreen trees are coated with a thick, waxy substance that resists freezing. In addition, specialized sap within the needles resists freezing as well. Because of these special adaptations, evergreen needles can live for several years before they fall and are replaced by new growth.

INSIDE
THIS ISSUE:

Botany/ Wetlands 1-3

Air Resources 4

Planning 5

Water Resources 5-7

Solid Waste Program 8-9

Under Construction 10-11



Name that Fall Tree!

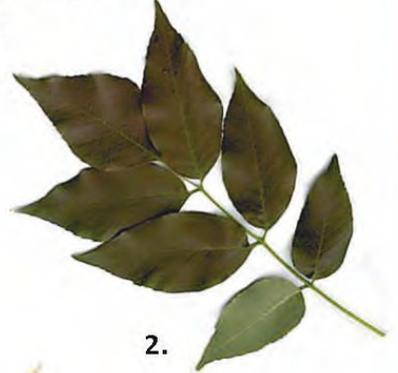
Here are 16 types of trees starting to show their fall colors.

How many do you recognize?

(answers on next page)



1.



2.



3.



4.



5.



7.



8.



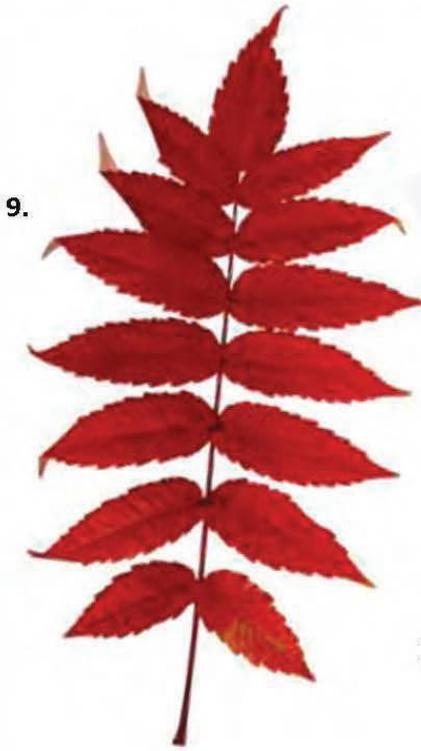
6.

THE LEAF PILE:

White Cedar
Sugar Maple
Red Oak
Beech
White Pine
Yellowbud Hickory

Big-tooth Aspen
Popple
Paper Birch
Black Ash
White Ash
Staghorn Sumac

Basswood
Red Maple
Tamarack
Butternut



9.



10.



11.



12.



15.



13.



14.



16.

Answers:
1. Tamarack 2. White Ash 3. Butternut 4. Sugar Maple 5. Beech
6. Paper Birch 7. Popple 8. White Cedar 9. Staghorn Sumac 10. Big
tooth Aspen 11. Black Ash 12. Yellowbud Hickory 13. Basswood 14.
Red Maple 15. Red Oak 16. White Pine

MINING ACTIVITY IN THE AREA

In the last couple of years, a number of proposed mining prospects have popped up in the North Country from Minnesota, through Wisconsin and on to Michigan's U.P. While the greatest environmental impacts from mining are to water quality and water systems, air quality can also see impacts from particle/dust pollution and sulfur that is carried downwind and deposited. Proximity and size of the mining operation to the Reservation are factors that determine how much pollution could turn up in the FCPC area. More important than mining activities to diminished air quality however, are whether or not the mining operation will include a processing facility and its own power generation station on site. These operations can add greater amounts of pollutants to the air.

Particulate pollution causes eye irritation, asthma, bronchitis, lung damage, cancer, and can affect the heart. Sulfur in the air we breathe can also affect the respiratory system, but when it falls into water bodies, not only can it turn the water acidic, but it also turns mercury into its toxic form - methylmercury. This toxic form of mercury is found in fish and is consumed by humans, affecting the nervous systems of developing babies and young children. Mercury levels found in the tissue of fish caught in Devil's Lake in particular is of special concern to the FCPC Natural Resource staff and therefore a concern for the Department's Air Quality Program.

Or deposits located within FCPC's Class I air area, include:

- ◇ The **Lynne Mine** in Oneida County – containing zinc, lead, silver and located near the town of Lynne and Tripoli – approximately 65 miles W/NW of the center of the FCPC Reservation;

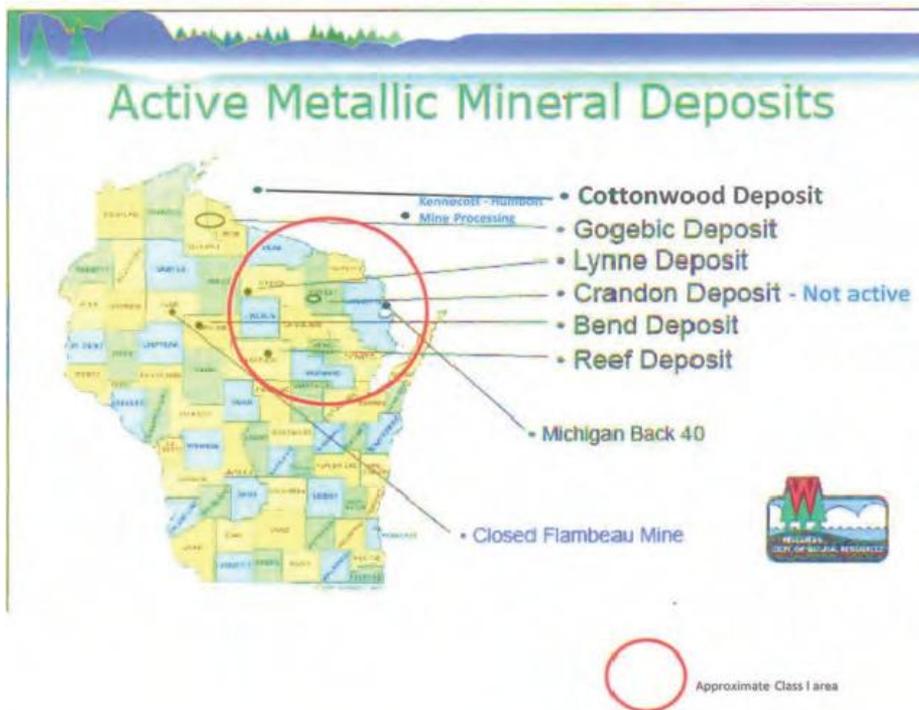
- ◇ The **Back 40 Project** located near Stephenson, MI – 50 miles east of the Reservation's center;
- ◇ And the **Easton/Reef deposit** – a gold deposit, located just east of Wausau.

Fortunately, none of the proposed mining operation plans included ore processing or energy generation stations on site, minimizing potentially greater air quality impacts. And, in just the last few months, the Lynne Mine and the

Back 40 Project have both been halted. The Oneida County Board voted down a resolution to continue to proceed with efforts to develop the Lynne Mine, while Hudbay Minerals, Inc., a partner with Aquila Resources in the exploration of the Back 40 Project decided to pull out of the project.

Other mine projects in the area but outside the Class I area to keep an eye on are the Gogebic/

Penokee Deposit near Mellen, WI. – iron, the Bend Mine – Gold, silver and zinc located in the Medford Unit of the Chequamegon National Forest west of FCPC between Medford and Prentice and the Cottonwood/Urbana Mine, north of Wakefield, MI and located literally within feet of Lake Superior. There are a number of mines in Minnesota's northeastern corner that are upwind of FCPC, and the Eagle Mine in the western Marquette County, MI. Of greater concern is the reopening of the Humboldt Mill that is intended to process the ore from the Eagle Mine, with the capacity to create far greater air emissions than mining operations do. We'll continue to monitor potential mining activities with our noses to the wind to protect the quality of air for the FCPC.



COMMUNITY SURVEY 2012

The survey was a fun process. We created a social campaign with posters and tribal members, Cayla Thunder and Jennifer Milligan visited homes to give all adult tribal members living in Forest County an opportunity to complete the Community Survey. Cayla and Jennifer said they enjoyed visiting with everyone and they did a tremendous job. The response to the survey was positive. We received a **49%** return!

This survey method was a more beefed up attempt to get input compared to the first survey that was done thru a mailing in December 2011. The first survey return was only 7.5% however the data was used to take the pulse of the community on certain issues and helped guide the intent of the second survey.

The second community survey was put together by the Core Planning team (made up of mostly Land & Natural Resource Division Departments) and the door to door method was decided upon to try to get the most returns. The 49% or 201 surveys was a positive result of this method!

The data analysis will help us complete a very simplistic visionary statement booklet that communicates the results of the survey.

Two years ago, a grant was received to help create an Integrated Resource Planning document, more commonly

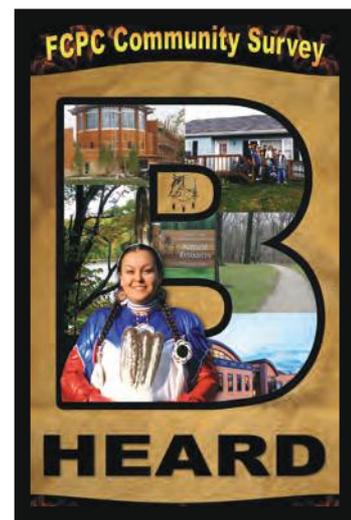
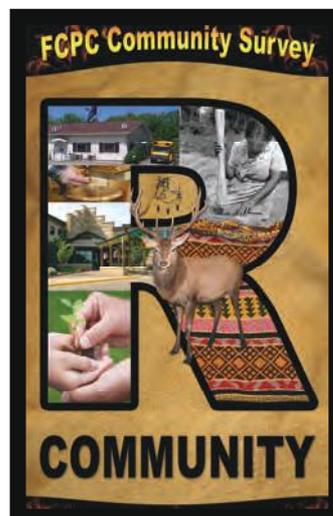
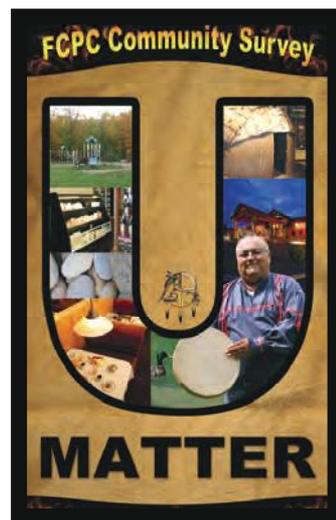
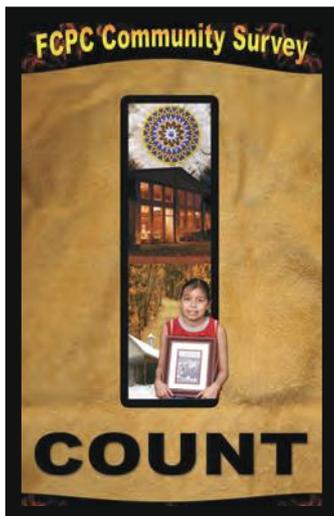
called a long range land use plan. The first efforts to create this type of document started back in 1995 over a three year period.

A big component to this type of planning is community input. The previous approach called for departmental input. Obviously this can't happen without Community input. So today we are happy to have finally surpassed that planning barrier with a successful community survey.

To this effort we are working with the Land Use Committee and the Core planning team on a project with North Central Wisconsin Regional Planning Commission (NCWRPC) and are nearly complete with the current land use map.

We will then start the exercise of the future land use map. The community survey gave us a lot of direction on future trends, needs and concerns and all of this will be taken into consideration for future land use mapping. The community at large will also have an opportunity to view and comment during this upcoming process to verify the future land use map.

Next issue we will highlight some community projects the Planning department is involved in or will be in involved with. Thanks to the organizational restructuring we are happy to work more closely with land related departments and look forward to contributing to this newsletter.



2012 SUMMER FISHEREE

Despite a scare from the local weather forecast, the Forest County Potawatomi Community Natural Resources Department hosted its annual Summer Fisheree at Bug and Devil's Lakes on August 4, 2012. The forecast originally called for thunderstorms throughout the afternoon, but all of these storms cooperated and came through south of Forest County. The cloud cover and breeze that accompanied these storms combined to create a very comfortable and enjoyable day of fishing.

The fisheree began fairly slowly as very few fish were registered before 10 am. However, the fishing at Devil's Lake picked up substantially between 10 am and noon with several largemouth bass and bluegills being registered. It appears that many of the fisheree contestants have identified patterns in these lakes as many of the anglers began at Devil's Lake before going to Bug Lake to catch the early afternoon trout bite. The majority of the fish on the prize board were registered at Devil's Lake, but the trout category did become very competitive with the increase in the amount of anglers at Bug Lake in the afternoon.

For the third consecutive fisheree, Jamie Tuckwab went home with the Grand Prize as he caught the largest fish of the day, a 15 1/4" largemouth bass. Justin Crawford was able to earn 2nd place in the bass category, while Todd Samplaski placed 3rd. Todd also caught the only yellow perch in the adult category, as well as the only black crappie of the day to earn 1st place in each of these categories. Joe Brown Sr. was able to recover from a fish basket malfunction earlier in the day to catch the largest rainbow trout of the day, as well as the 2nd and 3rd place bluegills. Dennis Shepard caught the largest bluegill of the day, while Danny Alloway was able to earn 2nd and 3rd prize in the rainbow trout category. No northern pike were caught in the adult division.

In the youth division, Hunter Tuckwab had another successful fisheree as he took home all 3 of the awarded prizes in the rainbow trout category, along with 2nd place in the perch category and 1st and 3rd place in the bluegill category. Ryon Alloway also had another fantastic fisheree as he won the perch category and placed 2nd in both the largemouth bass and bluegill categories. Ryon's sister

Ryana also placed in the largemouth bass category with the 3rd largest bass in the youth division. Keanu Yazzie caught the largest fish of the entire division with a 14 1/4" largemouth bass, earning him 1st place in the youth largemouth bass category. Unfortunately, no northern pike or black crappie were caught in the youth division.

Cash Prizes were awarded to all adult contestants, while gift cards to Smith Sport & Hobby were awarded to all youth contestants. 1st place winners received \$50, while 2nd place winners received \$30, and 3rd place winners received \$20 in each category. Jamie Tuckwab also received a \$500 Smith Sport & Hobby gift card for winning the grand prize. The 2012 Bug Lake will likely be scheduled in January 2013. Please keep an eye out for an event flyer as summer quickly approaches. We hope to see everyone there.

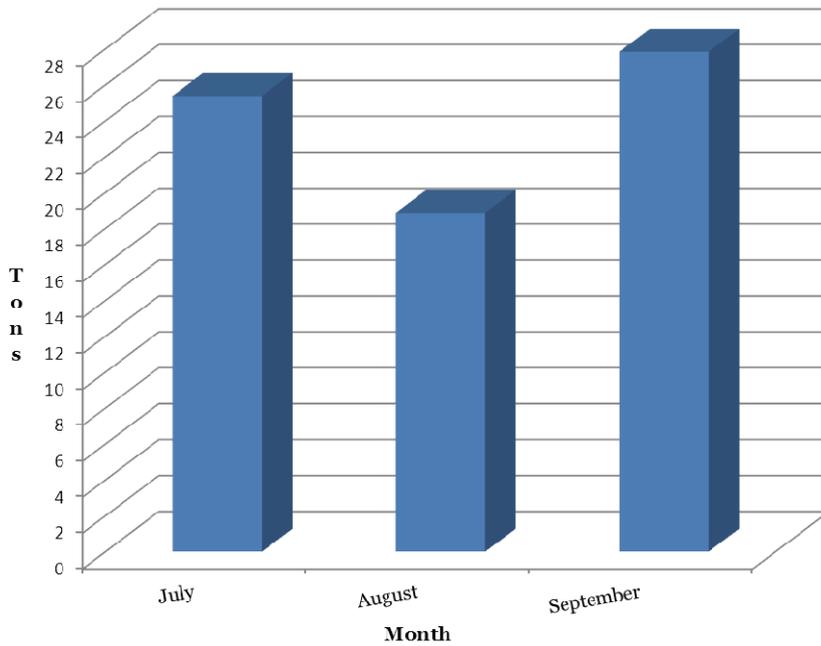
2012 Summer Fisheree			
ADULT		YOUTH	
Northern Pike		Northern Pike	
1		1	
2		2	
3		3	
Largemouth Bass		Largemouth Bass	
1	Jamie Tuckwab 15 1/4" 1 lb. 8.1 oz.	1	Keanu Yazzie 14 1/4" 1 lb. 2.6 oz.
2	Justin Crawford 14 3/4" 1 lb. 4.9 oz.	2	Ryan Alloway 13 3/4" 1 lb. 3 oz.
3	Todd Samplaski 14 1/2" 1 lb. 4.6 oz.	3	Ryana Alloway 12 3/4" 1 lb. 3 oz.
Trout		Trout	
1	Joe Brown Sr. 14 3/16" 12.65 oz.	1	Hunter Tuckwab 13 1/4" 10.35 oz.
2	Danny Alloway 14 1/9" 10.75 oz.	2	" 13 1/4" 10.7 oz.
3	" 14 1/8" 13.9 oz.	3	" 13 1/4" 10.2 oz.
Perch		Perch	
1	Todd Samplaski 8" 2.8 oz.	1	Ryon Alloway 9 1/4" 4.9 oz.
2		2	Hunter Tuckwab 6 1/4" 1.3 oz.
3		3	
Bluegill/Pumpkinseed		Bluegill/Pumpkinseed	
1	Dennis Shepard 10 1/4" 13.1 oz.	1	Hunter Tuckwab 9 1/2" 10.5 oz.
2	Joe Brown Sr. 9 1/8" 10.3 oz.	2	Ryon Alloway 9 1/2" 9.4 oz.
3	" 9 1/4" 9.9 oz.	3	Hunter Tuckwab 9" 8.4 oz.
Crappie		Crappie	
1	Todd Samplaski 11" 13.5 oz.	1	
2		2	
3		3	



SOLID WASTE

The Solid Waste Program processed a total of 72.09 tons of municipal solid waste in the third quarter of 2012. This amount is 12.44 tons less than the 67.36 tons processed in the second quarter of 2012.

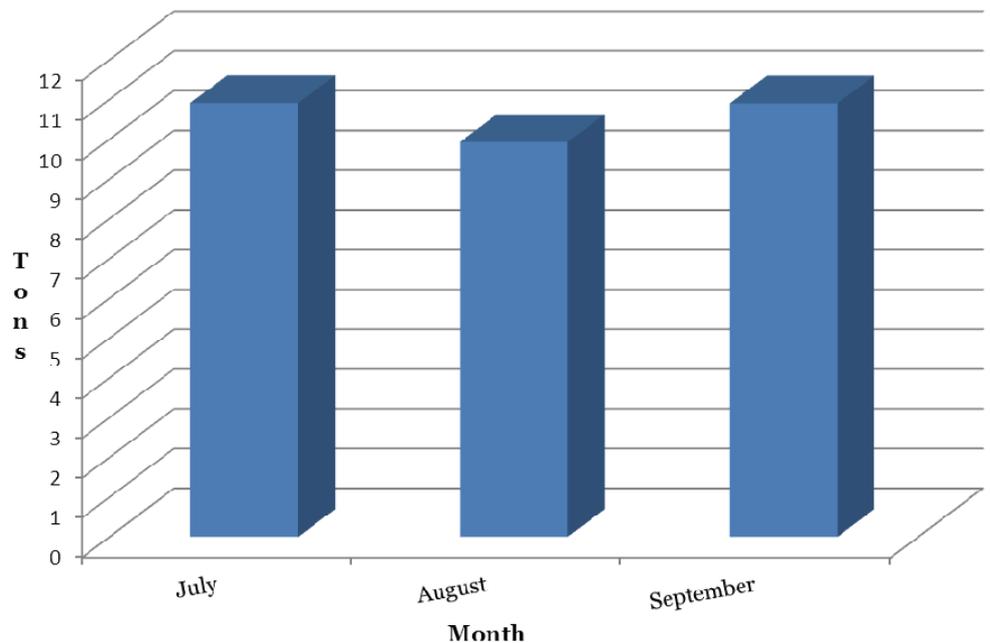
Quarter 3 Solid Waste Tonnages



RECYCLING

A total of 31.74 tons of cardboard, paper, glass, aluminum, plastic and tin were collected and recycled in the third quarter of 2012. This amount is 2.24 tons less than the 33.98 tons that were recycled in the second quarter of this year.

Quarter 3 Recycling Tonnages



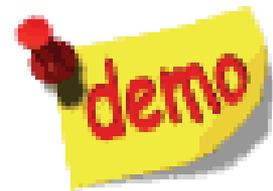
BUILDING DEMOLITION

Sometime the solid waste program is given the job of coordinating the demolition of a home that has fallen into such disrepair that fixing it would be too costly. For small structures such as trailers, Solid Waste has the necessary equipment to do the demolition job, but when dealing with large structures such as two story homes, it becomes necessary to hire a contractor who has the right equip-

ment to perform the demolition. One such case where it was necessary to hire a contractor was the demolition of the farm house on the old Huettle farm which was purchased by the Tribe in 2006. The contractor took just two days to completely demolish the house, haul the debris away and plant grass seed on the location where the house stood.



Demolition of the old house the former Huettle property.



The demolition is complete and the site is seeded with grass.



Natural Resources Garage





Forestry Garage



5320 Wensaut Lane
P.O. Box 340
Crandon, WI 54520

Phone: 715-478-7222
Fax: 715-478-7225

[www.fcpotawatomi.com/
government/natural-
resources](http://www.fcpotawatomi.com/government/natural-resources)



LAND & NATURAL RESOURCES BUILDING CONTACTS

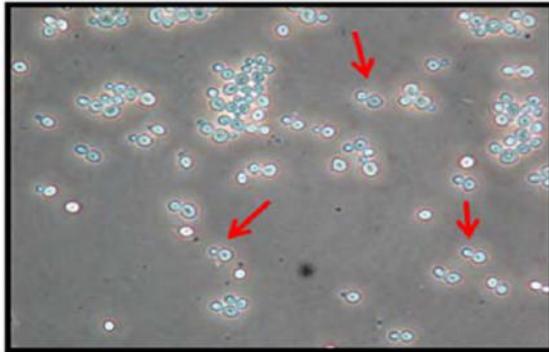
Al Murray	Tribal Forester	4973
Ashley Fehrenbach	Botanist/Wetlands Program Director	4193
Ben Koski	Aquatic Biologist	4436
Bill Alloway	Natural Resources Technician	7210
Casey Swanson	Realty Director	4988
Cheryl Frank	Land Use Office Manager	4982
Danielle Fatla	Administrative Assistant	4192
Ericka McGeshick	Receptionist/File Clerk	7222
Frank Shepard	Deputy Natural Resources Administrator	4942
Heather Stricker	Wildlife Resources Program Director	4196
Jason Spaude	Natural Resources Technician	7207
Jeff Marshall	Solid Waste Program Director	4817
Jim Gumm	Tribal Forestry Technician/Fire-Fuels	4976
Joe Cebe	Air Monitoring Specialist	4435
Joe Shepard	Wildlife Technician	4962
Lawrence Daniels	Natural Resources Administrator	7213
Matt Steinbach	Water Resources Program Director	7361
Michelle Berdan	Planning Assistant	4944
Natalene Cummings	Air Resources Program Director	7211
Nate Guldan	Land & Natural Resources Division Director	7205
Pat Pete	Tribal Planner	4704
Scott Cleereman	Tribal Forestry Technician	4974
Shari Alloway	GIS Specialist Director	7224
Solid Waste Crew	Tony Daniels, Francis Shepard, Greg Kitchell, Phillip Wamego	7330

OCTOBER-DECEMBER 2012

FUNGUS AMONG-US

WHAT DO BREAD, PENICILLIN, LICHENS, AND A DEVASTATING BAT CONDITION HAVE IN COMMON? IF YOU GUESSED FUNGI, YOU ARE CORRECT!

When thinking about fungi (pronounced funj-eye), most people might immediately think of mushrooms growing on dead and decaying trees out in the woods. Those mushrooms certainly are fungi; however, fungi come in many more shapes and sizes than simply toadstools. These living organisms are neither plant nor animal, yet they too are intertwined with many aspects of our lives.



Yeast under 400x magnification. The blue color is a result of the lighting in the microscope; yeast are essentially colorless. Each cell is a single organism. Yeast can reproduce by “budding”, as shown by the red arrows in the photo.

Yeast, the ingredient that makes bread rise (*Saccharomyces cerevisiae*), is a fungus (coincidentally, so is the mold that grows on bread that has been in your cupboard for too long...). Yeast doesn't look much like a mush-

room at all—in fact, we can't even see individual yeast organisms with the naked eye. Yeast is also used in the fermentation process for beer and wine-making. Interestingly, the genetics of the yeast determine the alcohol content of the beverage.

Used to treat infections, penicillin antibiotics are derived from *Penicillium* fungi. Although Alexander Fleming is given credit for naming the antibiotic substance penicillin, several other scientists at the time were also observing how the *Penicillium* mold, under stressed conditions, prevented certain types bacterial growth. Penicillin, though discovered in the early 1900s, remains one of the most widely used antibiotics to date.



Penicillium fungus from which penicillin is derived, under 100x magnification. Penicillin antibiotic was developed and used during World War II.

INSIDE THIS ISSUE:

**BOTANY/
WETLANDS** 1-3

**AIR
RESOURCES** 4

**WATER
RESOURCES** 5

**SOLID
WASTE** 6

WILDLIFE 7-12

PLANNING 13

GIS 14-16

UTILITIES 17

FORESTRY 18

**CARNIVORE
SURVEY
PICTURES** 19

FUNGUS AMONG-US CONT'D

Many of us have seen lichens growing on rocks and tree branches. Lichens, although not entirely fungi themselves, are actually what can be considered a “partnership” between fungi and algae. Fungi provide structural support (i.e. a “home”) for the algae, and the algae convert energy from sunlight into sugars (i.e. “food”) for the fungi. As they have no roots to draw moisture from the ground, lichens must obtain their water and mineral nutrients from the atmosphere. For this reason, biological studies have used lichens as indicators of air quality.



Lichens are “partnerships” between fungi and algae. Fungi provide a structure in which the algae grow. Algae, in turn, convert energy from the sun into sugar (a process known as photosynthesis) for both partners.

It is estimated that over 5.5 million bats across eastern North America have died as a result of White-Nose Syndrome, a condition caused by the fungus *Geomyces destructans*. This fungus grows on noses and other parts of cave-dwelling bat species, interrupting their winter hibernation, causing them to expend valuable energy reserves and ultimately, starve to death. White-Nose Syndrome has caused extensive bat mortality with declines approaching 100 percent in some bat populations. Four of our cave-dwelling Wisconsin bat species (Little Brown Bat, Big Brown Bat, Northern Long-Eared Bat and the Eastern Pipistrelle) are now listed as threatened as White-Nose Syndrome comes closer and closer to our state.

In ecology, some fungi (like the shelf mushrooms you see on dead or dying trees) are known as decomposers. This is because they use enzymes to break down dead and dying plant materials into smaller and pieces until they become nutrient-rich parts of the soil. Other fungi are plant pathogens; that is, they cause plant diseases such as oak wilt, butternut canker and white pine blister rust, among others. Roots of approxi-

mately 95% of all plant species have developed associations with fungi to help them absorb more water and nutrients and to aid against soil-borne plant diseases. These associations are known as mycorrhizae (loose translation: fungus roots).

Fungi play important roles in human life as well. Athlete’s foot and ringworm, contracted in communal, moist areas such as locker rooms, are caused by fungi. Blastomycosis, although rare, can be severe or even fatal when people (or pets) inhale spores of a fungus that grows in the soil and on wood.

Of course, many fungi are also quite tasty. Morel, oyster, and truffle mushrooms, among others, are delicious. **Others are deathly poisonous.** I cannot overstate this enough: **Do NOT eat any fungus unless you are absolutely certain of its edible identity.**

In conclusion, fungi are so much more than just mushrooms. Fungi are a diverse group of organisms that occupy a wide range of habitats (from dead plants and living plants, to animals and humans, and everywhere in between), cure diseases (and cause others), and never fail to amaze us with the beauty of what we find outside after a summer rain...



White Nose Syndrome in bats caused by the fungus *Geomyces destructans*. The fungus grows on the noses and other parts of bats, causing them to prematurely and repeatedly awaken from hibernation thus using up all of their stored energy reserves that they need to survive through the winter.



Fungi!

(From Left to Right, Top to Bottom): Hemlock Polypore, Yellow Morel, Pretzel Slime, Fly Amanita, Giant Puffball, Dog Vomit Slime Mold, Cobalt Crust, Crystal Brain, Apple Bolete, Barometer Earth Star, Bird's Nest, Chantrelle Waxy Cap

Many fungi are poisonous. Do not eat any fungus unless you are absolutely certain of its identity!!!

NEW AIR POLLUTION PERMITS NOW REQUIRED FOR MINOR POLLUTION SOURCES ON TRIBAL LANDS

Facilities that emit air pollution on the FCPC Reservation will be required to obtain air pollution permits by 2014 based on a new rule titled the Tribal Minor New Source Review. Pollution sources on the FCPC Tribal Lands that may require a permit from the US Environmental Protection Agency (USEPA) would include the C-store gas stations and the Carter Casino/Hotel complex.

Until recently, the only sources on reservations that were issued air pollution permits by the USEPA were very large pollution sources, such as asphalt plants, large boilers used to produce energy, or a large manufacturing facility for example, emitting 250 tons of pollutants per year (tpy) – titled a “major” source. There were no laws in place to allow the USEPA to issue permits to small facilities emitting less than 250 tpy – titled a “minor” source. This became a problem for reservations that contained non-tribally

owned private lands within the reservation’s exterior boundary. If the property owner operated an auto body shop or small manufacturing plant, they would not be required to have a permit or to install any pollution controls, and the Tribe had little power or say to do anything about it.

The new rule, published July 1, 2012, requires that all sources – major and minor, located within reservation boundaries register by March of 2013 with the USEPA. There are many air pollution sources on the Reservation, though it may not be obvious. Not every pollution source has a smoke stack with clouds of smoke billowing out of it. The waste water treatment facilities give off pollution emissions directly into the air; the Potawatomi Casino emits exhaust

from the gas burned to prepare foods and heat the facility; and gas stations emit toxic vapors while customers are filling their gas tanks. Air pollution permits set limits on how much pollution will be allowed, and at what level pollution control equipment or practices need to be put in place to limit pollution emissions.

Not every facility that has emissions will need to be permitted. While commercial/industrial sources are subject to air permitting regulations, residential sources such as wood stoves, furnaces and generators are not. The Air Resources Program has contracted with Rickun Environmental Services to inventory all the commercial/industrial pollution sources on FCPC lands and complete the required registration with the USEPA. It has been determined that the Potawatomi Casino complex and the C-stores are the only sources that will need air pollution permits.

Gasoline vapors are hazardous to breathe but also causes ozone which is damaging to the lungs and to plants, including those used for medicine. Waste water treatment facilities release pollutants including methane which contributes to climate change. The burning of LP gas for heating releases green house gases that contribute to climate change and pollutants that cause ozone. Permitting sources enables the Tribe to identify the types and amounts of pollutants being emitted and determine if pollution controls are necessary thereby protecting the health of the Community and the health of the natural resources that community members depend on.



OTTER CREEK STUDY

In 2012, the Tribe hired Inter-Fluve, Inc. to assist with a comprehensive study of the Otter Creek watershed in southeastern Forest County. Inter-Fluve is an engineering firm based out of Madison, WI that specializes in investigating, designing, and restoring aquatic ecosystems. The main goals of this particular study were to assess the current distribution of brook trout within the watershed, identify all of the factors that may be limiting brook trout production in Otter Creek, and locate and prioritize potential restoration locations that may enhance the population of brook trout within the watershed. The study consisted of several field components, as well as an analysis and reporting stage that each required an extensive time commitment from the Tribe's Water Resources Program and Inter-Fluve staff. The field work began in late-April when Tribal Water staff placed 46 temperature monitors throughout the Otter Creek watershed. These monitors were located throughout Otter Creek, as well as each of its perennial tributaries and were set to collect water temperature readings every 10 minutes throughout the entire summer. All of the monitors were retrieved in October and the data that was derived from these monitors provided an accurate view of the temperature profile throughout the entire watershed. In addition to the temperature monitors, Tribal staff also conducted several electrofishing surveys throughout the watershed in May and again in August to compare the distribution of brook trout throughout the watershed at these periods of extremely different water temperatures. Tribal staff also assisted with a field survey of the entire 22 mile reach of Otter Creek, in addition to an observational survey along portions of each of Otter Creek's tributaries. This survey included the following data collection: a streambed elevation profile, water temperature and stream flow measurements, a survey of all stream crossings and all beaver-made or human-made dams that may be acting as water control structures, stream bed and riparian vegetation observations, etc. The survey began at the mouth of Otter Creek and the Peshtigo River in Marinette County and ended at the very origin of Otter Creek near County Hwy H between Wabe-

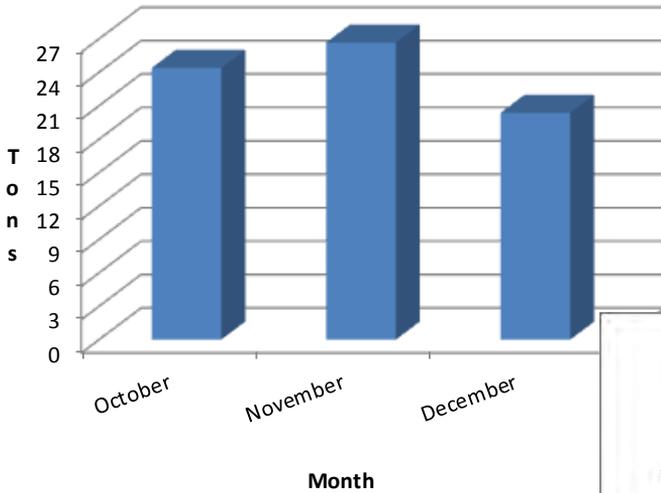


no and Blackwell in Forest County, WI. The survey staff consisted of two, 2-3 person crews (1 individual from Inter-Fluve and 1-2 individuals from FCPC on each crew). Each of the survey crews were able to survey an average approximately 2 miles of stream per day, resulting in the entire 22 mile reach of Otter Creek being surveyed in 5 full days. Inter-Fluve was also able to obtain historical maps of the watershed that allowed us to identify areas that have undergone significant changes since as far back as the 1850's. All of this information proved to be very valuable when completing the assessment of the Otter Creek watershed and provided excellent content for the final report. Inter-Fluve recently completed their final report and presented their findings to FCPC, U.S. Forest Service, and Wisconsin DNR staff. As expected, the study confirmed that there are areas of Otter Creek that currently contain a healthy population of brook trout. The study also identified several areas for potential restoration efforts, particularly those areas that appear to have been mainly impacted by human activities (dam installation, poorly installed road crossings, etc.). Tribal water staff has begun to work with other agencies to prioritize and identify possible funding sources for these restoration projects, in hopes of enhancing the coldwater habitat within portions of Otter Creek and its tributaries. Although several potential restoration locations were identified, the study also concluded that it is likely that much of Otter Creek will continue to be limited to seasonal brook trout habitat even if all of the suggested restoration projects were completed. This is primarily due to the lack of ground water input and the substantial solar heating that occurs throughout the majority of the middle portion of the watershed. Therefore, it remains unlikely that the portion of Otter Creek from Otter Lake to just upstream of the westernmost Old J Rd. crossing will ever be managed as a coldwater fishery, while all of Otter Creek above Otter Lake and much of Otter Creek in Marinette County may continue to be managed as a coldwater fishery.

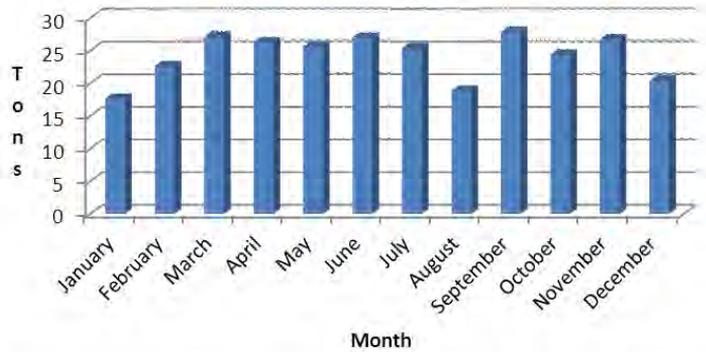
Please feel free to contact Matt Steinbach at (715) 478-7361 with any questions or for more details regarding the results of the study.



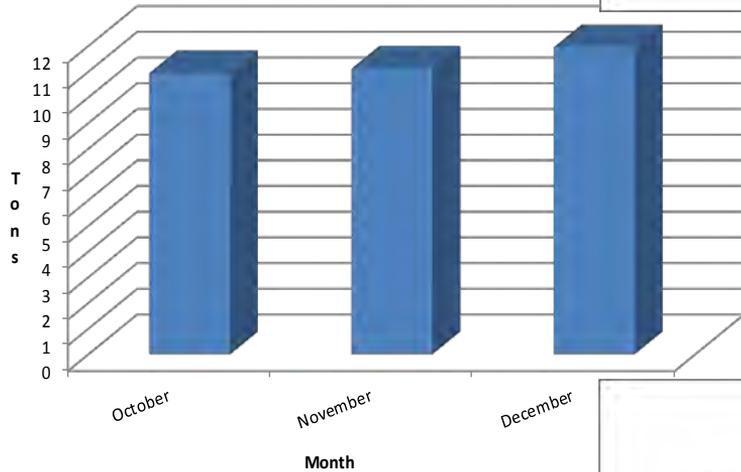
Quarter 4 Solid Waste Tonnages



2012 Solid Waste Tonnages



Quarter 4 recycling Tonnages



2012 Recycling Tonnages



THE STATE OF WILDLIFE

A SPECIAL REPORT FROM FCPC WILDLIFE RESOURCES

Many questions come into the FCPC Natural Resources Department regarding wildlife. Populations change, laws change, and sometimes even the species in a given area changes. In 2010, a Wildlife Resources Program was developed within the Forest County Potawatomi Community Natural Resources Department, aimed at monitoring, documenting, and managing wildlife on over 16,000 acres of tribal land and aims to discover the answers to these questions. This is a report on the state of wildlife; the animals in and around FCPC land of interest to tribal members. The short summaries of each species (or group of species) is intended to not only inform members on the “status” and laws regarding these animals, but the biological health of the populations and recommendations on harvest and take. As always, contact the Wildlife Resources Program with any questions or for more detailed reports.

WOLVES

Wolves. An iconic animal of the north woods. Revered and feared, loved and hated. Wolves are an important species in the web of life, consuming old and sick prey species, controlling coyotes, and sometimes even benefitting other wildlife. Wolves have been returning to Wisconsin naturally for the last several decades. Prior to the 2012 hunting season, an estimated 815-880 wolves lived in Wisconsin. In Forest County, there were approximately 5 wolf pack, which accounts for an estimated 20-25 wolves. One pack which resided just north of Highway 8 near Crandon was completely eliminated by poachers in 2011, bringing the total down to 4 packs and approximately 15-21 wolves in Forest County. Final estimates regarding the first legal hunt in 2012 are yet to be calculated, however it is estimated that 20% of the wolf population in Wisconsin was killed from this initial hunt. Fear often surrounds a lack of tolerance for wolves. Fear of personal and human safety, fear of damage to deer populations, and more. Even with the return of wolves to Wisconsin, deer numbers are at or above the WDNR’s population goals. Population goals are often set to reduce the amount of damage done to an ecosystem due to overpopulation. Browse lines and lack of forest regeneration are two common indicators of an over-abundant deer (or other herbivore) population. To date, wolves have not had a significant impact on deer herd size or health in this area. Further, wolves have been in-

volved in only 2 human injury cases in all of North America (United States including Alaska, and Canada) in the last 100 years. By comparison, 4.7 million people, are bitten each year by domestic dogs. In the 1980s and 1990s the US averaged 17 domestic dog attack human fatalities per year, while in the 2000s this has increased to 26 deaths from domestic dogs per year. Wolves, unless sick or habituated to humans, have a deep instinctual fear of humans and will very, very rarely approach a human. FCPC monitors wolf populations through camera surveys and track surveys, although plans exist to begin assisting the WDNR in radio-collaring wolves in the area. Anyone with questions or concerns about wolves should contact the FCPC Wildlife Resources program.



THE STATE OF WILDLIFE

A SPECIAL REPORT FROM FCPC WILDLIFE RESOURCES CONT'D

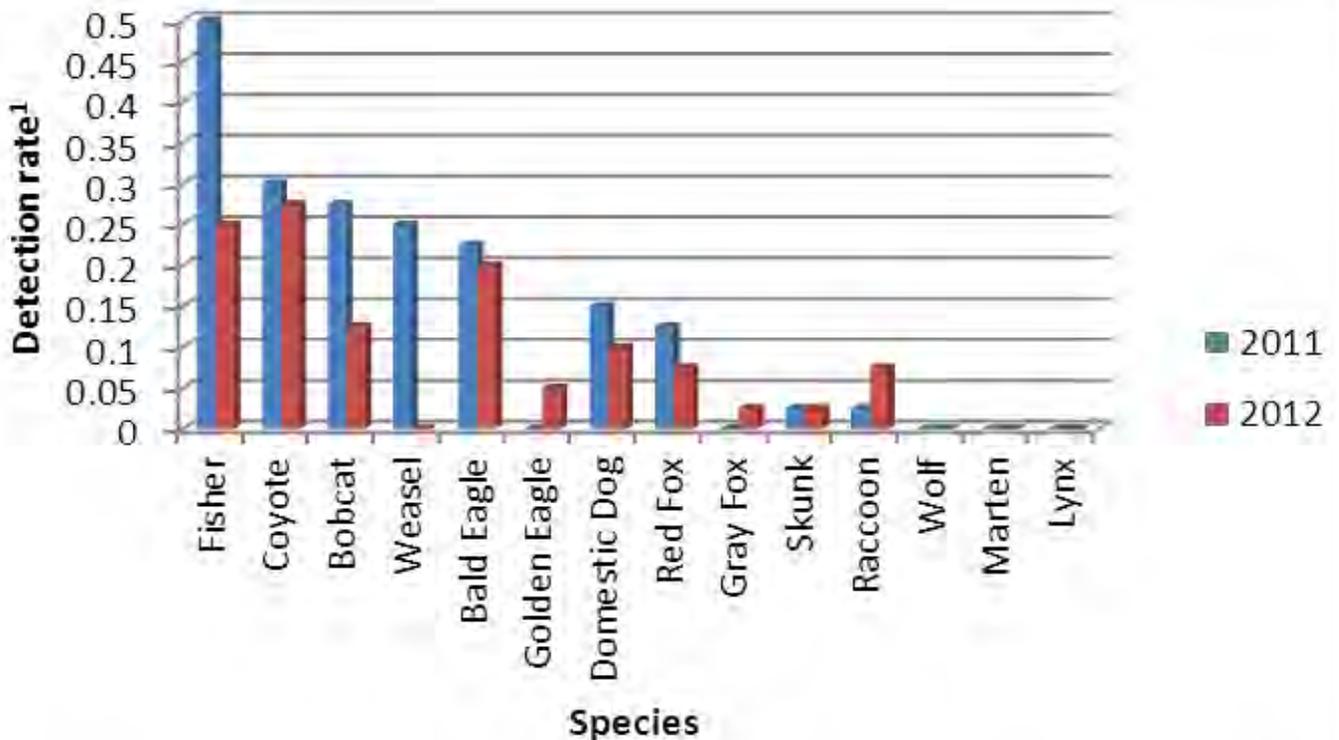
OTHER CARNIVORES

Wisconsin is home to several carnivorous (meat-eating) or omnivorous (plant and meat eating) animals. Many of these animals are valued not only for their fur, but also for their ecological function and innate mystery and beauty. Carnivores are extremely important in northern forest ecosystems, as they control prey species such as cottontail rabbits, squirrels, and deer that, if overpopulated, could have very negative consequences on the forest due to over-browsing and other over-population issues. Extreme losses, increases, or other fluctuations in carnivore species could also suggest an underlying problem in the environment and are therefore often considered “keystone species” of an ecosystem.

FCPC Wildlife Resources monitors carnivores (including eagles) with its annual Carnivore Camera Survey. The data presented here reflects two consecutive years of monitoring with game cameras. Data indicates a greater number of overall detections in 2011, however this does not necessarily imply lower numbers of carnivores or carnivore species in

2012. The 2012 winter weather was much milder than 2011, both in terms of temperature and snowfall. This may have decreased carnivore attraction to bait as natural prey were likely more abundant and easier to catch.

Carnivores that were detected are generally expected to appear in the northern Wisconsin landscape, with the exception of golden eagles which do not generally over-winter in this region. Although gray wolves were not detected on cameras during either year, packs have been confirmed by winter track surveys and WDNR data. While American marten were historically found in this area and still occasionally are detected in areas just north of the study area, marten are an endangered species in Wisconsin and detection rates are therefore likely very low. Lynx, mountain lions, and other rare carnivores have not been detected through camera surveys or any other surveys conducted by FCPC Wildlife Resources.



WHITE-TAILED DEER

The white-tailed deer is one of the most widely distributed species in the western hemisphere and can live in a variety of habitats. When deer are overabundant, drastic reductions in plant biomass and diversity can occur in forest ecosystems. This could include the reduction and loss of culturally significant medicine plants, or rare and endangered species. Unregulated hunting could potentially reduce this overabundance and conserve plant diversity and regeneration. Alternatively, over-harvesting of deer could reduce the herd size to an unsustainable level, or negatively alter the sex and age structure of the local herd. These possible scenarios call a need for effective censusing and management of the local deer herd.

FCPC Wildlife Resources has been collecting data on the white-tailed deer herd in southern Forest County since 2010. This has been done using a combination of techniques, primarily spotlight surveys and fall camera surveys. This data can be used to estimate herd size, density per square mile, buck-to-doe ratios, and more. Eleven survey routes have been established for spotlight surveys and are conducted every year. Surveys in 2011 were conducted primarily during the State gun deer hunt season. Surveys in 2012 were conducted outside of the gun deer hunt season, once before the start of the season and once after. The results of the two surveys conducted in 2012 were then averaged.

The 2011 estimate was approximately 28 deer per square mile, keeping in mind that these are estimates across the entire study area (southern Forest County) and may be locally higher or lower depending on the habitat type. The 2012 pre-gun hunt estimate was 49 deer per square mile and post-gun hunt estimate was 17 deer per square mile. The averaged 2012 estimate is therefore 33 deer per square mile. At these densities, the deer herd in southern Forest County appears to be quite dense and higher than the WDNR population goal (19 deer per square mile). Surveys conducted after the deer gun season are always markedly lower due to both lower numbers from hunt mortality, as well as more secretive behavior due to hunting pressure fears. Populations boom in late summer after fawns are born and moving with adults thereby increasing their detection rates.

Detection of females in this area is much higher than detection of bucks, and this may be for several reasons. One pos-

sibility is that does are in fact much more abundant in southern Forest County than bucks. If this were the case, this would be due to greater hunting pressure on bucks in this area than does. Biologically, normal “un-hunted” populations are generally 50/50 males to females. Alternatively, bucks and does may actually be near a 50/50 ratio, however detection of bucks may be lower due to different behaviors. The true scenario is likely somewhere in the middle of these two theories. In other words, does are detected much more frequently likely because they are both more abundant than bucks *and* because their behaviors make them more visible to researchers (i.e. forage in more open areas, travel more, etc.). At this time, there appears to be no issue with unregulated hunting of white-tailed deer, other than a potential skew in the doe:buck ratio. Hunters are encouraged to harvest only does or mature bucks, leaving “spike bucks” and other young bucks to mature and reproduce.



THE STATE OF WILDLIFE

A SPECIAL REPORT FROM FCPC WILDLIFE RESOURCES CONT'D

ELK

Elk once ranged over most of North America and throughout Wisconsin. They were eliminated from Wisconsin in the mid to late 1800's with the onset of European settlement due to over hunting and a rapid decline in habitat. Historic records show elk once inhabited at least 50 of the state's 72 counties. Elk primarily inhabited the prairie and oak-savannah communities of the southern portion of the state. Today most of the suitable elk habitat is in the northern and central forest regions of the state. The large scale conversion of land in the south from prairie to agriculture has resulted in little to no suitable habitat in this area.

In 1993 the Wisconsin State Legislature authorized the Uni-



versity of Wisconsin-Stevens Point (UWSP) to evaluate the potential for reintroducing elk to the Great Divide District (GDD) of the Chequamegon-Nicolet National Forest (CNNF) near Clam Lake. During February 1995, 25 elk were trapped, held in a quarantine facility for 90 days while undergoing rigorous disease testing, and transported to the Clam Lake release site. As of May 15, 2012, approximately 150 elk were present in the state, comprised of the main herd near Clam Lake and a second smaller herd located near Butter-nut. The herd has grown at an average rate of 13% annually, however, growth rates have varied from as high as 30% to as low as -16% since 1995. Primary causes of mortality include predation by wolves and bear and vehicle collisions.

Elk have been occasionally spotted in southern Forest County. Elk that have made it to this area are fortunate to have survived the journey without being hit by a car, poached, or mistaken for a deer by a legal hunter. Although FCPC tribal

members can technically shoot and kill an elk as it is not federally protected, it is state protected for a reason. A population of 150 individuals is quite small, both in numbers and in effective gene pool size. Dispersal of elk into new territories and establishment of small "meta-populations" may be critical to elk thriving in this state. As mentioned, while technically legal, FCPC tribal members are highly discouraged from shooting these magnificent animals until a healthy sub-population can be established in this area. FCPC Wildlife is currently working with the WDNR to determine if an elk population can be restored to this area of the Chequamegon-Nicolet National Forest. If a healthy population is restored, hunting opportunities will be ample for current and future generations.

MOOSE

In 2002, after more than a century, state biologists documented the first moose calf birth in Wisconsin. Moose are native to Wisconsin but are now found at much lower numbers than they were historically. There are three reasons for this. The first is a lack of habitat. The second is high deer numbers. Deer carry brainworm which is a parasite that kills many moose. Lastly, global climate change is drastically changing the northern Wisconsin winter to which moose are acclimated to, and the warmer milder winters contribute to an increase in parasites such as ticks. One animal typically can get 30,000 ticks in normal fall weather conditions, but as many as 160,000 ticks during winter in years with a late first snowfall, researchers said. Often the eventual result for moose is malnutrition and death. Moose are at a physiological low when winter ticks are feeding, leading to stresses like reduced blood volume, a thinner coat due to scratching, and an inability to lie down and rest. This combination leaves the moose open to an array of other infections. A high number of ticks is almost a "death sentence" for calves because they can lose their entire blood supply over just a few months. Climate change magnifies the tick problem because the pests live longer and reproduce in greater numbers if there's less snow on the ground by spring.

MOOSE CONT'D

According to the Wisconsin Department of Natural Resources, moose are a very rare animal species in Wisconsin. Despite their size, these moose many times do a good job of being elusive for such a large mammal. The DNR estimates that the Wisconsin population of moose is at 20 to 40 animals (2003). In the 1980's Michigan conducted a reintroduction of moose in the Upper Peninsula. As moose have been reintroduced into the wild and acclimated themselves, the animals have been increasingly sighted in northern Wisconsin. Although Wisconsin has not reintroduced moose, these large and beautiful animals do wander into the state occasionally, and even sometimes take up permanent residency, as a result of a successful reintroduction in the Upper Peninsula of Michigan and a native population of moose in Minnesota. Moose, also a protected species in the state of Wisconsin, are rare in all areas of the state.



LOONS

Loons are another iconic symbol of Wisconsin, with their eerie lonely call and their distinct red eye. Some may say that the call of the wolf and the call of the loon are the two most recognized sounds of the wild north woods. While once common in all the northern forested states, loons are in a bit of trouble. Large numbers of Common Loons were shot in the early to mid-twentieth century because they were erroneously perceived as a threat to the sport fishing industry. This coupled with the impacts of pesticides, contaminants, toxic chemicals, and acid rain led to population declines. Today, the North American population appears to be undergoing some amount of recovery across its range. In Wisconsin, survey results from LoonWatch, a long-term study sponsored by Northland College, suggests a modest increase in the state population since the mid-1980s.

Despite these promising signs, several factors threaten Common Loon populations. Loons are sensitive to elevated mercury levels in lakes. Chronic exposure to mercury via ingestion of contaminated fish can lead to lower reproductive success, increased chick mortality, and behavioral, physiological, and histological changes associated with methylmercury toxicity. Human recreational activity around lakes reduces available nesting habitat and compromises nesting attempts. Lead poisoning through the ingestion of lead sinkers and entanglement in fishing line and nets also are concerns.



THE STATE OF WILDLIFE CONT'D

LOONS CONT'D

Poaching and hunting are not a large cause of mortality for loons, nor is any other form of direct killing. Loons are protected under Federal law, and the direct killing of loons is prohibited. Invasive species in lakes, however, seems to play a much bigger role in loon mortality than originally suspected. For years, botulism has been suspected as a culprit in killing thousands of loons every in Lake Michigan. The source of this botulism was a mystery. It seems, however, that invasive species may be the cause. In an article from Michigan on January 6 of this year:

“Thousands of dead birds, mainly loons, washed ashore — from the Upper Peninsula down to Sleeping Bear Dunes National Lakeshore.

A large percentage of the dead loons had just entered their first year of breeding maturity. The reason for the die-off, which follows similar incidents in 2006 and 2007, isn't fully understood. But it is suspected that it is driven by the food chain linking the loon to invasive species, specifically, the quagga mussel, the zebra mussel and the round goby.

Since 1988, when the first zebra mussels in Michigan were found in Lake St. Clair, the invasive mussels have been clearing and “cleaning” Great Lakes water columns by consuming plankton. While the end result is a more aesthetically pleasing water column, the clearer water has allowed the sun's rays to penetrate deeper, causing larger and larger algae mats to flourish on the bottom. As the algae mat builds upon itself and dies, it becomes anaerobic — depleted of oxygen — and type-E botulism bacteria develops.”

-Don Gardner for The Oakland Press

While this represents a huge challenge in loon conservation and the conservation of the Great Lakes in general, there are several things that can be done to ensure the survival of loons for the next seven generations. To start, federal and state regulatory agencies should enact policies to reduce mercury emissions from coal burning electric generation plants, and municipal waste incinerators. Land-use and watershed programs that promote lake water clarity and quality should be encouraged along with efforts to exclude aquatic invasive species from entering breeding lakes. Programs that encourage use of non-lead fishing tackle

should be promoted.

What you can do:

View loons from a respectful distance of at least 200 feet. Do not approach nests, individual adults, or loon chicks. Do not camp, picnic, or run dogs on islands potentially used as nest sites by loons (esp. from spring ice-out until July 4).

Respect slow-no wake zones and rules. Because loons nest right at the water's edge, wake from boats and personal watercraft can wash eggs out of the loon's nest.

Don't fish next to a loon. Loons can mistake lures and jigs for their live prey items. Every year loons die from swallowing lures and entanglement in fishing line.

Use non-lead fishing tackle. Loons, eagles, swans, and other water birds die from ingesting lead fishing tackle. Small sinkers and jigs seem to be the biggest problem, and only one lead sinker will kill a loon from lead poisoning. Of 12 dead loons turned in by the public to DNR for a new loon health monitoring program in 2006, six died from lead poisoning from lead fishing tackle.

Check your boat for aquatic invasive species. Before you launch your boat or after you trailer it, please check the boat propeller, trailer, and other places for invasive plants such as Eurasian water milfoil and curly-leaf pondweed.

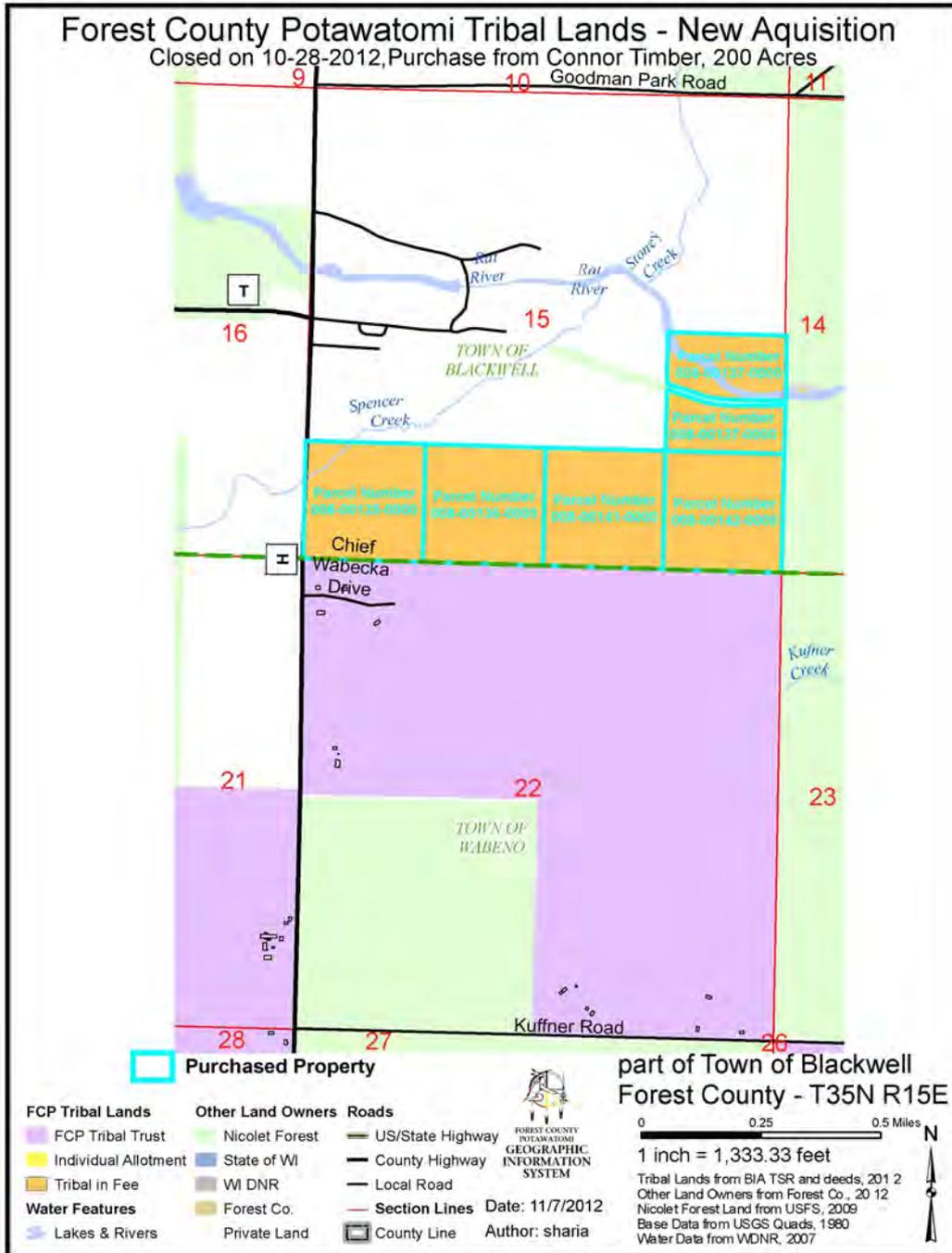
Leave native vegetation and woody debris on the shore and in the water. Removal of woody debris from the water has been documented to cause population crashes in perch populations on a lake. Perch are the primary food for loons so a crash in the perch population may result in less food for chicks and loons abandoning their use of a lake.

Use four-stroke motors or no motors at all. Four-stroke motors contribute less pollution to the water and air. They are more efficient and use less oil-based products compared to older two-stroke motors. Hundreds of loons (for some states this is equal to their entire population) can die in one oil spill.

NEW LAND PURCHASES

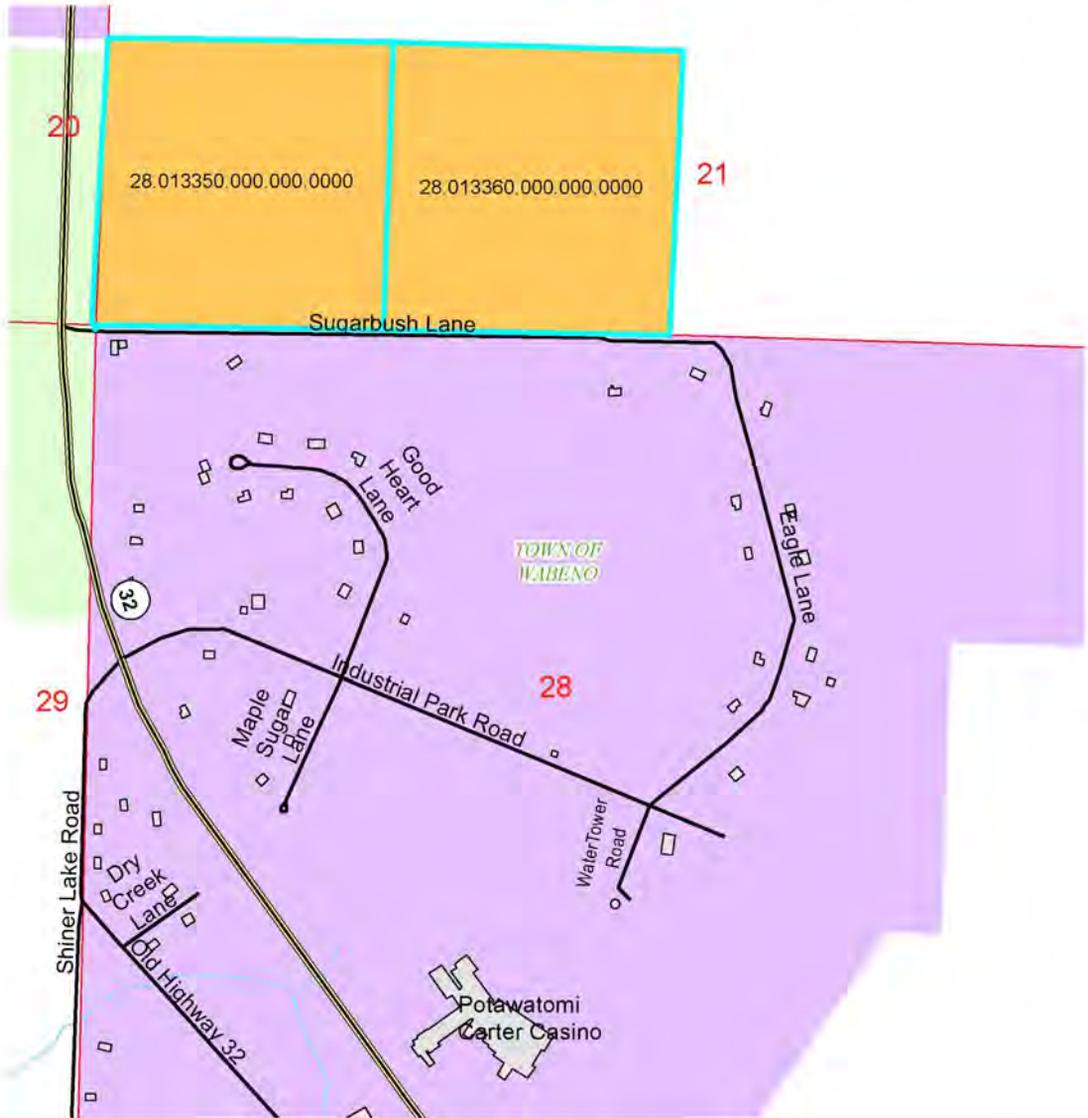
The FCPC is continually expanding their land base and since October the tribe added 960 acres. 400 of these are in the Stone Lake area and came from the settlement with Forest County, the "880 Litigation". 200 acres just north of Chief Wabecka Drive were purchased in the Blackwell area and 280

acres of former State of Wisconsin lands east of Blackwell are now tribal fee lands. And finally, closing on December 31, 80 acres just north of Sugarbush Lane in Carter were purchased.



Forest County Potawatomi Tribal Lands - New Aquisition

Closed on 12-31-2012, Purchase from Ian Connor, 80 Acres



Purchased Property

FCP Tribal Lands

- FCP Tribal Trust
- Individual Allotment
- Tribal in Fee

Water Features

- Lakes & Rivers

Other Land Owners

- Nicolet Forest
- State of WI
- WI DNR
- Forest Co.
- Private Land

Roads

- US/State Highway
- County Highway
- Local Road
- Section Lines
- County Line



Date: 1/8/2013
Author: sharia

part of Town of Wabeno
Forest County - T34N R15E
S 1/2 of the SW 1/4 Sec. 21

0 0.1 0.2 Miles

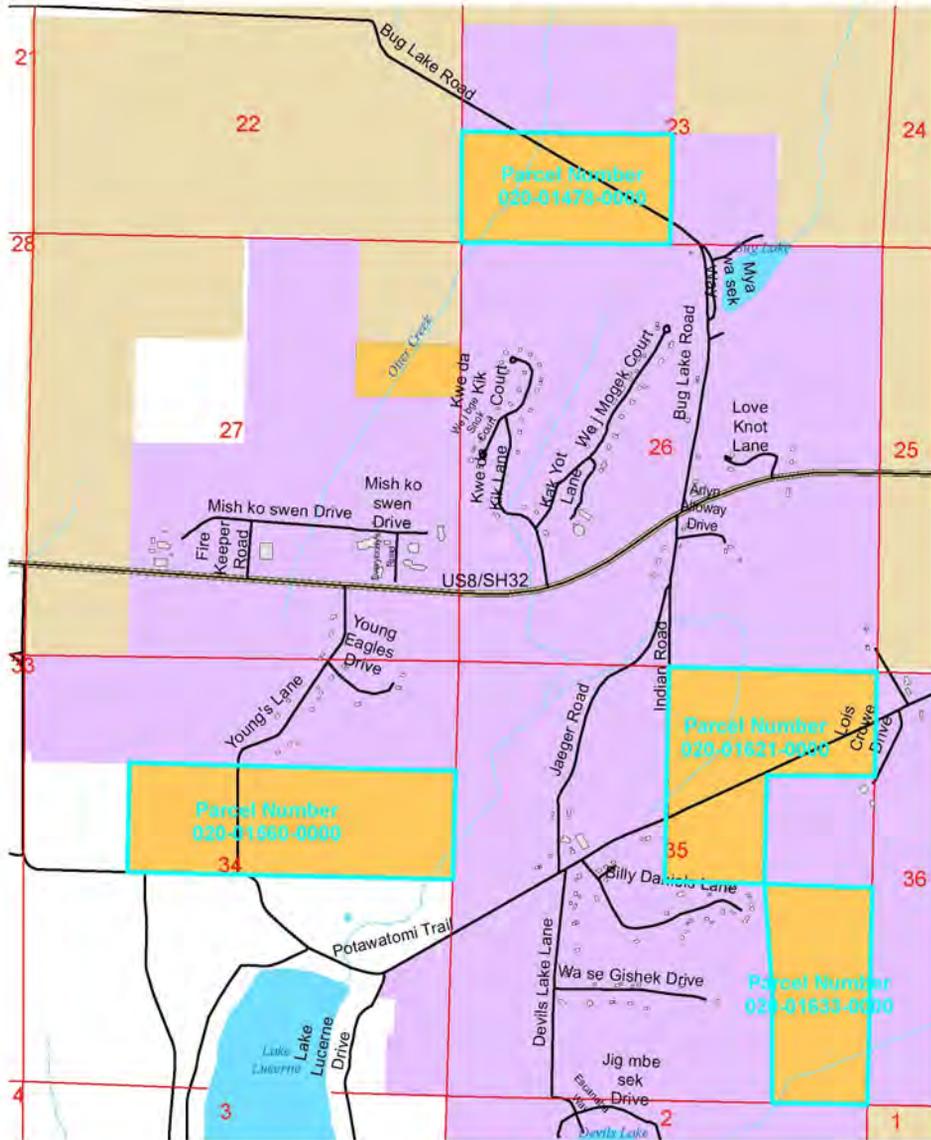
1 inch = 700 feet

Tribal Lands from BIA TSR and deeds, 2012
Other Land Owners from Forest Co., 2012
Nicolet Forest Land from USFS, 2009
Base Data from USGS Quads, 1980
Water Data from WDNR, 2007



Forest County Potawatomi Tribal Lands - New Aquisition

Closed on 10-22-2012, 880 Litigation Settlement FCP v. Forest County , 400 Acres



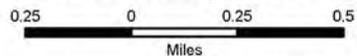
Purchased Property

- | | | |
|-------------------------|--------------------------|------------------|
| FCP Tribal Lands | Other Land Owners | Roads |
| FCP Tribal Trust | Nicolet Forest | US/State Highway |
| Individual Allotment | State of WI | County Highway |
| Tribal in Fee | WI DNR | Local Road |
| Water Features | Forest Co. | County Line |
| Lakes & Rivers | Private Land | Section Lines |



Date: 10/31/2012
Author: sharia

part of Town of Lincoln
Forest County - T36N R13E



1 inch = 1,891.7 feet

Tribal Lands from BIA TSR and deeds, 2012
Other Land Owners from Forest Co., 2012
Nicolet Forest Land from USFS, 2009
Base Data from USGS Quads, 1980
Water Data from WDNR, 2007



LIGHTING

Lighting accounts for 5-10% of the total energy use in the average home and cost \$50 to \$150 per year in electricity. This may not sound like a huge amount, but there are a wide range of benefits that arise from using high-efficiency lighting.

Types

Incandescent lamps (or bulbs) are the most common lighting type currently used and are available in all shapes and sizes. The problem with incandescent lamps is that they are a very inefficiency technology; only 10% of the electricity they use is actually converted into useable light – the rest is wasted.

Compact fluorescent lamps (CFL's are becoming more popular as a highly efficient alternative to the standard incandescent bulbs. A single 20-watt CFL will provide the same amount of light at a 75-watt incandescent bulb and last up to seven times longer. Because CFLs use less energy and last longer, the savings can add up to several times their purchase price each year through reduced electricity bills and fewer replacements.

Models on the market today are comparable in light quality to incandescent lamps and are easily comparable with standard screw-in lamp fixtures of several common styles. For the best compatibility with standard size screw-in fixtures, look for the spiral-shaped mini sub-compact fluorescent lamps, which are smaller than conventional CFL's.

Fluorescent lamps depend on trace amounts of mercury to operate. Mercury is a toxic substance and consumers should be aware of household products that contain it. However, it is important to note that CFLs save 2-10 times more mercury from the environment than they contain by avoiding pollution from coal fired power plants. The amount in each bulb is not significant enough to pose a health risk in your home, but they should be disposed of properly. The Forest County Potawatomi Solid Waste currently has a CFL disposal program and for more information contact Jeff Marshall at 478-4817.



Halogen lighting is the lighting option of choice where high light quality or precise light focusing is required. A halogen lamp is slightly more efficient than a standard incandescent lamp, but not as efficient as a fluorescent. In situations where light is needed on a precise area, halogen lights may be a more effective choice than fluorescent lights due to this tight focusing feature.



Energy Saving Tips

- Make use of Natural Day lighting
Rearrange furniture to maximize daylight useful for reading, cooking or other work. Also consider painting your walls a lighter color so that light is reflected back in to the room instead of being absorbed in to the walls.
- Reduce background light levels and rely more on task lighting

Concentrate light just where it is needed by keeping ceiling lights turned off and by using smaller track lights and table or floor lamps.

- Switch to compact fluorescent lighting (CFLs)
This is the simplest way to shave significant amounts off of electricity bills.
- Switch to LED holiday lights
Decorative LED string lights are now widely available in white and a range of vibrant colors including multi-color sets. These lights provide a more durable and low-energy alternative to traditional holiday lights.
- Turn lights off and/or install sensors

If you can't get in the habit of turning off lights, install occupancy sensors that will turn lights on and off when you enter and leave a room. Other control options include light-sensors (for outdoor fixtures), timers and dimmers.

Currently, energy is there when we need it – so it's easy to not consider where it comes from and how much it costs. Unfortunately, most of the energy sources we depend on, like coal and natural gas, cannot be replaced. Small efforts we make now, can go a long way in to protecting these resources for the future and saving all money now.

USDA APPOINTS NEW MEMBERS TO THE FOREST RESOURCE COORDINATING COMMITTEE

WASHINGTON, Jan. 22, 2013 - Agriculture Secretary Tom Vilsack recently appointed eight new members to the Forest Resource Coordinating Committee, which provides advice on private forestry and USDA's programs that assist landowners in managing their forests to protect, conserve and enhance the values they produce.

"The USDA Forest Resource Coordinating Committee's new members will help us continue to make the right decisions for our rural communities, generating jobs, sustaining economic growth and conserving our working lands for future generations," said Agriculture Under Secretary for Natural Resources and Environment Harris Sherman.

The appointed members are:

- Leda Chahim, Washington, representing conservation organizations
- Anthony Delfin, New Mexico, representing state foresters
- Daniel Forster, Georgia, representing state fish and wildlife agencies
- Allan Murray, Wisconsin, representing tribes
- Tammie Perreault, Washington, representing non-industrial private forest landowners
- Bettina Ring, Virginia, representing conservation organizations
- Steven Sinclair, Vermont, representing state foresters
- Bonnie Stine, Florida, representing USDA-authorized state technical committees

The new committee members join eight previously selected members and the heads of four USDA agencies – the Forest Service, Natural Resources Conservation Service, Farm Service Agency and the National Institute of Food and Agriculture.

USDA has a special interest in assuring that women, minority groups and persons with disabilities are adequately represented on this advisory committee. The Forest Resource Coordinating Committee provides expert counsel on actions and funds allocation that enhance the diversity and public benefits of forests. Important areas of focus include wildfires, natural disasters, insect and disease outbreaks, the economics of forest ownership, air and water quality, public policy related to private forests and wildlife habitat.

The full committee will meet April 11-12, 2013 at the Forest Service headquarters building in Arlington, Va.

USDA is an equal opportunity provider, employer and lender. To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Ave., S.W., Washington, DC 20250-9410, or call (800) 795-3272 (Voice) or (202) 720-6382 (TDD).

2013 WINTER CARNIVORE CAMERAS



07:35PM

FCPC19



/28/13

01:04AM

FCPC21



23°F



01/26/13

02:57PM

**LAND & NATURAL
RESOURCES
DEPARTMENT**

5320 Wensaut Lane
PO Box 340
Crandon WI 54520

Phone: 715-478-7222
Fax: 715-478-7225
E-mail:
ericka.mcgeshick@fcpotawato
mi-nsn.gov
[www.fcpotawatomi.com/
government/natural-resources](http://www.fcpotawatomi.com/government/natural-resources)



**LAND & NATURAL RESOURCES
BUILDING CONTACTS**

Al Murray	Forest Manager	4973
Ashley Fehrenbach	Botanist Program Manager	4193
Ben Koski	Aquatic Biologist	4436
Bill Alloway	Natural Resources Technician	7210
Casey Swanson	Land Manager	4988
Cheryl Frank	Land Use Office Manager	4982
Danielle Fatla	Land and Natural Resources Administrative Assistant III	4192
Ericka McGeshick	Receptionist/File Clerk	7222
Frank Shepard	Natural Resources Assistant Director	4942
Heather Stricker	Wildlife Program Manager	4196
Jason Spaude	Natural Resources Technician	7207
Jeff Marshall	Waste Management Specialist	4817
Jim Gumm	Forestry Technician	4976
Joe Cebe	Air Quality Specialist	4435
Joe Shepard	Wildlife Technician	4962
Lawrence Daniels	Natural Resources Director	7213
Matt Steinbach	Water Resources Program Manager	7361
Michelle Berdan	Planning Administrative Assistant I	4944
Natalene Cummings	Air Quality Program Manager	7211
Nate Guldán	Land & Natural Resources Division Director	7205
Pat Pete	Tribal Planner	4704
Scott Cleereman	Forestry Sales/Community Forest Coordinator	4974
Shari Alloway	GIS Specialist	7224
Solid Waste Recycling/Collectors	Tony Daniels, Francis Shepard, Greg Kitchell, Phillip Wamego	7330