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Please send editorial comments and suggestions to:
 TFT.info@TreesForTomorrow.com
 (715) 479-6456



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 to Wisconsin Public Service (WPS) for printing this newsletter. Thank you!



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ELECTRONIC SERVICE REQUESTED



1944-2019: 75 Years of Stewardship



From *the desk* of
Robin Ginner,
 Executive Director

On a mid-winter day, 75 years ago, articles of incorporation were filed with the State of Wisconsin, organizing a new entity with the purpose to: “encourage, further, and promote the work of reforestation in the State of Wisconsin.” The date was February 23, 1944, and the entity was Trees For Tomorrow.

Our founders, a group consisting of nine executives of the pulp and paper industry, soaring from a victory of encouraging timber harvest through an event called the Pulp Wood Round-Up just months before, set a vision in motion to encourage not just timber production, but reforestation to support a sustainable supply for both their mills and for its intrinsic value.

Through their vision, trees were planted, classes were developed, and 75 years later, a legacy of conservation, environmental education and connection to the natural world is deeply entrenched on this 40 acres we call home in Eagle River, WI.

Thirty-five years after Trees For Tomorrow was founded, a young “yours truly” would spend several days a year on campus with both my local school (St. Peter the Fisherman in Eagle River), and my girl scout troop, learning about nature, learning to cross-country ski, and

developing a mindset as a young girl that would follow me to this day.

What we do at Trees For Tomorrow makes a difference. I’m not the only person who, 35 years after attending, remembers so much of the experience. When I attend industry events – *or even conferences that have nothing to do with the wood products industry* – I encounter people who have been to Trees For Tomorrow, and they love to tell me all about their experiences. They remember, in detail, everything about being here. Many go on to careers in natural resources management, others have a deep connection and recreational relationship with nature. But no matter where their path has led since those days on campus, one thing remains the same: They all remember, as I do, that profound experience of being at Trees For Tomorrow, and learning about our connection to the forests, wildlife, waters and soils all around us.

This year marks a milestone for our beloved organization. It’s truly an honor to be at the helm of an amazing organization that has made such a difference in not only my life, but the lives of hundreds of thousands of young people across the Midwest and Lake States. As we prepare for a year of celebration, we are encouraging our alumni and donors to share their experiences with us on Facebook. Those stories help encourage a new generation to come to Trees For Tomorrow, and also help us document the monumental success we’ve had over three-quarters of a century.

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Volume 6, Issue 1, Winter 2019

Notes from the **OUTDOOR CLASSROOM** Kim Feller, Education Manager



Kim Feller and Apollo, TFT's red-tailed hawk pose in the Education Hall at TFT.

“Wow! I’ve never been that close to a hawk before!” “Does he bite?” “What a beautiful creature.” These are all comments I have heard while facilitating programs with TFT Wildlife Ambassador, Apollo, the red-tailed hawk. My dream of being able to handle wild animals when I grew up is what first got me interested in a career in natural resources. Now, when I present programs with Apollo, I get to live that childhood dream. Like anything in life, though, there’s more to the story than what meets the eye.

Caring for a captive raptor is rewarding, but still a lot of work. Much goes into ensuring that Apollo is able to spread TFT’s mission of sustainable resource management. Apollo has worked at TFT since 2009 and cannot be released back into the wild due to an eye injury. This injury requires us to include a few special considerations into his care regimen. First, it means Apollo receives dead, frozen and thawed, food instead of live animals.

(continued on page 6)

YES! I Want to Support Trees For Tomorrow

As a private, nonprofit natural resources specialty school, we rely on donations from people like you to support our educational efforts. Please consider making a financial contribution.

I want to make a donation to Trees For Tomorrow

- 75th Anniversary Fund: \$ _____ General: \$ _____
 Scholarships: \$ _____

I want to become a member of Trees For Tomorrow

(For a list of benefits for each membership level, go to TreesForTomorrow.com)

- \$35 - \$49 **Hemlock** \$50 - \$99 **Balsam** \$100 - \$249 **White Pine**
 \$250 - \$499 **Yellow Birch** \$500 - \$999 **Tamarack** \$1,000 or more **Red Oak**

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

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Payment Method: Check Visa MasterCard

Credit Card # _____ Expiration date: ___/___/___ CSC#: _____

Please complete this form and return it with your donation to:

On Campus



From *the desk* of...

Cheryl Todea,
Operations Manager

We had plenty of beautiful fall days as we explored the natural world with our students. Fall is always busy for our staff as they worked with more than 50 groups and more than 1,700 program participants! I can't believe fall is over and it's now winter 2019.



Dear Cellcom,
Thank you for donating to Trees For Tomorrow, which allowed me to attend the Natural Resources Careers Workshop. Your generosity helped pay for a week-long of meals, housing and a variety of activities. I was able to experience canoeing and make new personal connections. I heard many speakers talk about their daily responsibilities as part of their career. One specifically, the forester that came in, inspired me to further explore careers in forestry and land management. The other professionals gave me insight into careers that interest me and others that I do not prefer. The workshop as a whole taught me to gain experience in the field before completing a college degree and the importance of being professional in and outside the field. I also learned how to write and complete a resume. This workshop not only inspired me to follow my passion in natural resources, but inspired me to work harder for the things I want to experience in life. Thank you for supporting me through this workshop.

Thanks again,
Brooke, a high school student

Trees For Tomorrow Attendance Third Quarter 2018

School	Town	Sponsor*
Aldo Leopold Community School	Green Bay	Trees For Tomorrow
Antigo High School	Antigo	WI SFI Implementation Committee
Bayview Middle School	Green Bay	Mead Witter Foundation and WI SFI Implementation Committee
Belmont Community School	Belmont	John C. Bock Foundation
Christian Heritage Academy	Northfield, IL	Trees For Tomorrow
DC Everest Middle School	Schofield	Domtar Paper
Divine Mercy School	South Milwaukee	We Energies Foundation and Baden Powell Board of Directors
Golda Meir School (5th grade)	Milwaukee	We Energies Foundation and Baden Powell Board of Directors
Goodman Armstrong Creek HS	Goodman	WI Public Service Foundation
Lombardi Middle School	Green Bay	Trees For Tomorrow
Marion High School	Marion	WI SFI Implementation Committee
Menominee Tribal School	Neopit	Mead Witter Foundation
Northland Lutheran High School	Kronenwetter	Trees For Tomorrow
Northland Pines Elementary School	Eagle River	Trees For Tomorrow
Oconto High School	Oconto	Trees For Tomorrow
Sevastopol Elementary School	Sevastopol	Mead Witter Foundation
Sugar Camp Elementary School	Sugar Camp	Trees For Tomorrow
Sheboygan County High Schools	Sheboygan	Sheboygan County Conservation Association
Three Lakes Elementary School	Three Lakes	Tree For Tomorrow
Tomahawk Elementary School	Tomahawk	Packaging Corps of American
Watertown High School	Watertown	We Energies and Mead Witter Foundations
Westosha Central High School	Westosha	WI SFI Implementation Committee
Wild Rose High School	Wild Rose	Lake States Lumber Association

Other Groups	Other Groups	Off-Campus	
Advisory Council Fall Meeting	Sno-Eagles Snowmobile Safety Course	Honey Rock Camp	
Board of Directors Fall Meeting	USFS Girl Scouts	Kretz Forestry Field Day	
Eagle River Police Department	UWSP Upward Bound	Northwoods Children's Museum	
Eagle River Rotary	Vilas County Youth Coalition Youth Conference	Wabeno School Forest Field Day	
Great Headwaters Trail	WI DNR Employee Training	*To sponsor a school or group of students, please contact Cheryl Todea, Operations Manager. Sponsorships can range anywhere from \$10/person up to \$300/person.	
Hoyt Boy Scouts			WI Invasives Headwaters Program
Road Scholar Hiking			Wreath Making Workshop

Looking Ahead

We are looking forward to welcoming many schools, Road Scholar programs, cross-country ski retreat groups, and other groups using our facilities for meetings in early 2019.

Corporate Spotlight **TAPPI**

The Technical Association of the Pulp and Paper Industry (TAPPI) has been a supporter of Trees For Tomorrow since 1998. The industry group is represented in the Midwest by the Lake States Section of TAPPI, and the North Central Region of the Paper Industry Management Association (PIMA).

TAPPI fosters the vitality of the global forest products, pulp, paper, tissue, packaging, printing and associated industries by sharing technical knowledge, valuable networks, and professional growth of its members. Locally, this objective is achieved by the Lake States Section of TAPPI by:

- Providing opportunities for members to develop a broader professional perspective, continue technical growth, make greater contributions and solve mutual problems within the pulp and paper industry.
- Recognizing the accomplishments of members and of the

pulp and paper industry in the Midwest states.

- Encouraging research, technical progress and high-quality people to enter the pulp and paper industry.
- Supporting institutions with educational programs that are related to the Pulp and Paper Industry.
- Providing scholarships and financial support for students pursuing careers in the Pulp and Paper Industry.

TAPPI supports Trees For Tomorrow because they believe the viability of the Pulp and Paper Industry is directly dependent on the sustainability of all natural resources, including the forests and water quality of our rivers and lakes. TAPPI shares Trees For Tomorrow's vision of the value of environmental education as the best path to environmental stewardship, and is excited about the opportunity to expand our partnership with Trees For Tomorrow by accepting an invitation to be represented on the Trees For Tomorrow Board of Directors. 🌲

Picture yourself here!

TREES FOR TOMORROW'S BOARD OF DIRECTORS CODIALLY INVITES YOU TO THE

75th Anniversary Gala Fundraiser

Saturday, March 2, 2019
5-8:30 p.m.

GET OUT YOUR LUMBERJACK ATTIRE AND JOIN US FOR A FORESTER'S BALL! ENJOY A THREE-COURSE DINNER, DRINKS, RAFFLES, AND SILENT AND LIVE AUCTIONS CELEBRATING OUR 75-YEAR HISTORY.

The Rothschild Pavilion, Rothschild

SAVE THE DATE

17th Annual GOLF OUTING FUNDRAISER

May 31, 2019 Eagle River, WI
Eagle River Golf Course

♦ PARTICIPATE - SuperPack price good thru May 10th	♦ SPONSOR - Name recognition - Levels to fit any marketing budget - Deadline May 3rd	♦ DONATE - Items, experiences or cash - Help raise funds for TFT programs
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SEEK ADVENTURE

Sophomores, juniors & graduating seniors

Natural Resources Careers Exploration Week for high school students

June 16-21, 2019

Application Deadline April 12th

Applications and more info at TreesForTomorrow.com

(continued from page 1)

Because he is warm-blooded, Apollo needs to eat every day to maintain his weight. TFT's staff come into the office on weekends and holidays to place food on his stump, ensuring Apollo gets fed.

Winter presents its own challenges for Apollo. Most red-tailed hawks this far north migrate south. Unfortunately, Apollo doesn't have that option. However, he does have his own way of coping with the elements. One way is by puffing up his feathers so that he can trap air between them. That air is warmed by his body heat and acts as an additional layer of insulation. If you look closely, you'll see birds like Juncos or Chickadees in your backyard puffed up like little balls of feathers on a cold day. They're doing the same thing as Apollo! TFT has also built a wind block in his mew (enclosure) that's closed in on three sides. Often when I enter his mew on a cold morning, Apollo is huddled up in there. On extremely cold days and nights (-10F), we will bring Apollo inside to warm up.

In addition to caring for Apollo's physical wellness, we also must care for his mental wellness. This means introducing Apollo to new things, called enrichment, to break up the monotony of life in the mew. Enrichment takes many forms, including walks around campus on a glove, having him sit on his indoor perch during staff meetings, or food "puzzles" during feeding time. One of my favorite enrichment activities is when we put one of Apollo's mice into a small bowl of water, and he goes "bobbing for mice!" This presents a new experience for our feathered friend, and also helps boost his water intake on warm days.

These pieces are just a small part of Apollo's care. All of this work is carried out by TFT's educators and staff every day. While coming in to feed Apollo on the weekend or picking up leftover guts in the mew aren't as glamorous as the image of a regal hawk on the glove, it's worth it to know we are providing our feathered friend with the best care we can. It's even more worth it to see the lasting effects Apollo has on our guests who are fortunate enough to learn from him. 🌲



Joseph Kies, Senior Buyer-Wood Procurement at Domtar

1. When did you attend Trees For Tomorrow?

I attended a Forestry Career Workshop in the summer of 1979. There were a total 60+ students from Iowa, Illinois and Wisconsin that attended that workshop and I formed life-long friendships with several of those students.

2. How did your experience at Trees For Tomorrow change your life and/or career aspirations?

Before attending a week-long forestry career workshop while in high school, I had no idea what natural resource management and forestry was all about. After attending the camp, it was the only thing I wanted to do.

3. Why do you continue to support Trees For Tomorrow?

Trees For Tomorrow has a great reputation for providing programs that emphasize the importance of sustainable resource management.

4. What are some of the values that you took away from your visit?

Natural resource management is more than just a career, it is a way of life. There are a number of organizations that exist that would like to see an end to logging and forest management, but that is not going to save the world. As long as there is a demand for forest products, there will be logging. It is our job as natural resource managers to see that the logging and forestry operations are carried out in a sustainable manner.

5. Anything else you would like to add about your experiences at Trees For Tomorrow?

I can remember riding a Greyhound bus from a small farming town in Iowa to Eagle River during the summer of 1979. As the bus traveled north of Stevens Point on Highway 51, I was in awe of the vast amount of trees in Northern Wisconsin and thought I was seeing a great wilderness. I was surprised to learn that this was not wilderness at all, but the majority of the forests were intensively managed, and an entire industry was centered around the harvesting of the trees in a sustainable manner. My experience at Trees For Tomorrow created an inner desire to be part of that industry, and that desire still exists today. 🌲



(continued from page 1)

If you're looking to do more than just share your stories and photographs, registration for our **75th Anniversary Gala** is open on our website. The event will be held at the Rothschild Pavilion on **Saturday, March 2 beginning at 5 p.m.** Tickets are \$75 each, or you can sponsor a full table of your friends and colleagues for \$1750. Every dollar raised at the event will support our 75th Anniversary Major Gifts Campaign.

To date, we've raised over \$25,000 toward our \$200,000 goal for the 75th Anniversary Campaign. The goal is to support a campus-wide modernization project to help with the longevity of Trees For Tomorrow's historic campus, and ensure our students have the resources available to help them make the most of their visit.

Our vision is a state-of-the-art campus, with comfortable accommodations and safe transportation, where students have the resources available at their fingertips to excel in their study of natural resources management and sustainability. Our vision includes increasing the number of

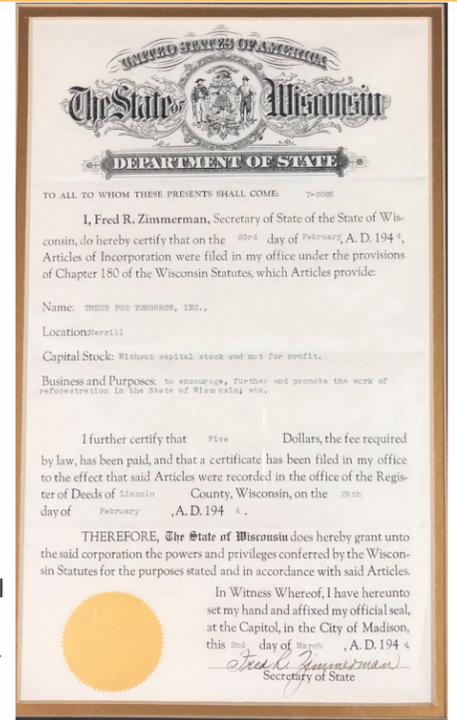
students to 10,000 per year and providing scholarships to students in need, so all students in the upper Great Lakes have the ability and opportunity to come to Trees For Tomorrow.

Trees For Tomorrow's campus was built 83 years ago by the Civilian Conservation Corps. With that history and usage comes a lot of elbow grease and hard work to keep the buildings and infrastructure safe and inviting for our guests. We realize there is a need for modernizing and updating our buildings and equipment so we can better serve our students and guests.

We will be hosting additional events throughout the year, including our annual **Golf Outing Fundraiser on May 31**, and anniversary-related festivities in conjunction with our annual **Forest Fest**, scheduled for **Saturday, July 27**. We will be planting a tree in the oval in commemoration of the event, and invite all alumni and supporters to attend and be recognized as being part of our long, successful and rewarding history.

We invite you to join us at one of the events scheduled throughout this year, and follow us on Facebook to share your experience as part of TFT's history.

To support our 75th Anniversary



TFT's articles of incorporation

Campaign, you can donate online at www.treesfortomorrow.com. Click on the Donate Now button in the top right corner. You can also send a donation with the coupon on the back of this issue of Tree Tips.

Thank you to all our alumni and supporters for 75 years of sustainability and stewardship in Wisconsin's Northwoods. 🌲

5 Nancy Polacek, Hospitality

Hobbies: Collecting Pez dispensers, and I own every book written by Ernest Hemmingway.

What do you like about living in the Northwoods: Seeing all the wildlife and fishing in the summer.

What do you like about working at TFT: I like the people and I'm passionate about TFT's mission.

Favorite meal to make at home: Zucchini rolls, made with zucchini, lemon juice and capers.

Favorite holiday and why: Easter because I like the pastel colors, candy (especially jelly beans) and for religious reasons. 🌲

Recipe: Trees For Tomorrow's S'more Cookie Bars

From the Kitchen of: Mandy Gingerich, Hospitality Manager

- INGREDIENTS:**
- 3/4 cups of margarine
 - 3 cups graham cracker crumbs
 - 1 cup semi-sweet chocolate chips
 - 1 cup butterscotch chips
 - 1 cup mini marshmallows
 - 1 can 14oz sweetened condensed milk

1. Preheat oven to 350 degrees. (300 degrees in convection oven)
2. In a 9x13-inch pan, combine margarine with crumbs; press to form even layer.
3. Evenly sprinkle with chocolate chips, then butterscotch chips, then mini marshmallows.
4. Pour condensed milk evenly over mixture. Bake 25 mins or until bubbly.
5. Let cool, refrigerate 1 hour.



Northbound

A Forum for Natural Resource Issues & Education

As seasons change from fall to winter, trees and plants go through some amazing changes. Leaves on the trees change colors and fall off. We watch ferns and other plants shrivel and die away, while others maintain their vibrant green color. Like animals and humans, plants prepare for winter in the fall. While we may tear up the garden and stack firewood, plants prepare for winter in other ways.



Figure 1 & 2: Examples of Wisconsin native plants, including milk weed (top image) and wild cucumber (bottom image). (Photo source: Pixabay)

Plants In Winter

By Melissa Friel

Winter is a rough time for plants. Green leafy matter won't survive in the cold because of the structure of the plant cell. Animal cells have a cell wall, which is flexible and can expand and retract as needed. Animals also have a variety of cell types, including bones, muscles and tendons that help our bodies stay ridged. Leafy plant cells also have this same cell membrane, but do not have specialized cells to maintain structure like our bones. Instead, they have cell walls. The cell wall is a ridged layer just outside the cell membrane, giving plants their structure. If a plant doesn't have enough water, it will wilt because the inner cell membrane isn't able to support the outer cell wall. In the cold, the water inside the cell membrane could freeze, expand and rupture the cell wall causing cell death, and depending on the plant, demise of the entire plant as well.

When winter is coming, different types of leafy plants have different strategies. Annuals complete their entire life cycle in one growing season. They begin as a seed, sprout, grow, flower and produce seeds all in the same season. As winter sets in, signaling the end of the season, they die off having lived a full life. Garden examples of annuals are tomatoes, squash, and basil. Examples of native Wisconsin annuals include milk weed and wild cucumber. The individual plants aren't as important as the survival of the species. These plants put a lot of energy into one growing cycle ending with seed dispersal. The seeds will stay dormant until growing conditions are just right for them to begin germinating in

the spring to start the cycle over again.

Perennial plants come back year after year. They use their spring and summer to produce as much glucose as possible. The glucose is then transformed into carbohydrates for energy in their roots. Tuberos garden plants such as carrots, potatoes, and garlic will do this. As their green leafy parts die off above ground, the roots will stay alive throughout the winter surviving on the stored energy from the year before. In the spring, they will grow more green and leafy portions. Examples of native Wisconsin perennials include cattails, bunchberry and the pink lady slipper.

Trees and Winter

While not all plants are of the green leafy variety, they still need to adapt to allow them to survive the winter without damaging their cell walls. Deciduous trees (trees with leaves) start to change before it gets cold enough to damage the leaves. The trees receive cues from the amount of sunlight they get each day, and once the sunlight diminishes, they begin to change in preparation for winter. Deciduous trees begin the transition by sending a chemical to stop photosynthesis and the production of carbohydrates and sugars, causing the leaves to take on the colorful hues we enjoy seeing in the fall. The leaves then begin to cut off supply entirely from the tree, at which point they fall off the tree. If you look closely, you can see leaf scars on the twigs of trees. Deciduous trees will then store their glucose as carbohydrates in their roots and become dormant for the winter.



Figure 3: Cattails (above) and pink lady slippers (right) are examples of WI plants that are perennials. (Photo source: Pixabay).



Coniferous trees (trees with needles) have a different solution to winter. They are also referred to as evergreens because they keep their needles and greenery all year long, with the exception of the Tamarack, which loses its needles each year and stores its energy in the roots like deciduous trees and goes dormant for the season. For the rest of the coniferous trees, the needles of the tree are specially adapted for the cold. Conifers will typically keep their needles for three to five years and lose only the older needles on a yearly basis. The needles are also a completely different texture than a leaf. They have a thick, waxy coating, which helps protect them from the cold. The needles will change color, albeit not as dramatic as our leaves, from a brighter green to a slightly more grayish, green color. The resin in the tree helps to produce a kind of natural antifreeze inside the cells of the needles.

Deciduous and coniferous trees are also adapted to snowfall. Deciduous trees are small at the base, but wide at the top where they have the most branching. When we get an early snowfall that sticks to the leaves, the top of the tree becomes heavy, and the smallest branches hold the bulk of the weight. Early snowfalls can cause a lot of damage to a deciduous tree because they're not meant to handle the weight of the snow and branches often break. A conifer; however, is built to withstand the falling snow. Consider a typical Balsam Fir, it's smallest at its peak and widest at the base, the opposite of many deciduous trees. They also have

waxy needles. The shape of the tree and the needles' slick exterior allow the snow to easily slide off the tree and build up around the sides. The trees also create space where there isn't as much snow near the trunk of the tree. Many animals such as deer, hare and squirrel like to use these places because they are naturally warmer due to the insulating properties of the snow.

Exceptions to the Rules

Like all things in nature, there are exceptions to the rules. If you've ever dug under the snow you may, upon occasion, find a leafy fern that's still green. So why and how do they stay green under all that snow? To answer the why portion of the question, it is so that the plant can be ready for spring when it arrives. Unlike a plant or fern that has died back or has to produce leaves, this fern is ready to go! How they stay green under the snow is a little more involved. They produce a protein that acts like antifreeze and stops ice crystals from building up inside the plant. The fern also gets rid of all the water inside to prevent the cell walls from rupturing. When you see a green fern under the snow, it's likely limp because it intentionally doesn't have any structure inside. While the fern has chlorophyll, it doesn't photosynthesize in the winter. This stops movement of sugars up and down the stem, which would otherwise cause it to freeze and damage the plant, even with the antifreeze proteins. Another characteristic that these ferns have that helps protect them is they taste horrible!

This helps protect them from animals that are starving during the winter and are looking for an easy meal.

As winter gives way to spring, all of our Northwoods plants either grow anew or come out of dormancy. This happens in trees before the snow is gone. Sap begins to flow up and down the tree as temperatures warm. This flowing sap gives us maple syrup. Later on, trees leaf buds will explode showing fresh and new greenery and our conifers will also have new, light green growth on the ends of their twigs. The cycle of life for our plants continues on to a new season. 🌲



Figure 4: Coniferous trees have a thick, waxy layer.



Figure 5: Ferns can stay green under snow. (Photo source: Pixabay)