

Forest Restoration Following Two-lined Chestnut Borer Infestation

As you begin your hike along Historic Bayfield Road Trail you will notice an area of forest where a recent clearcut has taken place. A total of 39 acres of red oak were harvested during the winter of 2004-2005 following outbreaks of two-lined chestnut borer in 2002 and 2003.

Two-lined chestnut borer (*Agrilus bilineatus*) is a beetle native to Wisconsin that attacks oaks that have been stressed by other factors. Factors that left forests in this area severely stressed included: a late frost in 2000; tent caterpillar outbreaks in 2000, 2001, and 2002; and finally a drought in 2003. The trees are killed by the larval stage of the beetle that feeds on the cambium, interrupting water and food transport in the tree. A classic symptom is premature leaf browning of oaks from mid to late August. Once symptoms are evident, nothing can be done to save the tree. The first red oak mortalities were noticed here in 2002.



The 2002 Brule River State Forest Master plan management objective for this site is to maintain red oak dominated stands because it is one of the only areas in the forest with soil well suited for growing red oak. In order to salvage monetary value from the dead trees and encourage the regeneration of oaks, the affected trees were harvested during the winter of 2004-2005. Harvesting was completed during a time of snow cover and frozen soil conditions so as to disturb the soil as little as possible. 15 acres were harvested by cutting all trees while on 24 acres the maple trees were left. The 15 acres that were completely cut had red oak planted in 2005 and will be managed to maintain a fully stocked stand of red oak. A mixture of red maple, sugar maple, aspen and oak will dominate the remaining 24 acres. In total, 1230 cords of wood were harvested which provided \$39,608.34 to the state and is enough timber to build 40 homes.

Over time, changes will occur to the forest as the new trees develop. In 2005 visitors will see debris and logging slash leftover from the previous winter's salvage operation. By 2010 a very dense stand of 10 foot tall oak, maple and aspen will be seen. The area managed for oak may have been treated with prescribed burning in order to encourage the oaks to dominate the area. Maple is easily killed by fire while oak is not. By 2025 the forest will be thinning out as the canopy of tree leaves forms and shades out many under story plants. By 2050 the affected forest will appear much as it did prior to the salvage harvest.

Forests are forever changing.....

HISTORIC BAYFIELD ROAD HIKING & SNOWSHOE TRAIL

(Approximately 2.25 miles)

BRULE RIVER STATE FOREST

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History of the Bayfield Trail

Along this route, the first road between Superior and Bayfield was built in 1870. The road was used to transport freight, mail, and passengers between the cities until it was replaced by the railroad in 1885.

At about a half mile from the parking lot, and if you look North (left), you will see a rocky rise with a fence on top. If you climb the steep rocky path, you will see the old Percival Mine. Stay outside the fence for your safety. Imagine the amount of work it took to operate steam driven drills and pumps back in the 1870's. In 1873 a copper vein was reported to have been found only 15 feet down. Exploration continued, but in 1874 prospecting appeared to fail. There were several additional attempts to mine for copper here from 1899 through WWII. The shaft at one time reached a depth of 90 feet.

Next you will come to a wooden bridge that crosses a small unnamed stream that flows in Percival Creek. Be careful walking down the hill to the bridge, it sometimes can get slippery.

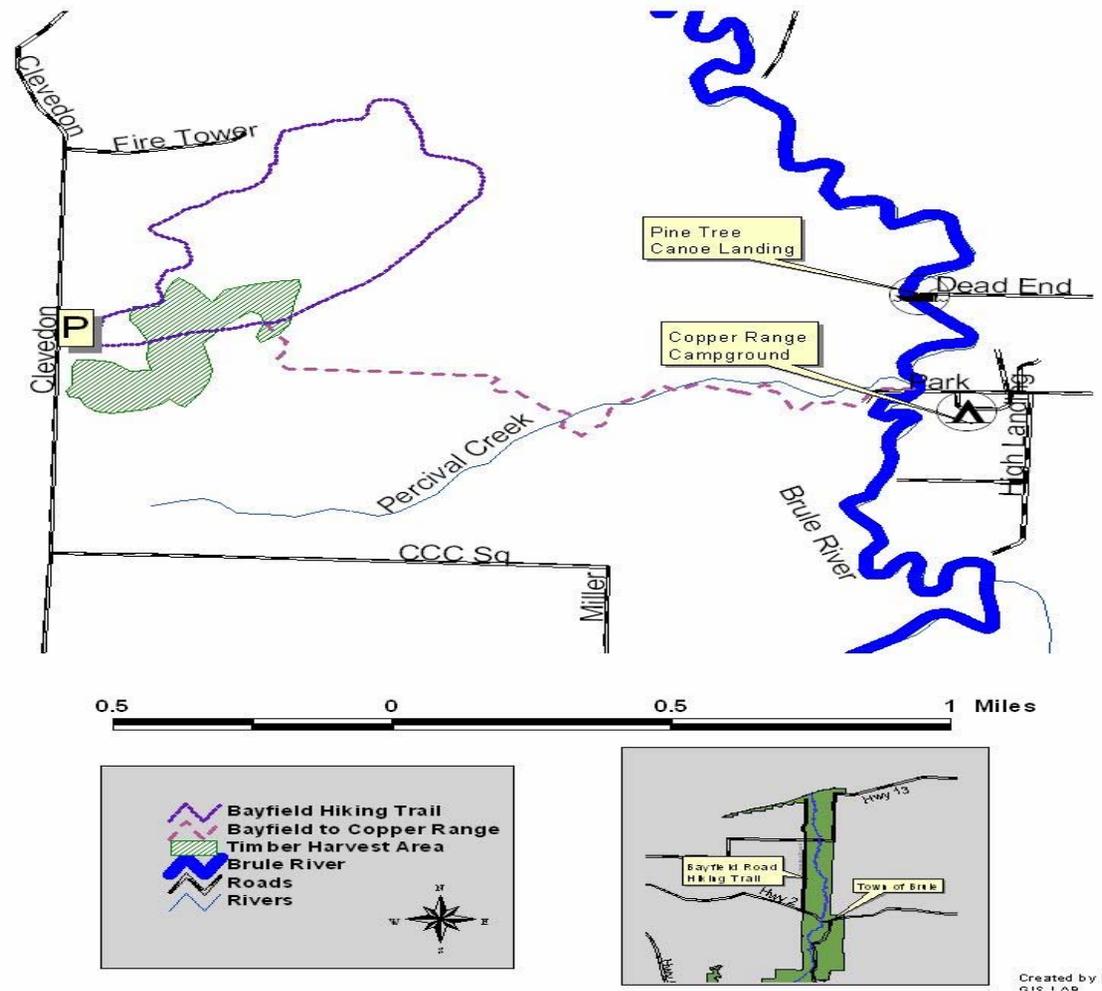
Shortly after the bridge, look for an old foundation left of the trail. It is believed that this is what remains of the quarters the miners used in the 1870's. The Percival mine employed eight to fifteen men.

You will come to a left turn in the trail and have to walk up a steep grade. This is where the trail leaves the route the Bayfield Road used in the

1800's. The Bayfield Road continued East and crossed the Bois Brule River about a half mile from here. It is reported that two taverns used to exist at the crossing. One had rooms for travelers and could accommodate up to eight horses. This was the "layover" location, for the trip between the two cities took two days. The trail now meanders through several drainages and eventually takes you up to Sugar Camp Hill. This area of northern hardwoods is the only one like it on the Brule River State Forest.

As you reach the top of Sugar Camp Hill, you may see the Clevedon Fire Tower has a 7'7" cab on top where DNR personnel can watch for and locate possible forest fires. Please do not climb the ladder. Besides being illegal, it is unsafe without proper training and equipment.

The remaining trail continues through the hardwoods and small areas of conifers. It joins the first part of the trail only 30 yards from the parking lot. We hope you enjoyed your hike in the Brule River State Forest.



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