

# Newsletter



**SPRING  
2019**

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## Detecting Turtle Presence in Ward Pound Ridge Reservation

by Kendall O'Connell

Over half the turtle populations globally are considered threatened and are facing many challenges including poaching, habitat loss, and climate change (Mali et al., 2014; Mittermeier et al., 2015). Understanding and conserving even the most common of turtle species could prove to be an important endeavor if these trends continue. Ward Pound Ridge Reservation is host to a variety of freshwater turtles including Painted Turtles (*Chrysemys picta picta*), Eastern Box Turtles (*Terrapena carolina carolina*), Snapping Turtles (*Chelydra serpentina*), Spotted Turtles (*Clemmys guttata*), and Wood Turtles (*Glyptemys insculpta*). The Department of Environmental Conservation under ECL 110535 lists Box Turtles, Spotted Turtles, and Wood Turtles as species of special concern in the state of New York. The objective of the research conducted in 2018 was to increase overall understanding of turtle species in Ward Pound Ridge Reservation by determining demographics, land use corridors, and temporal abundance.

Hoop nets (~8" diameter ~24" long) outfitted with PVC floats zip tied to the metal frame were deployed and tethered to the shore or nearby vegetation to capture and sample Spotted and Painted Turtles. Each net was baited with one can of sardines. Time based visual surveys included walking one kilometer transects in waterways over the course of one hour to sample Wood and Box Turtles. A minimum of three researchers were assigned to each transect. For each transect an observer was placed in the center of the river while the two other observers



(Continued on page 3)



## *Notes from the Friends of Trailside President*

Dear Friends and neighbors:

We had a wonderful day for the Sugaring-Off party and FriendsRaiser on Saturday, March 9th. The attendance was the best ever with a full Museum and many out on the trails tapping trees with our nature center staff. I'm always impressed with the labor involved when reminded that it takes 40-50 gallons of sap to make 1 gallon of maple syrup.

The attendees came from all over the County. I spoke to some who came from Peekskill, Pelham, Hartsdale, and one couple from NYC. Also, I found it very interesting that there were people from many different countries of origin; including Syria, Austria, Hungary, Brazil, Israel, and our curator Mindy's in-laws from Panama. The beauty of the Res brings people from all over together.

We signed up several new members to the Friends of Trailside at the event. It is donations to the Friends that made available all the equipment for maple sugaring as well as the wigwam nearby and many other benefits to the Park. Remember, that for a donation of \$100 or more, you get free parking at the Res for the year.

The Res is getting ever more active as the Spring approaches. On one recent Saturday while walking the trails I saw what looked like an orange and white mini box kite back in the woods. When I got over to it I saw a sign saying not to touch it, as it is a marker for the Westchester Orienteering Club. Sure enough, I then came across a number of their members slicing through the woods looking for that very marker. Then I ran into two campers who had spent a windy night in a lean-to and awoke they said to two eagles soaring overhead. What a wonderful way to spend the night and start the day in the Res.

Happy trails to you,

Phil Petronis

President, Friends of Trailside Museum



*Sarah Walkley helping Dylan Quintero use the hand drill at our 2019 Sugaring off Party*

# Detecting Turtle Presence in Ward Pound Ridge Reservation

(Continued from page 1)

walked at the same pace on either side down the transect. Middle school and John Jay High School Advanced Placement Environmental Science students engaged in the data collection process as part of their school curriculum and summer program experience. Students assisted with setting traps, processing turtles, and informal surveys for nesting female turtles. In this first year, 85 students helped record data on the turtle populations.

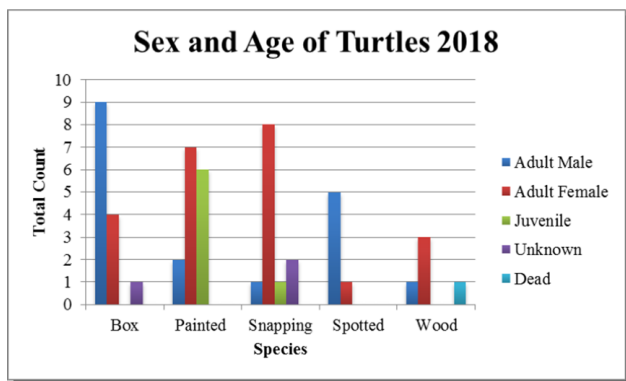


Figure 1. Number of turtles found in the 2018 season

From April 13th to August 23rd 2018, five different species of turtle were found. Identified turtles included 15 Painted Turtles, 14 Eastern Box Turtles, 12 Snapping Turtles, 6 Spotted Turtles, and 5 Wood Turtles for an overall count of 52 turtles. Including recaptures, there were over 75 turtle sightings. The Box Turtles and Spotted Turtles found were predominantly male whereas more female Painted, Snapping, and Wood Turtles were found. Over the course of the study there was only one dead turtle found. Painted Turtles had the highest number of juveniles found out of all the species, which could have been a result of trapping bias as juveniles tend to be more carnivorous than adults or due to the fact this population is slightly more isolated making juveniles easier to find than in the other species. The greatest diversity of species found throughout the season was in June, which could have been because this was nesting season when more females could be found on land and were therefore easier to spot by humans than when in their aquatic phase. Based on sampled locations, possible land use corridors were mapped. For the most part, turtles were found in the waterways or in the adjacent marshy areas and fields. Mapping can help in securing more sensitive areas by informing where nesting or overwintering sites are to ensure proper protections are put into place.

In 2019, radio transmitters will be attached to the carapaces of Wood Turtles to track their movements

throughout the park to learn more about their home ranges, overwintering locations, and nesting sites. This information will be used to inform our Natural Resource Management Plan. Students will continue to be engaged in herpetological research through educational opportunities to inspire the next generation of environmental stewards.

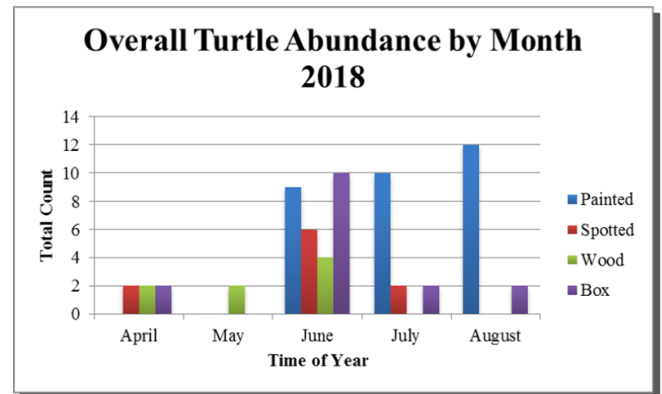


Figure 2. When turtles were found in the 2018 season

**Acknowledgements:** Thank you to The Friends of Trailside Nature Museum for continuing support of this project, Patrick O'Brien for GIS support, Andrew Middlebrook and Tyler Reinke for helping with field work, and Krista Munger for mentoring in this project.

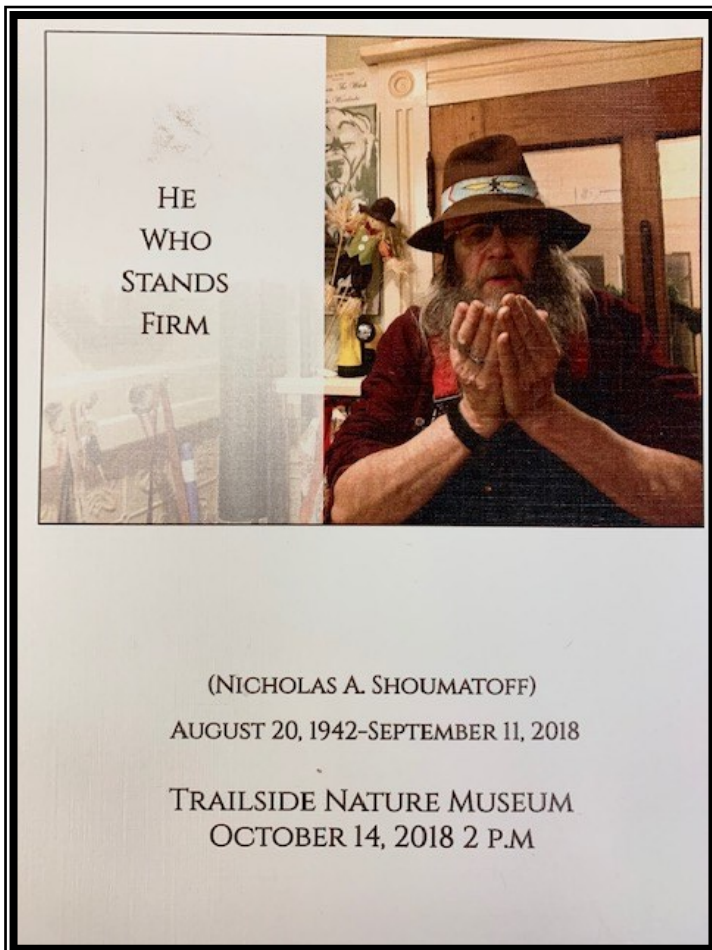
## Literature Cited:

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- Mittermeier, Russell A., P.P. van Dijk, A.G.J. Rhodin, S.D. Nash. 2015. Turtle Hotspots: An Analysis of the Occurrence of Tortoises and Freshwater Turtles in Biodiversity Hotspots, High-Biodiversity Wilderness Areas, and Turtle Priority Areas. Chelonian Conservation and Biology. 14: 2-10. ♦

# He Who Stands Firm – Remembered

by Jeff Main

In 1975, I was studying Outdoor Education as an undergraduate and my faculty advisor put me in contact with Westchester County Parks which then set me up an internship with the curator at the Trailside Nature Museum. Nick Shoumatoff, as he was known at the time, dressed as a cross between your traditional park ranger (Khaki jacket with badge, wide brimmed hat) and a Native American (feathers in the hat's headband; multiple layers of beads around his neck). He was relatively tall, and had a voice that projected, which was an asset when giving public programs. "Don't talk at the crowd," he taught me, "speak above the crowd to reach those in the back". This was a large part of his charisma, along with his impeccable suite of knowledge, both about the natural world as well as local Native American lore. He had an incredible memory for facts and would sometimes even hand me a reference book to test his knowledge of the subject matter of an upcoming program. I wound up being hired to work at the museum for another year during which time He Who and I would develop a good friendship that took us right up to the time of his passing. As eccentric as he might have come off, he had a way of using that to his advantage to help those people with whom he interacted...school children and their teachers, the general public, the regulars who frequented the museum, the volunteers and the staff, all of them, to gain a better appreciation for and to get closer to the natural world. ♦



*Left: Memorial card from He Who's memorial service*

*Above: Photo from the archives*

# The Trailside Challenge

by Kendall O'Connell

**L**ast issue's challenge was a photo of grapes! In New York there are several different species of grapes, but here at Ward Pound Ridge Reservation we have fox grapes (*Vitis labrusca*). Many people will cultivate varieties of this species to make wine, juice, jam, or to just eat as fresh fruit. The fruit here at Ward tastes a little bit sour with a skin having a chalky texture. In the fall, keep your nose open for that stereotypical grape smell—it might lead you to a vine!

This issue's challenge is particularly known by woodworkers for its rot resistance making this a particularly durable material to use in harsh climates. There is a beautiful reddish purple hue down the middle of the wood. ♦



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## Book Review: Images of America: Ward Pound Ridge Reservation

by Maureen Koehl

**F**or those of you who love visiting Ward Pound Ridge Reservation and would like to know the inside story of how it came to be the jewel of the Westchester County Parks system, “an emerald atop the map of the New York City metropolitan area,” according to Beth Herr, former Trailside Curator and co-author of the *Images of America: Ward Pound Ridge Reservation*, there is no better way to learn about the park’s 10,000- year history and the people who inhabited the rock shelters, farmed the meadows and paved the way to preserving 4,000 acres of natural wonderland than to pick up a copy of the book at the Trailside gift shop (\$21.99) – all proceeds go to the Friends of Trailside.

Written by Beth Herr and Trailside Board of Directors member Maureen Koehl, the book is overflowing with pictures and information about the park. A year in the making, the authors combed through boxes of artifacts and pictures and interviewed area old timers who remembered The Res decades ago. As one of the authors, I can attest to the wonderful months we spent looking through the pictures and the hard task it was to choose the right ones for the information we wanted to present. Pick up a copy and learn about the Native Americans, the farmers, and the politicians who saw the need for parks and recreation back in the 1920s and acted on that idea. ♦

# Animal Profile: White-tailed deer

by Kendall O'Connell



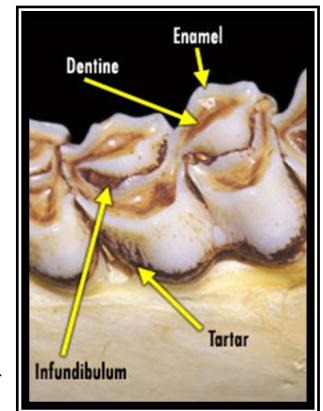
*Cervidae*, or the deer family, is a part of the order *Artiodactyla*, or even-toed ungulates. In the three subfamilies in this order there are 19 genera and 51 species. The white-tailed deer (*Odocoileus virginianus*) belongs to the new world deer (*Capreolinae*) getting the classification from the bone structure of the metacarpals in their legs. Deer are a mostly solitary organism although they can be found in groups occasionally depending on the time of year and sex of the organism. For example females can be found with their young offspring until they mature and males can be found in small “bachelor groups” of no more than five individuals. They are sexually dimorphic meaning there is a distinction between the males and the females of the species. One of the most obvious telltale signs of the males is the presence of antlers. Antlers are one of the fastest growing structures known to man typically growing somewhere between a quarter and a half inch a day in the spring and summer months. Antlers are true bone. Some people might tell you that a deer can be aged by the size of the antler and the number of tines, or points, on the antler. Depending on factors like genetics, nutrition and hormone levels antlers will be different sizes for deer of roughly the same age. Aging deer accurately this way is next to impossible. Deer typically shed their antlers once a year sometime in the late fall or early winter. While the actual act of the antlers falling off only takes a day or two, the whole process takes several weeks. Antlers grow on a bony protuberance from the skull called a pedicle. The pedicle is from where the antler will fall. As daylight gets shorter, testosterone in males will rise redirecting nutrients and blood from the development of antlers thus slowing their growth. The velvet, which supplies the nutrients to

the antler, begins to shed as the deer rub their antlers against trees. As the testosterone levels drop off again, osteoclast levels will rise. Osteoclasts are specialized cells that help to break down bone tissue in the pedicle. As this pedicle gets weaker, the antler will break off.

The better way to tell the age of a deer is through the teeth on their jawbones. Teeth have enamel in them. Enamel is the strongest substance in the body because it contains higher levels of hydroxyapatite than in bones. The white enamel surrounds the brown dentine, which is the softer material in the teeth. Deer teeth also contain an infundibulum, which is a hollow portion of the middle of the tooth filled with cementum. The purpose of this structure is that it allows for more folds in the tooth allowing for more enamel in the tooth thus making the whole tooth structure stronger. The dentition in deer is typically 0/3, 0/1, 3/3, 3/3. This means a deer has three incisors in the mandible, one canine on the mandible, three premolars on the maxillary and mandibular portion of the skull and three molars on the maxillary and mandibular portion of the skull. In mammalogy, teeth are counted only on one side of the mouth. We count both the top and the bottom teeth. A white tailed deer has a total of thirty-two teeth.

Deer have selenodont dentition meaning their cusps run anterior to posterior in a crescent moon shape. This tells us that they are herbivores foraging on foliage. Herbivores must have abrasive teeth to grind up their food.

This is where structures like the infundibulum are important. There are enamel ridges in selenodont dentition to help with the side to side grinding pattern of eating resulting in an efficient way of breaking up tough plant material. As the teeth are in an elongated shape, the amount and size of the enamel increases in ways that are not necessary for organisms that don't consume vegetation as strictly. The teeth must begin the process of breaking down the plant material into physically smaller pieces before it reaches the stomach where it will be digested chemically. Deer are ruminants having multiple chambered stomachs to digest or break down the cellulose in plant material into liquid nutrient slurry that can be used by the deer as energy. ♦



## Program Highlights

### ART IN NATURE

Saturday, May 11, 2019

1:00 PM -3:00 PM

Nature has inspired artists for centuries! At Trailside we will explore using nature for spray bottle art, botanical sun catchers and fairy masks.

Appropriate for all ages!



### World Otter Day

Saturday, May 25, 2019

Visit Trailside Nature Museum between 10:00 AM and 3:00 PM to learn about ongoing river otter research in the park. Explore otter artifacts and create your own otter crafts to take home. All ages welcome!

Light refreshments available.

### BIRD WALK WITH ED KANZE SUNDAY, JUNE 2 AT 7:30 AM



Join our past curator, Ed Kanze, for his annual return to the Reservation. Ed is a naturalist and author. The walk is guaranteed to be informational and fun! Co-sponsored by the Friends of Trailside Museum and Ward Pound Ridge Reservation.

# Museum Highlights

by Mindy Quintero

Even with a disappointing sugaring season, things have been busy here at the museum. Last fall alone we taught almost a hundred school groups between October and December. Teaching isn't all we do here at the museum though. Naturalists Kendall O'Connell and Sarah Walkley have been conducting research in the park. Sarah has been using trail cameras to study river otters and their vocalizations. Did you know we had river otters in the reservation? She has gotten some really awesome videos and is going to share her knowledge at our upcoming World Otter Day on May 25 (check our calendar on page 10 for details). You can also learn more about Sarah's research by visiting [www.WildOtterAcoustics.org](http://www.WildOtterAcoustics.org).



In addition to river otters, Sarah and Kendall have also started conducting bobcat research. Using trail cameras strategically placed in the park, they are trying to figure just how many bobcats we have here in the reservation. In addition to what we think are a few individual bobcats, other animals like deer, coyotes, raccoons, opossums and even a random human were caught on camera.

This spring Kendall will also begin her second year of turtle research in the park. Knowing what species of turtles are in the park and where potential habitats are help us to develop a land management plan that protects these amazing reptiles. If you want to learn more about the different species of turtles here in the reservation, join us for Turtle Day on June 8th at 1 pm.

Even with a shorter sugaring season and low syrup yield, our sugaring programs were a huge success. Our family tapping experience sold out for the third year in a row! Families learned how to identify a sugar maple, how to tap a tree and make maple syrup. If you missed out this year, don't worry, we will be offering the program again during our 2020 season.

Making syrup is fun and delicious, but we are scientists at heart and this year thanks to the Friends of Trailside and Ward Pound Ridge Reservation, we were able to purchase a sap refractometer and a syrup refractometer to test sugar content in both. In addition to sugar content, we also measured how much sap was in each bucket before we collected, numbered and measured the trees and recorded temperature. We are hoping by recording this data we can gain a better understanding of trends, if there are any, over the next few years.

One interesting find I made during a trip to Vermont for their annual Sugarhouse Open House weekend is our season here in Westchester is similar to Vermont's. For example, last year we had an early season and ended early and in Vermont, syrup producers also saw an early start and early finish. This year, we had a much later start to the season and ended later than last year with a relatively short season and low production of syrup. Vermont is on a similar trend with a late start as well. One syrup producer even said that he thinks they will make half the yield of syrup compared to last year. Here at Trailside we made about thirteen gallons of syrup in 2018 and this year also saw our production cut almost in half with about seven gallons bottled. The grade of syrup is also similar. This year we produced mostly amber rich syrup (more of the medium grade) and when I was in Vermont, every sugarhouse we went to said they were producing mostly amber as well. Even though we are four plus hours apart, it seems what we see down here in Westchester is directly correlated to Vermont's season. Below is a picture from our annual Sugaring Off Party which had about 300 people in attendance! ♦



# *View from the Porch*

*by Jeff Main*



**F**inally, the peepers began chorusing that last week of March. Bluebirds are checking out the nest boxes in the meadows. A female kestrel sits on a wire not far from where a pair bred two years ago. The hills are showing that hint of color from the Red Maple flowers that have opened. And the cardinal is in full song just outside my window. After a late winter that was more of a tease than a predictable progression toward spring, I've finally reached that level of confidence that I can put away my winter coat.

And doesn't spring feel like a joyous rebirth, as perennials push their stems up through the soil, the buds break open on the hardwoods, insects take to wing and we see fresh bear prints on the trail. As a reflection of that rebirth, we will be resurrecting our Art in the Park program with a multi-artist exhibit in the WPA Gallery appropriately titled, "Rebirth". The opening reception will be Saturday, April 27th from 1:00-3:00 PM with refreshments and music, provided through the generosity of your Friends organization. Come join us for what should be a wonderful celebration of the season.

The Leatherman's 10K Loop will take place the day after, bringing 1400+ enthusiastic individuals of all ages "to trek through forest, field and stream" as participants in the largest running event in Westchester. There is actually a cut off limit (typically reached in less than a week) so popular is this race. The pageantry alone is worth making the trip, even for spectators. The Leatherman himself has been known to show up to encourage the runners. Might he this year?

The Reservation is in great shape and ready to accommodate hikers, runners, campers and picnickers thanks to the enthusiastic efforts of our small but efficient crew who take pride in making your experience at "the Rez" a memorable one. If you happen by some of our crew out on a mission or driving by in a Parks vehicle be sure to give a thumbs up or a shout out, a great way to show your appreciation for their dedicated work.

See you on the trails.....

*Jeff*

**Renew your membership now for 2019.**

**Visit our website for details!**

**[www.friendsoftrailside.org](http://www.friendsoftrailside.org)**

## Trailside Nature Museum Calendar of Events • May - July

### MAY

#### **Saturday 4<sup>th</sup> at 1 PM: WILDFLOWER GARDEN WALK**

Created in 1955, the Luquer-Marble Memorial Wildflower Garden was started to preserve endangered native plants and educate visitors about plant conservation. Join us as we explore the beauty and tranquility of this amazing place.

#### **Saturday 11<sup>th</sup>, 1 PM - 3 PM: ART IN NATURE**

Nature has inspired artists for centuries! At Trailside we will explore using nature for spray bottle art, botanical sun catchers and fairy masks. Appropriate for all ages!

#### **Saturday 18<sup>th</sup>, 1 PM: VERNAL POOL EXPLORATION**

Put on your waterproof boots and join us as we explore these important woodland pools with dip nets to discover the creatures within. Meet at the end of Michigan Road. There will be a short hike to the pool.

#### **Saturday 25<sup>th</sup>, 10 AM - 3 PM: WORLD OTTER DAY**

Visit Trailside Nature Museum between 10:00 and 3:00 to learn about ongoing river otter research in the park. Explore otter artifacts and create your own otter crafts to take home. All ages welcome! Coffee, tea, and light refreshments available.

### JUNE

#### **Saturday 1<sup>st</sup>, 2 PM - 11 AM: FAMILY CAMPING**

Never been camping, but want to give that experience to your family? Join our staff for a family camping overnight here in the park. We will help you set up your tents, start a fire, cook and will provide a few fun activities.

#### **Sunday 2<sup>nd</sup>, 7:30 AM: ANNUAL BIRD WALK WITH ED KANZE**

Join past curator and expert naturalist Ed Kanze for our annual bird walk. Wear hiking boots and bring your binoculars. We will meet in the parking lot outside the museum.

#### **Saturday 8<sup>th</sup>, 1 PM: TURTLE DAY**

Come out and experience a day in the field as a herpetologist! Learn about how to identify different types of turtles, where turtles like to live, and how you can help record data for our parks as a citizen scientist!

#### **Saturday 22<sup>nd</sup>, 10 AM: SPECIAL PLACES, SPECIAL INSECTS**

Hike with insect expert Harry Zirlin to learn about some special habitats and the amazing insects that live there.

#### **Saturday 29<sup>th</sup>, 1 PM: STREAM STUDY**

Wear water shoes and bring your curiosity as we use dip nets to explore all of the amazing creatures hiding in our streams. Meet at Kimberly Bridge parking area.



## ANNUAL FIREFLY FESTIVAL

Friday, July 12th

6:30 PM - 9:00 PM

*Stay tuned for more details!*

# Trailside Museum Nature Camp 2019

8:30 AM - 3:30 PM for all age groups!

## **Park Rangers and Naturalists, Grades 1-6:**

One week sessions beginning July 15th

Cost: \$350



## **Conservationists, Grades 7-9:**

Two week sessions beginning July 15th

Cost: \$750

Multi-camper and multi-session discounts available!

## **Stewards, Grades 10-12**

One session, July 8th - 12th

Cost: \$400

Registration is now open!

Find out more online at

[parks.westchestergov.com/  
activities/childrens-camps](https://parks.westchestergov.com/activities/childrens-camps)

### **Trailside Staff**

*Curator – Mindy Quintero*

*Naturalist – Kendall O'Connell*

*Naturalist – Sarah Walkley*

Conservation Division of the Westchester County  
Department of Parks, Recreation and Conservation

### **Newsletter Staff**

Managing Editor: Mindy Quintero  
Contributing Editors: Maureen Koehl  
Alison Koppelman  
Kendall O'Connell  
Sarah Walkley

### **2018 Friends Board Members**

*President – Phil Petronis*

*Vice President – Susan Harris*

*Treasurer – J Durst*

*Secretary – Margie Kunhardt*

Ted Cowan

Maureen Koehl

Larry Mango

Pat Normandeau

Jack Potz

Linda Press-Wolfe

Brian Stempel

Linda Burke, Ph.D.

*Emeritus:* Elizabeth Boone  
Susan Gould

Friends of the Trailside Nature Museum and Ward Pound Ridge Reservation is a private, not-for-profit organization dedicated to promoting a better appreciation and understanding of the natural world and the relationship between people and the land. Through its support of the Trailside Nature Museum, operated by the Department of Parks, Recreation, and Conservation of the County of Westchester, the Friends provides financial and volunteer aid for exhibits, school, and educational programs.

# Become a Member Today!

## Friends of the Trailside Nature Museum

P.O. Box 236, Cross River, NY 10518

☐ I would like to join / renew (Please circle one)

### Membership Categories

- |                                     |         |
|-------------------------------------|---------|
| <input type="radio"/> Other         | \$_____ |
| <input type="radio"/> Mountain Lion | \$1000  |
| <input type="radio"/> Black Bear    | \$500   |
| <input type="radio"/> Bluebird      | \$250   |
| <input type="radio"/> Wood Turtle   | \$100   |
| <input type="radio"/> Dragonfly     | \$50    |
| <input type="radio"/> Salamander    | \$25    |

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: (      ) \_\_\_\_\_

Email: \_\_\_\_\_

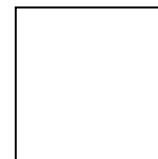
**Note: Membership at the Wood Turtle level or above includes a parking pass allowing free access to the Reservation throughout the year.**



cut along dotted line and return with payment

Trailside Nature Museum  
Ward Pound Ridge Reservation  
PO Box 236  
Cross River, NY 10518  
USA

ADDRESS CORRECTION REQUESTED



[www.friendsoftrailside.org](http://www.friendsoftrailside.org)



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