



ONAPA NEWS

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State park vs. state nature preserve: Do you really know the difference?

By the ONAPA Executive Committee

This seems like a straight forward, easy to answer question. However, it is surprising just how many people, including high-level natural resources administrators who should know the difference, really don't seem to understand what state nature preserves actually are and how they need to be managed.

In 2009, then ODNR Director Sean Logan, as a cost-savings measure, made the decision to dismantle and abolish the Division of Natural Areas and Preserves. Management of state nature preserves and supervision of the last nine remaining preserve managers was transferred to the Division of Parks and Recreation. The Chief of the Division of Parks and Recreation became the defacto chief of natural areas with preserve managers now being under the supervision of district park managers who were not field biologists nor did they have experience in nature preserve management. As a lawyer and politician, with no formal training in the biological sciences, the Director was apparently under the impression that nature preserves were little more than mini state parks. The rationale for his decision to place nature preserves under state parks was that things were going to be better since state park staff, along with preserve managers, were now going to jointly help maintain the system of state nature preserves.

Unfortunately, the reality was that state parks were also understaffed and financially struggling. State park supervisors' expertise was in outdoor

recreation and park management, not field biology, botany, or ecology, nor did they have experience in nature preserve management. Managing a nature preserve takes a very different skill set than managing a state park. Furthermore, with few exceptions, most nature preserves were remotely located some distances from any state park facilities, which made working visits by park staff random and infrequent at best. This arrangement was just another burden for park staff who were already overwhelmed.

Additionally, preserve managers were also expected to assist with some state park

operations. Things got worse, for nature preserves, not better. In 2011, with the beginning of the Kasich Administration and a significantly improving economy, it was hoped that the Division of Natural Areas and Preserves would once again be re-established as a stand-alone division. Instead, natural areas management continued to remain



Preserve protects federally threatened Lakeside daisy.

within the Division of Parks and Recreation for the next eight years, with local district park managers having line authority over all natural areas operations in their districts and supervisory authority over natural areas employees. Sadly, the erroneous idea that nature preserves were simply mini state parks and could be managed as such continued to prevail. Worse yet, as a matter of policy under this new administration and in an attempt to reduce the size of state government, as experienced preserve managers retired, these positions were required to be filled by existing ODNR employees, most of whom had little or no

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Ohio's state preserves protect unique resources

experience in managing a high-quality, ecologically diverse system of nature preserves. This resulted in a serious overall loss of institutional knowledge. These new preserve managers were being supervised by state park administrators who had only minimum biological expertise, if any. Understandably, state park administrators were more focused on management of those state parks for which they were primarily being held responsible and accountable. Consequently, they were able to provide little insight and direction for how newly hired preserve managers should do their jobs. As a result, new preserve managers had to improvise, do their best mostly on their own, and “reinvent the wheel” as they performed their duties. Reinventing the wheel is a waste of time and resources. “Improving upon the wheel,” is progress when new efforts build upon those previous with continuity of purpose and a smooth transition. But, improving upon the wheel requires qualified, experienced leadership and institutional knowledge, both of which were sorely lacking.

In 2019, with the incoming DeWine Administration, Mike DeWine had promised he would reinstate the Division of Natural Areas and Preserves as a stand-alone division of ODNR. The Governor kept that promise and directed additional funding to help rebuild the division. However, after twelve years of being under the supervision of the Division of Parks and Recreation (now renamed the Division of Parks and Watercraft), and with a serious lack of institutional knowledge, the difference between being a state nature preserve and a mini state park had become somewhat blurred. Having a clear understanding as to the difference between managing a state park and managing a state nature preserve is absolutely critical for the long-term success of both endeavors.

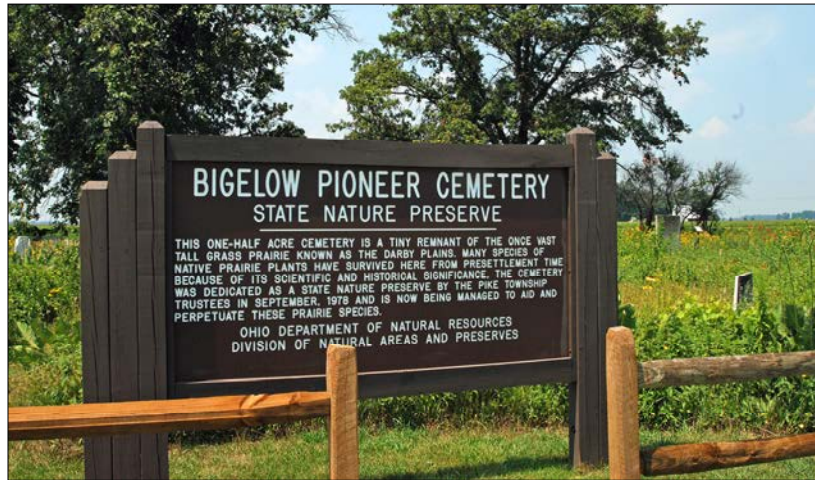
The fundamental mission of a state park is to provide high-quality outdoor recreational opportunities for Ohioans in a natural or somewhat natural setting. The emphasis is not on maintaining a high-quality or pristine natural environment, but rather on providing high-quality recreational experiences for state park visitors. The primary measure of success is how well kept and managed are visitor use facilities, including campgrounds, cabins, lodges, visitor centers, beaches, marinas, golf courses, and recreational trails. Park visitor surveys are routinely used to gauge just how successful state parks are at meeting and/or exceeding visitors' expectations.

State nature preserves, on the other hand, are living natural history museums primarily established by state law for “scientific research and the teaching of natural history.” Their mission is to preserve rare biota through a system of natural areas of state-wide significance — ideally the very best of the best remaining in Ohio. These are natural areas that harbor the

greatest number of state-listed rare species of plants and animals, and rare ecosystems as well as geological formations of state-wide significance. Maintaining the primary natural features for which the site was acquired is the driving force and highest priority behind managing a state nature preserve. Public visitation, education, and research are extremely important, but only to the extent they can be accommodated without compromising the ecological integrity of the resource base, which is why Ohioans value and visit nature preserves. Ecological integrity of a nature preserve must be maintained by eco-management activities, including controlling invasive plants and animals, suppressing natural succession, enhancing

the ecosystem, and preventing encroachment and vandalism. Maintaining ecological integrity is the primary measure of success for judging a natural areas program.

The very finest visitor use facilities provided, such as kiosks, interpretive signage, trail guides, boardwalks, observation towers and wildlife blinds, serve a critical role in providing visitor access



State preserves' mission very different from parks.

and educational information without compromising the ecological integrity of a preserve. However, such facilities serve little purpose if the primary natural feature or features of the preserve are severely diminished or lost all together due to a lack of proper habitat management or by outright mismanagement. Once lost, such features are lost forever. Notably, state parks are largely manmade; state nature preserves on the other hand, are not.

Ecologically high-quality nature preserves are simply not replaceable.

Consequently, every effort must be made to maintain ecological integrity at all costs. Monitoring and research of key natural features within a nature preserve are critical for successful long-term habitat management. Only then can land managers accurately determine and document whether or not their eco-management activities are successful.

State nature preserves are very special places where researchers, educators, and casual visitors alike can experience, learn about, and enjoy a high-quality natural setting. Hopefully, now you also know and fully understand the difference between a state park and a state nature preserve and why it is so important to distinguish between the two in applying management strategies.

ONAPA is committed to helping with the goals and values of DNAP's state nature preserves. Our successful stewardship program is a testament to how much eco-management is still out there to be conducted in order to maintain these high-quality preserves in the best condition possible for the benefit of this as well as future generations of Ohioans.



Lake Katharine garlic mustard pull makes room for native wildflowers, like trillium (above).

(Photos by Jennifer Windus)

Stewardship projects keep volunteers busy in preserves

By Jennifer Windus

The ONAPA stewardship team, including stewardship assistants and volunteers, continues to be productive, even during the often cold, wet months of February through May.

Although several projects had to be rescheduled in February and March due to the weather, we went to Lake Katharine (February 4 and 24 to conduct surveys for HWA-hemlock woolly adelgid), Brinkhaven Barrens (February 23 to cut woody species), Bonnett Pond Bog (February 25 to cut woody species on the bog mat), Little Rocky Hollow (March 3 to survey for HWA), Mallard Club Wildlife Area (March 4 to cut woody species), Jackson Bog (March 9 to cut woody species), Sheldon Marsh (March 19 to cut woody species on the barrier beach), Killbuck Marsh Wildlife Area (March 23 to cut woody species), and the Medway prairie fringed orchid site (March 30 to cut woody species). We continued to get a good turnout of approximately 10-plus people for each project and were able to accomplish much needed work on the preserves.

In April, ONAPA conducted a number of prescribed burns with our partners including Knox County Park District, Johnny Appleseed Metropolitan Park District, Crawford County Park District, and several private landowners. It was a busy month and we completed nine prescribed burns. At the end of April, we began garlic mustard control on a number of preserves including Lake Katharine (April 20), Rhododendron Cove (April 27), and Hueston Woods (April 29). We continued garlic mustard projects in May at Fowler Woods (May 4) and Clear Fork Gorge (May 13).

ONAPA will have four stewardship assistants this season: Madison Brown (for her second year with ONAPA) as lead stewardship assistant, Lydia Radcliffe (recent graduate of Mount Vernon Nazarene University), Makaila Weir (recent graduate from Ohio Wesleyan University), and Rachael Patterson (high school senior at Fredericktown High School). More information on each of these individuals will be in the next Newsletter issue. Three of them have been helping the U.S. Fish and Wildlife Service and Division of Natural Areas and Preserves with an in-depth survey, mapping, and population estimate of Lakeside daisy for the USFWS five-year status review. We spent nine days in May visiting the six sites for this Federal threatened species to collect the data. This valuable

experience for the stewardship assistants will be part of their three-to-six-month experience with ONAPA.

Check the ONAPA website if you want to join us on upcoming stewardship projects in June and beyond - we promise you a good time and rewarding work!



Woody species control at Medway Prairie involved cutting and treating unwanted brush.

Common nighthawks are acrobats of the bird world

Story and photographs by John Watts

As a kid growing up in a small southern Ohio town, on warm summer nights I remember hearing the nasally “peent-peent” flight call of summering common nighthawks as they hunted insects over the street lights. The birds, flashing their distinctive white striped primaries against the dark summer sky, buoyantly flew back and forth eating night-flying insects. This was once a familiar sight and sound across most small towns and cities in Ohio. Even as recently as the 1980’s, common nighthawks were found in 80 of Ohio’s 88 counties during the first Ohio Breeding Bird Atlas (Peterjohn & Rice, 1991).

However, since the mid-1990’s common nighthawk populations have declined across much of its range. While still common and widespread, the most recent Breeding Bird Atlas of Ohio reports that within

priority survey blocks common nighthawks declined by 67% between the atlas periods of the mid-1980’s to the mid-2000’s. Other numbers suggest that breeding common nighthawks have declined by 2.2% since the 1960’s (Rodewald et al. 2016).

Common Nighthawks belong to a family known as Nightjars, a reference to their loud distinctive calls. Greek mythology suggests that this species would suck milk from goats at night, giving rise to its family common name “goatsuckers.” Worldwide there are 67 species of Nightjars with only seven species in North America. In Ohio, the common nighthawk is one of three species that annually breeds in the state. The Eastern Whip-poor-will breeds throughout much of unglaciated forested Ohio. The much rarer Chuck-will’s-widow breeds in a very localized area of southern Ohio’s Hill Country, with Adams County hosting most of Ohio’s breeding population (Rodewald et al 2016).

The Common Nighthawk’s specific name is *Chordeiles minor*. *Chordeiles* from the Greek word *Chorde*, meaning a stringed musical instrument, and *deile*, meaning afternoon or evening in reference to its late day crepuscular habits. Though they were originally classified as the same genus, the Common Nighthawk’s specific name *minor* means lesser or smaller, which is a comparison to the larger Eastern whip-poor-will and to the even larger Chuck-will’s widow (Terres 1980).

Common Nighthawks can be described as grayish-brown overall with mottling of various grays, blacks, and browns which provide camouflage while mostly roosting on the ground or lengthwise on a tree branch. Across their North American range, the overall top colors may vary geographically in the dominance of grays and browns. In flight, the nighthawk shows extensive body barring, a white throat line, white central tail feathers, and a distinctive white wing patch in the outer primaries. In the male, the white primaries are

broader and the white terminal band in the tail is much more pronounced and distinct than in the female.

Common Nighthawks inhabit a variety of semi-open dry areas, grasslands, pastures and savannas. While they range across these natural habitats, they are most common and often encountered in cities and towns across their breeding range. In these urban areas, they utilize flat gravel-like rooftops as their preferred nesting areas.

The call of the common nighthawk is most often described as a “nasally peent-peent or speak-speak.” This piercing call is given during flight most often at dawn and dusk. The call can be confused with the American Woodcock. However, American Woodcocks return in late February and early March and generally give this call from the ground. Reports of common nighthawks prior to late April are more likely American Woodcocks.

The other sound associated with nighthawks is generally referred to as a “booming sound.” This sound is not a vocalization, but a sound produced by air rushing through the primaries as the male plunges downward towards the ground and abruptly swoops upward as part of its courtship aerial display. While known as “booming” it

is more like a rapid “wr-rrrrrrr-onk.” This sound has also led to another local nickname in some areas of “booming nighthawk.”

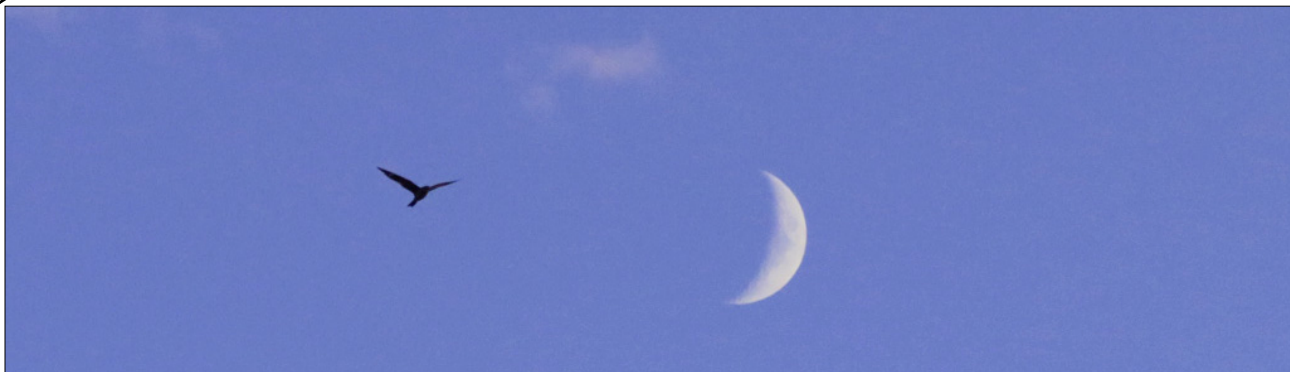
While we do not think of nighthawks as game birds today, they were once hunted extensively for sport. “Bull-bats”, as they were called, were hunted by gunners during the nighthawks’ late summer migration as their swift, erratic, irregular flight made them a challenging target. Numerous reports from the late 1800’s note “several hundred birds being shot for sport and table.” Fortunately, this practice was outlawed in the early 1900’s after the National Association of Audubon Societies initiated education efforts to change the hunting laws. In fact, in September-October 1903 issue of Bird-Lore it was noted that one could be prosecuted for shooting “bull-bats” in Greensboro, North Carolina (Bent 1964).

The late summer migration of the common nighthawk is an avian phenomenon that begins to mark the official end of summer and our seasonal transition towards autumn. Nighthawks begin leaving their northern breeding grounds in late July and early August to begin their journey to their wintering grounds in central South America. In Ohio, nighthawk migration produces their peak numbers between August 25 and September 7. During their peak movement through Ohio, groups of 50-200 may be seen as they fly in loose flocks pursuing insects over open areas, but most reports of them have declined to fewer than 50 individuals. In Ohio, their southward movements abruptly end with only small groups observed after September 12 with a few stragglers occasionally



Common nighthawk in flight — photo at right shows dorsal view.

Continued on page 5



noted through October 15. Prior to the mid-1990's while many observations were of 10-100 birds there were exceptional reports of large movements that produced observations of 1,000-3,500. One observation from Cincinnati reported an estimated 5,000 birds (Peterjohn 2001). While most agree that numbers during migration have declined, on August 24, 2020, observers at The Hawk Ridge Bird Observation in Duluth, Minnesota observed an astounding 27,500 nighthawks as they migrated south off of Lake Superior.

Research recently published through The Migratory Connectivity Project visually shows the migration of GPS tagged nighthawks departing from their breeding grounds, their arrival on their wintering grounds in South America, and their return the following spring. This can be viewed at <http://migratoryconnectivityproject.org/about/storymaps/>. This research is yielding important information that can be applied to the future conservation of this species so that future kids in

small towns can watch nighthawks fly over their street lights.

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Field trips scheduled this summer—watch website for 'pop-ups'

With so many of us fully vaccinated, we have decided to cautiously resume at least two events. If a participant is not fully vaccinated against the COVID-19 virus, they will be required to wear a face covering and social distance. Check www.ONAPA.org for smaller outings which may be scheduled later in summer and fall.

Saturday, July 31st: "Denny's Tallgrass Prairie Tour" Naturalists Dick Moseley, Jennifer Windus, and Guy Denny will give a walking tour of the tallgrass prairie. They will introduce folks to the various grasses and wildflowers comprising this unique North American and Ohio ecosystem. Participants will not only learn how to recognize the various prairie species, but also learn interesting facts about their uses by Native Americans and early settlers.

Saturday, October 2nd: "Annual Prairie Seed Collecting Event" If you have ever wanted to try your hand at growing native prairie plants, this is your opportunity to collect seeds and learn how to establish your own prairie garden. Participants should bring hand pruners, and containers such as bags in which they can deposit the seeds they collect. Several prairie specialists will be on hand to answer your questions and help you identify the various species of prairie plants.

Both events will begin at 10:00 am and take place at Denny's Prairie. This 20-plus acre prairie is located in Knox County about 45 minutes north of Columbus. The address is 6021 Mt. Gilead Road (SR 95), Fredericktown, Ohio. From the junction of Interstate 71 and State Route 95, follow State

Route 95 east for just under five miles to the Knox County Line. ONAPA signs will mark the drive on the north side of S.R. 95.

You must sign up so that if the event needs to be cancelled for any reason, we can let you know. Sign up by emailing Guy Denny at guydenny@centurylink.net. Pack a lunch, and dress for the weather.

ONAPA ANNUAL MEETING Saturday, August 21, 2021

West Woods Nature Center
9465 Kinsman Road
Novelty, Ohio
(Geauga County)

Keynote speaker: Lisa Rainsong

Details on field trips and registration will be posted later in July at www.ONAPA.org

Discovering Eastern box turtles

By Guy Denny

When I was a young boy growing up in Northwestern Ohio, in the suburbs on the rural outskirts of Toledo, my buddies and I didn't have soccer fields, ball fields or well-kept playgrounds like youngsters have today: we had something much better. We had woods, creeks, ponds and meadows to explore and interact with nature. Places to build tree houses and "forts". Creeks to wade and catch crayfish, salamanders, frogs, and even turtles and snakes. To us this was paradise, and those interactions with the natural world formulated my love for nature, a love I still hold dear to this very day.

Of all the reptilian "wild critters" I loved to interact with, my favorite, above all, were box turtles. Box turtles were fairly common residents of the open woodlands in which we spent much of our time playing and exploring. All of us had our favorite box turtle that we would spend hours playing with before they would escape, only to be recaptured and then escape over and over again. Eastern Box Turtles have a relatively small home range and, for the most part, have distinctive markings which made identifying recaptured individuals rather easy.

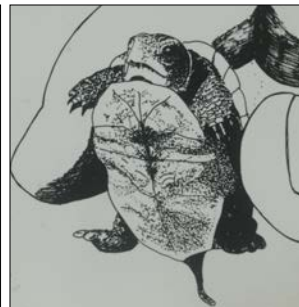
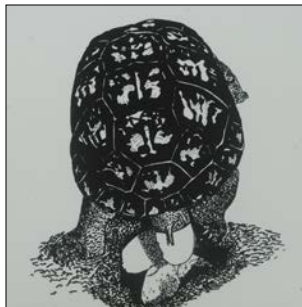
Box turtles are delightful creatures. They peacefully plod through life minding their own business just as they have ever since the Miocene more than 15 million years ago. Unlike most aquatic turtles which simply dive off basking sites into deep water when danger approaches, box turtles are land dwellers and therefore have an alternative means of defense. At the first sign of danger, box turtles quickly withdraw their heads, legs and tails into their shells. The plastron (lower shell) has a broad hinge dividing it into movable front and back sections. This hinged shell, powered by extraordinarily strong muscles, enables box turtles to pull the front and rear sections of the plastron tightly up against the carapace (upper shell), thus boxing themselves inside — hence the origin of the name "box turtle." Box turtles can close their shells so tightly that not even the powerful jaws of a predator such as a raccoon or fox can pry them open.

There are several different species and subspecies of box turtles. Box turtles in the genus *Terrapene* occur only in North America where they range over the eastern and central U.S. and into the Southwest and parts of Mexico. The Eastern Box Turtle (*Terrapene carolina carolina* L.) is perhaps the most abundant and wide ranging subspecies of box turtle in the eastern United States. It occurs in all but north central and north-eastern Ohio and is especially widespread and abundant in the hill country of unglaciated southern Ohio as well as in the Oak Openings of Northwestern Ohio. Reportedly the genus *Terrapene* is derived from the Native American (Algonquin) name for "a turtle". The specific epithet *carolina* represents the type locality thought to be in the vicinity of Charleston, South Carolina, where the species was first collected and then scientifically described and named by Carolus Linnaeus in 1758.



Hinged undershell protects box turtle.

An adult Eastern Box Turtle has a distinctive dome-like carapace (upper shell) 4.5 to 6 inches in length. A few large specimens have been recorded at over 7 inches. The carapace is usually brown or black with widely varying



Line drawings of egg laying (left) and hatchling.



Grandson Reed Denny shows off his discovery.

markings of vivid yellow streaks or blotches. The plastron (bottom shell) can be solid yellow, brown, black, or any

combination of these colors. Head, neck and leg skin color is also variable with brown, black, yellow and orange colorations. Males often tend to be more brightly colored than females. The shells of males tend to be more elongated than females and the rear half of their plastron is usually concave which helps keep them in place during mating. Females normally have flat plastrons. Males also often have red eyes (irises) while females typically have brown or yellowish brown eyes.

Box turtles usually emerge from hibernation in mid to late April.

Shortly thereafter, males seek out females to mate, but mating can also take place in the fall. The female box turtle has the ability to store viable sperm and produce fertilized eggs up to four years after mating. From early June through July, the female seeks open sunny areas such as the edge of a woods or field with loose soils in which to lay eggs. Usually, she begins digging on a warm afternoon or evening and does not finish until after dark. She excavates a nest cavity by using her hind feet to alternately scoop out earth as deep as she can reach. After depositing four or five (sometimes more) oval eggs, she

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Photo by Carl Brune

Box turtles have acute senses of sight and smell.

scoops the loose soil back over the eggs until there is no sign of any disturbance. If raccoons or skunks do not smell out the eggs and destroy them, they will hatch in about 90 days. Eggs laid late in the summer will typically not hatch until the following spring.

Tiny hatchling box turtles lack a functional hinged plastron and consequently are extremely vulnerable to predators. To survive, they are very secretive and are rarely seen in the wild until they are large enough (in about 5-10 years) for their shells to protect them. Once a box turtle has attained adult size, it has little to worry about from predators. In fact, box turtles are among our longest-lived species of wildlife. Ages between 40 and 50 years are common with a few specimens known to reach more than 100 years of age.

Eastern Box Turtles are most often encountered in spring and fall when they are crossing highways or wandering through the woods in search of food or

mates. During the heat of mid-summer, they frequently bury into the forest floor and remain inactive for weeks, only to emerge and become active during and immediately after warm summer rains. In especially dry weather they will seek out streams, ponds and wetlands where they soak or bury into mud for days or weeks at a time. These turtles have a small home range, typically 40 to 50 acres.

Box turtles have acute senses of smell and sight which helps them locate food and mates. They are omnivores feeding on both plant and animal matter. They are especially fond of wild berries, earth worms, slugs, mayapple fruits, and mushrooms, even poisonous ones. Although the turtles are immune, the poison is retained in their flesh. Native Americans were known to eat box turtles and there are some claims of humans being poisoned by eating box turtles who previously feasted on poisonous mushrooms.

A box turtle's shell is an effective defense against predators including rac-

coons, skunks, foxes, dogs and even coyotes. The shell is reportedly so strong it can support a weight 200 times its own. Yet, it is no match for automobiles. Thousands of box turtles are killed every year crossing highways. Cold weather takes a toll as well. As winter approaches, box turtles dig down into the forest floor where they hibernate. However, during warm snaps in late winter or early spring, some individuals emerge too early and are then caught out above ground as the cold returns. They often perish from respiratory ailments unless they can get back under cover in time. Woodland ground fires also take a toll on box turtles if they are out and moving about in leaf litter. Another factor in their demise is poaching to be shipped off to foreign countries and sold in the pet trade. By far, the greatest threats to the survival of these delightful animals is from habitat fragmentation and loss to agriculture and suburban development.

Today, as I return to my boyhood neighborhood, it no longer looks the same. The creeks we played in have been placed in culverts and buried. The meadow is now a manicured city park lawn complete with soccer fields, softball diamonds and swing sets. And the woodlots we played in as if they were our own have been diced up with concrete streets and multiple homes, each with their own tidy lawns and non-native landscaping. The youngsters that now play in the yards, streets, and city park have no idea of just how magical this place once was when I was growing up here. Sadly, today's youngsters are no longer connected and interactive with nature as we were. And the box turtles that once roamed here and brought us so much joy have all disappeared, victims of the bulldozer and suburban development, which saddens me deeply.



Photos and line drawings by Guy Denny

Both top and bottom shells feature unique and colorful markings.



Ohio Natural Areas & Preserves Association

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REGISTER for the ONAPA August 21 Annual Meeting at www.ONAPA.org