A New Eye on the Sky

By Dr. William Parker, Observatory Director

In early April, Heide Observatory staff and patrons decided to commit a portion of our generous Brookwood Foundation endowment towards a new telescope and mount. This was due to the regular failure of the existing telescope, a used 16" Meade LX600 ACF purchased in 2016, which significantly impacted our ability to connect visitors with the night sky.

After researching our options, we decided on a new 17-inch CDK400 Observatory System by PlaneWave Instruments. Because the open truss design of the optical tube for this telescope exposes the all-important mirror to dust and particulates, we also decided to replace the gravel walk and exterior pad of the observatory with cement. Through the generosity of the supporters who came out to our Gala Under the Stars Fundraiser in September, we were able to fund this



contractor gave us a reduced price to buy and install the cement.

The telescope itself arrived on October 20, and our own Chad Jocius and Tom Harper removed the old Meade telescope and mount, together with its supporting pier and securing bolts. They cut and relaid the electrical and networking cables. With help, they placed new bolts and a pier, relaid the electronics, and finally installed and

calibrated the new mount and scope. Alignment and testing of the new telescope was completed on November 6th.

To celebrate their contributions, a private kickoff event for donors will take place on Saturday, November 18, with a public open house following on Saturday, November 26th. We are excited for our future programs with our new scope, and bringing our visitors more in contact with the cosmos!

Thank You, Lori!

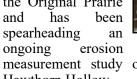
important landscape modification for the telescope, and a local

On Thursday, October 17th, Hawthorn Hollow's Restoration Ecologist Lori Artiomow retired, closing the books on over 12 vears of service and dedication. Lori started here in the summer of 2010, back when it was just 40 acres, had minimal programs, and a large patch of woodland called the Original Prairie. Since then, Lori has managed a number of major Ecological Restoration projects, enhancing the land and promoting biological diversity. "Lori has made such an impact here, in every corner. Ruth and Margaret Teuscher (Hawthorn Hollow's Founders) would be proud of all she has done." said TJ Levegue, Hawthorn Hollow Director.



One of Lori's largest efforts was a major wetland and ravine restoration project the Ozanne Outpost. Lori also the oversaw construction of a swale along the

Old Mill Road to divert stormwater runoff to the flood plain and away from being directly deposited in the Pike River. She also helped restore the Original Prairie and has been spearheading ongoing Hawthorn Hollow.





Lori in the Sugar Shack measurement study on the banks of the river itself for

Land Management is just one way Lori's skills have helped Hawthorn Hollow. Lori also helped develop fundraising databases, created an internal computer network, helped develop Hawthorn Hollow's educational programs such as Maple Sugarin' Time, and still found time to mentor numerous interns, volunteers, and staff members. In honor of her accomplishments, Hawthorn Hollow has created the Lori Artiomow Excellence in Conservation award. Thank you for being a mentor, a friend, and the hardest worker Hawthorn Hollow has had since Ruth Teuscher herself.

Winter at the Hollow

By Emily Leonard, Hawthorn Hollow Ecologist



Each year, winter brings snow, frigid temperatures and shorter days to Wisconsin. While we turn on the heat in our homes to survive the winter, our native wildlife also has to adapt with the seasons. Although it is still fall here at Hawthorn Hollow, these physical and behavioral changes are already underway.

Food availability is at the center of any animal's survival. Like humans, animals require calories and nutrients year-round. Although Wisconsin animals have various physical adaptations to keep them warm, such as thick fur coats, extra fat, or fluffy down feathers, sometimes frigid temperatures or deep snow can

prevent them from finding reliable food sources. This forces some animals, such as many of our bird species, to migrate to regions where these resources are more abundant. Other resident birds, such as chickadees and cardinals, survive winter by supplementing their diets with seeds from bird feeders.

Some of our non-migrating mammals, such as the woodchuck, jumping mouse, and brown bat, are currently preparing to spend the winter in a deep sleep called hibernation. In this state, an animal's body temperature plummets and its metabolism and breathing slow substantially. Cold-blooded animals, such as frogs, toads, and turtles, undergo a special form of hibernation called brumation. Some of our reptiles and amphibians burry themselves in mud at the bottom of lakes and nearly freeze solid throughout the winter.

While there are few true hibernating mammals in our region, Hawthorn Hollow is home to many species that become dormant in the winter. These animals, including skunks and opossum, increase their fall food consumption dramatically to develop an extra layer of stored fat for the winter. Dormant animals will sleep for extended periods of time when temperatures are below freezing, relying on this fat reserve. When temperature rise, they will emerge from dens and brush piles in search for more food. At Hawthorn Hollow, one of our most common species, the chipmunk, is dormant in the winter.

Unlike chipmunks, gray squirrels are one of many Wisconsin mammals that remain active during winter months. This fall, squirrels are busy around Hawthorn Hollow, eating and caching nuts from our abundant oak, walnut, and hickory trees. Both white-tailed deer and cottontail rabbits are also active in the winter, but are forced to change their diets based on the plants available. While deer feed primarily on leaves during the growing season, they will switch to eating bark, buds, and twigs this time of year. Active white-tailed deer also physically adapt to the shifting seasons, changing their coats from brown to grey and growing longer, thicker hairs with dense undercoats. This helps deer camouflage in winter landscapes while allowing them to stay warm while foraging.



A Gray Squirrel in a winter wonderland.

There are still plenty of late fall days ahead of us this season. Come out to Hawthorn Hollow while you still can and see these amazing winter adaptations first-hand!

The Friends of Hawthorn Hollow Annual Membership Meeting

Saturday, November 12th 10 AM



Thoughts on an Internship

By Matthew Hillstrom

Some would consider a 2 month long internship short, ancestry. Pollinators a plenty assuming it would lack substance or benefits. However, that helped the numerous interning at Hawthorn Hollow is a different story. Working amount of planted and wild under the kind, intelligent people who run the arboretum flowers thrive and brighten provided a top of the line internship experience for students the way. With benches and interested in Ecology and its related fields. Even for my short named trail signs to allow time at the nature conservatory, an understanding of my field you to stop and take a breath of interest developed organically along with my confidence. or explore the green further, The incredibly helpful and flexible learning styles offered by there is never a dull moment the employees were the driving force behind my whole at Hawthorn Hollow. education. I chose an independently focused approach, while guided and more taught options were also available. For me, the scenic paths and trails offered more than their looks as I would conduct surveys on the diverse set of insects the forest had to offer. All questions being answered with compassion and experience, and all answers leading to more questions, the substance and benefits offered could never be considered lacking.

An integral piece of the learning process at Hawthorn is the enjoyment of the conservatory itself, which is no doubt attending or volunteering for more. present. The trails would sometimes leave me without words, the beauty and serenity speaking for itself. I would often forget I would be walking on a kept path due to the incredible biodiversity drawing my eyes and mind away from my feet. Separate species of trees that attract animals from different



Matthew Hillstrom

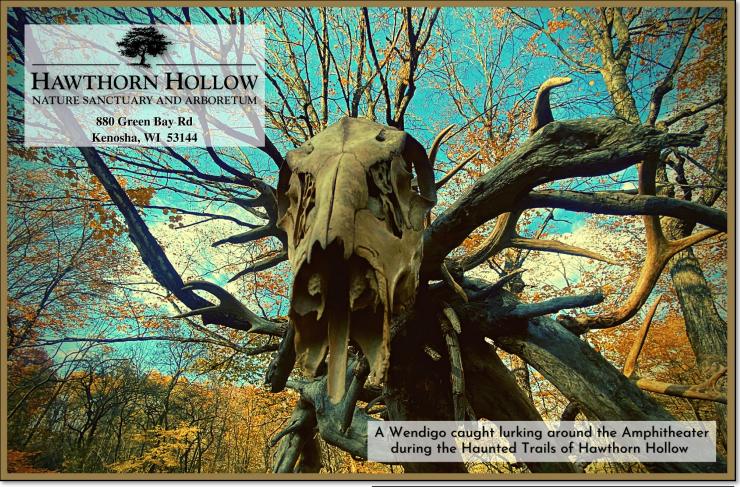
With the incredible experience offered to me, I decided it would only be fair to give back as well and I decided to volunteer for an aspect of the park that gives it its character, the events. From live music, art shows, and star gazing, the employees at Hawthorn are not afraid to engage the community, inviting everyone and anyone to enjoy the benefits that the nature conservatory has to offer. The incredible teamwork and organization that goes into these events ensures everyone has a stress free experience. My only regret is not

It is important to remember that Hawthorn Hollow is a nonprofit organization, and they rely on people like us. who wouldn't be able to live without parks like these in our lives, to donate any little bit they can.













November (**)

11/11 Night Hike*.....6:00 pm 11/12 Icicle Ornament Workshop*.....Mult. Times 11/13 Icicle Ornament Workshop*.....Mult. Times 11/19 Felting Workshop*.....9:00 am 11/19 Icicle Ornament Workshop*.....Mult. Times 11/20 Icicle Ornament Workshop*.....Mult. Times

 $\begin{array}{c} \textbf{December} \\ >>> & \longleftarrow \\ \textbf{12/2 Night Hike*}......6:00 pm \end{array}$ 12/3 Holiday Boutique......9:00 am 12/10 Wreath Workshops......1 pm

> Hawthorn Hollow is Closed from Dec 23rd to Feb 28th.

The Heide Observatory will still be open!



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