THE FOX TALE Vol. 40, Issue 1 Spring 2016



1816, a Year to Remember

by Jeff Ormisto

In the early spring of 1815 the garrison at Ft. Wayne in the Indiana Territory was looking forward to the warm breezes brought by the passing of the vernal equinox. The thought of fresh vegetables from the fort's gardens made Pvt. Peter Diffendaffer's mouth water as he huddled next to the barrack's fireplace in the early morning. News from the east indicated there would soon be an official treaty signed with Great Britain that would officially end the war in the western country and the siege of the fort in 1812 was gradually fading from the memory of those soldiers unfortunate enough to be involved in that conflict. The Native Americans near the fort and under the "protection" of the Indian agency at Ft. Wayne were gathering in anticipation of distribution of their annuity payments by Indian agent Benjamin Franklin Stickney. Benjamin was looking forward to being at the fort with his family for his birthday on the first of April.

Half a world away on the small island of Sumbawa, north of present day Australia, an active volcano was coming to life. Mt Tambora had been rumbling off and on for many months and the activity increased day by day in early 1815. On April 10th, 1815 the largest volcanic eruption ever witnessed on planet earth blew the top 5,000 feet off of Mt. Tambora and shot nearly ten cubic miles of volcanic ash into the stratosphere of the third planet from the sun. The blast was heard in Sumatra, 1,600 miles away. Tambora continued to erupt through July 15th, 1815 and added a total of 400 cubic miles of volcanic ash to the earth's stratosphere. Back in the Indiana Territory these events went unnoticed by its 60,000 residents as well as the general population of the United States, North America and Europe. The eruption went unnoticed, that is, until the spring of 1816. The ash blown into earth's stratosphere in April of 1815 became a cloud in the northern hemisphere that insulated the earth from the warming and lighting effects of the sun by April of 1816. By the time President Madison signed Indiana's Enabling Act on April 19, 1816 the "Year without a Summer" was just beginning. With the signing of the Enabling Act the way was clear for Indiana to become a state of the union by year's end, but 1816 was a time of hardship for the resi-



dents of the territory. March of 1816 was cold and windy but as April progressed the temperature moderated. That was not to last long. Every month, in 1816, was plagued with ice and snow in Indiana Territory and New England in particular. During June, in Vermont, 10" of snow covered the ground; 7" in Maine. July 4th was bitterly cold and any crops that had been planted and had germinated were dying due to the cold. Any trees that had leafed out were in the process of losing their rapidly dying leaves. As the summer continued many residents of the North East United States were moving south and west to get away from the intolerable conditions in their states. No corn crops survived in New England and replanting was fruitless. 47,000 people moved to Indiana territory in 1816 including Tom and Nancy Lincoln and their children Sarah and Abe. Though they were living not far from the Ohio River the unseasonal cold could be felt inside their small cabin.

Approximately 13,000 people were killed outright from the effects of the eruption and another 60,000 people died, in 1816, from the resulting world-wide famine caused by crop failure and livestock mortality. The effects on the natural world were equally catastrophic: in Maine, starving wolves began eating domestic livestock, SO a bounty of \$40 was placed on the wolves. Finally, by late spring of 1817 temperatures started to return to normal, and planet earth started to repair itself.

As bad as the weather conditions were in 1816, Indiana did become the 19th state to enter the union on December 11th. The garrison at Ft. Wayne was moved to Mackinac Island in 1819 causing Benjamin Stickney to lose his job as Indian Agent. So he moved his family near the mouth of the Maumee River and began to purchase land, which would later become Toledo, Ohio. Indiana continued to grow and became known as "The Crossroads of America," became the leading steel producer in the U.S. and became a major supplier of hardwood lumber in North America. Back in Indonesia, the first expedition back up the slopes of Tambora took place in 1847, led by Heinrich Zollinger. He found that vegetation had begun to return, and resettlement of the slopes of the mountain began in 1907.

For further reading: "The Year without Summer: 1816 and the volcano that darkened the world and changed history" by Wm. and Nicholas Klingaman

Do you count bluebirds?

By Natalie Haley, Photo by Paul Lawson

I have been a juvenile birder for the past 25 years. What does this mean? It means that I am not ignorant, nor completely lacking in Ornithological knowledge, as like that of a juvenile eagle. However, I am not a mature expert in the land of Ornithology, the study of birds. I would like to enrich my birding knowledge by monitoring Eastern Bluebirds at Allen County Parks over the present year. My research has already revealed "proper" bluebird box design, maintenance and repair. Many bluebird websites expound on the various competitors and predators of the bluebird's not-so rose-colored world. Tips abound for monitoring the bluebird trails that have long since been installed at Fox Island and most especially at Metea County Park. The Indiana Fish and Wildlife still present an accurate description of nesting and food habits as well as an accurate status and general distribution of Eastern Bluebirds in Indiana. Some bluebirds do overwinter in Indiana, subsisting on winter berries and suet or animal fat.

The Eastern Bluebird (*Sialia sialis*) is a small seven-inch member of the thrush family. Other thrush birds include the American Robin, and the Wood Thrush. All three have short blunt-tipped bills and relatively long legs in proportion to their body size. They are known for their flute-like songs. They eat insects, snails and fruit. Eastern Bluebirds are mostly solitary, but will form flocks and forage in the open.

Bluebird boxes have achieved many architectural designs. From the Peterson's bluebird box to the Gilbertson box, you will find an array of design flaws and issues to take into consideration. Some of the key points to consider are the size of the entry hole, proper drainage and ability to keep out predators. The entry hole needs to be 1 ½ inches wide and should never have a perch in the front of the hole. You will also need four corner drainage holes in the bottom to allow a damp nest to dry, thereby keeping the nestlings from getting too cold or wet. Proper vents at the top of the box will also allow heat to vent out, thereby preventing the nestlings or eggs from getting too warm during the dog days of summer. Do not use any form of paint or stain especially on the inside of the box, nor any treated wood, due to their toxicity. You will want a slanted roof to shed rain, a long overhanging roof to shade the box, and seven interior grooves on the inside of the front panel to act as a fledgling exit ladder.

To properly monitor your bluebird box or box trail be prepared to check the boxes at least once per week from early March through August, recording your observations as you go along. Possible recordings should include the number of nesting attempts, the number of successful broods (usually 2, possibly 4), the total number of eggs in each clutch (usually 4-5 light blue or white eggs) and the number of bluebirds that successfully fledged. Many people are hesitant

to interact with a bird in such an aggressive manner. They worry that they may scare the adult parents away from the nest. The first thing to understand is that bluebirds have no sense of smell, so if you touch the nest they will not abandon it. The other thing to understand is that you should refrain from monitoring the nests on cold, rainy days; especially if they have young nestlings that are currently being kept warm by the adult female. If you scare momma-bird away, the nestlings may become too cold before she returns.

Incubation of the eggs lasts 12-14 days. Nestlings will often hatch in the first two hours before dawn. It seldom takes more than a day for the entire clutch to hatch. The parents will start feeding soft insects to the chicks within an hour of hatching. The first time you check a box of nestlings, you may find that not all of the eggs have hatched. Unhatched or infertile eggs do occur in 10-15% of nests. Wait four or five days after the other eggs have hatched before removing the unhatched eggs. Be very aware of when the nestlings have hatched. You may only open the box to check on the nestlings for their first 12 days. Opening the box after this point may scare the young nestlings into fledging (leaving the nest) too early. Nestlings remain in the nest 18-21 days before they fledge. The range is dependent on the amount of food they receive and the weather conditions during this period.



Once they fledge, the parents may remove them to nearby cover to continue to feed and raise their young. Remove the bluebird nests and those of other birds as soon as the young birds have fully fledged from the nest. Bluebirds will not reuse old nests as a natural preventative to disease and parasites. Bluebirds will not nest in a box occupied by wasps, ants, or gnats swarming over their un-feathered nestlings. Use a pyrethrin-based product sparingly only after trying to spray out the box with a strong stream of water if you discover parasites. You should also create a band of axle grease around the mounting pole to stop ants. You may remove and replace the entire nest if you discover fly larvae (maggots). Ewwwww, I know. The nestlings may be examined for maggots (especially under the wing). Remove these and the infested nest far away from the nest box.

House Sparrows and European Starlings are known to kill adult bluebirds and destroy eggs and nestlings. Neither House Sparrows nor European Starlings are protected native birds. Always remove House Sparrow nests immediately. House Sparrows will begin nesting before bluebirds so some bluebird monitors will plug the entry hole at the end of the bluebird nesting season (October is good) and leave it plugged until bluebirds arrive in the spring. If Tree Swallows take over half of your boxes, place two boxes 10-15 feet apart (box-pairing) such as what you see in some locations at Metea County Park. Bluebirds will not nest in both as they do not nest within 100 yards of each other. Avoid placing bluebird boxes within 300 feet of brush or trees (wren habitat). Wrens will peck holes in bluebird eggs and place a stick nest over the existing bluebird nest. Face the box away from prevailing winds and towards a tree or shrub for future fledging. **Continued on page 4...**

The Fox Island Library

By Kate Sanders

How often have you been hiking along a trail and thought to yourself, "I wonder what THAT is?" It has happened to me many times. If you are at Fox Island, and there is no Naturalist in sight, I know where you can find your answer. The Nature Center at Fox Island has a library! The books cannot be checked out or leave the Nature Center, but please feel free to use them while you are there.

You can look up that bird, tree, mushroom, track, plant, or many other things you might happen across. In addition to field guides, the library has many other books about the natural world. You can read about The Natural Heritage of Indiana by Marion T. Jackson, and many other interesting topics. So, the next time you are at the end of a hike, or a cross country ski, or a swim, and are not quite ready to go home, or see something and want to know what it is, stop by the library and discover a new friend in a book.



Enjoy Your Hike without Ticks by Russ Voorhees

Spring is here, and along with it come thousands of ticks, especially this year since we had a mild winter. There are several things you can do to tickproof yourself so you can enjoy your day out in nature. It was on these very pages some 20 years ago that the first warning to The Fox Tale readers went out from the late Allen Boger, Purdue Extension Agent. He had been bitten by a tick in Brown County and came down with flu-like symptoms of headache, aching joints, and fever, with a red bulls-eye developing. Since it was July, he knew it was not the diagnosed flu and finally convinced his doctor to begin an antibiotic treatment for Lyme disease. According to the CDC, Indiana has seen a 72% increase in Lyme patients since 2012. Unfortunately ticks not only carry Lyme but co-infections such as Babesiosis, Anaplasmosis, and Rocky Mountain Spotted Fever.

Indiana is home to 15 different types of ticks, but only three species bother humans. 95% of Allen County ticks are generally classified as American Dog Ticks, which are brown with creamy white streaks on the back. In their last annual report, the Allen County Board of Health reported three patients being treated for Rocky Mountain Spotted Fever from this tick. The Lone Star Tick is easier to identify by the white spot on top of a brown body. This one carries several diseases, but the most unusual one is a Red Meat Allergy. An Indiana DNR worker contracted this one last year and can no longer eat any type of meat without getting deathly sick to his stomach.

The third species is the Black-legged Tick or Deer Tick which carries Lyme. This tick has black legs and body. The female has a reddish-orange color on the back half of her body. The only Deer Tick I have found around here in the past three years was at Chain O' Lakes State Park, although there are many more in northwest Indiana and southern Indiana. Fortunately, Fox Island and Metea have wide trails and very few ticks are picked up. In 2014 Indiana had 110 new cases of Lyme and Allen County had seven. In the same year Fort Wayne doctors treated more than 50 patients with residual Lyme disease symptoms from past years. Deer Tick at the small, immature nymph stage (about the size of a poppy seed) are responsible for almost all of the Lyme cases from May (above 40 degrees) through July.



It is rather simple to avoid encounters with ticks. First spray yourself with OFF or Cutters, especially your legs, shoes, and arms. Some prefer to use organics like Lemon Eucalyptus Oil, NEEM Oil, or Picaridin Insect Repellent (black pepper plant). Wear boots or tuck your pant legs into your socks. Light colored clothing makes it easier to spot ticks, and wearing hats keeps them from crawling up in your hair. Stay in the middle of a hiking trail, and avoid getting off the trail into high weeds. After hiking in a known tick area, wash and dry your clothes on high heat. Take a shower, wash thoroughly, and check your body for ticks. A little bit of preparation and caution will help you avoid a potentially long painful medical recovery that could change your life forever!

If you do find a tick attached to you or your children, do not use nail polish, dish soap, Vaseline, or matches to remove it. These will only cause the tick to regurgitate its germs into your bloodstream. Take pointed tweezers, grab hold of the tick as close to your skin as possible, and pull straight up. Then wash the wound and your hands with soap and water or alcohol. Save the tick in a bottle or baggie for later identification in case illness develops. Generally, removal within 24 hours prevents bacteria from entering your body.

You have now learned how to outwit the ticks so you can continue to enjoy the wonders of nature and the beauty it holds!

For more information go to www.cdc.gov/ticks or https://extension.entm.purdue.edu/publichealth/insects/tick.html



Top Ten Reasons to Study Bugs

From Cornell University, (which conveniently has an entomology program)

- 10. The Nobel Prize in Physiology and Medicine has recently been awarded to biologists studying insects. How will you know which bug to work on for your Nobel Prize, unless you study insects?
- 9. Over half of the 2 million species in the world are insects. So if you're interested in biodiversity, you'll need to study insects!
- 8. Many physiological processes, such as nutrient-specific hunger, are similar in all animals, but easier to study in insects.
- 7. Many serious diseases have insect vectors. You'll need to know insect biology if you want to cure a disease.
- 6. More insect genomes have been sequenced than those of any other organism. To study DNA, insects are a great place to start!
- 5. Insects have been around for 350 million years and have evolved solutions to many engineering problems. The new field of biomimetic design builds on the functional morphology of insects.
- 4. Insects live on all continents. Small flies even live year round on Antarctica! So you can travel the world, and work with insects wherever you go.
- 3. If you study insects, you could go on to graduate schools or get jobs at nonprofit organizations, such as the Nature Conservancy or museums.
- 2. Insects affect billions of dollars in agriculture, both for good as pollinators and for bad as herbivores damaging crops. Study such insects and you can help society.
- AND... THE TOP REASON TO STUDY BUGS IS THAT BUGS ARE JUST TOO COOL



Do you count bluebirds?

(Continued from page 2.)

Wrens and Tree Swallows are protected native birds, so do not remove their eggs, but you may remove wren nests prior to egg-laying. Male wrens are known for stuffing twigs inside many nest boxes (dummy nests) to stake claims on them until the female arrives to build a softer nest among the twigs. Remove all nests and any dead nestlings (it can happen) away from the nesting sites. Save old nests in order to replace any wet nests found during the first 12 days after hatching. Place the nestlings in a cloth in a box, make a dry grass cup-shaped nest to replace the old nest before carefully placing the nestlings back in the new, dry nest. Wet nests can easily kill new nestlings. You may freeze old nests to kill any parasites in the nest. Protect boxes against snakes, raccoons and other predators. Raccoon guards may be placed over the entry hole to prevent them from reaching in the box. Pole guards or baffles are also a great defense. The box should be attached five to six feet above ground as well to prevent squirrels from jumping directly from the ground to the box.

All in all, the beautiful bluebirds will continue to return to Indiana after people removed the many fence posts and wild trees that grew along the edges of farm fields and served as nesting habitat for the bluebirds. If you clean up your wildlife trees along field edges you are removing all natural bluebird habitats. Do not use insecticides in the open areas surrounding the nest as the bluebirds ingest these insects and feed them to their young.

Fox Island's Central Mudminnow

By Jeff Ormiston

Each year many Fox Island visitors come to Fox Island to try their luck at catching Bowman Lake's variety of game fish including Bluegill, Crappie, Large Mouth Bass and more. Some are successful and some are only able to enjoy the scenery and escape from the busy world outside our main gate. Another fish caught by our younger visitors is the Central Mudminnow (*Umbri limi*) using only a dip net or mosquito cup. Mudminnows, more related to the pike than a true minnow, are a plentiful resident of the Nature Center Pond, readily caught by school groups as part of our pond dipping programs. The Central Mudminnow gets the name from its practice of burrowing into the mud and sediment at the bottom of a pond and surviving dry periods while other fish would die due to lack of oxygenated water. The buried mudminnow enters into a dormancy called "aestivation" which is similar to hibernation. The mudminnow also has a modified swim bladder that acts as a lung to help with survival during these times of drought. During the very dry summer of 2012 the Nature Center Pond was reduced to a small mud pool in the normally water filled pond. True to nature, the mudminnows survived until the fall rains to the delight of the fall pond dipping young people. Mudminnows, dark brown and striped, grow to about 1½" to 2 1/2" and eat crayfish, snails and other aquatic invertebrates. Early this spring, right after the ice left the Nature Center Pond, the mudminnows had traveled through the drain pipe at the east end of the pond and were churning the water in the shallow water in the wooded wetlands east of the trail. I was able to catch a few by hand in the ice cold water and hopefully they found their way back to the pond to be netted and adored later this spring.



Little River Wetlands Project, Inc. will once again be hosting Earth Day Fort Wayne at Eagle Marsh

April 24, 2016, from 1pm - 5pm

Meet at Eagle Marsh for this family-friendly event with something for everyone, from a decorated rain barrel contest to booths featuring conservation tips, wetland/nature presentations, free Earth Day Fort Wayne T-shirts for the first 200 attendees, children's activities and more.

The Fox Island Alliance will be staffing a table in the non-profit tent as well as handing out information about the Allen County Parks.

Anyone interested in volunteering is encouraged to sign up online at:

https://www.volunteersignup.org/7E4EF





Allen County Parks will once again be hosting Sol Fest at Fox Island County Park April 30 and May 1, 2016, from Noon to 7pm

The proceeds for this event go to the Allen County Parks Youth Scholarship Fund which provides travel expenses to local school groups taking advantage of our parks facilities and naturalists and scholarships for children attending Summer Camps. The Fox Island Alliance will be staffing a tent at the beach displaying a selection of the local fauna of Bowman Lake as well as handing out information about the Alliance..

Vera Dulin Wildlife Observation Building Open House During Sol Fest from Noon—5pm

Volunteers will be needed to staff the tent as well as the open house. Anyone interested in volunteering is encouraged to sign up online at:

https://www.volunteersignup.org/PD3B4



Kit Kapers: Fox Island Park for Kids

A Frog That Speaks Its Name?

By Pam George



Do you think frogs might really talk? Well, one local species is one of the earliest critters to broadcast its name in early spring. In fact, its song can be heard over one mile away. The male gives off a crisp "peep" about every second to attract the attention of a near-by female. So, in reality, this springtime anuran (has no tail) does speak its own name - "Peeper".

The scientific name for a Spring Peeper is *Pseudacris crucifer*. Pseudacris means "false locust" because some people think its mating call sounds like a cricket chirping. Crucifer refers to the identifiable black cross on its back.

How does such a tiny creature make such a loud sound? The male Peeper has the ability to close off his nostrils, close his mouth, and force air from his lungs into the air pouch

under his chin. As the air sac expands and contracts, air is forced over his vocal chords. The shape and size of these chords produce his special song. The Spring Peeper can make such a loud sound because his air sac is proportionally larger than most frogs.

With such volume, why don't the frog's ear drums burst from the extreme vibrations? There is a special neural connection with its lungs that causes this organ to vibrate with the same intensity as the ear drum. Thus the pressure on the inside is the same

as the outside pressure. When numerous Peepers are calling at the same time, you may think you're hearing the sound of sleigh bells in the middle of summer!

Making a BIG Sound! Actual Size [< 1" - 1.5"]

Found in wooded areas or near grassy vernal ponds, these tiny amphibians are rarely seen. But their nighttime whistling is a good sign that winter is over.

Their tannish, light-brown color makes these frogs difficult to spot as they hop among the loose litter on the forest floor at Fox Island or use their slightly webbed feet with disc-like toe pads to cling to the bark of a tree.

Female Peepers are usually lighter in color and are slightly larger than the males.

Both male and female Peepers are nocturnal creatures, hiding under leaves and debris from their many predators during the day and emerging at night to feed on such delicacies as beetles, ants, pill bugs, springtails, caterpillars, flies, and spiders.

They mate and lay their gelatinous mass of eggs in shallow waters that are free of fish. Within one to three months, depending on the temperature, the adult frogs emerge and spend the rest of the year in the forest. In the winter, they actually freeze like icicles under logs or behind loose bark on trees, waiting for the spring thaw. Since they don't have to burrow down below the frost line like most of the larger frogs and toads, they thaw quickly during the first warm days of spring and therefore, win the prize as one of the earliest trumpeters of the arrival of spring.

So, the next time you are out hiking near the numerous vernal ponds at Fox Island, follow the sounds of these Peepers and see if you can spot one right beneath your feet before it hops away!

I Wish I'd Known About That!

A statement we hear frequently from our visitors to the Allen County Parks is "I wish I had known about that!" referring to programs and events held at the parks. Over the past year the park's staff has made considerable effort to make sure the events of the parks are communicated to the public.

Allen County Parks publishes <u>"THE WILD GRAPEVINE"</u> quarterly. This publication goes out to all AC Parks annual members and is accessible through the Allen County Parks website. The WGV also is available at the Metea and Fox Island Co. Park's Nature Centers. The Fox Island Alliance publishes this quarterly newsletter, the <u>"FOX TALE"</u> which is sent to all Alliance members and is available in the Fox Island Co. Park Nature Center. These publications list programs and events happening at Allen County Parks.

Other internet sites related to Allen County Parks events:

- On FACEBOOK search: Allen County Parks, Fox Island Park, Fox Island Alliance
- On the Internet search www.allencountyparks.org
- Fox Island has lots of programs for all ages.
- Most require pre-registration and a small fee. To pre-register call 449-3180.

Upcoming Programs for 2nd quarter 2016 Jeff Ormiston

BEES, WASPS HORNETS

May 29, Sunday, 1:30-3 p.m..

Learn about these winged wonders and how they benefit our natural world. Watch our queen honeybee as she interacts with her subjects in the Dulin Observation Building.

Register by 5/20; cost is regular park admission.

SKUNK CABBAGE CLASS/HIKE

April 3, Sunday 1:30–3 P.M. Learn about one of Fox Island's most unusual plants, and hike to the "cabbage patch."

Preregister by 3/28; cost is regular park admission.





VOLUNTEER TRAINING FOR MONARCH LARVA MONITORING PROJECT

June 10, Friday, 1-3:30 p.m. Learn to distinguish the various caterpillar instars, and be willing to help park staff collect data for the University of Minnesota. No charge; preregister by 6/3

HOW TO RAISE A MONARCH BUTTERFLY

June 12, Sunday, 1:30-3:30 p.m.. Learn how to collect, raise, tag and release Monarch butterflies. Leave with a "monarch nursery" to get started. Preregister by 6/3; cost is regular park admission.

"Every morning I take off my hat to the beauty of the world."
-T. C. Steele, Hoosier artist



Fox Island Alliance

Ed Powers 12206 W. Yoder Road Roanoke, IN 46783

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The **Fox Island Alliance** is a volunteer not-for-profit organization. Its purposes are to help preserve the natural features of Fox Island County Park, to assist its orderly development as a nature preserve, to raise funds to facilitate its development, to promote Fox Island's use as an educational center, and to coordinate volunteer efforts.

MEMBERSHIPS EXPIRE ON MARCH 31. CHECK YOUR ADDRESS LABEL TO BE SURE. Use the application to the right and check "Renewal"

www.foxislandalliance.org