

GRAND BEACH MARSH PRESERVE LOOP TRAIL GUIDE



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Sawyer, MI
2015

<http://www.chikamingopenlands.org>

1. Trail Map. You have entered a low, but dry forest composed of white oak, pin oak, and sour gum trees rooted in a sandy soil. All are remnants of a much larger forest that occupied this area before it was developed. Along this trail you will encounter small signs that point out some natural feature of the preserve. Each sign has a number that is connected to a brief description in this trail guide. It also contains a QR code that a smart phone will be able to use to connect to an online trail guide on the Chikaming Open Lands website (<http://www.chikamingopenlands.org>)

Grand Beach Marsh Preserve Trail Map

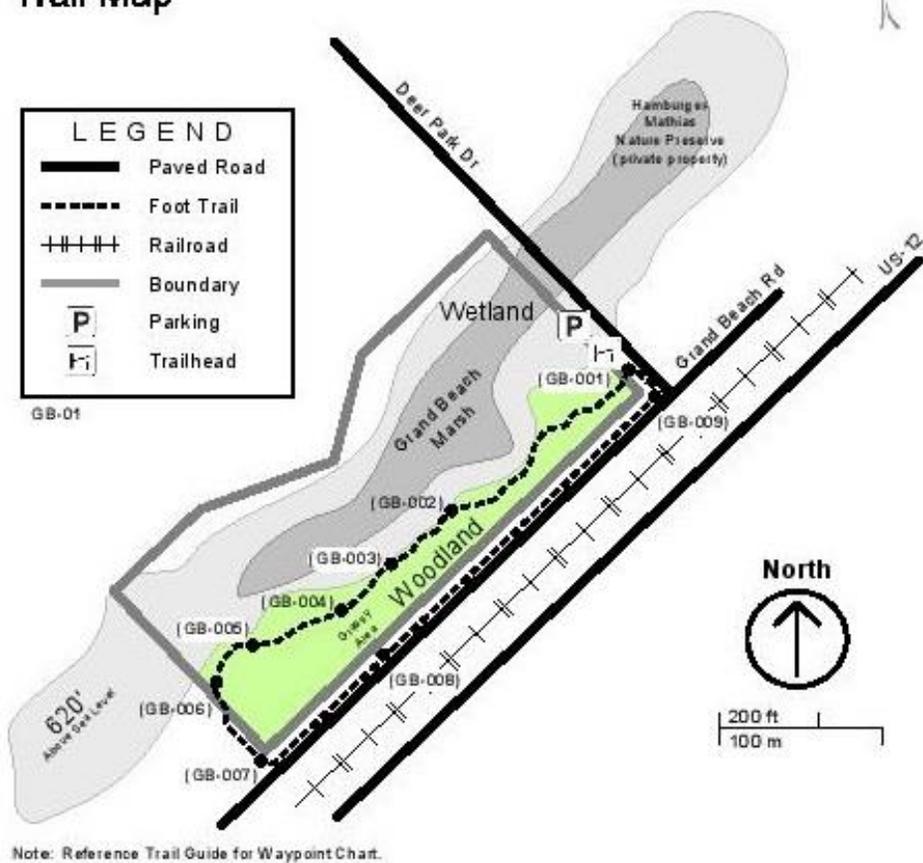


Figure 1. Grand Beach Marsh Preserve Loop Trail Guide.

2. **Serviceberry** (*Amelanchier arborea*) is a small tree commonly found in hardwood forest understories in Michigan. This one, with its three stems, is unusually large—the largest stem being about 15 cm in diameter. Serviceberry supposedly got its common name from settlers who noticed that when its white flowers appeared in early spring, the ground was sufficiently thawed to allow the digging of graves and the funeral services of those who had died during the preceding winter. Its small, reddish fruits are sweet and edible and can be made into pies and jellies.



Figure 2. Serviceberry leaves (left), flowers (middle) and leaves and fruit (right).

3. **Highbush Blueberry** (*Vaccinium corymbosum*) is the shrub growing beneath the White Oak tree here. In summer its elliptical leaves are yellowish-green but turn a brilliant red in the fall. Like most species of blueberry, this one prefers full sun and an acid soil to thrive. Its urn-shaped, white flowers are insect pollinated and produce a fruit so delicious that hybrids of this species are the blueberry grown in Michigan. While we prize this fruit, so do other inhabitants, including many species of birds and mammals.



Figure 3. Highbush Blueberry leaves and flowers (left) and fruits (right).

4. A View of the Marsh. Stretching in front of you is the grassy area of the marsh. It is dominated by Canada Bluejoint Grass (*Calamagrostis canadensis*). Beyond this is a patch of dark green which marks the area of open water and where the flowering stems of grass-like plants called rushes are emergent. Rushes are often a darker green than the grasses they resemble.

5. Another view of the Marsh. At this point a small opening among the trees affords another view of the open area of the marsh. During the summer several tall flowering plants are visible among the Canada Bluejoint Grass. Two notable species are Joe-pye Weed (*Eutrochium purpureum*) and Steeplebush (*Spiraea tomentosa*). The latter is recognized by its narrow conical flower cluster containing numerous, very small, pink flowers.



Figure 5. Joe-pye Weed (left), Canada Bluejoint (center), Steeplebush (right).

6. Prairie savanna. To the Grand Beach Road side of the preserve is an opening that contains a mixture of prairie grasses and forbs (a forb is a non-grass prairie plant.) Some of the grasses include Little Bluestem (*Schizachyrium scoparium*) and Indiangrass (*Sorghastrum nutans*) and Short-leaf Fescue (*Festuca saximontana*). The forbs include Wild Lupine (*Lupinus perennis*) and Flowering Spurge (*Euphorbia corollata*). This community is being invaded by woody plants such as Smooth Sumac (*Rhus glabra*) and trailing plants like Northern Dewberry (*Rubus flagellaris*). In the past, these woody species would have been kept at bay by periodic fire which does not usually harm the grasses and forbs because their growing points are at or below the soil surface.



Figure 6. Little Bluestem (left) and Wild Lupine (right).

7. **Pin Oak** (*Quercus palustris*) This is one of the few oak species that retains its lower branches as it matures. You will notice that these branches tend to bend downward. Pin oaks are characteristic of areas where water is near the surface. Their leaves have deep sinuses and bristle-tipped lobes. As with all oaks, pin oak produces acorns, which, even though they are bitter, are consumed by a variety of mammals and insects. Its wood is hard, coarse-grained and dark and has been used for furniture and flooring.



Figure 7. Pin oak leaves and acorns (inset photo).

8. **A View across the Marsh.** As you look to the other side of the marsh, notice that the flat expanse of the marsh sweeps upward to form a hillside. This is the remainder of an old dune formed from sand blown in off the beach of Lake Michigan. In front of the dune are some large shrubs; these are Buttonbush (*Cephalanthus occidentalis*), so called because the remains of old flower clusters resemble fancy dress buttons. During the summer these shrubs produce white balls of flower clusters. The plant is used in homeopathic medicine to treat fevers, sore throat and “vivid dreams” (I am uncertain whether it enhances or diminishes them). However, it should be noted that it does contain toxic chemicals, one of which can cause convulsion and paralysis. Interestingly, it also contains cephalin, the active ingredient in Syrup of Ipecac, used to induce vomiting.



Figure 8. Buttonbush flower clusters. The spine-like projections are the style portions of the pistil, the base of which contains the ovary.

9. **White Oak** (*Quercus alba*). The large tree with spreading branches is a White Oak. Normally, if this tree were growing up among other trees in a forest it would have a much more laterally compact growth. In other words, it would not have low, spreading branches. Because this tree does, it grew from a seedling in the open—and thus has the spreading growth of an open-grown tree. White oaks have leaves with rounded lobes without bristle tips (See 7. **Pin Oak** for comparison.) and non-bitter acorns. Its light colored, dense wood makes great furniture and flooring. It is also the preferred wood for whiskey barrels and wine casks.



Figure 9. White Oak leaves and acorns

10. As you exit the woods, turn left and follow the dirt path toward Grand Beach Road. Then turn left and carefully walk along the roadside toward Deer Park Road.

11. Poison Ivy (*Toxicodendron radicans*) “Leaves three, let it be” is an often repeated phrase when alerting people to poison ivy. Poison Ivy has stems that trail along the ground as well as stems that anchor to the bark of trees, allowing the plant to grow as a vine. At various places along the stem, a pale green petiole (leaf stalk) diverges and bears three dark green leaflets that have several coarse teeth along their edges. Each leaflet is folded slightly along the main vein running down its middle. In the middle of summer, small, pale green flowers are produced along the stem, and after fertilization each can produce a berry-like fruit about a ¼ inch in diameter. All parts of the plant (roots, stems, leaves, flowers, and fruits) are poisonous to humans. Contact with this plant should be avoided because it produces an irritant called urushiol which causes a skin rash of small, itchy blisters. Breaking the blisters by scratching can spread the urushiol, increasing the area of the rash. Some individuals are highly sensitive to urushiol, and exposure can cause severe swelling of skin, and throat leading to anaphylactic shock. These individuals need immediate attention in an emergency room. For most, however, initial contact produces no reaction or a mild rash. However, further exposure often results in an increased skin response, so avoidance is the best policy. But if you contact poison ivy, the FDA recommends the following: clean the area with rubbing alcohol; then wash the area with soap and water. Remember, too, that your shoes may also have urushiol on them, so handle them with care.



Figure 11. Poison Ivy on the ground (left) and on a tree (right)

12. Sassafras (*Sassafras albidum*) This tree with dark, deeply furrowed bark has intriguing pale greenish yellow leaves that come in a variety of shapes. Some of them are mitten-shaped, others have three lobes and some have no lobes at all. If you smell a leaf as you crush it, you will detect a pleasant lemony odor. You can experience its taste by chewing on a leaf stalk. **(Do not try this if you have lots of allergies.)** A very tasty tea can be made from the roots, but drinking too much of it has been linked to liver disease. The tree is considered a pioneer species, i.e., one that enters a forest opening or colonizes abandoned cropland. Because it is shade-intolerant, it does not persist in forests after the canopy closes, but may thrive at the edge of woods, as it does here.



Figure 12. Sassafras leaves.

One last note: Chikaming Open Lands, a land conservation organization, owns and manages Grand Beach Marsh Preserve. We encourage you to join us as a member and as a stewardship volunteer. Visit the Chikaming Open Lands website (www.chikaminglands.org) for membership and stewardship information as well as for information about the other preserves that we own.