

History of Maryland's Forests

For centuries, Maryland's forest resources have provided state residents with such benefits as wood products, wildlife, clean water and air, recreational enjoyment and much more. Many citizens see the forest today as something that has always been there in its present form. In fact, most of the forests you see today have been harvested three to five times since European settlement, and their composition has also been shaped by other human activity.

Today's forests are quite different than they were when the first settlers arrived in 1634 at St. Mary's City. Virgin forests encountered by those settlers had enormous diameter and height and covered most of the state. The tree species that comprised the forests then are similar to those growing today, however, the composition of the forest has changed dramatically. The original forests were primarily composed of hardwoods; at present, pine is more common than originally due to planting efforts and the reversion of abandoned farmlands to forest.

The early settlers viewed the forest as a dense wilderness that impeded their agricultural way of life and harbored dangerous animals and disease. Timber had little economic value, and woodland was cleared indiscriminately to make way for tobacco and other crops. Poor agricultural practices caused soil erosion that silted up what had been deep-water harbors of the Chesapeake Bay.

Colonization (and forest clearing) was focused around the Chesapeake-Tidewater region until about 1732. Then Lord Baltimore opened the west to settlement, primarily to establish Maryland's claim to disputed lands claimed by neighboring Virginia. As settlements expanded, demands for fuelwood, structures and fences were met by more forest clearing.

The first industrial exploitation of forest resources began in the early 1700s. Iron was in short supply in the colonies, and large forested areas were clearcut to produce charcoal to fuel iron furnaces. The first iron furnace in Maryland, the Principio furnace, built in 1719, consumed 10,000 acres of forest during its 100 years in operation. Hundreds of furnaces were constructed around the state through the 1800s, encouraged by government grants.

The invention of the steam engine in the early-19th century opened the way for large-scale exploitation of the forest. Steam engines and narrow gauge railroads allowed the harvest and transport of forest products from previously inaccessible areas to industrial centers.

Unfortunately, the harvesting exploited the forest for its economic value, with no concern for future regeneration. More damaging than the harvesting were the large wildfires that followed, affecting future regeneration.

Public concern over exploitation of the forest sparked a national conservation movement in the late 1800s that resulted in the formation of the National Park and Forest System

and most state forestry agencies. In 1906, the Maryland State Board of Forestry was organized, primarily to control wildfires. The first inventory of the state's forests was completed in 1916 by Fred Besley, the first state forester, and the first state nursery was established in 1914. Schools of forestry were established around the nation to train foresters and sponsor research on how the forest could be managed to ensure adequate regeneration and meet other land-use objectives. Forest management services were first offered to Maryland woodland owners in the 1950s.

Clearing for agriculture reached its peak in the mid 1800s. Various episodes of land abandonment occurred after the Civil War and the Depression, with many fields reverting to pine and hardwood forest. By the early 1900s, most of Maryland's forests were cutover and just beginning to regrow.

Presently, the majority of Maryland's forests are 60 to 90 year old even aged stands that have once again reached commercial size. Unlike the past, access to sound forest stewardship practices is available to all landowners through professional assistance, so forest resources can be utilized wisely and protected for future generations.

Paulownia - A Tree with Potential

The paulownia tree (*Paulownia tomentosa*), a native of China, has been in the news a lot lately. It is a species with high monetary value as well as usefulness for reclaiming disturbed sites.

This tree, also known as princess tree, empress tree or kiri, was introduced to the U.S. in the 1800s and has spread throughout most of the eastern U.S. The paulownia can be identified by its large, heart-shaped leaves; smooth brown twigs dotted with white specks; and large, trumpet-shaped, lavender flowers that bloom in the spring. In Maryland, paulownia grows best in Washington County and east, on sites with well-drained soils, a slight slope and a southeast exposure. Its seedlings must be free to grow without competition and need full sunlight. These trees grow very quickly, attaining a height of up to ten feet in their first six months of life. They may be harvested in 25 to 30 years.

The primary value of paulownia is as a lumber producer. However, the fact that it grows so well on severely disturbed sites gives it great potential for reforesting strip mines and other disturbed sites.

The wood is light, extremely strong, and easy to work. The primary market is in Japan, where it is used to make furniture, musical instruments, brides' hope chests, sandals and other products. The price for high-quality, wild-grown paulownia timber is higher than that of the best oak and walnut. This has resulted in the theft of many trees.

Culturing the paulownia is not an easy task. First-year seedlings often require supplemental watering to survive. The tree is allowed to grow for about two years to

establish a strong root system and then the trunk is cut off at the ground to produce a tall, straight shoot up to 15 feet tall. For the first five years, prolific side branches must be pruned to produce a desirable sawlog.

Many landowners have established small paulownia plantations of one to five acres as a future source of income. Others are thinking about it. With few plantations more than five years old, many questions remain about how to grow paulownia.

Present and future growers are encouraged to attend an upcoming workshop on paulownia on October 2 at the Carroll County Cooperative Extension Office in Westminster. The morning session will focus on production, profitability and marketing of paulownia, and encourage sharing of information by current growers. An afternoon tour is planned to a paulownia sawmill and established plantations. Look in the Upcoming Stewardship Events for contact information.

New Law Supports Forestry Practices

A new Maryland law (HB1135) requiring local governments to support the practice of forestry was signed by Governor Schaefer. This law, which takes effect on October 1, 1993, requires local governments to support the practice of forestry by "the consideration, development and interpretation of planning and zoning requirements that beneficially impact the ... practice of forestry."

The "practice of forestry" is defined in this law as the application of "scientific techniques to the protection, management, and use of trees, and related resources, whether found in ... forests ... or suburban and urban settings."

Stewardship - The Key to Dining Entertainment

John and Leslie Norris, their daughter Katie and son Michael enjoy dining with wildlife regularly. No, they don't browse through the woods with the deer or sip nectar with the hummingbirds at the feeder. But, whether sitting at the dining room table or sipping iced tea on the back deck, they witness many interesting and enjoyable wildlife happenings.

The Norrises have lived on their 25-acre property in southern Washington County for the past three years, and the improvements they've made are notable. They began by requesting professional land management assistance from the Department of Natural Resources. In September 1992, a Forest Stewardship Plan was developed through the cooperative efforts of the local forester and wildlife biologist. The Norrises applied for and received cost sharing funds through the Stewardship Incentive Program. Since then, they have installed two wood duck boxes by their pond and 15 bluebird boxes throughout their property. They also have built a purple martin "condo" for the large colonial swallows whose songs are so enjoyable.

The Norrises have planted trees and shrubs around the pond and elsewhere to improve wildlife food and cover. Wildlife food plots planted with corn and clover have been used by quail, pheasants, deer and rabbits. While sitting on their deck, they have seen coveys of quail, white-tail does with fawns, Canada geese and wood ducks, as well as other occasional visitors. Once, an osprey helped itself to a bass from their pond, a treat for both the Norrises and the osprey.

The 17 acres of woodland are composed mostly of old field vegetation with many small hardwood saplings. Removing competitive growth from many saplings will allow them to grow more quickly in the future.

Mr. Norris explains that there is a constant trade-off needed to benefit the many species of wildlife they enjoy watching and hunting. This was never more apparent than when the local red-tailed hawk casually consumed each of his chickens. Rather than being offended, Mr. Norris said, "It was great to watch. Many people go a lifetime without enjoying such a sight."

When asked if it had been worth all of the hard work. Mr. Norris replied, "It wasn't work. It does take time and effort, but after a long day at a stressful job, being able to come here and enjoy all of this makes it well worth it."

-contributed by Rich Latshaw, stewardship biologist,
Maryland Department of Natural Resources.

What is Forest Stewardship?

Stewardship is about responsibility, and stewardship of the land is everyone's responsibility. It is a fact that our well-being is tied directly to the "health" of the earth - soil, water, plants and animals. Stewardship of the forest means being a good caretaker, and recognizing that all actions should echo the Great Law of the Six Nations of the Iroquois: "In every deliberation, we must consider the impact of our decisions on the next seven generations."

"In every deliberation, we must consider the impact of our decisions on the next seven generations." - Great Law of the Six Nations of the Iroquois

Perhaps the underlying message is that the forest is more than trees, more than forest products, more than a place to hunt or birdwatch. It is a complex ecosystem made up of plant and animal communities, each in a dynamic state of change.

Perhaps the most demanding aspect of forest stewardship is understanding the consequences of our actions or inactions - long and short-term. This requires planning and knowledge and looking beyond our immediate personal needs in order to leave a living forest legacy for future generations. 4* FOREST

FOREST HEALTH

Southern Pine Beetle Alert

The southern pine beetle has caused mortality on about 2,000 acres of pine forest in the lower Eastern Shore counties this year, especially Worcester County. About 150 effected spots have been located. Landowners in these areas should look for small groups of dead trees with red or yellow needles. Pitch may also be found oozing from beetle holes on the trunks of trees. Immediate removal of trees in effected areas is necessary to halt further mortality. Contact your local forester for more information.

Stumpage Prices at High Levels

The price paid for standing timber (stumpage) has reached high levels. Before you sell timber, consult a registered professional forester for assistance. A list is available from your local Department of Natural Resources Forester or local Cooperative Extension Service Office.

New Resources

Wildlife Management Series - The Maryland Cooperative Extension Service is now offering 17 illustrated fact sheets on wildlife management topics and specific wildlife species. Titles include: Introduction to Wildlife Management, Planting Crops for Wildlife, Brush Piles, Field Border Management, Rabbit, Quail, Pheasant, Grouse, Doves, Turkey, Squirrels, Bear, Wood Ducks, Dabbling Ducks, Diving Ducks, Canada Geese and Songbirds. Sold as a packet for \$10. Available at your local Cooperative Extension Service Office or call (301) 403-4264.

American Paulownia Association - New association interested in promoting production and development of paulownia. Annual membership fee of \$20 includes quarterly newsletter. Send check to American Paulownia Assn., Rt. 3, Box 1600, Sweetwater, TN 37874 (615)337- 3275.

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