

5 The **Shagbark Hickory** on the western side produces nuts eaten by squirrels and chipmunks, and **Yellow-bellied Sapsuckers** often drill holes to feed on the oozing sap. Bats sometimes hide behind the wide strips of peeling bark. On the east side are **Box Elder** trees, the only maple with compound leaves. This species is restricted to limestone-rich areas such as the Macricostas Preserve and is the dominant tree in the grove. **Evening Grosbeaks** and other strong-billed birds eat the winged seeds.

6 This stand of **Milkweed** is very important to **Monarchs** and other butterflies. While several butterfly species will take nectar from the milkweed flowers (you might see **Tiger Swallowtails**, **Black Swallowtails** or a number of smaller species called **Skippers**), milkweed leaves are the sole food source for Monarch caterpillars and the only place where the females will lay their eggs.

7 This shrubland habitat consists of dense, woody vegetation and provides important cover for wildlife such as **Rabbits** that forage in open fields and escape to the dense thicket for protection. **Birds** nest in the trees and shrubs and, along with other wildlife, take advantage of the buds, catkins, seeds, berries and an abundance of insects for food. Paradoxically, this cover also shields predators stalking their prey. In this area, non-native **Multiflora Rose** competes with native shrubs like **Viburnum**. The invasive rose will win the competition without some careful intervention by land managers. The visible brush piles have been left in place to offer added cover for small animals.



Chipmunk

8 A major threat to the biodiversity of this preserve is the spread of non-native invasive plants. They grow rapidly and produce large quantities of seeds that are easily dispersed. They are aggressive competitors and once established, like the ever-present **Multiflora Rose**, will dominate the vegetation. Other examples of invasive plants along this farm road include **Oriental Bittersweet** vines, **Winged Euonymus (Burning Bush)** and **Garlic Mustard**. Farther on, **Purple Loosetrife** is gaining a foothold in the wetlands.

9 Stone walls such as these replaced earlier split-rail, zigzag fences and fencing made from stumps, and were used until barbed wire became prevalent in the 20th century. **Garter Snakes**, **Weasels**, **Eastern Chipmunks**, **House Wrens** and others find shelter in these walls.

10 The dead trees, snags and stumps along the trail's edge provide food, nest sites and shelter for many species of birds, mammals, insects, reptiles and amphibians. The higher tree branches offer **hawks** and **owls** perches from which they search for rodents. Fallen branches and woody debris provide wildlife with lower perches and escape routes. As wood rots, mosses, lichens and fungi find nutrients and a hospitable surface for growth and are themselves a food source.

11 Fieldwork conducted in 1987 by the Institute for American Indian Studies indicates that this area was used by different groups of **Native American hunter-gatherers** for thousands of years. It is quite possible that the well-known sachem of the area, **Chief Waramaug**, and his followers used this rich wetland.



Milkweed



Cooper's Hawk

12 The plants, shrubs and trees found in this forest habitat form a riparian (riverside) buffer, filtering excessive nutrients and sediments before they reach Bee Brook below. The brook is an important corridor for wildlife; **raccoons**, although mostly nocturnal, are sometimes seen along its edges searching for frogs, crayfish and salamanders.

13 An area where two habitat types meet, such as forest and field, is known as an ecotone. Here, species that are distributed through each habitat can coexist. As a result, ecotones are good places to observe wildlife, especially birds.



Joe-Pye Weed

14 Meeker Swamp, located over Washington's largest aquifer, is home to a diverse number of birds, mammals and insects. Additionally, it constitutes an important stopover for such migratory waterfowl as **Hooded Mergansers** and **American Black Ducks**. Here, **Beavers** have created pond areas for food supplies and protection from predators. The dominant grass is the invasive **Reed Canary Grass**, and the shrubs include **Red Osier Dogwood** and various species of **willows**. Some of the wetland flowers are **Joe-Pye Weed** and **Cardinal Flower**, the latter a preferred nectar source of the **Ruby-throated Hummingbird**.

15 Watercourses such as this part of Bee Brook provide habitat for a wide range of insects, reptiles and amphibians. During the spring and summer months, small blue damselflies called **Bluets** can be seen on and around the bridge, and huge dragonflies called **Darners** patrol the stream. At various times of the year, one may encounter **Green Frogs**, **Bullfrogs** or **Pickerel Frogs**. With luck, one may catch sight of a **Red-spotted Newt** hunting in the watery shadows beneath the bridge.



Red-spotted Newt

16 This drier portion of the shrub swamp is a transitional zone between the upland area and the more open waters of Meeker Swamp. The water-tolerant flora include **Red Maples**, **Tussock Sedge**, **Sphagnum Moss**, **Skunk Cabbage**, **Jack-in-the-Pulpit**, **willows** and **Spicebush**. Several species of **ferns** thrive in the cool, wet soil and provide cover for **frogs** and **salamanders**. It is an important habitat for **turtles** and attracts many species of **birds** because of the abundance of food like berries, insects and mice.

17 The dominant tree at the edges of Meeker Swamp is the **Red Maple**, which often grows on sedge-formed hummocks. It is able to tolerate fluctuating water levels and a range of soil types. Swamps provide many ecosystem services: they filter and purify water, reduce flooding by slowly releasing water accumulated quickly during rainstorms, and provide critical habitat to wetland flora and fauna. This is the end of the boardwalk section of the Interpretive Trail. Retrace your steps to the farm road, turn left and find stops 18-22 on the way to viewing platform.

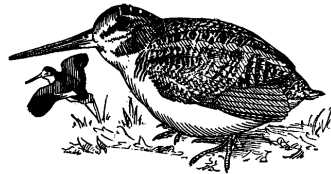
18 It is easy to spot deer trails and deer browse throughout this thicket. The overpopulation of **White-tail Deer** has changed the ecology of the northeast in the last few years. Deer eat over six pounds of bark, twigs and buds daily, which has a negative affect on the understory. Overbrowsing destroys native wildflowers, shrubs and saplings, and non-native invasive plants (that deer don't eat) take their place. Insects that depend on native plants are on the decline as are the songbirds that feed on the insects.

19 Migratory birds flying north in the spring and south in the fall need stopover sites to rest and refuel for their long flights. Here the dense thicket, wetlands and wooded areas beyond provide shelter as well as adequate food to replenish fat reserves.

20 Though there are many **American Woodcock** in the Preserve, these well-camouflaged birds are difficult to spot because their mottled coloring looks like dead leaves. They are chunky, long-billed birds with large, bulging eyes located near the top of their heads. A Native American myth says that God made the woodcock from leftover parts of other birds. Woodcock prefer this wooded, lowland habitat because

they can forage for earthworms in the rich, moist soil. They nest on the forest floor using low

shrubs or grasses for cover. An amazing sight in the spring at dusk is the male aerial display that takes place in small clearings and fields.



American Woodcock

21 If you look carefully in this area, you will see many moss-covered bricks on the ground left over from Abel Bristol's 19th-century Bricks & Drain tile yard. The clay was dug from Meeker Swamp.

22 The viewing platform is the last stop on the interpretive part of the trail. After enjoying the view go back to the farm road and walk in either direction around the field to return to the parking area. We hope you have enjoyed your walk and will come back again. You may keep this brochure or return it to the box for others to use.



STEEP ROCK
LAND TRUST

MACRICOSTAS

PRESERVE

INTERPRETIVE TRAIL



Produced by
The Washington Garden Club
Conservation Committee
2008

WELCOME TO THE INTERPRETIVE TRAIL

The trail is roughly two miles round trip and there are 22 stops along the way. The numbers in the guide are keyed to numbers on the posts. Please stay on the trail. Follow the yellow blazed "Meeker Trail" to the end of the boardwalk (1-17), walk back to the farm road, turn left (north) towards the viewing platform and look for stops 18-22. You may wish to pause on one of the trailside benches to absorb the beauty of the Preserve and discover the diversity of plants and animals within these unique ecosystems.

1 These wet and dry meadows are typical of abandoned agricultural fields in different stages of succession (the predictable changes a plant community will undergo if left undisturbed). In time, larger woody shrubs will tend to crowd out smaller plants, and eventually the cleared land will revert to forest. These changes influence food and cover, which in turn impact animal populations. The successional habitat before you is very important to a variety of animals, birds and butterflies. Some stay down in the vegetation and are difficult to see, but others, like **Northern Orioles** and **Eastern Kingbirds**, perch out in the open. Another obvious bird, the **Willow Flycatcher**, often sits on a small shrub where it announces its presence with its explosive "fitz-bew" call.



Monarch Butterfly

2 In warmer months, butterflies like the **Pearl Crescent** can be seen taking minerals from the sandy soil at each end of the bridge. Additionally, the largest and most spectacular of the **Damselflies**, the **Ebony Jewelwing**, can often be seen perched low above the water upstream, its large black wings and iridescent green body shining in the sun. A **Monarch** butterfly mimic, the **Viceroy**, usually has a territory just at the bend. The best way to see him is to wait for another butterfly to fly by, and watch him dart out to drive off the invader.

3 Rock piles can provide sheltered entrances for burrows used by such mammals as **woodchucks** and **foxes**. Note the lichens attached to the rocks; lichens are food for various rodents, snails, slugs and other invertebrates. The meadow in front of you contains one of the most diverse plant communities in the area, but it is under serious attack from **Reed Canary Grass**, an invasive species that forms a dense mat of roots that forces out native vegetation. Steep Rock is investigating methods to manage it.

4 The **Eastern Bluebird** suffered a serious decline in the 1950s because of habitat destruction, insecticides and competition for nesting cavities by two introduced species, the **European Starling** and the **House Sparrow**. Nest boxes placed in suitable habitats, such as the ones here and in the fields to the south, help combat decline. These boxes are checked throughout the nesting season for **Bluebirds** and for the **Tree Swallows** that keep mosquitoes under control. Data from these inspections are sent to the CT Bluebird Restoration Project. At the western edge of the meadow is a wetland dominated by cattails, a preferred nesting material for **Red-winged Blackbirds**. Muskrats are fond of cattails as a food source.



Tree Swallow