

Wisconsin



Woodlands

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Creating Tomorrow's Woodlands Today

West Salem Outdoor Education Center

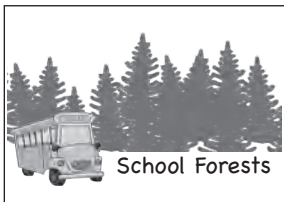
School district uses outdoor learning to its advantage

By Steve Schmidt

Imagine walking through a mature white pine forest. What comes to mind? Perhaps a scent of pine with a soft bed of brown needles, trees of similar size and well-drained upland soils.

But a visit to the pine forest on the eastern side of West Salem School District's Outdoor Education Center (OEC) is unlike what I would have visualized. At a glance, this forest made me think of the loblolly pine forests of East Texas and the critters that inhabit them — copperhead snakes, skinks and anoles crawling through the leaf litter.

I had to remind myself that this was Wisconsin and those animals were not here. Thankfully, the cool November day helped with that. The white pine and maple forest at the OEC is characterized by its shallow depth to the water



table, which cuts the surface in unexpected places.

School forest coordinator John Sullivan shared several of his favorite spots in this unique habitat. A shallow stream bubbled up in the hole vacated by an uprooted pine. The stream stays a moderate 55 degrees Fahrenheit year-round! As we continued our hike, we saw deep and narrow holes filled with dark water next to random trees. Sullivan grabbed a 6-foot limb from the ground and put it into one of these odd pools between a twist of surface roots. It was at least 4 feet to the bottom. Yikes — too deep for an unsuspecting kindergartner! I was thankful for the daylight.

To the south of this swampy stand of white pines, the 2-mile OEC trail winds through a stand of black oak and mixed hardwoods, in the center of which is a large viewing platform. These stands are adjacent to a long marsh that cuts the middle of the property from the north line almost to Interstate 90 on the



Photo by Annie Pearson

School forest coordinator John Sullivan teaches students about the new stream in the forest created in the hole vacated by an uprooted pine.

southern border. The western half of the property is relatively elevated and thus drier than the eastern side. Here, several mixed stands of jack pine and black oak are interspersed with some pockets of aspen and maple, white pine, and the open area in the south-central part of the forest where the lodge and restrooms are located.

A 60-year-old red pine stand along the driveway provides an example of plantation forest management and a contrast to the other more diverse habitats. Remnant prairie plants can be found in sunny locations in growing season, especially along the driveway, such as lupine, pasque flower, Indian grass, big bluestem, hoary puccoon and butterflyweed. Rattlesnake plantain and pink lady's slipper, among others, can be found in locations with the right combination of soil and sunlight. Invasive species present including garlic mustard, reed canary grass, autumn olive, honeysuckle and glossy and common buckthorn. The variety of habitats makes the OEC an ideal outdoor

classroom for West Salem students and community members alike.

Outdoor learning has been used as a way to more easily maintain physical distancing by opportunistic teachers across Wisconsin during the 2020-21 COVID-19 year. Several West Salem teachers have capitalized on this with their students, too. For instance, 4K students and parents have visited the forest for outreach programs that include plenty of explorative play for those in Colette Shockman's class. Martha Burdick's fifth-grade students were fortunate to have three trips during the pandemic as they learned how deer adapt to their habitat, went fishing in a pond on an adjacent property, and roasted hotdogs and marshmallows in fall; snowshoed and ran science experiments to test insulation capacity of their designs in winter; and planted trees received from the WDNR nursery stock in spring. Free trees from the DNR nursery is one of the benefits of managing an officially registered school forest.

Forest facts

- Certified: 1958
- Total acres: 132
- School district enrollment: 1,797 (2018-19)
- Student visits: 2,336 (2016-17)
- Forest website: <https://www.wsalem.k12.wi.us/content/community/outdoor-education-center>
- District Facebook: <https://www.facebook.com/SchoolDistrictofWestSalem>
- Contact: John Sullivan, coordinator, at sullivan.john@wsalem.k12.wi.us



Josh Deml takes his third-grade students in fall, winter and spring, including each day for a week to study winter survival, animal tracking, winter fitness and outdoor skills. The students' favorite activities have to do with the outdoor survival skills. Students learn how to build a fire, cook s'mores over it, and then design, build and lead tours of a shelter they built in the woods.

In December 2020, seventh-grade science teacher Brian Baker was awarded \$750 through the WXOW Tools for Schools program to purchase new GPS units for students to use at the school forest. Students will geocache, observe and collect forest measurements, and navigate and explore different areas of the forest.

High School science teacher Kelly Rueckheim has a class called "The Great Outdoors," in which students study a forestry unit. His Ecology Club

students assist elementary students on OEC visits and have plans to improve habitat through invasive species control.

There is a challenge course on part of the trail system that has seen limited use recently. Sullivan is working with LEAF, Wisconsin's K-12 Forestry Education Program, to learn how to use these valuable confidence-building challenges with students.

The OEC education plan will be updated in the near future and to that end, the school forest committee is being re-activated and is seeking partners to help continue the strong outdoor education tradition of this school forest program.

Education plans are important planning and implementation tools of school forests. These go hand in hand with forestry stewardship or management plans. OEC resource management has been guided by three such plans since 1990. An updated plan was just completed by Clint Gilman, WDNR forester for Monroe County, and includes a few small harvests to improve forest health in the next few years.

The 1990 plan by Dick Theil highlighted two soil factors worth comparing between the different forest types on the property: depth to groundwater and relative fertility. In the 1992 plan, Paul Heimstead included educational opportunities under management activities for each forest stand on the property. He described how the process of eutrophication or aquatic succession was leading to forest succession, the natural pattern of change whereby habitat or forest type replaces another over time. Here, he is describing the wet forest on the eastern side of the property:

"This stand consists of white pine, red maple, tamarack and yellow birch all of various age classes. Most of this stand was marsh at one time, eventually filling in with white pine. The water table remains within inches of the forest floor and is even exposed in certain areas. Because the water table is so high the roots cannot penetrate too deep or they will drown. White pine cannot tolerate to have its roots submerged, so they grow just above the water table. That is why the forest floor on the eastern edge of this stand has no soil; it is mainly roots of the white pine covered with

organic material (needles and leaves)."

Over a long time, the buildup and decomposition of organic materials, such as leaves and woody debris, will develop soil as the stand transitions from a swamp to a full terrestrial forest. Forest soil and habitats develop over time through natural patterns in forest succession. Similarly, School Forest programs have a sort of succession over time. Whether the forest thrives depends on the level of support and involvement of the community including students, district staff, administrators, natural resource professionals and local businesses. The future looks bright for the OEC.

Visiting & directions:

Consider a visit to hike the West Salem OEC if you are in the Sparta area. OEC welcomes help from willing volunteers with projects and is looking to grow its school forest steering committee.

Before your visit, please contact John Sullivan, school forest coordinator, in order to better track use and in case of a conflicting school activity. His email is sullivan.john@wsalem.k12.wi.us.

The West Salem Outdoor Education Center is located about 20 miles east of the campus and just east of Sparta. From the east or west on I-90, exit west onto Highway 16. Turn right onto Theater Road. Follow Theater Road past the Best Western Hotel and curve right. There is a small gravel turnaround with a recently graveled road to the left or east. That road is the OEC driveway.

Editor's Note: Information was used from the 1992, 2010 and 2021 Forest Stewardship Plan: West Salem School Forest, and the 2008 Outdoor Education Center Steering Committee's West Salem Outdoor Education Plan.



Stephen Schmidt, a state-certified science educator, is an education outreach specialist for LEAF, Wisconsin's K-12 Forestry Education Program.