

## **Forest Ecology is the study of forest ecosystems.**

The following two-part lecture by Renaldo Arroyo, a forestry professor at Bakersfield College, Bakersfield, CA, provides a detailed overview of the topic. Although some of the examples he shares are in California and the Western US, the principles he describes can be applied to forest ecosystems of our region.

*Start your studies with these 2 videos.*

**Forest Ecology Part 1** <https://www.youtube.com/watch?v=NO7yYpSOuNg>

**Forest Ecology Part 2** <https://www.youtube.com/watch?v=SuQQ5wxToC4>



### **Additional Forest Ecology resources by subtopic**

- **The relationship between soil and forest types**

1. *Tree species have preferred growing conditions. Some favor dry (xeric) sites, some prefer wet (hydric) sites, while others do better in intermediate (mesic) areas.*

*Beech-Maple*

<https://guides.nynhp.org/beech-maple-mesic-forest/#identification-comments>

*A Michigan Example*

<https://mnfi.anr.msu.edu/communities/description/10687/Mesic-Northern-Forest>

2. To find soil information and growing conditions specific to some CT tree species, look for **Adaptation**, **Distribution**, or **Establishment** in the following fact sheets.

*white oak* [https://plants.usda.gov/factsheet/pdf/fs\\_qual.pdf](https://plants.usda.gov/factsheet/pdf/fs_qual.pdf)

*red oak* [https://plants.usda.gov/plantguide/pdf/cs\\_quru.pdf](https://plants.usda.gov/plantguide/pdf/cs_quru.pdf)

*pin oak* [https://plants.usda.gov/factsheet/pdf/fs\\_qupa2.pdf](https://plants.usda.gov/factsheet/pdf/fs_qupa2.pdf)

*black oak* [https://www.srs.fs.usda.gov/pubs/misc/ag\\_654/volume\\_2/quercus/velutina.htm](https://www.srs.fs.usda.gov/pubs/misc/ag_654/volume_2/quercus/velutina.htm)

*red maple* [https://plants.usda.gov/factsheet/pdf/fs\\_acru.pdf](https://plants.usda.gov/factsheet/pdf/fs_acru.pdf)

*sugar maple* [https://plants.usda.gov/plantguide/pdf/pg\\_acsa3.pdf](https://plants.usda.gov/plantguide/pdf/pg_acsa3.pdf)

*silver maple* [https://plants.usda.gov/factsheet/pdf/fs\\_acsa2.pdf](https://plants.usda.gov/factsheet/pdf/fs_acsa2.pdf)

*eastern white pine* [https://plants.usda.gov/factsheet/pdf/fs\\_pist.pdf](https://plants.usda.gov/factsheet/pdf/fs_pist.pdf)

*balsam fir* [https://plants.usda.gov/factsheet/pdf/fs\\_abba.pdf](https://plants.usda.gov/factsheet/pdf/fs_abba.pdf)

*white spruce* [https://plants.usda.gov/plantguide/pdf/pg\\_pigl.pdf](https://plants.usda.gov/plantguide/pdf/pg_pigl.pdf)

*USDA tree facts sheets* <https://plants.usda.gov/java/factSheet>

- **Forest regeneration, competition, succession**

<https://www.youtube.com/watch?v=jE7gJNNFHJ8>

- **The relationship between factors such as climate, insects, diseases, wildlife, and invasive species on forest growth and development**

*USDA Forest Service on Invasives*

[https://www.nrs.fs.fed.us/disturbance/invasive\\_species/](https://www.nrs.fs.fed.us/disturbance/invasive_species/)

*Purdue—Pest Tracker*

<http://pest.ceris.purdue.edu/pests.php>

*EPA—Climate and Forests*

[https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-forests\\_.html](https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-forests_.html)

*Forestry Page at CT Envirothon*

<http://ctenvirothon.org/study-guides/forestry/>

Scroll to

**FACTORS AFFECTING FOREST HEALTH**

- **The function and value of forested watersheds and riparian areas**

*Trees and Watersheds*

<https://extension.psu.edu/the-role-of-trees-and-forests-in-healthy-watersheds>

*USDA— Riparian Areas*

[https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/?cid=nrcs143\\_014199](https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/?cid=nrcs143_014199)

