

# Old Growth in Wisconsin: a Survival Story



Hermit Thrush photograph taken by John Schwarz



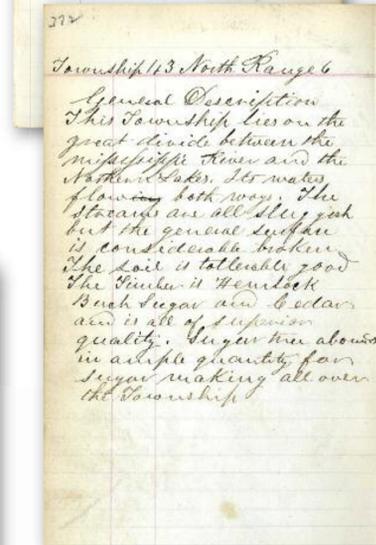
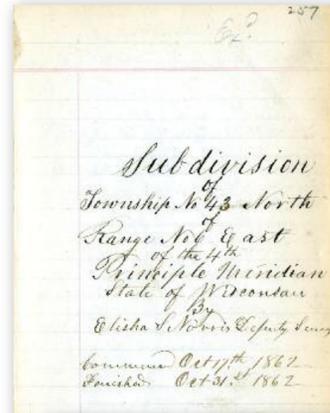
Naturalist John Bates teaches about the Hemlocks

## History of Old-Growth in Wisconsin

In the last half of the 1800s, nearly all of northern Wisconsin's timber was cut or burned. Fortunately, Van Vliet Hemlocks survived the cutting and burning practices of that era. Today, old-growth forests in Wisconsin are almost non-existent. Data compiled by the Wisconsin Department of Natural Resources in 2011 indicated that only about 23,000 acres of traditional old-growth forests remain in our state. This represents a little more than one-tenth of one percent of the original forest. Van Vliet Hemlocks stands as an example of what once was abundant in Wisconsin but now is rare.



Hemlocks photograph taken by Bruce Nelson



Field note images: 1862 original survey document, Elisha D. Norris

## The Winegar Moraine and the Sub-Continental Divide



Maidenhair Fern

The last advance of glacial ice reached here 12,000 years ago where it deposited the "loamy sand" of the Winegar Moraine. Common understory species include wild lily-of-the-valley, jack-in-the-pulpit, and maidenhair fern. At around 1,700 feet, this moraine also marks a sub-continental divide, where all waters north of here flow into Lake Superior and all waters south of here flow into the Mississippi River. Elisha S. Norris, Deputy Surveyor, makes mention of this feature in the survey he conducted in October 1862 (see field note images).

## Van Vliet Hemlocks – A Northern Hardwood-Hemlock Forest

The Van Vliet Hemlocks stand represents a rare remnant of the northern hardwood-hemlock forest. It includes undisturbed black-ash cedar swamps, several small undeveloped bog lakes, and one and a half miles of undeveloped frontage on Averill and Van Vliet Lakes. Highly shade-tolerant sugar maple, eastern hemlock, and yellow birch dominate this forest with minor components of basswood, red maple, northern red oak, white ash, and white pine. Northern hardwood-hemlock forest types were once the most widespread forest type of northern Wisconsin. These forest types are found on relatively deep, moist, nutrient-rich soils that limit drought conditions. In addition, forest fires are rare due to wet foliage and damp forest floor litter.



Pitcher plant photograph taken by Jill Wilm

*Hemlock*

*Buck Sugar and Cedar*



Bog lake

## White-tailed Deer



Newborn white-tail fawn photograph taken by Jill Wilm

Wintering white-tailed deer eat around five pounds of woody browse daily, including hemlock. While hemlock reproduction is vigorous in some areas of Van Vliet Hemlocks, it is non-existent in others, making deer monitoring essential.

## Birdlife among the Hemlocks



Blackburnian Warbler

Van Vliet Hemlocks is home to many species of birds. Research studies have identified a suite of hemlock-associated bird species, such as blackburnian warbler (pictured), black-throated green warbler, winter wren, brown creeper, hermit thrush, northern parula, yellow-rumped warbler, solitary vireo, and red-breasted nuthatch. Many other species – white-throated sparrow, Nashville warbler, song sparrow, common yellowthroat, and Cape May warbler – also occur more frequently in hemlock sites. This may be due to the fact that hemlocks typically retain foliage on their lower branches, which helps to provide feeding and nesting areas for these species.

*the great divide*

## Ephemeral Ponds



Spotted Salamander

*Its waters flow both ways.*

The hilly terrain of Van Vliet Hemlocks supports an important habitat feature called ephemeral ponds. In the spring, ephemeral ponds fill with water but usually dry out by mid-summer. In the fall, some standing water may also be observed. These ephemeral ponds offer critical habitat for many species of frogs, salamanders, songbirds, and waterfowl.

*The Timber is Hemlock Buck Sugar and Cedar and is all of superior quality.*



Hemlock sapling