

RUFUS BARRINGER INTERPRETIVE TRAIL

Cedar Forest: Eastern Red Cedar (*Juniperus virginiana*) is a "pioneer" species of tree. It grows up in the open sun of an old field. Red cedars prefer sandy, well-drained soils. Many species of birds like to eat the blue berries of the cedar.

Fence Posts—Forest to Fields: These fence posts represent the former boundary of an old field. Pioneer species of trees and shrubs are beginning to colonize this site, shading out the grasses. Someday only the old posts may remain as a sign that this was an old boundary.

Hemlock Forest: Eastern Hemlock (*Tsuga canadensis*) is a shade and moisture-loving tree. It is called a "climax" species because it grows slowly, eventually replacing quicker growing pioneer species that require full sun. The wooly adelgid, an aphid imported from northeast Asia, has become a widespread pest of the hemlock in the eastern U.S., killing large stands of trees. The hemlocks on this site are relatively healthy because they are in a climate that suits them well, moist and shady.

Ravine Overlook: Since the last glacier retreated from this area, about 17,000 years ago, the waters of the Roaring Brook have been carving out the ravine that you see below.

Drainage Trail: CAUTION ADVISED! The trail leading down to the Roaring Brook follows a natural drainage area. The trail is steep and may be impassable during very wet periods.

Stream Erosion and Deposition: Streams flow down hill because of the pull of gravity. Fast-moving water carries sediments down stream and erosion occurs. When water movement slows, sediment is deposited.

Bedrock: The bedrock in the river is the result of a geologic process called plate tectonics. 300 million years ago, the land masses or tectonic plates that we now call Africa, Europe and North America collided. The rocks of the land were crushed and heated or "metamorphosed". Around 200 million years ago, these huge plates of land began to pull apart and the Atlantic Ocean was formed. Part of the metamorphosed rock remained here and part is now found in Morocco, in northwestern Africa. This metamorphic rock is called gneiss and is made up of light and dark bands of different minerals.

Undercuts and Bars: As Roaring Brook goes around the bend, the water travels fastest on the outside of the bend, causing undercutting erosion and more slowly on the inside of the bend, causing sediment deposition on this bank.

Floodplain/Old Stream Beds: During periods of heavy rain or snow melt, the stream may overflow its channel and onto this floodplain. Here you can see several long depressions that are previous channels of the river.

Stream Valley Vegetation: The vegetation found in the stream valley differs from the plants growing on the terrace above. The species of trees, shrubs and herbs growing here prefer cooler, moister and shadier conditions. Species include trees such as Red Maple (*Acer rubrum*), Beech (*Fagus grandifolia*), and Hemlock and herbaceous plants such as Sarsaparilla (*Aralia nudicaulis*), Skunk Cabbage (*Synplocarpus foetidus*) and Jewelweed (*Impatiens capensis*).

Glacial Boulders and Erratics: This large boulder was picked up north of here and moved to this spot by the last glacier, about 17,000 years ago. As glaciers slowly move, they often freeze to the bedrock and remove large boulders and small rocks. As glaciers melt, boulders that were trapped in the ice get dumped on the land where they can still be seen today. This boulder is called an erratic because it is not the same type of rock as the bedrock that it is sitting on.

Sand and Gravel Terraces: The surface that you are standing on is the top of a glacial deposit dating back to the melting of the last glacier that covered Connecticut. As the glacier melted, it filled the Roaring Brook valley with sand and gravel. Since then, the water of Roaring Brook has cut down through this deposit to create its current stream bed.

Field Vegetation: The vegetation of this field is mixed. There is a layer of mixed grasses and other herbaceous plants. Various species of shrubs and trees are beginning to establish themselves in the field as well. Some of these are: Gray Birch (*Betula populifolia*), Quaking Aspen (*Populus tremuloides*), Blueberry (*Vaccinium* sp.) and Bayberry (*Myrica pensylvanica*).

Averted Development: Originally this preserve was slated to become a small subdivision. Today, these 7.5 acres are being conserved as open space, thanks to the previous landowner, for all to enjoy.

TRAILS OF LYME Roaring Brook Preserve



Thomas W. Nason, The Brook, Florence Griswold Museum; Lyme Historical Society

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Welcome to the Rufus Barringer Interpretive Trail. This 0.73 mile trail is located on the Roaring Brook Preserve which is a 7.5 acre property protected by the Lyme Land Conservation Trust. The trail is marked by red blazes on trees and is accompanied by this educational brochure. Please enjoy the preserve and trail in a safe and respectful manner.

Report any problems during your visit to the Lyme Open Space Coordinator.

For more information, see www.lymelandtrust.org