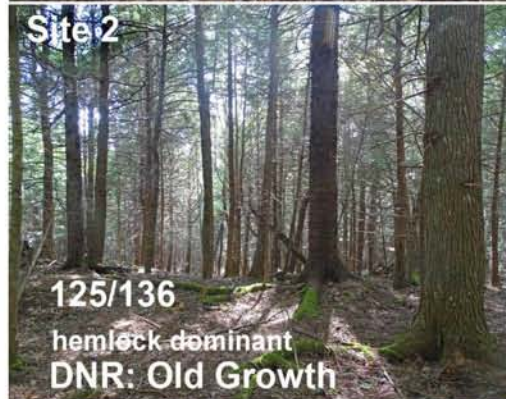


## Old Growth

1. Fewer but bigger trees
2. Younger trees also present...gaps, multilayered
3. Lots of dead wood: snags & fallen dead/CWD (coarse woody debris)
4. Trees with lichens, mosses
5. “Spongy Duff”, beetles...
6. Forest floor not level but with “pits & mounds”

– Andrew Whitman & Shawn Fraser of the University of Maine's School of Forest Resources cited by Joe Rankin in “Old Growth Forests Defined by Key Ecological Characteristics”, Dec 20, 2016 in [www.mainetree.org](http://www.mainetree.org)



## DP's Notes on Forests of Sandy Lake & Environs (Bedford)

for Field Trip Apr. 27 2024, TheDirtGang et al. Sponsors// Also with Sean Haughian (NS Museum) on Spp ID/iNaturalist

**A:** It's a **Wabanaki (Acadian) Forest**, with all major tree species represented

**Conifers/softwoods:** White Pine, Red Spruce, Eastern Hemlock(\*), Balsam Fir; lesser: Black Spruce, White Spruce, Tamarack.

**Deciduous/hardwoods:** Red Maple, Sugar Maple, Yellow Birch, Paper Birch, American Ash\*, American Beech\*, lesser amounts of Red Oak, Ironwood

**Subcanopy hardwoods:** Striped Maple, Witch Hazel; some Mt Maple

**B: Major Natural Disturbances:** 1. **Wind** – *Gap Disturbance* (frequent), & *Stand-replacing Disturbance* (Hurricanes, much less freq.) 2. **Disease/Pests\*** 3. **Fire**

\*Hemlock Woolly Adelgid (expected); Beech Bark Disease (beetle/canker fungi, Arrived Hfx late 1800s) Beech leaf-mining Weevil (Arr. Hfx ~ 2006); Emerald Ash Borer (Arr Bedford, 2018) – all associated with invasive spp.

**C:** A lot of **Old Forest** (80 yrs +) on our tour; it supports Distinct Assemblages of species, e.g. birds (Betts et al, 2022). lichens (re: Goldsmith Lake Lichen Camp)

**D: Patches of Old Growth of 3 types** – White Pine dominant, or Hemlock, or Mixed Hardwoods; see reverse side of this page

**E: Pit & Mound topography** occurs in older, less harvested stands

- **Mounds are formed** by blowdown of Big Trees
- **Age** = Oldest Tree on mounds +10-15 years
- **Pits and Mounds with similar orientation** at Sandy Lake--->Hurricanes hitting from SE; Sites 1,2,3 likely in 1869 (Saxby Gale, 155 yrs ago) or 1873 (The Nova Scotia Storm, 151 yrs ago); Peninsula a storm 60-70 years earlier.
- **Ecological Significance** - vernal pools in pits; mounds are preferred seedbeds; sites of the *Wabanaki Forest Love Affair* (Yellow Birch & Hemlock); microbiota continuity.

Links for more info to be posted at [www.versicolor.ca/notes](http://www.versicolor.ca/notes)