

The Upland

Plants Move In

The spot you are standing on was once underwater. But in 1949 it was filled with silt from the dredging of New Haven Harbor. Imagine, just after the dredging was completed, this area was a completely barren landscape. And now, you see fully formed ecosystems in front of you. How did this transition happen?

Pioneer plants—also called invaders or colonizers—are the plants that first move into an area and make it possible for other plants to follow. If you try to dig here, you'll find that the ground is hard, filled with pebbles, and somewhat sandy. In short, it seems like an inhospitable environment for plants, yet some flowers and hardy plants thrive!

But how did pioneer plants get here in the first place? Well, all pioneer plants have something in common—they have seeds that are easily picked up by the wind. A few also have fleshy, edible fruits that are attractive to birds; the birds digest the pulp and excrete these seeds, spreading the species around the landscape. Most of these species produce a large number of seeds so they have a better chance of being spread and taking root in the right place at the right time.

SUCCESSION

As pioneer plants spread, grow, die, decay, and grow again—they change their environment. These plants become part of the soil, filling it with nutrients and allowing larger plants (even trees) to take hold. This process, where one group of plants changes the environment

allowing a different community of plants to move in, is called **succession**. Long Wharf Nature Preserve is still changing, but this process has already been responsible for the formation of two distinct upland habitats.

UPLAND HABITATS

You are currently walking through the upland section of the nature preserve. This area is five or six feet above the water level, high enough to allow two types of ecosystems to succeed.

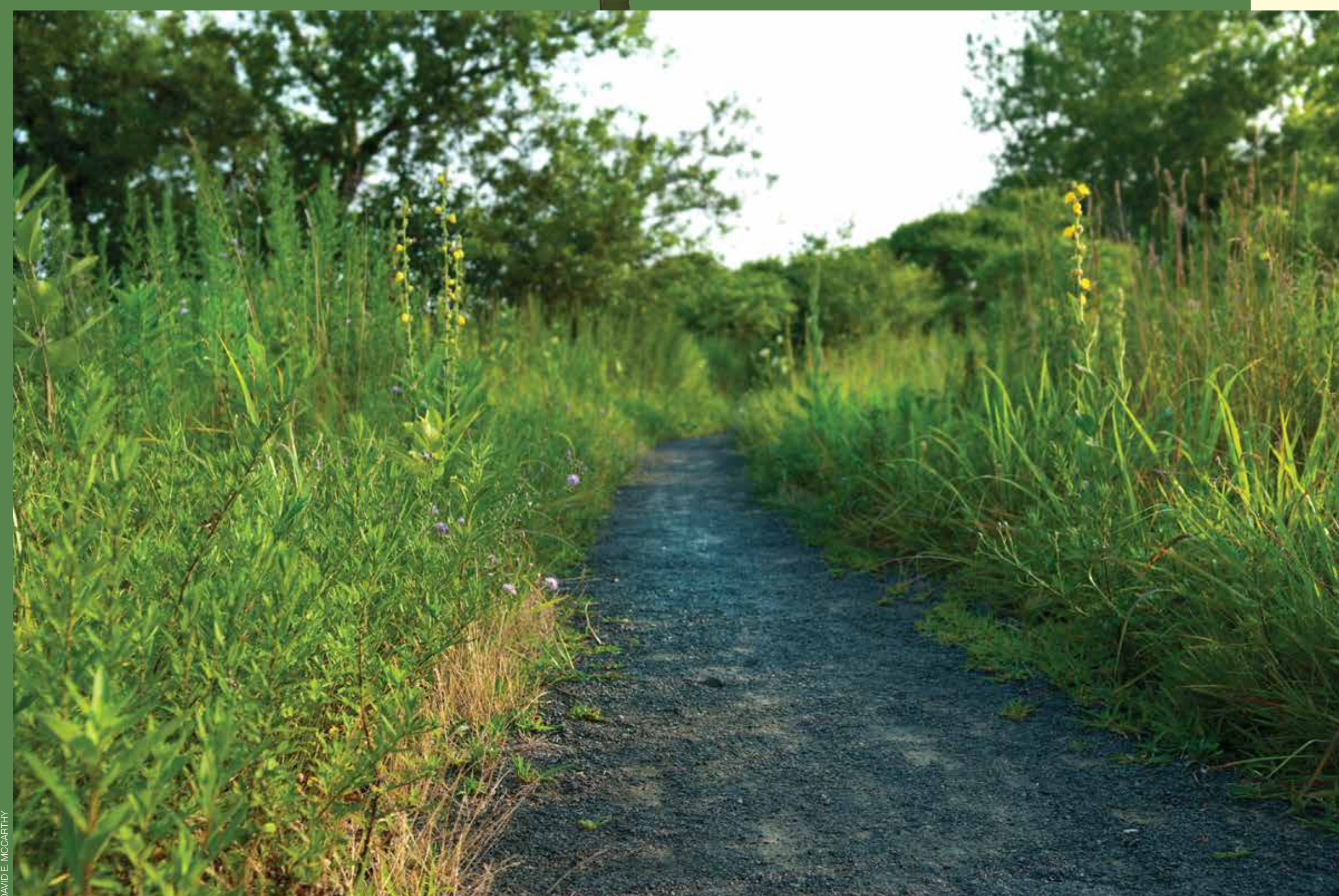
The **wildflower field** is full of the tough pioneer plants that first colonized this area. These plants thrive on the open space and sunlight the wildflower field offers.

The **woodland forest** at the western corner of the preserve has a more dense tree cover. This supports the preserve's resident birds and larger mammals, but the shade keeps some of the smaller plants from growing. Unless destroyed by fire, hurricane, or other natural calamity, the woodland will continue to spread over time until it dominates the upland.

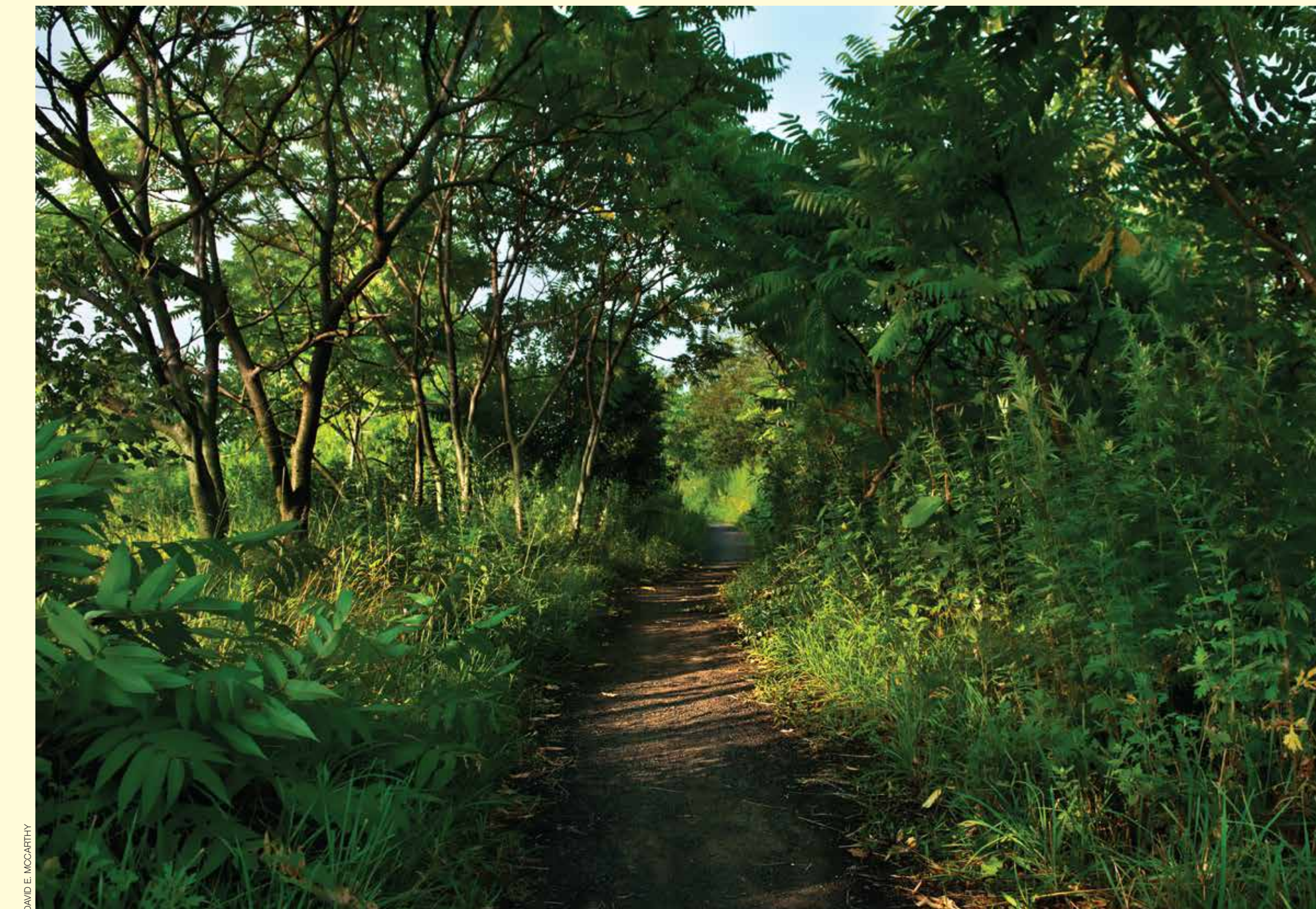


Queen Anne's Lace and other plants like mullein and goldenrod are typical pioneer plants that first take root in a disturbed environment. Look for them in the wildflower fields as you walk through the preserve.

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The Wildflower Field



The Woodland Forest



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Black cherry, staghorn sumac and eastern cottonwood are typical woodland forest trees. They are abundant in the preserve. **See if you can find them!**

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