

Resource list for NH Envirothon Forestry Section

Updated 2024

Plant Biology

- Parts of a tree - <https://www.dnr.state.mn.us/forestry/education/foresttreasures/partsofatree.html>
- [Tree Factory Activity](#) from Project Learning Tree
- [NH Forest Action Plan 2020](#) - Carbon Sequestration section
- [Angiosperms vs Gymnosperms](#)
- [Reducing Heat Islands with Trees](#)

Forest Ecology

- Forest Fast Breaks - Ecosystems: https://www.youtube.com/watch?v=qnFYQoHFU_I
- PBS Forests, the stuff of life: [Forests: The Stuff of Life: Video | Nature Works Everywhere | PBS LearningMedia](#)
- PBS Nature works- to make clean water: <https://thinktv.pbslearningmedia.org/resource/c5cebf97-5753-4d93-b283-bbaf91ef01eb/making-clean-water-nature-works-everywhere/>
- Matter and Energy Teacher Resource: <http://beetlesproject.org/resources/for-program-leaders/matter-energy-ecosystems/#1447702870437-ba804ab5-cb15>
- Matter and Energy Student Activity: <http://beetlesproject.org/cms/wp-content/uploads/2020/10/Matter-and-Energy-Diagram.pdf>
- Forest Soils: <https://extension.unh.edu/goodforestry/assets/docs/app-soils.pdf>
- Phenology - Study of seasonal changes and effects:
 - Trophic Mismatch - <https://umaine.edu/news/blog/2019/10/18/migratory-birds-arriving-earlier-but-theyre-not-keeping-pace-with-flowering-leaf-out/>
 - Gypsy Moth Case Study - <https://www.neonscience.org/impact/observatory-blog/how-trees-life-can-change-ecosystem-plant-phenology-gypsy-moths-and-heat>

Plant Communities

- [Good Forestry in the Granite State](#) section 2.1 NH Forest Types
- [NH Forest Action Plan](#) - Climate Change Section

Forests and Society

Renewable Energy

- [Biofuels](#) video

Silviculture Practices

- (pgs C1-C5) https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5110681.pdf
- Lesson Plan: Seeing the Wood for the Trees <https://nhpbs.pbslearningmedia.org/resource/nature-works-everywhere-seeing-the-wood-lesson-pla/nature-works-everywhere-seeing-the-wood-lesson-plan/>

Land-use History & Management

- Reading the Forested Landscape, by Tom Wessels
- Reading the Forested Landscape Videos by Tom Wessels
- Part 1 - <https://www.youtube.com/watch?v=zclQz-oR6sw>,
- Part 2 - <https://www.youtube.com/watch?v=L81lhhqe0gY>,
- Part 3 - <https://www.youtube.com/watch?v=tEafFq3gb30>
- Forest Forensics: A field Guide to Reading the Forested Landscape, by Tom Wessels
- [Simple Forest Survey Guide](#) pdf (SCCD)
- [The Forested Landscape Lesson](#) Series (SCCD)
- [Climate Change: Vital Signs of the Planet](#) NASA

- [Trees and the Climate Crisis](#)
- [Urban Forests and Climate Change](#) USDA
- [NH Forest Action Plan](#) - Urban Trees

Field Skills

Forestry Measurements, Calculations & Tools

- How to make your own tools.
 - dbh tape: https://files.dnr.state.mn.us/education_safety/education/plt/activity_sheets/makingdiametertapes_plt.pdf
 - clinometer <https://www.instructables.com/Basic-Clinometer-From-Classroom-Materials/>
 - Biltmore Stick paper template https://schools.wrdsb.ca/environmental-education/files/2017/08/Biltmore-Template_25inch.pdf
- How to measure or use...
 - dbh: <http://www.phytosphere.com/treeord/measuringdbh.htm>
 - https://www.nwf.org/-/media/PDFs/Eco-schools/2013-NASA/03_Module-III/Lesson-13/LESSON-13_What-Is-DBH.ashx?la=en&hash=4FAB7CE60A21D9543FEE54A423A50A3F521B1939
 - dbh and height (2 ways each) http://www.ruraltech.org/virtual_cruiser/lessons/lesson_06/Lesson_6_PDF.pdf
 - Height using a homemade clinometer: <https://www.instructables.com/Using-a-clinometer-to-measure-height/>
 - Carbon storage by hand https://www.unm.edu/~jbrink/365/Documents/Calculating_tree_carbon.pdf
 - How to use a Biltmore Stick Video: <https://www.youtube.com/watch?v=myh-DuR-48g>
- Possible apps to use
 - i-Tree measures carbon storage - for android phones only. <https://www.itreetools.org/>
 - [GLOBE Observer App](#) - phone must have magnetometer to use. Measures tree height.

Tree Identification

- [List of trees to know](#)
- Tree ID tips - pdf on website
- NH Trees Summer Identification Key - [Dichotomous Key Summer Trees](#)
- Winter Tree Identification Booklet with Glossary - [LEAFWinterTreeIDKey.pdf](#)
- [i-Naturalist](#) - identifying trees, plants, pests, invasive species, wildlife signs
- [Seek](#) - identifying flora and fauna - experts weigh-in - an app by iNaturalist
- **Tree ID video create by NH Forestry Team:** <https://youtu.be/qycrb2RdAv4>

Pests and Invasive Species

- Overall Forest Health: <https://www.nh.gov/nhdf/community/forest-health/index.htm>;
- NH Bugs - <https://nhbugs.org>
- EAB: <https://storymaps.arcgis.com/stories/d11e3aad19434a30834eefe838610c66>
- [NH Forest Action Plan 2020](#) - Invasive Species
- [NH Wildlife Action Plan 2020](#) - Invasive Species & Climate Change

Jobs in Forestry

Silvopasture - https://northernwoodlands.org/blog/article/silvopasturing-chedzoy?utm_source=newsletter&utm_medium=email&utm_campaign=comm_voices