

Indiana Department of Natural Resources Division of Forestry



The Role of Science in Forestry

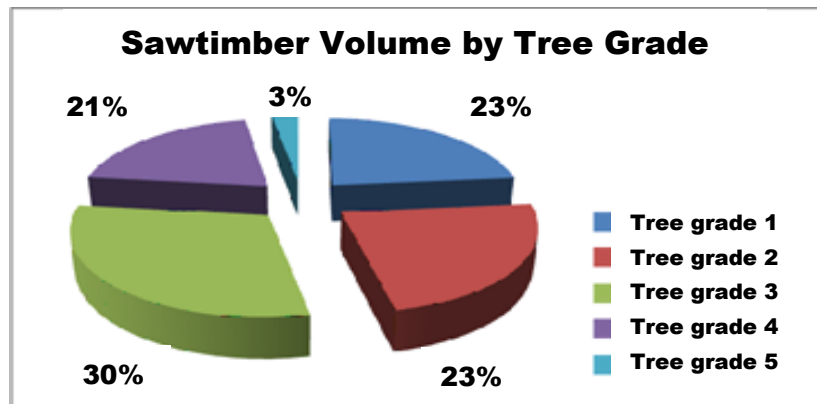
Indiana's forest resources contribute significantly to our state's economy and to the health and well-being of its citizens. Our thriving forests have increased more than three-fold in acreage since 1900. The mission of the Indiana Division of Forestry is to promote and practice good stewardship of natural, recreational and cultural resources on Indiana's public and private forest lands. This stewardship produces continuing benefits, both tangible and intangible, for present and future generations.

The term "good stewardship" might be interpreted differently depending upon perspective. We consider good stewardship to mean basing management decisions on the latest, most reliable scientific research available. We work closely with the U.S. Forest Service, Purdue University, and other schools of forestry throughout the country to assure that our foresters are making the most scientifically sound management decisions possible.

Assessing what we have

There are approximately 150,000 acres of forest managed by the Division of Forestry as State Forests. It is important to know the quantity and quality of what is being managed if we are to manage our forests for the long-term. To better understand the forest resources on state forest land, different inventory systems have been implemented.

Forest Inventory & Analysis (FIA) is a federal inventory system used nationwide across all ownerships and land uses. Approximately 50 FIA plots on state forests are measured on a continual basis. In addition to FIA, the Division of Forestry had a system-wide inventory (SWI) conducted in 2005. An outside entity was contracted to collect and analyze data on approximately 1,020 plots. Finally, a continuous forest inventory (CFI) system was implemented in 2008. This system is similar to FIA but at a much higher intensity. Approximately 3,825 plots will be studied in this system. The purpose of all of these inventories is to provide valuable information about volume and growth in our state forests. What we've learned thus far from FIA data is that the average annual net growth of timber on state forests is about 40.4 million board feet (Doyle scale). This growth greatly exceeds the targeted annual removal of 14 million board feet. The CFI study is on-going, but from it we've learned that 95% of the forested acres are sawlog-sized stands, and nearly half of that is grade 1 or 2 in quality. This indicates that management has been successful in increasing both the volume of timber grown on state forests and its quality.



Another long-term, large-scale study being conducted is the Hardwood Ecosystem Experiment (HEE). This 100 year study was initiated in 2006 in partnership with other divisions of DNR, six universities and The Nature Conservancy. Its objective is to determine the ecological and social impacts of long-term forest management on public and private lands in Indiana and the Central Hardwoods Region. Data from the study will ultimately be used to develop management prescriptions that provide for resilient and sustainably managed forest ecosystems in Indiana. Much more detailed information about HEE can be found at the website <http://heeforeststudy.org/>.

Independent oversight

While we strive to maintain thoroughness and scientific rigor in our property management, we felt it prudent to have our practices examined by independent eyes. Since 2006, the Division of Forestry has participated in certification programs of the Forest Stewardship Council (FSC) and the Sustainable Forest Initiative (SFI), both national, independent organizations. FSC and SFI conduct exhaustive annual on-site reviews of management practices and procedures on state forests as well as privately owned classified forests, and issue reports that are made public on the Division of Forestry website (see <http://www.in.gov/dnr/forestry/7532.htm>). In addition, third-party audits are also conducted for best management practices on state forest properties. These reports are also made public on the above webpage.

The role of professional foresters

The citizens of Indiana have expressed a desire to have our publicly owned forestland managed by professionally trained foresters. According to a 2009 study conducted by Purdue University, 88% of Indiana citizens believe woodlands should be managed for a balance of wood products that we use, and other benefits like recreation, wildlife, and good water quality. 85% of Hoosiers approve of harvesting trees for woodland management if overseen by a professional forester. Becoming a forester requires a passion for the natural environment and a commitment to one's education. To become a professional forester requires a 4-year bachelor's degree in forestry from a college or university with an accredited forestry program. To become a forest technician requires a 2-year associate's degree from a school with an accredited technical forestry program. In addition to being trained to perform all of the duties of a forest technician, a professional forester's duties also include the development of management plans for public or private forests, which incorporate more complex ecological processes and forest restoration activities.

The role of Indiana citizens

All of Indiana's citizens have a stake in the health and productivity of our forests. Professional foresters and other natural resource managers and policy makers impact our forests directly; but their decisions must be counseled by knowledgeable public input if they are to satisfy society's needs and desires. To sustain the health, productivity and growth of Indiana's forest resources, public understanding of scientific forest management is essential. We encourage all citizens to visit the Division of Forestry's website, www.in.gov/dnr/forestry, and read some of the many publications found there. Other websites with a wealth of information include:

Purdue University School of Forestry & Natural Resources: <https://ag.purdue.edu/fnr/Pages/default.aspx>
Society of American Foresters: <http://safnet.org/>
U.S. Forest Service: www.fs.fed.us/