



18 Red Oak ❖

See marker 16.

19 White Pine ❖

Michigan's state tree, the white pine played a vital role in the state's lumbering era in the late 1880s when the value of lumber from Michigan is said to have been more than the value of gold from the California gold rush. Today, the wood is used for construction and pulpwood. White pine need an open, sunny site to begin growing. Mature white pine trees are the number one nest site choice for bald eagles.

20 Large-toothed Aspen ❖

The flat leaf stems make the leaves quake in a breeze. The large-toothed aspen is the best of the aspens for lumber and pulpwood.

21 Ironwood ❖

The wood's extreme hardness gives the tree its name. Common in hardwood forests, ironwood is a prolific seeder on good sites.

22 Yellow Birch ❖

Most valuable of the birches, the wood of yellow birch is widely used for fancy veneer. Its bark peels off in thin film-like curls.



23 Hemlock ❖

The trees are a favorite "chewing tree" for porcupines. Years ago, hemlock trees were cut for the tannin in their bark. The needles were used in making old-fashioned root beer. Hemlock seedlings are a favorite food of deer, making it difficult for the tree to re-establish itself.

24 White Ash ❖

Ash trees face a major threat from an invasive pest called the emerald ash borer, which girdles the tree under the bark. Many parks have banned the movement of firewood in Michigan in an effort to contain and combat the deadly insect. See marker 7 for more on this tree species.

25 American Basswood ❖

Basswood is a common shade tree in northern hardwood stands and is a favorite of wood-carvers.

26 Hickory ❖

Once popular for wagon wheels, hickory is used for ax handles and other wood items requiring strength.



A Walk on the Wild Side

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ELCOME to the Hardy Dam Rustic Nature Trail where you can view magnificent woodland areas, natural streams and get a glimpse of wildlife that either visits or makes their homes here.

The three-mile trail winds along a natural path over varying terrain, across a wooden bridge, then loops back on itself so that you retrace your steps to the trailhead and your vehicle.

As the trail parallels the Muskegon River, you'll get frequent glimpses of Michigan's most scenic waterway through the trees. Walk at your own pace and listen for the sounds of nature.

The trail is narrow and leads you over uneven ground, so please step carefully. We want your visit to be a safe and enjoyable one.

On your self-guided tour, 26 gray diamond-shaped markers on short posts identify tree species. Depending on the season, you will see many other species of shrubs and flowers, plus an abundance of wildlife.

This area is home to wild turkeys, grouse, woodpeckers, bald eagles and dozens of other bird species. You also may spot deer, raccoons, porcupines, squirrels, beavers, muskrats, mink, otters and other animals.

To protect this rustic area for the enjoyment of visitors, please do not litter, damage or remove anything on your visit.

A Walk on the Wild Side

TRAIL MARKERS

Red Maple

1 Juniper ❖ This cone-bearing tree has a fragrant, red-grained wood often used for cedar closets and chests. The cones, which look like berries, are important food for many wildlife species.

NOTE: A Consumers Energy electric transmission line is between markers 1 and 2. Such lines in forested areas provide open meadows for shrubs and field vegetation that are important food sources and cover for white-tailed deer and provide food sources and cover for birds, small mammals and even the federally endangered Karner blue butterfly. Here, a Consumers Energy fosters low-growing brush species for wildlife habitat.



2 White Birch ❖ This tree grows on bare sand and bedrock and needs bare earth and sun to reproduce. Native Americans stretched the smooth, thin and papery bark over frames of white cedar to make lightweight canoes. Today, white birch is used mainly for making toothpicks and spoons.

NOTE: Between markers 2 and 3, an American osprey nesting platform has been placed on the island seen in the river. Osprey catch fish similar to bald eagles. Unlike eagles, which don't use man-made platforms, osprey will often occupy these structures. As the platform ages and takes on a weathered appearance, its chances of attracting an osprey pair that will build a nest of small sticks and other debris greatly increases.

3 Sassafras ❖ It can be a small tree or thicklet-forming shrub with three different types of leaves: one oval, another shaped like a bird's foot with three lobes, and another shaped like a mitten. The reddish-orange roots are used for brewing and making root beer. In the fall, the leaves turn bright yellow and orange.

4 Sugar Maple ❖ Commonly known as hard maple, sugar maple is tapped for sap used to make maple syrup and maple sugar candy. Its wood is often used for fine cabinetry and flooring. The leaf is the emblem on Canada's national flag.



NOTE: Between markers 4 and 5, on the right, is an open hillside where a large-leaved herb called burdock grows. Jack-in-the-pulpit, an early spring plant, also grows in this area. In the fall, a clump of poisonous orange-red berries appears on Jack-in-the-pulpit plants. Please make sure youngsters stay away from these!

5 Black Locust ❖ One of the earliest native trees discovered by European colonists, black locusts were often planted to stabilize and improve the condition of the soil. Black locust is a legume, meaning its roots convert nitrogen in the air and enhance the soil.

6 Wild Apple ❖ European missionaries and colonists brought apple trees and seeds to America and planted them in this area. The trees grow wild and unattended, and are a favorite of feathered and furry wildlife.

7 White Ash ❖ Timber from this hardwood tree is used for baseball bats, tennis racquets and boat oars. It also is a popular ornamental and shade tree.

8 Juneberry ❖ In the spring, the tree has white blossoms, which give way to bright red berries in June and July. The berries are a favorite of birds and can be eaten safely by people.

9 American Elm ❖ Look for the marker just before the bridge. A large, graceful tree when mature, the American elm is popular along city streets and in gardens. Once abundant, the species has dwindled significantly since the 1930s when it fell prey to Dutch elm disease.

NOTE: Just ahead is a bridge over a diversion channel for water from Hardy Dam's emergency spillway. The bridge was designed and built by the Boy Scouts of America Troop 1129 of Fremont, Mich.

10 American Beech ❖ This hollow tree provides excellent nesting habitat for birds and animals. The bark of the American beech remains smooth — even on old trees. The wood is used for furniture, floors and interior trim.



11 White Oak ❖ Abundant in this area of the trail, white oak is valuable for veneer, furniture making and ship building, as well as for whiskey barrels and casks.

12 Red Maple ❖ Also known as soft maple, red maple has opposite branching. That is, the smaller limbs come off the bigger limb opposite each other. In early spring, reddish flower clusters appear and produce reddish fruit and leafstalks. In the fall, the leaves turn a brilliant, fiery scarlet.

13 Black Cherry ❖ The bark of black cherry trees gives off a pungent aroma when crushed. The wood is often used to make furniture and cabinets, while the bark and fruit are used to make cough syrup, wine and jelly.

NOTE: A bat house has been placed on a red oak near this location. Bats will use man-made houses as daytime roosting sites during the summer. It is at night when they forage, devouring hundreds of insects daily. In the fall, bats leave their summer habitat and gather in large colonies, first to mate, then to hibernate for the winter in caves that provide a cool, damp atmosphere.

14 White Cedar ❖ The slow-growing but long-lived white cedar is one of the first tree species to be discovered in America by European settlers. The tea from the bark and vitamin C-rich leaves is credited with saving the lives of early seamen afflicted with scurvy.



15 American Beech ❖ In addition to serving as wildlife homes (see marker 10), beech nuts or "mast" also are an important food source for bear, deer, turkey, squirrel and other wildlife.

16 Red Oak ❖ This fast-growing tree tolerates a variety of difficult conditions and is common in the mixed oak forest along the Muskegon River. Red oak is used to make furniture, flooring, pulpwood, fence posts and pilings.

17 Black Oak ❖ This tree also is known as yellow oak because of its distinctive yellow or orange inner bark. The inner bark was once a source of tannin (used in medicines, tanning leather, making dyes and inks). The leaf tips have sharp bristles.