



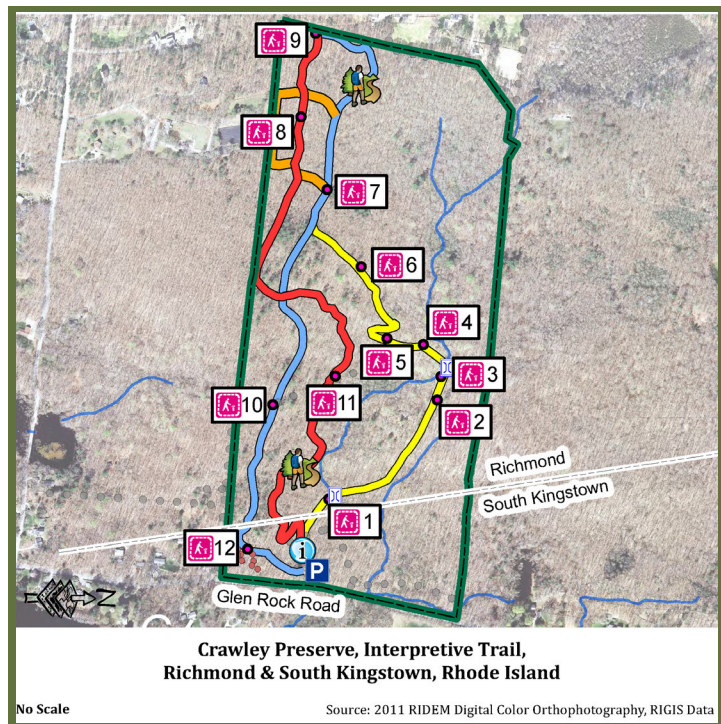
Station 11: Wildlife Everywhere and More Stonewalls

You may see or hear birds if you listen closely. *Permanent resident* birds like northern cardinal, red-tailed hawk, and wild turkey are found here. *Summer visitor* birds include gray catbird, wood pewee, and wood thrush. You may also see American toad, wood frog, and garter snake on the forest floor or *ground litter*. Most mammals other than gray and red squirrels and chipmunks here are *nocturnal* – coming out at night to feed. White-footed mouse, raccoon, ***northern flying squirrel***, and weasel are some mammals that live here, but are not often seen. The stones making up this wall are very large – farmers likely used horses or mules to move and place these stones in the wall. Think of the great effort it took to build these walls! The gap in the wall suggests a former accessway or road.



Station 12: A Former Homestead

The ***stone foundations*** of a house and other small out-buildings and a chimney remain here. Some of these walls may have been pens for sheep, cattle, or horses. What happened to the farm? Where did the farmers of this land go? Historic records suggest that Asa B. Marshall, (b. 1847) listed as a “wood-cutter”, owned this property as recently as 1920. How might we find out more about the families who resided here, and how long they lived here? And were there Native Peoples that lived in or used this area long before Europeans arrived? This woodland preserve has provided many important values to wildlife and people for a very long time!



Crawley Preserve, Interpretive Trail,
Richmond & South Kingstown, Rhode Island

No Scale

Source: 2011 RIDEM Digital Color Orthophotography, RIGIS Data



Crawley Preserve

Richmond and West Kingston,
Rhode Island

Interpretive Trail Guide



Contact

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Station 1: Running Waters

This small, bubbling stream flows as a result of precipitation and groundwater from a 160+ acre watershed to this bridge crossing. While fish are not present in this stream *reach*, other animals depend

on flows including amphibians (e.g., spring salamander) and birds (e.g., northern water thrush). Sweet pepperbush, spicebush, cinnamon fern, and skunk cabbage grow here in wet soils bordering the stream, forming the **riparian zone**, a

habitat rich in fruits and insects serving as food items for birds, reptiles and mammals. As you pass through this area, listen for spring and summer songs by red-eyed vireo, ovenbird, and veery.



Station 2: Historic Stone Quarrying and Very Old Rocks

Here are indicators of former rock quarrying where locals used drills, chisels hammers, and wood pegs to break and split the **granite** and

granitic gneiss, which are *igneous* rocks. Geologists have determined these rocks are more than 570 million years old! The bedrock exposed here was once deep within the earth only to be worn down by erosion over millions of years. *Lichens*, composed of both fungi and algae grow as rounded light-green patches on the exposed rocks and boulders in this area.



Station 3: A Maturing Forest

You are now passing through a distinct forest community: a *beech-maple forest* that is intermixing with a *pine-oak forest*. **American beech** dominates this rich, moist upland or mesic forest stand, along with a variety of other *hardwood* species such as oaks, red



maple and yellow birch. Beech with its smooth, gray bark often forms stands by sprouting as *clones* – plants that are genetically identical and the direct descendents of a single parent. Beech trees produce lots of nuts called *mast*, but usually don't produce nuts until the tree is 40+ years old. Forests mature over time and tree species change with the amount of sunlight and moisture that reaches the forest floor, plus global climate affects the forest and its inhabitants, too.

Station 4: Bedrock and Work of a Glacier

Notice the exposed *bedrock outcrop* with its many fracture lines. A **glacial erratic boulder** lies perched on the bedrock as it has been for the last 16,000+ years when an ice glacier up to a mile thick covered this region, moved very slowly, and put this 8-foot diameter erratic in its place. Think

of the forces of the enormous glacier that once covered this landscape moving and scouring rocks and soils. Early landowners used glacial boulders and quarried bedrock to build the stone wall here and many others on the property.



Station 5: Groundwater Seep

Groundwater seeps at the ground surface in this location, and may be only present part of the year. When present, these waters add to the downstream flows of the stream you crossed earlier. Plants like sphagnum moss, **cinnamon fern** and black gum (a tree on the other side of the trail)



growing in this groundwater seep are wetland plants, or *hydrophytes* that are adapted to living in and tolerant of wet or *hydric* soils with little air present in the soil. This seep provides an important water supply and the wetland plants provide food items to many animals in this forest.

Station 6: A Changing Forest

White and black oaks which are *deciduous* species that lose their leaves in the fall, and white pine, a *coniferous* species with needles that remain yearlong on the tree, are the *dominant* trees in this pine-oak forest community. Unique **American chestnut** sprouts are present under the tall tree *canopy*, within an *understory* vegetation layer, along with low-bush blueberry and huckleberry. American chestnut, a stately tree when fully grown, once was the dominant tree species of New England forests, but an Asian fungal disease *blight* first found in New York in 1904 eventually killed off all mature chestnut trees in this region. Now, only chestnut sprouts or *saplings* remain. Chestnut saplings typically do not survive more than a 20-foot height before they succumb to the blight.



Station 7: A Forest for Foraging by Wildlife and People

This upland community is dominated by black and northern red oaks, beech, and occasionally, white oak. The understory includes shrub huckleberry, low-bush blueberry, and high-bush blueberry. What is the value of this forest community to wildlife and humans? Animal species you may see in this type of community–white-tailed deer, turkey, gray squirrel, eastern chipmunk, and box turtle feed on berries, acorns and mushrooms. Red and black oak acorns have high fat and tannin content and are *storable*, so squirrels bury them for eating later in the season, while white oak acorns have less tannins, sprout early and are *perishable*, so squirrels eat them sooner. Blueberries are much enjoyed by people in making pies, jam, and pancakes, or just eating off the



shrub! Mushrooms like **chicken-of-the-woods**, found growing on dead or dying trees in this forest, are edible and tender for eating if collected as they first emerge.

Station 8: Forest or Farmland?

Soils in this area are sandy to very stony, fine silty *loams* – fertile soils composed of clay, silt and organic matter. Lands in this area are gently sloping, well-drained soils, located on the crests of glacial hills and ridges. **Upland mosses** along with stones and boulders are occasionally found at the soil surface. These soils make good farmland for crop growing, and much of the area was historically cleared by settlers for farming. It appears that this area had remained cleared until recent times of 30 to 50+ years ago.



Station 9: High Point on the Property

You have now reached the high point on Crawley Preserve. In the parking lot where you arrived, you stood at an elevation of 130 feet above sea level. Now, at this high point, you are at an elevation of 340 feet above sea level – you gained 210 feet in elevation during your uphill walk to this site. This is an upper limit of the watershed draining to the



small stream, ultimately carrying flows to the Queens and Pawcatuck Rivers and into Little Narragansett Bay. Northern red and white oaks and red maple are the tree species making up the forest canopy, and low-bush blueberry, huckleberry,

and bracken fern dominate the understory, and herbaceous, *ground cover species* like rattlesnake plantain and **Indian pipe**.

Station 10: Stonewalls

The presence of stonewalls in this area suggest a farm was here. What might have been the history of use of this property? How were the walls made and what did they represent? Did they serve as property lines, or maybe animal pens or paddocks? For some wildlife like Eastern chipmunk and **garter snake**, these walls provide important cover and resting habitat.

