

Sustainable Forestry

BLUE MOUNTAIN—
KITTATINNY RIDGE
CONSERVATION
PROJECT

What is sustainable forestry?

Different entities define "sustainable forestry" slightly differently depending on their interests and goals. However, nearly all definitions of the term share the common element of ensuring that the forest resources we value today continue to be available for future generations. As such, sustainable forestry can occur throughout large or small forested habitats and woodlots, and can be accomplished using a variety of management techniques.

Is there a difference between sustainable forestry and selective cutting?

Yes. Sustainable forestry as defined above and selective cutting can have very different meanings. In 1940 the USDA Forest Service defined selective cutting as the "partial cutting of a timbered area, removing the over-mature and partially defective trees... to result in a uniform forest canopy... [and] permit optimum growth and maintain natural conditions following cutting."

Today the term's meaning can range from clear-cutting, and "high-grading" (selective removal of only the economically valuable trees, while leaving the poorer-quality trees), to removing just a few trees (for economic or wildlife purposes) to mimic the amount of disturbance of a tree-fall gap. It is important to know how your forester is using the term "selective cutting," and realize that the techniques involved may or may not be an example of sustainable forestry.



LOWER FOREST CANOPY BIRDS
Many forest bird species, like the Wood Thrush (left) and Kentucky Warbler (right), are highly dependent on the understory and shrub layers for nesting, shelter and foraging sites within eastern temperate forests. Sustainably managed forests should include a rich understory full of native shrubs and saplings.



Sustainable forestry and good stewardship can go hand in hand.

Stewardship involves managing your forest so that populations of native species of plants and wildlife persist for future generations. Birds and other wildlife are integral components of healthy forest ecosystems. Forests provide resources (food, shelter water) for wildlife species. These species of wildlife in turn benefit the forest through seed dispersal, control of forest pests, decomposing organic matter, and many other ecological functions that help maintain a healthy forest community. Simply put, healthy forests are more productive than unhealthy ones. Practicing sustainable forestry to benefit wildlife and plant species is a win-win situation for landowners and stewards of forested habitats.

Sustainable Forestry (cont'd)

RESOURCES FOR MORE INFORMATION

Cornell University Forestry Extension program
<http://www2.dnr.cornell.edu/ext/forestconnect/FO/fsda./ndex.htm>

Pennsylvania DCNR, Bureau of Forestry
<http://www.dcnr.state.pa.us/forestry/index.aspx>

Penn State University College of Agricultural Sciences Cooperative Extension
<http://www.cas.psu.edu> AND
<http://extension.psu.edu/wildlife/habitat-management/forests>

The Pennsylvania Sustainable Forestry Initiative
<http://sfiofpa.org>

A Landowner's Guide to Sustainable Forestry in Indiana (with many principles pertinent to Pennsylvania)
<http://www.ces.purdue.edu/extmedia/>

FIND YOUR LOCAL SERVICE FORESTER (PA DCNR)
http://www.dcnr.state.pa.us/forestry/serviceforesters_select.aspx
Or, call the Bureau of Forestry at (717) 787-2783 to be connected to your local office.

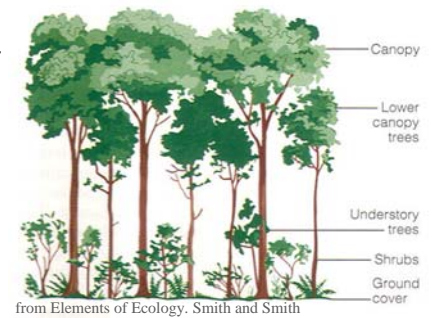


Does the location of a forest or woodland matter to nesting birds?

Yes, location in relation to large forested areas in the surrounding landscape is an important factor. Sites located within larger blocks of forest attract different bird species than woodlots surrounded by a mosaic of farmlands, fallow fields, shrub/scrub habitat, wetlands, and developed areas. Site elevation also plays a role in community composition. Hence, bird populations and other organisms that make up forest or woodland communities in different areas may be highly variable. As a consequence of these variations, silvicultural prescriptions from one site to another can look different depending on the long-term goals of the landowner.

Does forest composition and structure matter in maintaining a healthy forest?

Forest composition and structure are critical components of forest health. Composition refers to forest type (deciduous, coniferous, or mixed) and the flora representing these forest types. Structure refers to the amount, type and quality of canopy cover from the forest floor to the uppermost tree canopy including everything in between like shrubs, understory trees and lower canopy trees. A well-stratified forest containing a diverse assemblage of herbaceous plants, shrubs and trees within these different layers provides abundant resources for a variety of organisms, including birds.



from Elements of Ecology. Smith and Smith



The Cerulean Warbler is a habitat specialist preferring higher altitude deciduous forest or lower elevation riparian forests. It is often associated with treefall gaps. Within these locations it is usually found high in the upper tree canopy.

How can I best manage my forest lot to benefit bird species? What should I do next to implement sustainable forestry on my property?

There is no one prescription that can be applied to all properties to create the best results for birds and other wildlife. The right fit for your property will depend on your goals (including wildlife, aesthetics, and economics) and a multitude of site-specific factors, including forest type and composition, soil type, ecologically sensitive areas, elevation, the surrounding landscape, and wildlife community composition.

Consult with professional foresters and ecologists to inventory your forested property and help you develop a long-term sustainable management plan that allows for timber harvest and creation or enhancement of wildlife habitats. When developing this plan take into consideration the following:

- Forest and soil types, water regimens, community structure (flora and fauna), overall forest health, economic interests, and aesthetics are all important factors. Use different silvicultural techniques to create habitat types that you desire for your property;
- Ensure protection of sensitive habitat areas like seeps, vernal pools, riparian zones, cliffs, caves, and talus areas;
- Protect standing dead trees (snags), tree cavities, and food-producing vines and shrubs that provide resources for birds and other wildlife; and
- Maintain canopy cover over and along cold-water streams.

A great place to start is by contacting your local Service Forester with the PA Bureau of Forestry. See the additional resources to the left for contact information.