1. Wetlands come in a variety of forms, all influenced by continuous or seasonal flooding. Chautauqua Bottoms is part of the alluvial floodplain of Little Crab Orchard Creek. Historically, this area was bottomland hardwood forest. In 1991, Green Earth acquired approximately 10 acres of this floodplain that was previously used as a horse pasture, and seeded it for native prairie grasses and wildflowers. Because this area has the hydric soils of a wetland, and therefore holds water, the prairie is often inundated after precipitation. Trees have been allowed to grow around the periphery of the prairie to form a more natural transition community to the hardwood bottomland.

2. The prairie established here contains warmseason grasses big bluestem, Indiangrass and switchgrass. Twenty-two additional species of legumes and flowers were planted. The prairie grasses are particularly beautiful in late summer, when their flowering stalks tower up to six feet tall and their stems contain red to purple hues. It is difficult to maintain diversity in restored prairie without periodic fires or grazing. Trees are frequent invaders here because the soil and moisture conditions are conducive to the native lowland woodland species. The prairie community is maintained by a combination of mowing and burning.

3. This area is a fairly mature floodplain forest with three distinct vertical layers of vegetation. The overstory, or highest species in the canopy, contains several types of oaks, hickories, sycamore, elms, and hackberry. The midstory layer consists of much shorter trees and is dominated by pawpaw in this forest. The understory contains mostly herbaceous plants. The woodland wildflowers are understory species, as are stinging nettle and poison ivy.

4. Bottomland forests in southern Illinois can harbor a diverse array of wildflowers. This area, *The Wildflower Glade*, is well known for it's beautiful spring display. Common wildflowers on this trail include bluebells, mayapple, trillium, common blue violet, Dutchman's breeches, blood root, Jacob's ladder, and woodland phlox.



Because of the high diversity of wildflowers here, we work to protect his area in particular from exotic invasive plant species. We ask visitors to please stay on the trail in this area to both reduce trampling of the wildflower plants and to reduce spread of invasive plant seeds carried in on clothing and shoes.

5. Trees are often easiest to identify in the spring and summer when their leaves are present, but many trees are also easy to identify without leaves by looking at their bark, seeds, or fruit (nuts). For example, sycamore trees have smooth, pale bark that tends to peel off. Shagbark hickories have very rough and shaggy bark. Hickory nuts, walnuts, and acorns are excellent indicators of a tree's identity.

6. Little Crab Orchard Creek has been modified directly and indirectly by humans. Downstream, the creek has been channelized to reduce flooding. This causes the water to drain faster and cut into the sides of the banks. The creek also receives more runoff than it used to because part of the watershed has been cleared of forest and replaced with streets and residences. These in-stream and landscape disturbances make it very difficult to restore floodplain forests.

7. Fallen trees in forests and streams are tremendous sources of energy for these ecosystems. Dead trees provide food and nutrients for fungi, worms, and insects. These wood consumers are important sources of food for other animals. In streams, wood provides structure for some organisms to inhabit and a resource for others to consume. In fact, woody debris and leaves that it traps can house most of the aquatic diversity in sandy and silt bottom streams.

8. Little Crab Orchard Creek eventually meets the Big Muddy River and drains into the Mississippi River. The creek here has been cutting into the sides of the bank because of the channelization downstream. One concern about bank cutting is the increased sediment carried by the stream. Excess sediment reduces in-stream habitat quality and water quality. 9. Exotic invasive species are abundant here; particularly the thorny vine called multiflora rose. Exotic invasive species are native to somewhere else and become a serious problem when they outcompete native species for resources. When exotic invasive plants become dominant, many other species may be affected such as insects that feed on or pollinate native plants, and birds that rely on those insects for food or the native plants for cover. Exotic invasive species tend to thrive in disturbed areas or areas that contain a large amount of "edge" habitat, such as small nature preserves in a predominantly urban setting.

10. Forest communities are often a good indication of water availability in an area. There is a distinct stand of a flood tolerant tree species here, river birch. The river birch community surrounds an old oxbow of Little Crab Orchard Creek.

11. Wetlands are not always wet, but here lies a small depression that holds enough water to support the characteristic sounds and sights of a wetland. Frogs will breed in these ephemeral pools, as will a variety of aquatic insects, including dragonflies. Wetlands also filter nutrients and sediment from runoff, acting as a natural water purification system. Because of the numerous services and values of wetlands, conservation and restoration of these ecosystems are a high priority nationwide and throughout the world. Did you know that one third of endangered species use wetlands to some extent?

12. In 2005, over 6,000 hardwood bottomland trees were planted in what had once been an overgrazed pasture. Because of exceptional growing conditions that year, an especially high percentage of the bare-root seedling trees survived, giving rise to the young, high-quality hardwood woodland you see here today.

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This preserve contains three trails, parts of which have been improved to accommodate people with limited mobility. We wanted to preserve the naturalness of our sites, but still create a space where nearly anyone can enjoy a walk in the woods.

Our ADA Friendly trails offer:

- A hard-packed surface
- Ramped elevation changes
- No curbs to catch wheels on
- Five-foot width in most areas to accommodate wheelchair passing



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