

Information and guidance for the preparation of this trail guide were provided by Erik Kiviat, Ann Gabler and Richard Wiles. Additional booklets "Ecology of Bard Lands" and "A Walk Down the Saw Kill" by Erik Kiviat of Hudsonia, Ltd., and "A Walk Along the Tivoli South Bay" by William Maple complement this guide and are highly recommended. These publications were funded by the Zoos, Botanical Gardens and Aquariums Grant Program which is administered by the New York State Office of Parks, Recreation and Historic Preservation for the Natural Heritage Trust.

ABOUT THE BARD CENTER

The Bard Center, described by the Rockefeller Foundation's Report of the Commission on the Humanities as "a model of mobilizing the resources of the college and the community", was established in 1978 as the College's public arm. Through workshops, national conferences, small group seminars, lecture series, summer institutes, publications and exhibitions at the Edith C. Blum Art Institute, the Bard Center explores timely issues in the sciences, arts, humanities and education to the benefit of the Bard community, the Hudson Valley region, and educators and policy makers nationwide. The Institute for Writing and Thinking, part of the Bard Center, is recognized as one of the leading institutes for the instruction and methodology of writing. The Center's varied efforts are complemented by the work of Bard Center Fellows, distinguished artists, scientists, scholars and writers appointed annually to serve as a "public faculty", who also teach Bard undergraduates.

Marshes & Meadows

A WALK TO TIVOLI NORTH BAY



Pileated woodpecker

BARD

Self-guided Nature Trail
by William T. Maple, Director
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This trail guide describes the scenery and natural history of a trail on the Bard College campus which begins at the Blithewood mansion and follows the border of the Tivoli South Bay of the Hudson River north to Cruger Island Road. The other section of the trail begins at the Bard water plant, follows the Saw Kill to the Field Station, and then traverses the slopes along the South Bay to Blithewood. Those portions of the trail are described in "A Walk Down the Saw Kill" by Erik Kiviat and "A Walk Along the Tivoli South Bay" by William Maple.

*Illustrations by Kathy Schmidt
Map by William Maple*

Sections of this trail can be very muddy and slippery at certain times of the year, so use caution especially on the steeper clay bluffs. Walking off the trail kills vegetation, promotes erosion, and spoils the beauty for everyone. Please stay on the trail.

Beware of poison ivy which is abundant in the Hudson Valley. It grows most commonly as a ground-hugging or tree-climbing vine. During the growing season, it can be recognized by its three shiny green leaflets which may have a tinge of red especially in the fall. In the winter, look for clusters of small, white berries and dense, beard-like tendrils which attach the vine to surfaces. The sap which induces an allergic reaction in sensitive people is present all year long, so learn to recognize this common plant.

Deer ticks which transmit Lyme disease may also be found in the vegetation along the trail and hikers should stay on the path and out of the grass and brush. Deer ticks are dark-brown, eight-legged, spider relatives which vary in size from slightly larger than the period at the end of this sentence (nymphs) to approximately the size of the letter "o" (adults). It is always a good idea when outdoors to be alert for ticks on your clothing or skin, and to check yourself upon returning home. They usually wander for several hours before they attach, and must feed for several more hours before they can transfer the Lyme bacteria. Remove ticks promptly by grasping them by the head near your skin with fine-pointed tweezers and pull gently but steadily. Swab the area with an antiseptic and make a note of the bite. Inform your physician promptly should the area turn red or should you develop mild flu-like symptoms.



Christmas fern

The trail described in this guide can be accessed by continuing from the Field Station-Blithewood trail along the wooded bluffs at the north edge of the Blithewood lawn, or from

the parking area at the end of Blithewood Road just north of the mansion. From Annandale (River) Road turn west on Blithewood Road at the historic hexagonal gate house and continue to the end. Do not park along Blithewood Road or on the circular drive in front of the mansion.

We will begin at the parking area which provides a view of the Catskill Mountains to the west. The mansion is to the south, a large silver/red maple tree is in the near foreground and a border of Norway spruce and larch continues to the north. Walk north along the edge of the lawn to the trail which descends a ridge to a ravine near the edge of the Tivoli South Bay.

The conifers with the pendulous branches along the east edge of the lawn are spruce. Larch are also cone-bearing trees (conifers) like the spruce and the white pine which line the road to the mansion, but they shed their short, soft needles in the fall just like broad-leaved deciduous trees (it is not an "evergreen").

As you start down the path through the woods at the north end of the lawn, notice the distinctive fern to your right. Christmas fern is found throughout our woods and can easily be identified in any season by the sock-shaped leaflets on each frond. This forest has hemlock (an evergreen with short, flattened leaves sticking out of the sides of the twigs), sugar maple (characteristic leaves with brown twigs and buds), and assorted oaks. During the growing season you might notice hog peanut, a delicate vine with three pointed leaflets and pink pea-like flowers on the edge of the trail.

The current mansion, Blithewood, was erected around 1900 by A. C. Zabriskie on the site of a mansion called Mill Hill built in 1795. It was acquired by Bard in 1951 after which it was used as a dormitory. It has undergone extensive renovation and now houses the Jerome Levy Economics Institute affiliated with the college.

The brick building to the right (east) of the trail at the north end of the parking lot was formerly a drill hall used in the early part of this century by Captain Zabriskie to train a local militia called the "Blithewood Light Infantry". It is currently used by the college for storage.

The formal gardens to the west of the house are pleasant to walk through and are gradually being renovated. The walls of the garden are covered with wisteria vines which in the spring have clusters of showy, purple or white, pea-like flowers that emit a pleasant perfume. In the fall, look for large, fuzzy seed pods. The large seeds, however, are quite poisonous if ingested.



Witch hazel

At the bottom of the ridge the trail crosses a foot bridge over a small stream and continues north along the edge of the bay. In this area you should look for witch hazel and spicebush,

common plants of our Hudson Valley woods. Witch hazel has alternate, broad leaves with wavy teeth and uneven leaf bases and produces its stringy yellow flowers in the early winter. An extract of the bark is still used for medicinal purposes. Spicebush blooms early in the year before the leaves are out, and its yellow flowers are a welcome harbinger of spring. It has paired, globular flower buds, alternate leaves, and a distinctive spicy scent when the foliage is crushed or the bark is bruised. In the fall, look for red berries which can be used as a substitute for allspice.

The large wooden structure in South Bay near the shore is a duck blind used by hunters in the fall and winter.

In a low area where a small stream crosses the path you will see various plants which prefer wet soil. In the late summer, jewelweed is abundant here. Note the thin, light-green leaves, succulent stems, and orange flowers. The leaves have fine hairs which trap a layer of air next to the surface when submerged in water. The air layer reflects light, producing a silvery glitter which gives the plant its name. It is also called touch-me-not because the ripe, inch-long, green seedpods explode when touched.

Although hunting is prohibited on Bard lands, public hunting is permitted on the river and in the Tivoli Bays and the Wildlife Management Area to the north. Be careful when you are hiking the trails during hunting season in the fall and winter, especially at the north end of campus.

The Tivoli Bays have long been a stopover and feeding area for migratory waterfowl which have attracted hunters for hundreds of years. Populations of game species are monitored by the state and federal governments which regulate the species and numbers to be taken in order to conserve the resource. Recently, laws were enacted to prohibit the use of lead shot for waterfowl hunting and to mandate the use of steel shot. This was an effort to reduce lead poisoning of ducks who ingest shot from the bottom while feeding.



Water snake

In this area you should pause to watch the bees and ruby-throated hummingbirds sip nectar from the jewelweed in the late summer.

Listen for the rattle of the kingfisher near the bay, or

the familiar chuckle of the flicker from the woods. In the evenings you might hear the eight hoots of a barred owl farther up the ravine. Look for the tracks of raccoons or deer in the mud alongside the stream, and watch for northern water snakes sunning themselves nearby.

In the winter, especially with a blanket of snow, this area can be extremely peaceful. The stream makes a faint gurgling as it rushes around the ice; chickadees chatter a "dee-dee" as they flit amongst the seed heads seeking a meal; and out on the bay you might hear the pop and crack of the ice as it yields to the changing tides.

Just as you begin to ascend the bluff, a trail branches to the west onto a peninsula called, for obvious reasons, "buttocks island" by the students. This site provides a nice view of South Bay and is a good place to watch the migratory waterfowl in the spring and fall. On the north side of the intersection of the two trails is a large chestnut oak. Note the leaves and the distinctive, thickly ridged bark. Across the trail to the south is a beech tree with its smooth gray bark and long, narrow, brown buds.

The original inhabitants of this region of the Hudson Valley were Indians who used the river and associated tributaries for travel. There is abundant archaeological evidence that they had numerous camps on and near campus. Visitors should not disturb sites of archaeological importance because material vital to systematic study by professionals would be ruined. Furthermore, it is illegal.

The first European settlers were the Dutch, followed by the English whose descendants eventually built huge estates along the river. This trail crosses two such estates, the Zabriskie estate and the Bartlett estate. The ruins of the Bartlett house and barn can be found in the southeast corner of the meadow called "Bartlett Field". Zabriskie purchased the Bartlett property and incorporated it into his estate and reportedly used the meadow near the house as a militia training area called Camp Robert Fulton.

The college was founded as St. Stephens in 1860, and the name was changed to Bard College in 1934. The original campus was the area around Stone Row and the Chapel but the college gradually grew and eventually acquired the Zabriskie estate in 1951.



Pokeweed

Continuing north one ascends the bluff on a wide trail past a large oak tree on the south which fell during a storm several years ago.

The opening is being invaded by other fast-

growing species like the tree-of-heaven with its large feathery-compound leaves and hairless, thick brown twigs. Pokeweed is also abundant here in the summer. Notice the large leaves and reddish stems. In the fall it has drooping clusters of deep purple berries on a reddish stalk.

Although the young leaves and shoots can be cooked and eaten, the roots and older plant parts are very poisonous to consume.

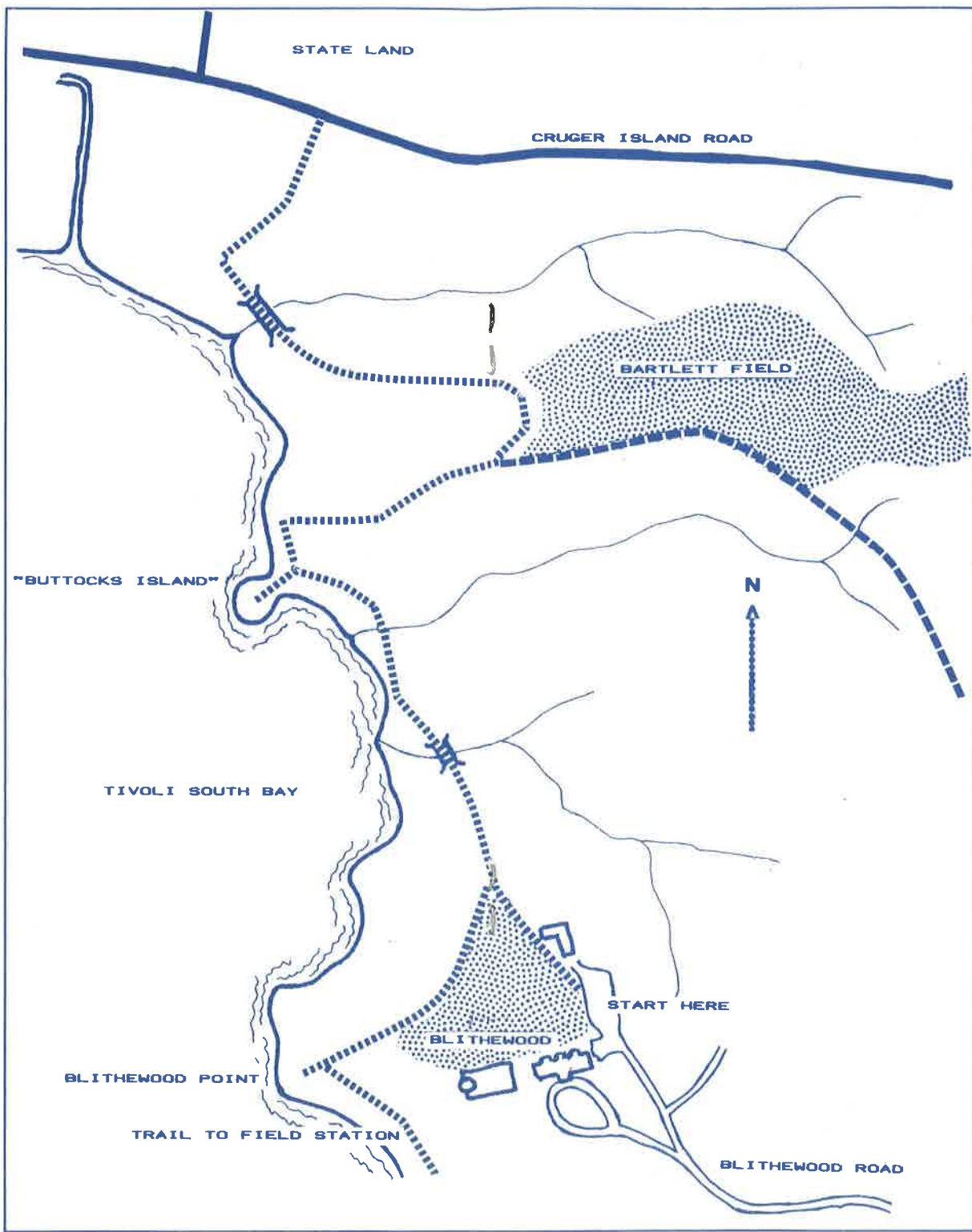
At the top of this segment is a flat open meadow: Bartlett Field. If you are quiet when approaching it in the morning or evening, you might surprise several deer browsing there. A road continues east along the south edge of the field and eventually leads back to campus behind the Stevenson Gym along Annandale Road.

Our trail follows the west border of the field past the lone black locust sentinel and continues northward into the woods down a ridge to a long bridge crossing the wet floodplain of a small stream. This area affords the visitor another opportunity for contemplation. In the early spring, look for the cryptic green and brown flower of the skunk cabbage looking a bit like clasped hands emerging from the cold mud. Skunk cabbage flowers produce enough heat to melt through ice and snow as they grow. The homely flowers are followed later in the spring by large green leaves which, when crushed, emit the odor which gives the plant its name.

Later in the spring, in the wet areas, look for the butter-yellow marsh marigolds and in the drier edges, the yellow trout lily with its mottled green and brown leaves, and the yellow blooms of the spicebush.

Bartlett Field was formerly a pasture, but has been abandoned for several decades. Now it is mowed about every year or two by the college. It is virtually surrounded by woods. Such an area where two different ecosystems meet is called an "ecotone". Here, typical woodland and "old field" vegetation overlap in a region with more variety and density than either of the flanking communities. Deer actually prefer these "edges" along with many other animals like woodchucks, robins, cottontail rabbits, and mockingbirds. The woods afford suitable shelter and the field is a productive source of food.

Left unmowed, the goldenrods, grasses, and brambles in this meadow would be joined gradually by more and more woody plants such as white ash, black locust, and red cedar. Eventually the field could acquire seedlings of sugar maple, cherry birch, and various oaks which would mature to make the field similar to the forest which surrounds it. This process of community change is called succession.





Canada lily

Goldenrods and asters are sprinkled liberally about the area in the fall, joined by the tall flower spikes of purple loosestrife. Although an attractive plant, purple loosestrife is an introduced

species which is becoming more abundant in local wetlands, and which may be replacing some of the native vegetation like the cattails preferred by wildlife.

The winter stillness here may only be challenged by the soft crunch of snow under your boots or by the voices and rustlings of foraging birds: tufted titmice, cardinals, white-throated sparrows, and dark-eyed juncos. Occasionally the rumblings of a Conrail freight or Amtrak passenger train will intrude.

The trail on the slope to the north of the bridge has not been repaired yet and may be very slippery and steep. Please use care here.

The final few meters of the walk bring you to Cruger Island Road which leads east to Annandale Road and Route 9G, and west to the Tivoli North Bay and the New York State Wildlife Management Area. This land is part of the Hudson River National Estuarine Research Reserve which is headquartered at the Bard College Field Station.

Cruger Island Road was built around 1800 to permit commerce via sloops docking in North Bay which at that time was not separated from the river by the railroad.

A side trip to the west will shortly bring you to an intersection with a road on the right. Walk up this road through a forest of ash, larch, and tulip trees. Notice a handsome fern along the roadside which has the leafy frond dissected into paired, smooth-edged pinnae joined by a wing of leafy material along the midrib. This is sensitive fern. In the late summer, amongst the fronds, may be found the spore-producing stalk of sensitive fern which looks like a cluster of tiny, green grapes at the end of a green stick. These eventually dry and turn brown and can be found throughout the rest of the year after the green frond has disappeared.



Indian tobacco

The road ends at a canoe launching site on the North Bay which is a good point to look over the marsh. You are standing at sea level here because the Hudson River as far north as Troy is an estuary, a body of water broadly connected to the ocean which shares the tidal cycles of the sea. At high tide, the channels before you will be full, and at low tide they will be virtual mud flats. The broad-leaved plants filling the open water areas are spatterdock; most of the taller plants you see are cattails and purple loosestrife; and around the edge are willows, pickerelweed, and dogwood.

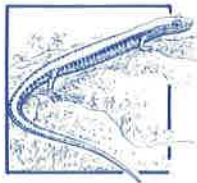
If you were to go due west on Cruger Island Road past the road to the launch site, you would walk through a swamp with tidal channels on either side. The vegetation along here is quite dense and diverse. This is a good area to observe red-winged blackbirds, song sparrows, goldfinches, and common yellowthroat warblers.

Snapping turtles, some quite large, are often encountered here in the spring and early summer as they move about seeking food, mates or egg-laying sites. Snappers are a major predator in the Tivoli Bays and, as such, accumulate high concentrations of pollutants like PCB's in their tissues. Be cautious around them because they can reach quite far with their long necks and deliver a painful crushing bite with powerful jaws. It is best to leave them alone.

In the Wildlife Management Area hunters stalk deer, rabbits, squirrels, pheasants, and grouse. As with waterfowl, the seasons and bag limits are regulated in an attempt to keep game populations healthy and to provide sportsmen with their traditional opportunities.

No matter what one's personal feelings about hunting, it is part of the human cultural heritage and is a valued recreational and economic activity. The pro-hunting position argues that since humans have reduced the number of natural predators in the ecosystem (wolves, mountain lions, eagles, for example) sport hunting helps keep populations of prey species from exceeding the food and shelter resources of the habitat. They further point out that the income generated from licenses and taxes on hunting equipment is used to acquire, restore, and maintain wildlife habitat areas which are used for recreation by non-hunters as well, and which are home to non-game species including rare and endangered plants and animals.

The opponents argue that sport hunting is needless cruelty to animals. Further, they contend that it reduces the genetic quality of prey populations because human predators tend to seek the strongest and healthiest individuals, whereas other animal predators typically remove the weak and sick. If wild animal populations begin to suffer from starvation, or if the habitat is being destroyed, opponents recommend the reintroduction of natural predators rather than hunters.



Red-backed salamander

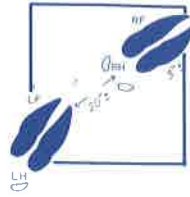
Continuing down the road, you will come to the railroad tracks, and, across them, to Cruger Island a pleasant place to explore. Be extremely vigilant crossing the railroad and do not tarry around the tracks. The high-speed, turbo-powered passenger trains are surprisingly quiet and can be upon you before you realize it. Also be aware that at high tide parts of the road may be flooded with up to a meter of water.

Eastward, Cruger Island Road returns toward the campus through some interesting vegetation. At the intersection of the trail and the road, on the west side of the trail, can be found a patch of bloodroot, white flowers with broad, lobed leaves clasping the flower stalk. These members of the poppy family derive their name from the red-orange sap in their roots. They flower in the late spring and can be seen all along the road. In the early spring, along the roadside you will also see coltsfoot whose yellow flower and white seed head resemble a leafless dandelion.

Some of the woody plants to be seen along the road are staghorn sumac, red cedar, shadbush, honeysuckle, poison ivy and, at the top of the bluff, sugar maples and a grove of white pine. Staghorn sumac has stout, brown, fuzzy twigs with long feathery-compound leaves. The mature plants usually have fuzzy, red flower and fruit clusters at the tips of the stems which can be used to make a pleasant-tasting tea rich in vitamin C.

Red cedars, also known as junipers, are evergreen with a mixture of short scale-like and needle-like leaves and brown bark that shreds in narrow vertical strips. On the twigs can be seen golf-ball-sized brown growths caused by a fungus which also attacks apple trees. After a hard, warm rain in the late spring you will observe numerous orange-brown gelatinous masses containing spores oozing out of these growths. The spores are carried by wind to apple trees where they cause a disease called apple rust.

The Bard campus and nearby environments are home to several rare and endangered organisms although you will probably not encounter them on this walk. Plants like the winged monkey-flower, Nuttall's micranthemum, Bush's sedge, heartleaf plantain, awl-leaf arrowhead, and two species of bur-marigolds exist in such small numbers that they may not be able to reproduce, or accidents could eliminate them entirely. Some are rare because they are at the extreme edge of their geographic range. Others are rare because their habitat is disappearing either through human modifications and destruction, or through the gradual, natural change in ecosystems over time (succession).



Deer tracks

Shadbushes are also called serviceberries and juneberries. The name shadbush derives from the fact that they bloom in the early spring about the time the shad migrate into the Hudson on their spawning run. Shadbushes produce their white, drooping, five-petaled flowers before the leaves. The tasty, purple-black fruit appears during the summer and is highly prized by wildlife.

The white or cream-colored, tubed flowers of the honeysuckle need little introduction in the spring. Generations of youngsters have plucked the blooms and squeezed a droplet of sweet "honey" onto their tongues. The leaves are placed opposite one another on the stems, and the blossoms are replaced by red berries in the summer.

In the stand of white pines at the top of the bluff, notice the abundant poison ivy clinging to most of the trunks. In some of the dead trunks near the road you can see the characteristic rectangular excavations of the pileated woodpecker. The bird itself is a striking species about the size of a crow: black with white markings on the head and a distinctive red crest. It is very shy and not frequently seen.

To complete your circuit, turn right (south) on Annandale Road, through the campus to Blithewood Road and back to your starting point. A more scenic alternate route is a trail to the south opposite the parking lot for the Cruger Village dormitories. It parallels Annandale Road and returns to campus behind the Stevenson Gymnasium where a path crosses Woods Road, passes through a wooded area and joins Ravine Road behind Proctor Art Center. Continue past the Ravine Houses to Blithewood Road.



American toad

This project was funded by the Zoos, Botanical Gardens and Aquariums Grant Program which is administered by the New York State Office of Parks, Recreation and Historic Preservation for the Natural Heritage Trust.

PLEASE DON'T THROW THIS BOOKLET AWAY! YOU MAY KEEP IT, GIVE IT TO A FRIEND, RETURN IT TO THE BOX AT THE TRAIL HEAD OR DROP IT OFF AT THE FIELD STATION.

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