Winter Tree ID!

Use this interactive dichotomous key to help you identify and learn more about the tree species found around Upham Woods!

Produced under a 2012-2013 grant from the Wisconsin Environmental Education Board, with additional financial support provided by the UW-Extension Infusing Technology Initiative.
1a) Tree has needles which it keeps throughout the winter → Go to 2

1b) Tree has lost its leaves for the winter → Go to 6
<table>
<thead>
<tr>
<th>2a)</th>
<th>Tree’s leaves are scale-like</th>
<th>Go to 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>2b)</td>
<td>Tree’s leaves are needle-like</td>
<td>Go to 3</td>
</tr>
</tbody>
</table>
3a) Needles short, not bundled, less than 1 inch long
Norway Spruce (non-native)

3b) Needles at least 1 inch long and in bundles of 2-5
Go to 4
<table>
<thead>
<tr>
<th>4a)</th>
<th>Needles in bundles of 5</th>
<th>White Pine</th>
</tr>
</thead>
<tbody>
<tr>
<td>4b)</td>
<td>Needles in bundles of 2</td>
<td>Go to 5</td>
</tr>
</tbody>
</table>

Fig 4a) Needles in bundles of 5

Fig 4b) Needles in bundles of 2
5a) Needles 5 to 6 inches long

Fig 5a) Needles 5 to 6 inches long

Red Pine

5b) Needles 1 to 2 inches long

Fig 5b) Needles 1 to 2 inches long

Jack Pine
6a) Leaves/twigs opposite

Go to 7

6b) Leaves/twigs alternate

Go to 8
<table>
<thead>
<tr>
<th>7a)</th>
<th>Twigs red or orange, smooth twigs</th>
<th>Red Maple</th>
</tr>
</thead>
<tbody>
<tr>
<td>7b)</td>
<td>Twigs not as described above</td>
<td>Green Ash</td>
</tr>
</tbody>
</table>
8a) Leaves, though dead, still present on the tree

Go to 9

8b) Few, if any, dead leaves still present on the tree

Go to 10
<table>
<thead>
<tr>
<th></th>
<th>Leaf edges rounded</th>
<th></th>
<th>Leaf edges toothed or pointed</th>
</tr>
</thead>
<tbody>
<tr>
<td>9a)</td>
<td><img src="image1.png" alt="Leaf edges rounded" /></td>
<td></td>
<td><img src="image2.png" alt="Leaf edges toothed or pointed" /></td>
</tr>
<tr>
<td>9b)</td>
<td><img src="image3.png" alt="Leaf edges toothed or pointed" /></td>
<td></td>
<td><img src="image4.png" alt="Red Oak" /></td>
</tr>
<tr>
<td></td>
<td>Bark white, papery, peeling</td>
<td>Paper Birch</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----------------------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>10b)</td>
<td>Bark not as described above, brown</td>
<td>Go to 12</td>
<td></td>
</tr>
<tr>
<td>11a)</td>
<td>Bark dark and peeling, described as burnt potato chips</td>
<td>Black Cherry</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>11b)</td>
<td>Bark regular, light brown or grayish brown</td>
<td>Go to 12</td>
<td></td>
</tr>
</tbody>
</table>
12a) Shrub-like small tree, bark smooth with red lenticels (look like lines on tree)  

Fig 12a) Bark smooth with red lines

<table>
<thead>
<tr>
<th>12a)</th>
<th>Shrub-like small tree, bark smooth with red lenticels (look like lines on tree)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sumac</td>
</tr>
</tbody>
</table>

12b) Medium-sized tree, bark not as described above

Fig 12b) Not bark like described

<table>
<thead>
<tr>
<th>12b)</th>
<th>Medium-sized tree, bark not as described above</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Go to 13</td>
</tr>
<tr>
<td>13a)</td>
<td>Bark furrowed and layered</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>13b)</td>
<td>Bark smooth or lightly furrowed, not layered</td>
</tr>
</tbody>
</table>
14a) Scale-like needles are flattened, bark is regular  
Northern White Cedar

14b) Scale-like needles are round, bark peels into long strips  
Eastern Red Cedar
Norway Spruce (non-native)

- Originated in Europe
- Can reach maximum heights of up 80 to 100 feet
- Very useful as a snowbreak and windbreak for cities and rural areas
- **DID YOU KNOW:** A Norway Spruce is used every year as the Christmas tree for Rockefeller Center in New York City and then donated to Habitat for Humanity as lumber.
White Pine

• Heavily logged in the 1800s. Only about 1% of the original white pines in North America were untouched.

• Often last 200-250 years, while a few white pines in Wisconsin have been recorded at 500 years old!

• DID YOU KNOW: The white pine is known as the “Tree of Peace” in the Iroquois culture. Its bundle of five needles represented the Five Nations of the Iroquois joined together as one.
• The red pine gets its name from its reddish-orange bark. The bark divides into large scaly plates as it grows. The trunk almost looks like a puzzle.

• Extremely resistant to insects and disease.

• DID YOU KNOW: The Red Pine is also often called the Norway Pine because explorers who first came upon the tree mistakenly thought it was the same as ones they had seen in Norway.
Jack Pine

• Smallest of the three native pines. It usually grows about 55 to 65 feet.

• Grows in sandy soil and is one of the tree species best able to grow in dry and hot conditions.

• DID YOU KNOW: The Jack Pine is often one of the first trees to grow after a fire. Fire heats up jack pine cones and releases their seeds. Jack Pines are also very shade intolerant so fires create new sunlit areas for them to grow.
• Has an accurate name as almost all of its flowers, twigs, and seeds are red to some degree and the leaves turn a beautiful bright scarlet in fall.

• One of the most adaptable tree species.

• DID YOU KNOW: The red maple is important to many species. It is a main part of winter diet of animals like elk and white-tailed deer. In addition, its fruit, called samara (or what you may call “helicopters”!) often grow before other food sources are available to wildlife.
Green Ash

• One of the first trees to change color and drop its leaves in autumn.

• Grows best in moist conditions but has been shown to be very adaptable and is often planted in urban areas for shade.

• DID YOU KNOW: In Norse mythology, the first man was said to be formed from an ash tree.
White Oak

• Not usually very tall (65-85 feet) but extends out very massively. Often as wide as it is tall!

• One of the most important trees for the timber industry, it is used as lumber for a wide range of products.

• DID YOU KNOW: A large white oak was once used to hide and protect a royal charter granting Connecticut powerful rights when a new British king tried to destroy the charter. The oak fell in a storm in 1856 but is still a very important symbol to Connecticut and can be found on the back of its state quarter!
• Easy to distinguish because it is the only tree with ridges going all the way down its bark that appear to have shiny stripes in the center.

• One of the most important trees for the timber industry, it makes up to 25% of the wood used at many sawmills.

• DID YOU KNOW: The red oak is a key food source for many animals. For example, red oak acorns are a very important part of a black bear’s pre-hibernation diet because they are so rich in fat. In addition, wild turkeys have been known to eat over 200 red oak acorns in a single feeding!

Red Oak
Paper birch

- Named after its paper like bark that separates into strips and can be easily pulled off in sheets.

- Once used by Native Americans to make wigwams, baskets, cups, bags, and more. It was especially useful for making canoes, which is why many people still call the tree “canoe birch”.

- DID YOU KNOW: Paper birch bark is a very useful fire starter, since it burns at high temperatures even when wet!
• Can very easily spread and invade new areas because its many berries are loved by birds and mammals, spreading seeds far and wide.

• A mature black cherry tree can be identified by it’s bark which is said to look like very thick, burnt cornflakes!

• DID YOU KNOW: The fruit of the tree are bitter and inedible when picked directly from the tree, but they make great jams and jellies!

Black cherry
• Can survive in very low temperatures, including winters of up to -44° F.

• Elm trees have been hit very hard by a disease known as Dutch elm disease which has come close to wiping out entire populations of elms in North America and Europe.

• DID YOU KNOW: The cooling effect of one elm tree planted in an urban environment is equivalent to five air conditioning units!
• Grows best on moist, rich soils (in fact, it is sometimes called swamp hickory) but can grow in drier conditions.

• Closely related to the Pecan tree, but unlike the Pecan does not have edible nuts.

• DID YOU KNOW: Early settlers extracted oil from the nuts of the tree to burn in oil lamps.

Bitternut hickory
• Staghorn species of sumac is very easily distinguishable by clusters of small red fruits (drupes) at end of branches and rust-colored hairs on its twigs.

• There is also a poison sumac species that will give you similar effects as poison ivy. Fruits are green-ish white (not red) and have smoother edge to leaves than jagged safe sumac leaves.

• DID YOU KNOW: Some Native Americans made a lemonade-like drink from sumac fruit.
Northern White Cedar

- Relatively shade tolerant and grows best in wet soils. Even grows very well on cliffs where reduced competition.

- Can be very long lived- 800 year old trees have been studied.

- DID YOU KNOW: A common name for this species is arborvitae, Latin for “tree of life”. Native Americans made tea from its bark and needles, and this tea was said to have saved explorer Jacques Cartier’s life.
• It is a pioneer invader which means it is one of the first trees to repopulate cleared, eroded, or damaged land. Therefore, in many areas it is considered an invasive species.

• Prefer full sun. If you see an Eastern red cedar in a forest, chances are it started growing when the area was a field.

• DID YOU KNOW: Oils in the wood of these trees have insect repellent qualities and thus the wood is often used for chests and in closets.