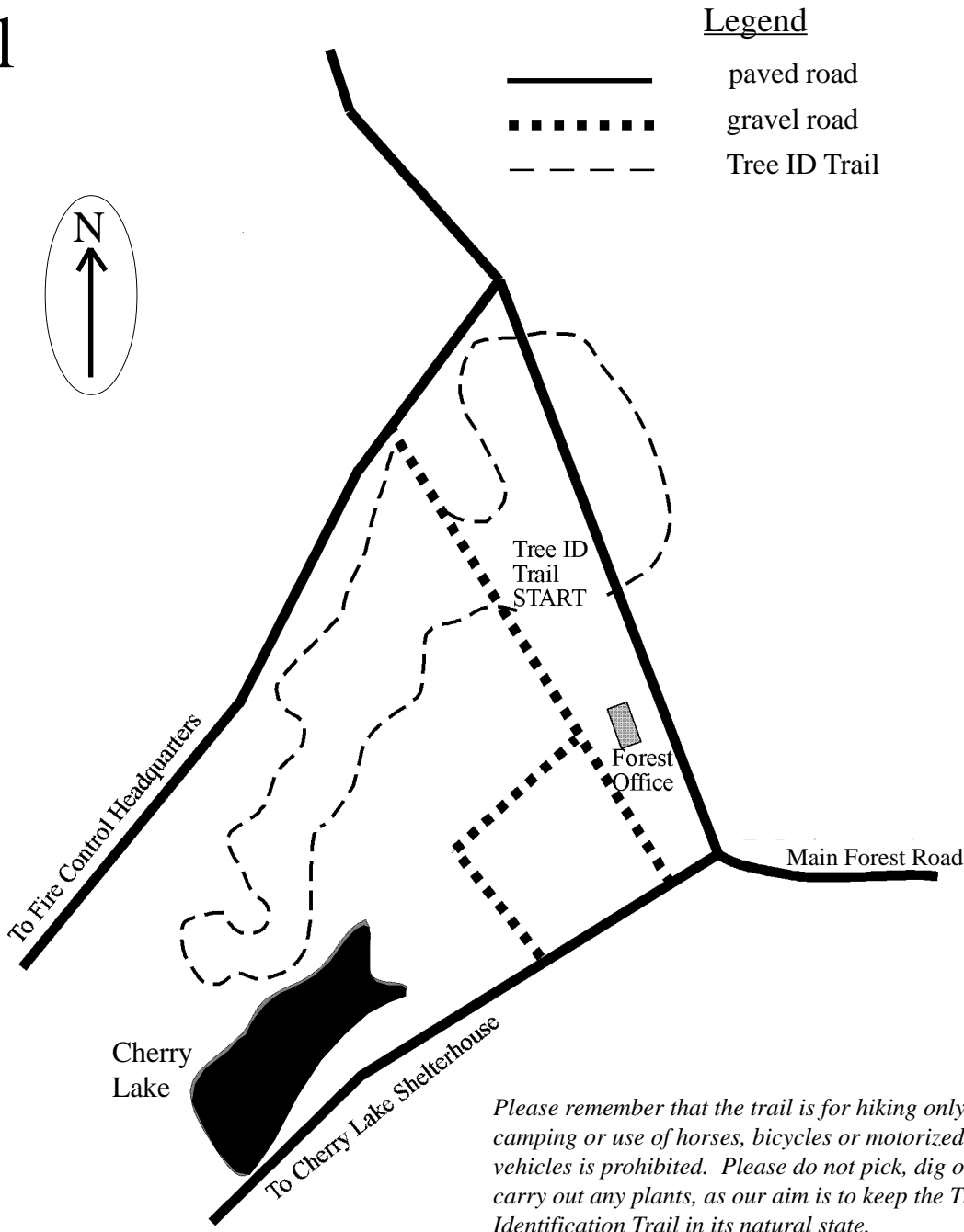


Tree Identification Trail



Please remember that the trail is for hiking only; camping or use of horses, bicycles or motorized vehicles is prohibited. Please do not pick, dig or carry out any plants, as our aim is to keep the Tree Identification Trail in its natural state.

Welcome to the Tree Identification Trail, a self-guided trail in Morgan-Monroe State Forest. There are 43 stations marked along the trail, each featuring a particular tree or forest management area. Some stations include descriptions of how humans benefit from trees and forest products. A short list of these benefits includes watershed protection, air purification, wildlife habitat, aesthetic beauty and over 6,000 useful items made from wood. We hope that as you hike the trail you will be able to appreciate some of these benefits.

Recent History
 Most of Morgan-Monroe's 24,000 acres consist of steep, forested ridges and valleys, and support some of the state's finest hardwoods. The original settlers of the area cleared and attempted to farm the ridges, but were frustrated by rocky soil unsuitable for agriculture. The state purchased the eroded, abandoned land to create Morgan-Monroe State Forest in 1929.

Please remember that the trail is for hiking

OUR MISSION
 The Indiana Department of Natural Resources' Division of Forestry promotes and practices 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 DNR prohibits discrimination on the basis of race, national origin, sex, or disability. If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to:

Forestry DNR
 Department of Natural Resources
 Executive Office
 402 West Washington St., Rm W256
 Indianapolis, IN 46204
 317•232•4020

The TREE ID TRAIL

A short foot trail developed by Morgan-Monroe State Forest



6220 Forest Road
 Martinsville, IN 46151
 765•342•4026
<http://www.state.in.us/dnr>

Tree Identification Trail

1 Tulip Tree (*Liriodendron tulipifera*) The state tree of Indiana. This fast-growing, sun-loving tree is intolerant of shade. Young seedlings grow readily in forest openings at Morgan-Monroe. At 60 years of age, this specimen could be 120 feet tall. It may reach 200 feet in height at the end of its expected life span.

2 White Ash (*Fraxinus americana*) A shade-intolerant tree that has a high value as veneer in furniture manufacturing. Veneer is thin slices of wood used on fine furniture and paneling. When cut into veneer, a log produces a greater quantity of material.

3 Osage Orange (*Maclura pomifera*) This tree is also known as "hedge apple" for its large green fruit; its irregular surface resembles a brain. The fruit matures in the fall.

4 American Elm (*Ulmus americana*) A common understory tree. Understory trees are small trees well below the main canopy. Elms were once a common timber species but now rarely reach mature size because of Dutch elm disease.

5 Shagbark Hickory (*Carya ovata*) Recognized by its shaggy bark; the nuts are favored by wildlife. The wood is used to give food "hickory smoked" flavor.

6 Pawpaw (*Asimina triloba*) Known as the Indiana banana. Larger trees produce an edible, banana-shaped fruit in the fall, but it's hard to beat the squirrels to the ripe ones.

7 Pignut Hickory (*Carya ovata*) A common hickory found mainly on sites with poor quality soil. It is valued for firewood and wildlife food.

8 White Oak (*Quercus alba*) Highly valued for veneer. Its value is second only to black walnut. White oak is a major export species of Indiana. Veneer and veneer quality logs are shipped to other countries. Germany is a major buyer of Indiana white oak.

9 White Pine (*Pinus strobus*) This pine, native to the North woods, is identified by needles in groups of five. These pines have been planted to reclaim land eroded by poor farming practices of early settlers in many places in Indiana. As the pines die, they are naturally replaced by native species.

10 Bigtooth Aspen (*Populus grandidentata*) This tree needs bare mineral soil to regenerate, and is often the first to grow after a forest fire. Its leaves "quake" or wave in the wind because of flat leaf stems.

11 Smooth Sumac (*Rhus glabra*) Sumacs are colorful trees in autumn, and have compound leaves and red, lemony-tasting berries. Shoots spread underground, helping the sumacs colonize edges of abandoned fields and roads. One poisonous variety, with white berries, is only found in swamps.

12 Silver Maple (*Acer saccharinum*) and Cherry Lake The silver maple is easily recognized by its silvery bottomed leaves.

13 Eastern Cottonwood (*Populus deltoides*) Thousands of tiny seeds, enclosed in a white cottony substance, are released into the air by female cottonwoods each spring.

14 American Beech (*Fagus grandifolia*) This tree is very shade-tolerant. It is able to grow under the dense shade of forest stands. It is found in the overstory of a climax forest (like in the Scout Ridge Nature Preserve). A climax forest, as the name implies, is the last stage of succession. Succession occurs very slowly and starts with sun-loving, shade-intolerant trees and progresses to partial sunlight trees and finally to shade-tolerant trees like American beech. Succession is the natural process of replacement of one plant community by another.

15 Black Locust (*Robinia pseudoacacia*) Black locust was once planted extensively for railroad ties and fence posts, but on many sites the locust borer severely damaged and even destroyed whole plantations. It is most commonly used today for erosion and mining spoil bank stabilization.

16 Black Oak (*Quercus velutina*) A very common oak found on a wide range of sites. As with other oaks, it is highly valued by Indiana's forest industry.

17 Chinquapin Oak (*Quercus muehlenbergii*) This tree is similar to white oak in appearance and use, although it is not a very common tree. The bark on mature trees is flakier and more platelike than white oak.

18 Northern Red Oak (*Quercus rubra*) Second in value to white oak in the oak family. It is generally found on better sites than white oak and is faster growing.

19 Blackgum (*Nyssa sylvatica*) Identified by the 90-degree angle formed where the branches come out of the trunk of the tree.

20 Redbud (*Cercis canadensis*) A small tree noted by its colorful pink flowers in the spring.

21 Sassafras (*Sassafras albidum*) Sassafras tea is made from the roots of this tree. It is also used to make split rail fencing. Its oily, fragrant, orange-colored twigs make the best kindling for starting campfires, even when wet.

22 Black Cherry (*Prunus serotina*) A shade-intolerant tree used in cherry furniture. It is often veneered, but in Indiana, pockets of a black, gummy substance sometimes prevent this use.

23 Wildlife Food Plot Across the blacktop is a planting of annual seed plants, including sorghum and buckwheat.

24 Red Pine (*Pinus resinosa*) A common pine in Indiana much like white pine except with 2 needles per bundle.

25 Sycamore (*Platanus occidentalis*) Found on very wet sites along streams. The bark has patches of white and green along the trunk. As the tree grows, the inelastic outer bark splits and peels off the tree. Indiana's largest tree (in diameter) and longest lived, this specimen could live to the year 2500!

26 Canada Plum (*Prunus nigra*) A small, Indiana native (up to 20 feet), it has white to pink flowers (3 to 5, in clusters), in May. Its fruits are about 1 inch in size and are enjoyed by wildlife. Its bark is marked by the same horizontal lines which characterize cherry bark.

27 Hackberry (*Celtis occidentalis*) Can be recognized by its warty bark. Its fruits ("sugarberries") are favored by our common game birds: turkeys, grouse and pheasant.

28 Ohio Buckeye (*Aesculus glabra*) One of the earliest trees to leaf out in the spring. Its seed resembles a chocolate brown eye. This is an opposite-branching tree.

29 Continuous Forest Inventory (CFI) Plot A dendrology (tree study) survey is being carried out here--an inventory at 15-year intervals of growth and species survival rates.

30 Black Walnut (*Juglans nigra*) One of the highest valued timber species. It is used extensively in cabinets and fine furniture. Extensive plantations of this valuable hardwood have been established in Indiana and surrounding states.

31 Eastern Wahoo (*Euonymus atropurpureus*) A shrub or small tree with green, 4-lined twigs. Flowers are purple, clustered, and bloom in June-July. Fruits are reddish and berrylike, with husks, beneath striking purplish bracts or stems. The fruits should NOT be eaten.

32 Basswood (*Tilia americana*) The name Basswood may have originated from the strong, tough bark, or "bast" fibers, which were used by early peoples for cordage of various sorts. The American basswood is highly prized in certain areas for its honey.

33 Walnut Release & Growth Monitoring Area All species other than walnuts have been cleared to allow for walnut regeneration. Snags for wildlife and den trees remain.

34 Red Elm (*Ulmus rubra*) The Dutch elm disease has taken its toll on this species. This tree is also known as slippery elm, which is deceiving since the leaves are very rough.

35 Sugar Maple (*Acer saccharum*) This tree, like American beech, is very shade-tolerant. Its sap is used to make maple syrup. Thirty-two gallons of sap are required to produce one gallon of syrup.

36 1981 Harvest Area and Regeneration Opening In this one acre, the climax beech/maple tree species were removed. Climax trees are those that forever shade out other species from growing on a site. Look for a variety of species, including walnut, cherry and poplar, that are regenerating.

37 Boxelder (*Acer negundo*) A member of the maple family identified by green opposite branching twigs. Opposite branching means the twigs come out of the branches directly opposite each other. Only maple, ash, dogwood and Ohio buckeye are opposite; just remember MAD BUCK!

38 Flowering Dogwood (*Cornus florida*) A small tree famous for its white flowers in the spring. The dogwood is vulnerable to a disease, recently spread from Europe, which may cause the tree to decline in Indiana.

39 Spice Bush (*Lindera benzoin*) More a shrub than a tree (to 10 feet), and found everywhere in low-lying areas, it is often noticed in years when its cranberry-like fruit is abundant. Leaves and twigs are fragrant when crushed.

40 Honey Locust (*Gleditsia triacanthos*) This tree normally has large thorns along its trunk and branches. This tree is named for the sweetish substance, which tastes like a mixture between castor oil and honey, found in the seed pods.

41 Norway Spruce (*Picea abies*) Planted as an ornamental. The twigs seem to hang from the branches, giving them a drooping appearance.

42 Pin Oak (*Quercus palustris*) Pin oaks have a shallower root system than many of the other oaks, and have trunks studded with small, tough branchlets, hence the common name "pin" oak.

We hope you enjoyed your hike at Morgan-Monroe State Forest.