



Snowy Owls: Arctic Amblers

The Snowy Owl, *Bubo scandiacus*, is a highly sought-after bird by both birders and non-birders, alike. Their breeding grounds seem unobtainable for most to study as they reside during the summer months above the Arctic Circle in the treeless Arctic tundra. We have recently acquired another Snowy Owl that resides in our freezer at Allen County Parks. Naturally protective of these white and wondrous beauties, we have delved into research on why we are continuing to see an increase in the winter arrival of “snowies” here in northern Indiana.

In their Arctic landscape the Snowy Owl will nest on a hummock or high point on the ground in which the female scrapes out an un-lined hollow and begins to lay her eggs. The average clutch size or number of eggs laid in a brood is one to three. This year, each of the nests in the tundra of northern Quebec revealed five to eight well-fed baby owls or owlets per nest. What drove this change? Snowy Owls have developed a unique ability to search for and find an abundance of their main food source, lemmings! Lemmings, a small rodent of the tundra, will cycle to its highest population number every four years within a specific area. Therefore, once every four years, each particular area of the Arctic tundra will produce plenty of food in which to raise a Snowy Owl family. This also requires snowies to live a very nomadic life in search of areas of high lemming populations. They will not return to the same nesting area each year as they follow the lemming cycles to yield the highest survival rates of their young. In other words, more lemmings, means more food for both adults and owlets. Some clutch sizes have reached record highs of 16 eggs in a nest. So is this good or bad for the snowies? Research indicates that it could sway either way. The female lays her first egg immediately after scraping out the hollow. She needs to incubate it immediately to prevent freezing. She lays one egg every two days. So if she lays 14 eggs, she will have been laying eggs and incubating them for almost a solid month. With each egg taking 32 days to hatch, poor mama will be on the nest for over two months before the last egg even hatches. It takes roughly seven weeks for the new Snowy owlet to fly after hatching. So, raising a large brood of Snowy owlets may take three and half months! This may be skirt close to the season of big snows in the tundra.

The adult male does all of the hunting while the adult female stays on the nest, laying eggs and incubating continuously from the laying of the first egg. A single pair with a brood of eight or nine owlets may consume more than 2,500 lemmings in a single Arctic summer breeding season. Wow!!! If many owl nests are full of 5-16 eggs, which only happens in areas of high lemming populations, this will produce competition between the juvenile young that leave the nest the following winter. Experienced, adult owls will remain closer to the nesting grounds. Others are forced to find winter territories further out, causing an irruption or huge dispersal of Snowy Owls. Not all owls will migrate south, however. Norman Smith, a Snowy Owl bander at Logan International Airport in Boston, Massachusetts for over thirty years, collaborated with Mark Fuller of the Denver Holt Studies in Barrows, Alaska by equipping Snowy Owls with transmitters. They found that the owls from Barrows actually migrated north for the winter and stayed on the pack ice, hunting shorebirds. In Massachusetts, three owls were shot, but the others made it back to the Arctic near Baffin Island, suggesting that some adults may visit the south in a regular migrating pattern, not just during irruptions.

A healthy adult male Snowy Owl weighs approximately 2.5-3.5 pounds. The adult female weighs 4.0-6.5 pounds, heavier than the Great Horned Owls that breed here. The male must be determined to prove he will be a good provider as the female cannot afford to take a chance. The male will display a series of three courtship rituals to prove his value. First, he presents a flight display, descending in flight with wings arched above his back, flapping upwards to repeat. Next, he will deposit a pile of lemmings to the feet of the female to establish he will be a good hunter and provider. Finally, the males go through a variety of wonderful and strange poses and before fawning in front of the female to complete his amorous display! Determining whether a Snowy Owl is a male or female is very difficult and risky at best in the field. Please do not assume that all white, or mostly white Snowy Owls are males and that all darker Snowies are female. Also, not all of the extremely dark owls are juveniles or young owls. This is often incorrect. The last bird hatched in a clutch is invariably darker than the first, regardless of sex.

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Without blood samples, you may look at the secondary flight feather (number four) on the wing. The female owl has a darker mark that touches the feather shaft, making it a “bar”. The male dark mark will not touch the feather shaft, making it known as a “spot” or “blotch”. You may also look at the darker markings on the tail. Females will have three, or more, bars on the tail; while the males possess three or less. It is important to also note that the terminal dark tail band extends from edge to edge of the tail feather on females, but will not reach the edge of the feather in males. Males also have thinner bars on the tail feathers than the females. Don’t feel bad if you are not really great at this. Carl Linnaeus, the father of taxonomy or classification, didn’t realize that both the males and females were of the same owl species! Check out NPR’s Skunk Bear you-tube video for some fun information: <https://www.youtube.com/watch?v=HXwrB216bgE>.

In the treeless tundra, the high points chosen for nesting allow for long views to spot predators, but little protection from Arctic winds. However, their plumage insulates them similar to that of an Antarctic penguin. Predators in Indiana are often the Bald Eagle. The Snowy Owl may fly at speeds of 55mph and may fly 140 miles/stretch. At age three the owl will seek out a mate. When they irrupt or are forced to migrate further south to states such as Indiana, they are not picky in their food source. They seek out voles, mice, rats, rabbits, cats, small birds, waterfowl (geese too), great blue herons, gulls and other raptors such as American Kestrels, Northern Harriers, Short-eared Owls, Peregrine Falcons and even another Snowy Owl. Much of the population will prey on sea birds. According to David Evans, a Snowy Owl bander in the Duluth, Superior area for over 40 years, if the Snowy Owls arrive in October, they will often appear stressed, injured or starving. Generally, they will arrive in mid-November and leave by April. If they arrive in good body condition and weight from their journey, as most do, their chances of survival are commonly good. Keep in mind that juvenile raptors have a mortality rate of 70% in their first year. Many snowies fare quite well here if they can avoid mortalities caused from planes, trains and automobile, electrocution, secondary rodenticide poisoning (don’t poison mice or you will poison their predators!), illegal shooting, parasites and fungal infections.

The Migratory Bird Treaty Act of 1918 between the U.S. and Great Britain, which was later amended to include other countries such as Mexico, Japan, and Russia, protects migratory birds between the above countries, unless permitted by regulations. This Act prohibits the pursuit, hunt, take, capture, kill, attempts to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, delivery for shipment, ship, transport, etc... any part, nest or egg of any such bird. In order to have a migratory bird or bird part (feather, skull, talon, full mount, etc...), one must obtain proper permits with the U.S. Fish and Wildlife Service – Migratory Bird Permit Office in Bloomington, MN. Our permits are for special purpose and salvage and must be reported annually. They request the species common name, where found (State), number of birds, eggs, nests salvaged, and location of final disposition (such as our Snowy Owl mount at Fox Island County Park).

Seeing a Snowy Owl in the wild is a thrilling experience. They are deserving of our respect as they have travelled hundreds, sometimes thousands of miles, after surviving the Arctic as a baby owl! Viewing considerations include not approaching an owl too closely. You will know you are too close if the bird frequently looks at you, sitting erect with open eyes in your direction. Avoid flushing them if at all possible. Please do not approach a Snowy Owl in October as they may very likely be struggling. Wait for mid-November to get within appropriate viewing distance. Do not draw them in with audio recordings. Do not feed Snowy Owls mice or prey that may lead to habituation to people and a higher likelihood of collision or disease. As Snowy Owls are diurnal, they are often found out hunting during the day and the night. This makes sense as they can survive long periods of extended day or night in the Arctic. Please do not use flash photography as this may disrupt their normal activity patterns. We recommend that you view them from a vehicle, with the engine off to avoid interfering with their use of hearing when hunting. It also helps stabilize your viewing pleasure when the car is not vibrating your hands or optics! As always, ask landowner permission before entering private property. Finally, be aware that you don’t block public roadways and access points such as on-ramps, and roundabouts. If you want to share that you have spotted such a wonder, please do not post it until the bird has left the roost. Report it to eBird afterwards as well, www.ebird.org.

In the wild, a Snowy Owl may live up to ten years. We would like you to become protectors and stewards of wildlife by doing all that you can to make sure this decreasing species continues to thrive and visit our “southern” lands here in Allen County, Indiana.— Natalie Haley

Photo by Natalie Haley of a Snowy in Allen County on Dec. 15, 2017



“Thank You, Rodger Rang!”

By Jeff Ormiston

In early September of this year the Fox Island Alliance and Fox Island County Park lost a long-time friend and supporter, Rodger Rang. Rodger was a dedicated birder and his willingness to share his knowledge was something that will live on in all who were fortunate enough to spend time talking with him about birds. Rodger was a regular visitor at Fox Island and it was common to see him, binocs in hand, walking near the Dulin Observation Building or standing on the back deck of the Nature Center watching and listening for the next bird to make an appearance. Rodger also helped on numerous occasions with the Indiana Master Naturalist Classes on “Birds” as a group leader on the trails sharing his knowledge and enthusiasm with the Master Naturalist attendees.

Rodger was also a long time member of the local Stockbridge Audubon Society and supporter of the Little River Wetlands Project. Rodger once told me one of his favorite things to do was to go to Eagle Marsh before sun-up, with a cup of coffee, and listen to the birds as they became active as the sun rose over the marsh.

In the past few weeks Fox Island has been very fortunate to be the recipient of a number of Rodger’s excellent birding books courtesy of Rodger’s wife, Nanette. As you might expect these books are on a wide variety of birding subjects and also include books on butterflies and dragonflies. Several CDs are also included, with the books, including one on frog calls. It is our intention that these books will be kept on shelves in the Dulin Wildlife Observation Building so volunteers and visitors may benefit from this wonderful library that Rodger assembled. It’s an honor to have these books that Rodger valued, and the Fox Island Alliance and the staff of Allen County Parks wish to thank Nanette and daughter Mariesa for sharing Rodger’s wonderful book collection.

And while we’re on the subject of the Vera Building:

It’s only open if there’s a volunteer in there. This is about the easiest volunteer job you can find! And now it will become even better, with plenty of bird related reading material. You could do your birding homework while watching real birds out the window.

You can stay warm, bring your lunch, read the paper, and greet visitors. There is a Winter Birds poster to consult in case you need help with ID. Once, I showed a cardinal to an elementary-age boy, who said he’d never seen one before. We just can’t let that happen!

For many years several devoted volunteers have been in there recording species for Project FeederWatch, or just listing them on the whiteboard.

If you are interested, sign up with Ron Zartman.

- Cynthia Powers

WINTER, WINTER, EVERYWHERE!

By Jeff Ormiston

It's the Winter Solstice! Facial hair and long underwear are now part of my daily attire and my favorite stocking cap adorns my head as the chilly winds blow through my thinning hair. What about mosquitos, and frogs and opossums and Northern Cardinals!? At this time of the year all living things are just trying to make it through until warm temperatures return and how they do that varies considerably. We know some birds opt for flying south for the winter. In the last few weeks wave after wave of Sandhill Cranes can be seen and heard as they navigate to their warm wintering grounds. Northern Cardinals and other overwintering birds feed heavily as the temperatures cool, increase their fat stores and molt into winter plumage that will help them ward off the winter winds. The high metabolic rate of our winter birds make bird feeding an important part of winter bird survival. The high fat content of sunflower seeds and suet makes these a very desirable part of a winter bird's diet.

In winter deciduous trees drop their leaves, transfer water from their living cells to spaces between the cells and generate sugary glycol that fills their living cells. This keeps them from forming ice crystals which would damage the cells during their winter dormant period. This same process also keeps Wood Frogs and Woolly Bear Caterpillars from becoming the victims of sub-freezing temperatures. Wood frogs are not able to dig into the mud in order to keep from freezing so the generation of this cryoprotectant is essential so they will feel the warm spring sun that will thaw their frozen bodies and re-start their hearts and brains. Woolly Bear Caterpillars have taken this glycol production cycle to the extreme. Arctic Woolly Bears, cousins of our brown and black Woolly Bears, have been known to go through as many as 14 yearly freeze/thaw cycles before becoming adult Tiger Moths. Because the growing season of the Arctic Woolly Bear's host plant is so short they need to go through several cycles before they grow large enough to become an adult. Cattail Moth caterpillars wrap themselves in the cattail seed heads by spinning a web inside the head fluff that binds the fibers together so they don't fly away and expose the larvae. As a backup it also loads up with glycol.

It's well known that Monarch Butterflies migrate to central Mexico as part of their survival plan but there are some butterflies, common to our parks, that overwinter as adults. Red Admirals, Mourning Cloaks and Comma Butterflies take a break in mid-summer then re-emerge in early fall to feed heavily before hibernating in the crooks and crannies of the forest. In early spring these butterflies emerge and, lacking flower nectar, feed on sap dripping from woodpecker borings in tree bark.

Mammals have many ways of getting through the long winter nights. Hibernation, dormancy, fat buildup and increased fur coats are all ways that our warm blooded friends persist. The poor Virginia



Opossum is in an evolutionary bad spot. Opossums have many adaptations that have served them well in their ability to survive. Unfortunately the automobile has contributed in a great way to the fact that the opossum has the shortest expected life span for a mammal of their size.

When the early North American settlers first saw the opossum it was an animal of the warmer southern areas of what is now the United States, hence the name "Virginia" Opossum. Unfortunately for the opossum it has expanded its range so quickly that its hairless tail, feet and ears are

extremely susceptible to the cold temperatures in the northern parts of its territory which now includes Canada. Frostbite is a common occurrence for these unprotected body parts.

So, fill the bird feeder, throw another log on the fire, hunker down with a warm beverage and thank your lucky stars that the Vernal Equinox is only three months away!

Naturalist Programs for First Quarter, 2018

For more complete information, check the Parks Newsletter, The Wild Grapevine.

Most require preregistration.

Ron's Cross Country Ski Clinic, January 6 from 10-12. Cost \$10 if renting skis, \$5 if bringing your own. Must pre-register.

Owl Prowl with Ron: January 6, 5:30-7:30 p.m. Hike to listen for owls. Cost \$2

Preschool Discovery Hours with Ron: Tuesdays, 1-2 p.m., cost \$2

Jan. 9, Animal Tracks

Touch a Turtle, Feb. 6

Owls, March 6



Natalie has upgraded the Great Backyard Bird Count to include a potluck lunch! Come on Friday Feb. 16 OR Saturday Feb. 17 from 11:30 a.m. to 1:30 p.m. This event is sponsored by Cornell University Lab of Ornithology and by National Audubon Society. Check out their website at www.birdsource.org/gbbc or contact Natalie at 449-3778. Bring a dish to share.

And the Great Backyard Bird Count continues on the following Sunday and Monday. Natalie will lead hikes from 1:30-3:30 p.m. and data will be added to the website to help gather data on bird survival and ranges. You can do it at home, too!

Natalie's Fox Kit Club Adventures, for preschoolers: These are on Tuesdays, 10-11 a.m., cost \$3/child, \$2/adult.

January 9, "Frogsicles" How do frogs survive the winter?

Feb. 6, "Tree Rings"

March 13, "Thinking Like a Scientist"

April 10, "Animal Sounds" Learn frog and insect language!

Scrapbooking continues, 6 p.m. till midnight! January 5, Feb. 16, March 9,

Must preregister 5 days ahead, \$10 per class. Call Natalie at 449-3246



Junior Indiana Master Naturalist Class, April 2-6 Monday-Friday 9:30-3:30

Designed for children from 9-12 who are really nuts about nature and outdoor play! Learn about reptiles, butterflies, spiders, birds, frogs, local geology and soils, and much more.

MUST PREREGISTER BY MARCH 19 AT NOON; COST \$100. Min. 10, Max 20

Registration forms at the nature center or at www.allencountyparks.org.

Jeff Ormiston's programs for families: These are free with park admission; free to trail guides.

Jan. 27, Saturday 1:30-3:30 History of Fox Island and Surrounding Area

Feb. 24, Saturday 1:30-3:30 Trail Guiding at Allen County Parks. Tips, tricks, and trivia for trail guides

March 25, Sunday, 1:30-3:00 Salamanders, Frogs and Toads

March 30, Friday 1:00-3:00 (Good Friday) Learn about one of the most unusual plants in the park. Meet at the Dulin Observation Building.

Ron Zartman's programs for everyone: Feb. 10, Sat. 2-3:30, Jaunt and Java; at 6-7:30, Coyote Howl

March 3, Saturday, 9:30-11, Frigid Fungi

Tai Chi continues starting March 28, \$50 for 8 weeks on Wednesdays 6-7 p.m. Must preregister.



Kit Kapers: Fox Island Park for Kids

By Pam George



Blueberries In Winter

While hiking the trails at Fox Island on a cold winter morning, the bare branches on the trees rustle and creak over your head, the whistling winds seep through your snug wooly headgear, and the brown, leaf littered ground crunches beneath your feet. All life feels sound asleep. But the forest is still alive with action. Squirrels scamper through fallen leaves looking for left-over acorns. Hardy forest birds who stay all winter long search the trees for hidden insects or winter berries.



Wait, berries? Right! Colorful and durable fatty fruits are an extremely important source of nutrition for overwintering birds, as well as other creatures of the woods. Even birds that are insectivores in summer—like woodpeckers, robins, bluebirds, catbirds and cedar waxwings, start eating berries when cold weather arrives. One of those creatures, the cedar waxwing, is drawn to a special native Indiana tree, the eastern red cedar, that produces what appears to be blue berries capable of surviving the winter. However, the blue berries you may find scattered on the ground under a red cedar tree, are really wax-covered cones with fused scales and three to four precious seeds hidden inside.

The eastern red cedar tree, the only native evergreen tree currently growing in Indiana, is a common sight throughout the state due to its extreme tolerance for a wide range of soil types, especially where limestone is present. Since Indiana used to be covered by a shallow, warm-water ocean, there is plenty of limestone in our soil.

The red cedar is actually a sturdy and durable **juniper** tree, or cone-bearer, with flat, scale-like needles coming off twigs and branches instead of the familiar sharp needles of other pine trees. Its bark is a reddish-brown color, dulling with age. The heartwood at the center of the trunk has a deep red color. It can grow to be a very old tree, some living for hundreds of years.



In fact, the red cedars that grew along the bluffs of Cedar Creek north of the city once inspired the name for Chief Metea's Potawatomi village called Muskawsepeotan, which means "town on the old red wood creek". Records show that many Native American tribes held the tree and products made from the tree in great reverence, and the wood was often burned in purification rituals and sweat lodges. Juniper wood was considered especially sacred, having spiritual powers.

They believed that junipers hardened the body and helped fight off illnesses. Leaves and twigs were boiled and steamed to help with bronchitis and other respiratory conditions. Berries were made into a tea for canker in the mouth and to stop vomiting, and boiled roots were used as a spring tonic. A warm paste of boiled berries was used for rheumatism and arthritis. The wood was also used for numerous items like canoes, bowls, baskets and weapons because it is so resistant to weathering! The blue cones were also processed to produce gin, a practice that continues today. Another modern day use for red cedar is in the manufacturing of pencils.

So, if you come upon an evergreen tree sporting blue berry-like cones on its branches, stop for a moment to honor the spirit within and pull out your magnifier to take a closer look at the tiny blue cones with sweet-smelling seeds tucked inside!

A Collection of Moon Lore

Compiled by Carol Gaham



*When the Moon is at the full, mushrooms you can safely pull.
But when the Moon is on the wane, wait ere you think to pluck again.* - Essex

Been howling at the moon lately? Is your favorite moon saying among these?

Rain is coming when the Moon has a halo around it.

Plant seeds and plants that grow above ground on the waxing Moon and root crops on the waning Moon – except for runner beans and peas which grow counterclockwise (these should be planted during the waning Moon).

The Full Moon will make corn grow tall and pull a vining bean right up the pole.

If a Full Moon also falls on a Friday that is also the thirteenth, it is the most unlucky day there can be.

Mow lawns in the first or second quarter of the Moon to promote growth; mow in the third or fourth quarter of the Moon to retard growth.

Sailors believe that if a large star or planet is seen close to the Moon, there is wild weather coming.

The star is called a “Moon dog.”

If a child is born during the waxing Moon, the next child will be of the same sex.

Never cut your hair, begin a journey, move into a new house, start a business, or cut out a dress on Friday, and especially if a New or Full Moon falls on Friday.

To aim for the Moon means to be very ambitious. To cry for the Moon means you are craving something you cannot have.

The word moonshine has two meanings. In the U.S., it means “illegally distilled liquor,” also known as “white lightning.” An older meaning is “total nonsense.”

A waning Moon is considered an unlucky time for a marriage or birth.

Once in a Blue Moon doesn't mean never; it means rarely.

The Egyptians connected their thirteenth month with the color blue, which was a lucky color.

Many cultures believed that sleeping out in the moonlight or where the moonlight came in through a window would cause mental illness and/or blindness.

The Gaelic word for fortune comes from “that which denotes a Full Moon.”

The word Lunatic comes from the Latin word for Moon, “Luna”.

Murder and suicide rates rise around a Full Moon. More drunk drivers, crashes, and hangovers occur during a Full Moon than any other time. Hospital and accident rates rise about 10% during a Full Moon.

The Moon is thought to influence the formation of hurricanes.

Airline passengers are more difficult to manage on a Full Moon.

The Chinese New Year is celebrated on the second New Moon after the Winter Solstice.

Easter Sunday is the first Sunday on or after the first Full Moon after the Spring Equinox.

Migratory birds appear to follow the patterns of the moon for timing and finding their path during migration. Zoologists note that bears, caribou, and salmon move at the Full Moon.

Cut your hair on a waxing Full Moon to make it grow faster, stronger, and thicker.

Yeah we all shine on, like the moon, and the stars, and the sun. ~ John Lennon



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

Fox Island Alliance Membership Application __New __Renewal

Name _____

Address _____

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Phone _____ Email _____

Check if you would like to receive your Fox Tale by email

Check if you do not want your name published

Check if you are interested in volunteering

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