Ecological site classification system for wetland forests of Northern Wisconsin

John Kotar\textsuperscript{1} \\
and \\
Colleen Matula\textsuperscript{2}

\textsuperscript{1} Emeritus Professor, Dept. of Forest and Wildlife Ecology, UW-Madison

\textsuperscript{2} Forestry specialist, Forestry Division, Wisconsin DNR
Forest Habitat Type Classification: A Tool for Resource Management

John Kotar, University of Wisconsin-Madison
Relationship of Habitat Types to Soil Moisture and Nutrient Regimes in Region 3
Hydric Soils of Wisconsin

Hydric
Predominantly Hydric
Partially Hydric
Predominantly Non-hydric
Non-hydric
Marshes and Wetlands
Northern Wisconsin

Scale 1:2700000

Miles

State or County Boundary
Marshes, wetlands, bogs, and swamps

Data is derived from 1:100,000 USGS Hydrography Digital Line Graphs.
Relationship of Habitat Types to Soil Moisture and Nutrient Regimes in Region 1
Relationship of Habitat Types to Soil Moisture and Nutrient Regimes in Region 3
A black ash stand

Photo © Eli Sagor
Sphagnum coverage >40%, Picea mariana and Larix laricina dominant conifers, Fraxinus generally absent. Return to Section A

Conditions not as described on the left

Primarily Price, Sawyer, Ashland, Iron counties

The following species better represented than species on the right: Alnus rugosa, Caltha palustris, Impatiens capensis, Ribes spp.

The following species better represented than species on the left: Clintonia borealis, Cornus can., Oxalis spp., Gaultheria hispidula, Dryopteris phegopteris, Sphagnum spp.

Three or more present: Arisaema spp., Impatiens capensis, Onoclea sensibilis, Circaea alpina, Gymnocarpium dryopteris, Ribes spp., Laportea can., Lycopus spp., Ilex verticilata.

Species in left box absent, or < 3 present

AbThArAsp
Soil Nutrient Regime

Soil Moisture Regime

Relative wetland habitat type productivity groups

- Med. to Rich
- Medium
- Poor to Medium
- Poor
- Very poor
<table>
<thead>
<tr>
<th>Nutrient level</th>
<th>Region 1</th>
<th>Region 2</th>
<th>Region 3</th>
<th>Region 4</th>
<th>Region 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medium to Rrich</strong></td>
<td>FnUb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>FnOn</td>
<td>FnAbI</td>
<td>FnArI</td>
<td>FnThAbAt</td>
<td>FnArI-Ix</td>
</tr>
<tr>
<td><strong>Poor to Medium</strong></td>
<td>LArIx</td>
<td>ThAbFnIx</td>
<td>FnAbArOn</td>
<td>ThAbFnC</td>
<td>ArFnRh</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AbFnThOs</td>
<td>AbThArAsp</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AbFnThIx</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AbThArAsp</td>
<td></td>
</tr>
<tr>
<td><strong>Poor</strong></td>
<td>PmLNe</td>
<td>PmLNe</td>
<td>PmLNe</td>
<td>PmLNe</td>
<td>PArGy</td>
</tr>
<tr>
<td><strong>Very poor</strong></td>
<td>PmLLe</td>
<td>PmLLe</td>
<td>PmLLe</td>
<td>PmLLe</td>
<td>PmLLe-An</td>
</tr>
</tbody>
</table>
Soil Nutrient Regime

Soil Moisture Regime

Best-represented tree species in productivity groups

- Black ash
- Black spruce
- Tamarack
- Red maple
- White cedar
- Balsam fir
- White pine

Common associates:
- Paper birch
- White pine