THE ROGER TORY PETERSON INSTITUTE

NATURAL HISTORY ATLAS TO THE CHAUTAUQUA-ALLEGHENY REGION

A Community Resource to Promote Appreciation and Understanding of our Natural Treasures

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WITH JIM BERRY, MIKE LYONS, AND SOLON MORSE

Natural Sites in the Chautauqua-Allegheny Region

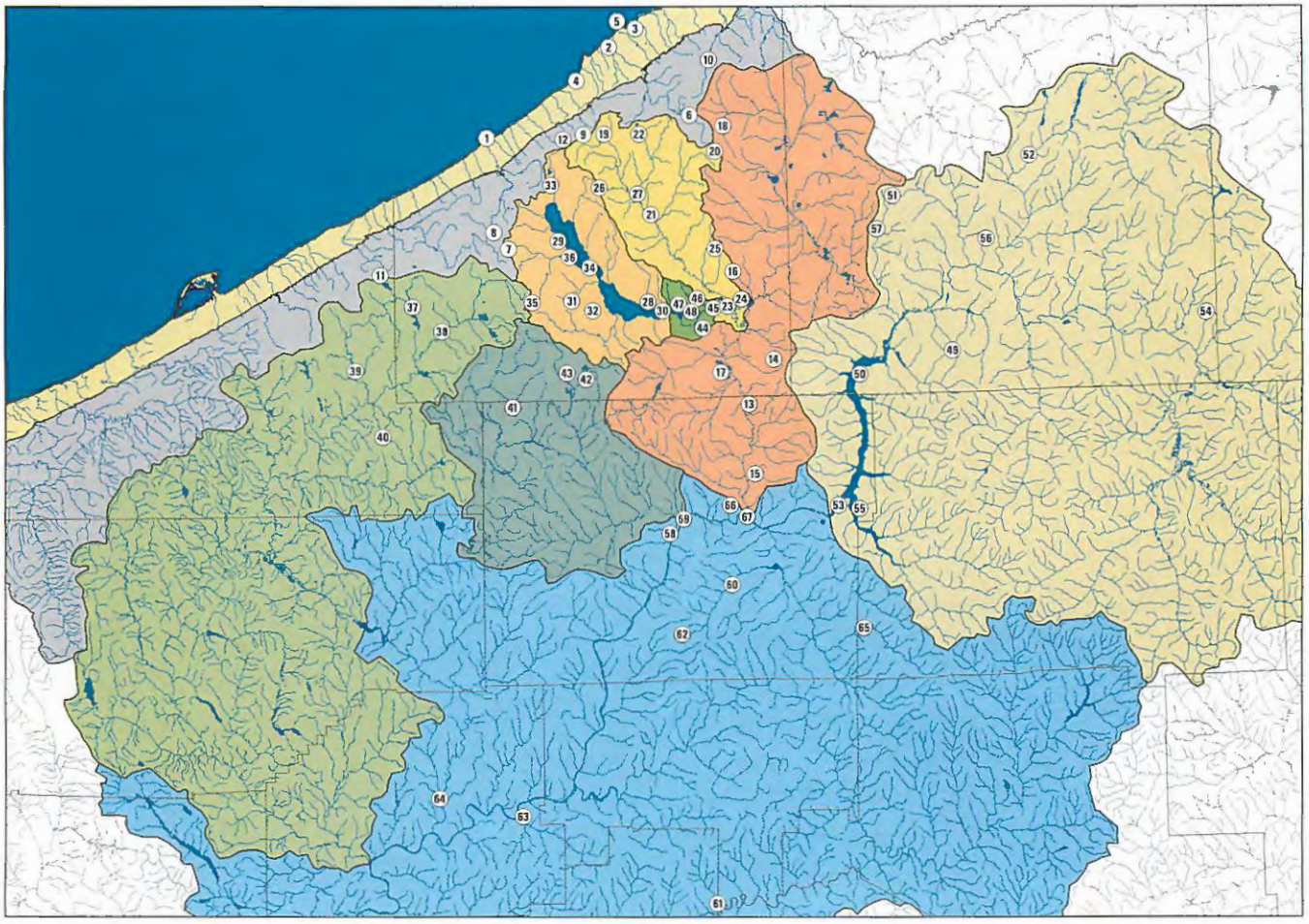
This section describes several dozen places that characterize the natural history of the region. While all these places were chosen for their natural features, some are primarily for people-centered recreation. It may seem odd to bypass the bathing beach or picnic area for the reedy shore or forest grove, but when you go there prepared to use your senses to discover, you won't be disappointed. When you visit any of these places equipped with binoculars, a hand lens and a couple of field guides, you will probably identify wildflowers or birds you have never seen before, and you will be astounded. Other things you observe might be subtle, and it will take longer to see their significance. As you record them in your field journal your understanding will gradually improve.

These particular places included in the Atlas were chosen because they are integral parts of their "sub-region," usually a watershed. Some sites are headwaters of streams or are along the banks of streams or lakes. Other sites are in wetlands or on high ridge tops.

Visit one or two of the sites initially to experience the natural world found there. Set a goal to visit all of them. You will discover firsthand that nature can be your teacher and companion, as you gain a greater appreciation for the region and become committed to its protection.

The section is organized as a tour of the region, starting with places that "point" north toward Lake Erie. From there the look is southward, proceeding from watershed to watershed and ending with the Middle Allegheny River.

Each site is presented in a similar format. You learn what to look for at the site, why it is of importance, background information about its natural history, and specific directions to get there.



Lake Erie Plain
1. Barcelona Harbor
2. Canadaway Creek Preserve
3. Dunkirk Harbor
4. Lake Erie State Park
5. Point Gratiot Park

Portage Escarpment
6. Canadaway Creek WMA
7. Mount Pleasant State Forest
8. Chautauqua Gorge State Forest
9. College Lodge
10. Hillside Acres Preserve
11. Howard Eaton Reservoir
12. Luensman Overview County Park

Conewango Creek Watershed
13. Akeley Swamp
14. Erlandson Overview County Park
15. Hatch Run Conservation Demonstration Area
16. Jamestown School Forest
17. Jamestown Audubon Nature Center
18. Rushing Stream Preserve

Cassadaga Creek Watershed
19. Bear Lake
20. Boutwell Hill State Forests
21. Cassadaga Creek Preserve
22. Cassadaga Lakes and Leolyn Woods
23. Clay Pond
24. Hartson Swamp WMAs
25. Harris Hill Management Unit
26. Stockton State Forest
27. Kabob WMA

Chautauqua Lake Watershed
28. Bentley Sanctuary
29. Chautauqua Institution
30. Chautauqua Lake Outlet Wetland Preserve
31. Cheney Road Marsh
32. Dobbins Woods Preserve
33. Elm Flats Wetland Preserve
34. Long Point State Park
35. North Harmony Management Unit
36. Prendergast Creek Wetland Preserve

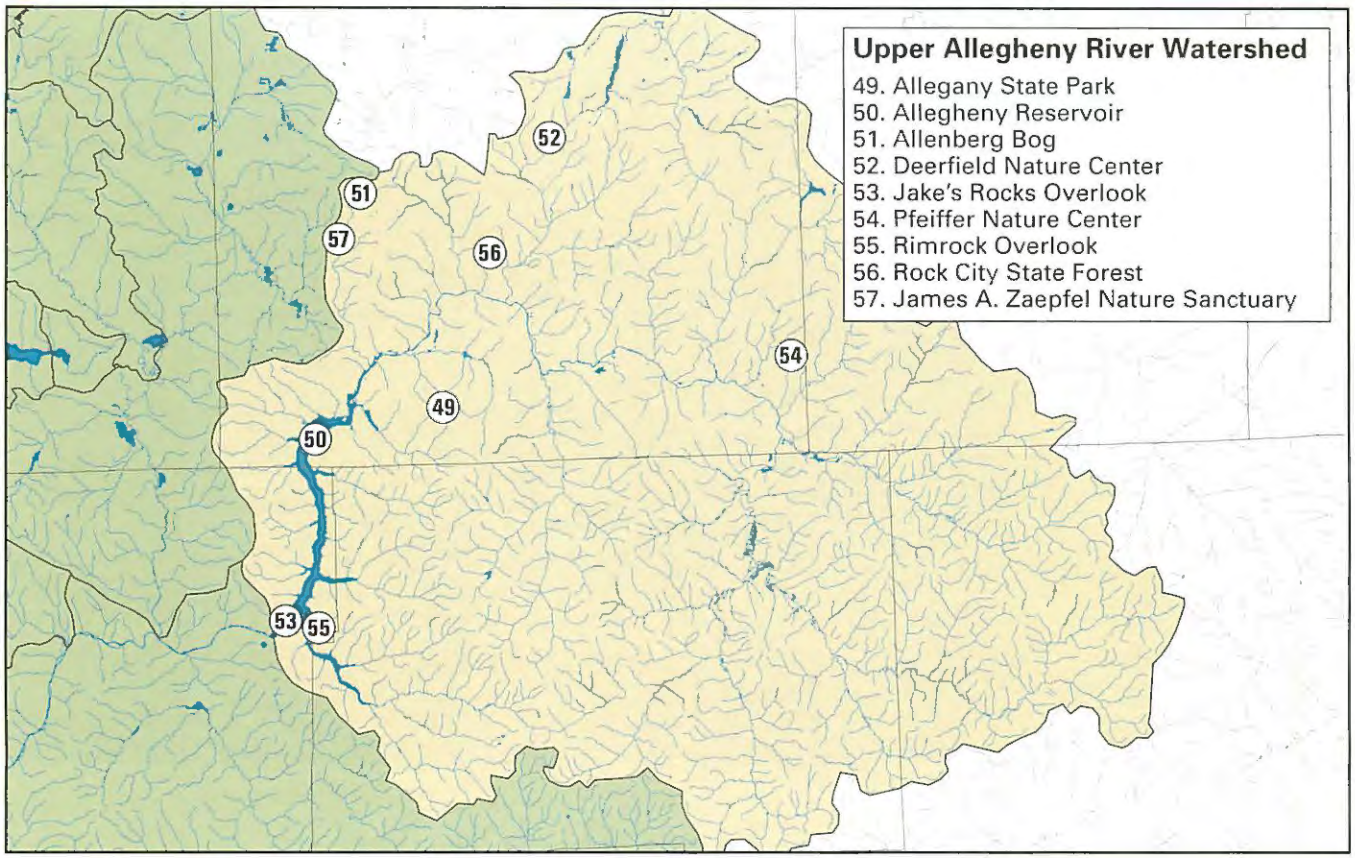
French Creek Watershed
37. Findley Lake Nature Center
38. French Creek Preserve
39. Lowville Wetlands Natural Area
40. Wattsburg Fens Natural Area

Brokenstraw Creek Watershed
41. Tamarack Swamp
42. Watts Flats Wildlife Management Area
43. Hill Higher State Forest

Chadakoin River Watershed
44. Allen Park
45. Falconer Millrace County Park
46. Jamestown Community College Preserve
47. Lake View Cemetery
48. Roger Tory Peterson Institute

Upper Allegheny River Watershed
49. Allegany State Park
50. Allegheny Reservoir
51. Allenberg Bog
52. Deerfield Nature Center
53. Jake's Rocks Overlook
54. Pfeiffer Nature Center
55. Rimrock Overlook
56. Rock City State Forest
57. James A. Zaepfel Nature Sanctuary

Middle Allegheny River Watershed
58. Anders Run Natural Area
59. Buckaloons Recreation Area
60. Chapman State Park
61. Cook Forest State Park
62. Hearts Content Scenic Area
63. H.J. Crawford Reserve
64. Oil Creek State Park
65. Tionesta Scenic Area
66. Washington Park
67. Point Park



Upper Allegheny River Watershed

The stretch of the Allegheny River above the Kinzua Dam is a place of contrasts. The Allegheny Reservoir creates a stark contrast between the flowing river waters above and below and offers a glimpse of how the valley might have appeared when the glacier's advance created a lake where the present one lies. The little cities of Salamanca, Bradford, and Olean contrast with wild forested ridges that surround them. The river here accepts waters flowing out of glacially shaped farmlands to the north and dense forestlands to the south. Patches of tremendously old and venerable Northern Red Oaks and Eastern Hemlocks remain as reminders of this forest's appearance in the past.

It is also a land of political contrasts. The Seneca Nation of Indians owns the Allegany Reservation which borders tens of thousands of acres of New York state forest as well as Allegany State Park, the jewel in the crown of western New York wildlands. To the south, in Pennsylvania, stretches Allegheny National Forest, seat of the region's wilderness character. It is in this watershed where one is most likely to catch a glimpse of a Bobcat, Black Bear or Fisher. Bald Eagle may be seen here year-round. Someday in the waters of the Upper Allegheny one might have the thrill of catching and releasing a prehistoric-looking Paddlefish.

To borrow the U.S. Forest Service's phrase, it is a land of many uses. To the naturalist, it is a rich land for the study and enjoyment of the natural world.

Science Lake in autumn.
Photo by Barbara Kubiak.

Allegany State Park

New York State Office of Parks, Recreation, and Historic Preservation

What
Old growth and climax forests, meadows, wetlands, streams, lakes within the unglaciated Salamanca Re-entrant.

Where
Southern Cattaraugus County, NY, usually accessed from I-86 Exits 18 or 19, or from the City of Salamanca.

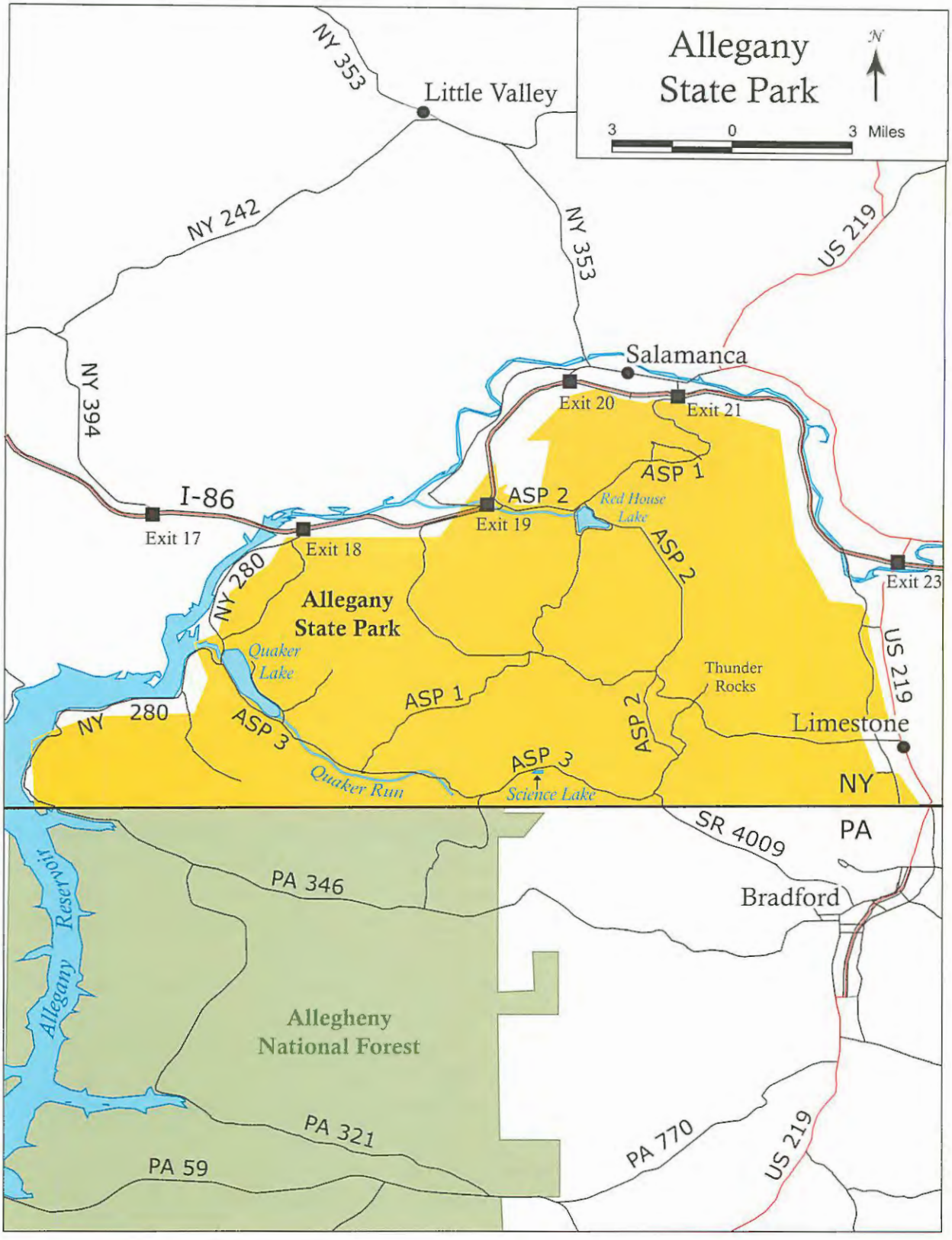
USGS Quadrangle(s):
Red House, Limestone, Salamanca, Steamburg, Little Valley

Why
Geology, birding (Important Bird Area), wildlife study, botany study.

Totaling over 66,000 acres, Allegany State Park is one of the largest state parks in the Northeast, and the largest New York State parkland outside of the Adirondack and Catskill Mountains. Its primitive forested valleys and easy access via well-maintained roads and trails make it a place not to be missed when exploring the natural history of this region. It is located in southern Cattaraugus County, easily accessed from I-86.

Natural History Interest

Allegany State Park is at the center of the only piece of New York land that was not contacted by the ice of the Wisconsin glaciation. 20,000 years ago, when the rest of what is now New York State was buried under a mile or more of ice, this area, known as the Salamanca Re-entrant, was ice free. Today, the topography of Allegany State Park tells the story of how powerful the glacier was in forming the surrounding landscape. Areas to the northwest, north, and northeast of the park occupy broad, flat valleys, steep-sided hills, and flattened hilltops, molded by the force of the ice that rode over them, which then melted in place to leave soils of glacial origin. The park, in contrast, has a sharper appearance, with deeply incised, V-shaped valleys eroded by flowing water, not ice. The soils are termed "residual," meaning they were formed outside the glacier's influence. The park's landscape, thus, resembles that of Pennsylvania's extensive and deeply incised Allegheny National Forest lands


Allegany
State Park
N
3 0 3 Miles
NY 353
Little Valley
NY 242
NY 353
US 219
NY 394
Salamanca
Exit 20
Exit 21
ASP 1
I-86
ASP 2
Red House
Lake
Exit 17
Exit 19
Exit 18
ASP 2
Exit 23
NY 280
Allegany
State Park
Quaker
Lake
US 219
Thunder
Rocks
ASP 1
NY 280
ASP 3
ASP 2
Limestone
ASP 3
Quaker Run
Science Lake
NY
SR 4009
PA
PA 346
Bradford
Allegany Reservoir
Allegheny
National Forest
PA 321
PA 770
US 219
PA 59

Morning fog on Science Lake. Photo by Mark Kirsch.

to the south.

Still, Allegany State Park, as well as the rugged terrain to the south, is not mountainous in the sense that its ridge tops were somehow thrown up to their high elevations. The high places are there simply because the surrounding land wore away. The park occupies a profoundly eroded tableland of sedimentary bedrock. Fossils that can be found in the park—crinoids, brachiopods, and others—testify to the ancient seabed that occupied the land 370 million years ago. Ridge-top rock cities at Thunder Rocks and Bear Caves are evidence of the sandy deltas that spread out from tributaries during the millennia that preceded the uplift that formed the Allegheny Plateau.

Allegany State Park has a rich diversity of plant life. Mosses and ferns are throughout the park in the cool, moist, shady habitats of streams and sandstone conglomerate outcrops. Wildflowers are abundant. In late spring, when the seasons are in transition, dozens of species of wildflowers are in bloom, including Columbine, Yellow Iris, Star Flower, and Moccasin-flower. Allegany State Park is among the best places in the region to view large unbroken tracts of mature climax forest.

The areas mentioned below are only a sampling of places to visit in Allegany State Park. See "Other Notes" for opportunities for interpretive walks and other programs that can help the visitor to learn about the natural history of this remarkable park.

Red House Lake and the Park's 1927 Tudor-style Administration Building welcome the visitor who enters the park from I-86 Exit 19 onto Allegany State Park (ASP) Route 2. Nest boxes along the road should be observed for Tree Swallows and Eastern Bluebirds. Red House Lake in spring is a stopover for Common Merganser, Red-breasted Merganser, Hooded Merganser, Bufflehead, Ruddy Duck, Lesser Scaup and Common Loon. Bald Eagle and Osprey often are seen over the lake at this time. There are beaver lodges at the inlet to the lake near the boathouse.

Red House Creek, from below the dam back to the park entrance, is a good place to see a variety of birds including Pileated Woodpecker, Belted Kingfisher, Alder Flycatcher, Eastern Phoebe, Eastern Kingbird, Gray Catbird, Yellow Warbler, Common Yellowthroat, Chestnut-sided Warbler, Blackburnian Warbler, Blue-winged Warbler,

Beaver lodge on Red House Brook. Photo by Barbara Kubiak.

and Indigo Bunting.

The Administration Building features a small natural history museum. It also has a bird feeding station that is visited by a good selection of feeder birds including Evening Grosbeak, Red Crossbill, White-winged Crossbill, and Pine Siskin. White-tailed Deer are also frequent feeder visitors.

Heading away from Red House Lake on ASP Route 2, a wetland area on the west side of the road provides habitat for Beavers. Beaver ponds are best visited during the early evening when Beavers become active. The ponds are a good place to observe aquatic and wetland plants, as well as reptiles and amphibians.

Continuing along ASP Route 1 south of Red House Lake, France Brook Road ascends 500 feet in 2.5 miles from level brushy areas and beaver meadows into mature stands of Yellow Birch, American Beech, Sugar Maple and hemlock. Birds that may be seen along the lower half of this route include Common Merganser, Barn Swallow, Tree Swallow, Alder Flycatcher, Eastern Phoebe, Chestnut-sided Warbler, Yellow Warbler, Blackburnian Warbler, Magnolia Warbler, and Common Yellowthroat. Broad-winged Hawk and Red-shouldered Hawk nest here. Eastern Bluebird has nested in tree trunks near France Brook, and Baltimore Oriole nests here as well. The upper half of France Brook Road climbs through forest to ASP Route 1. Red-eyed Vireo, Ovenbird, American Redstart, Hooded Warbler, Black-throated Green Warbler, Canada Warbler, Barred Owl, and Mourning Warbler may be seen or heard along the road.

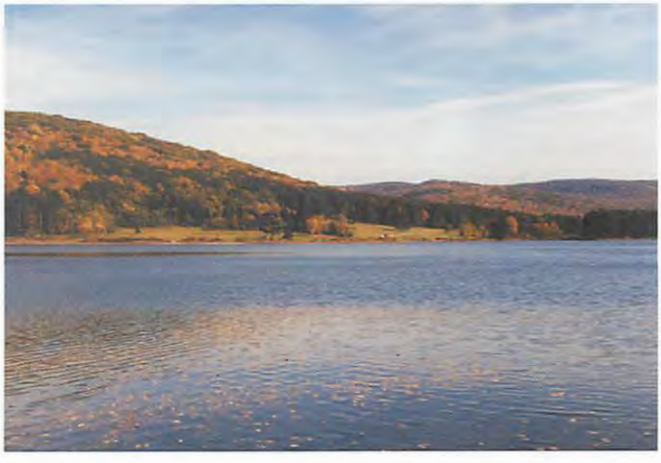
Thunder Rocks

Thunder Rocks is a rock city composed of Olean conglomerate that outcrops high on the plateau at 2,260 feet above sea level. Plants that may be found at the site include Common Polypody Fern, Painted Trillium, Round-leaved Yellow Violet, and Clintonia. Hobblebush and Striped Maple inhabit the understory among Black Cherry, American Beech and Sugar Maple. By carefully rolling back some of the smaller blocks of conglomerate scattered in the woods, salamanders may be found here, including Redback Salamanders and the northern variation of the Mountain Dusky Salamander. Be sure to carefully replace any rocks moved.

Thunder Rocks. Photo by Mark Kirsch.

Science Lake

Science Lake is a small impoundment of Quaker Run, located on the south side of ASP Route 3, between ASP Routes 1 and 2, 11 miles from I-86 Exit 18 if using Route 280 to enter the park. Science Lake has a short nature trail, and a productive wetland on its east end. It is also a good birding area.



Red House Lake. Photo by Ryan Butryn.

Bear Caves

The Bear Caves are an outcrop of Devonian age Salamanca Conglomerate bedrock, located on a hillside in the Quaker Run Area. Cracks between rocks form narrow "caves" or crevasses. To reach Bear Caves, hike the Bear Caves–Mt. Seneca Trail. Parking for the trail is near the Creekside and Parallel cabins, about 9 miles from I-86 Exit 18 if entering the park via Route 280. Bear Caves is closest to the east end of the trail.

Quaker Lake

Quaker Lake is a man-made impoundment of Quaker Run, which courses through the same deep valley that ASP Route 3 follows. Streams flowing into Quaker Lake are inhabited by native Brook Trout. Ospreys may be seen nesting near the gate to the Quaker Beach Road, and Great Blue Heron nest in the hemlock stand at the southeast end of the lake. Quaker Lake is a good place to observe spring waterfowl migration in March and April. Ducks that may be seen here include Hooded Merganser, Common Merganser, Red-breasted Merganser, Ruddy Duck, and Ring-necked Duck. Common Loon, Horned Grebe, Pied-billed Grebe, and Bonaparte's Gull may be

Quaker Lake. Photo by Barbara Kubiak.

present here as well. The Park sometimes draws down Quaker Lake in September, which exposes large mudflats that may be occupied by Greater Yellowlegs, Lesser Yellowlegs, Great Blue Heron, Green Heron, and migrating shorebirds. A Hudsonian Godwit made a rare visit here one day in September 1997.

The Mt. Tuscarora Trail, which starts less tban 0.5 mile past the Quaker Area park entrance off Route 280, is a good place to find Cerulean Warbler and Yellow-throated Vireo. Huge hemlocks and oaks line the trail. Listen for the Cerulean's song, *zray zray zray zreeeee*, a rapid series of buzzy notes on the same pitcb, followed by a longer note on a higher pitch.

Stoddard Creek empties into Red House Lake. Photo by Steve Paulson.

Mount Onondaga Tornado Interpretive Site

In the evening of August 28, 1990, a series of tornadoes blasted across a hillside in the Quaker Area. Over 200 acres of hardwood forest were torn to shreds. The downed timber that could be salvaged was hauled out by horse teams over a period of two years before the area was opened to visitors. Today visitors can view some of the twisted tree trunks that are left behind and learn about the cleanup of the area and successional changes to the habitat that are underway. The area is the subject of a 25-year study of ecological succession and resulting changes in bird nesting patterns.

Birders visiting the tornado blowdown area may expect to see a variety of birds that come to feed on the raspberry, blackberry, and elderberry bushes that have moved in to the site. Warblers here include Chestnut-sided, Blue-winged, Mourning, Yellow, Blackburnian, Hooded, Black-throated Green, Black-throated Blue, Canada, and American Redstart. Black-billed Cuckoo, Common Raven, Winter Wren, Hermit Thrush, and Swainson's Thrush are also present.

Wildlife is abundant throughout the park and, because of the numerous roads and trails, likely to be seen. In addition to abundant White-tailed Deer, Woodchuck, Raccoon, Cottontail rabbit, and squirrels, the park visitor may also view mammals such as both Northern and Southern Flying Squirrels, Beaver, Red Fox, and Black Bear. Because of a program to release Fisher into its former range in the Allegheny National Forest, it may even be possible to catch a glimpse of this big weasel ranging into the park's forest habitat and home to its favorite prey species, Porcupine.

Thunder Rocks. Photo by Mark Kirsch.

Other Notes

Allegany State Park is laced with well-maintained paved roads and seasonal gravel roads that access many of the park's areas of interest. The park also has some 80 miles of hiking and cross country ski trails. The Art Roscoe Ski Touring Area offers some of the finest cross country skiing in the Northeast. There are also 5 miles of paved bicycle trails around the Red House Lake area. Three campgrounds and 27 cabin trails have over 300 campsites and 300 cabins, more than 150 of them winterized, and three group camps available for rental. In addition, there are year-round turn-key cottages, fully equipped with the latest conveniences, located in both the Red House and Quaker areas.

Covered bridge for bicycles and pedestrians over Red House Brook. Photo by Ryan Butryn.

Throughout the year the park has nature education programs for visitors featuring interpretive slide shows and field trips. Topics include the park's geology, animal tracks and signs, the natural history of Beaver, wildflowers, edible wild plants, bird identification, and using map and compass. The old Quaker Store has been restored and now houses a park museum. It features a three-dimensional topographical map of the park to orient visitors to its main features.

In addition to the regularly scheduled nature programs, special programs for groups of up to fifty people may be arranged by contacting the park naturalist at 716–354–9101, ext. 274. A fee of $30 is charged for these group programs.

Each year on the first weekend of June, local Audubon Society chapters hold the Allegany Nature Pilgrimage, a three-day outdoor education extravaganza. Hundreds of people come to the Red House Area to attend a wide selection of workshops on practically every aspect of nature study and outdoor recreation, from geology and botany to kayaking and astronomy.

How to Get There

Allegany State Park is located between I-86 to the north and the Pennsylvania state line to the south.

From I-86 take either exit 18 (connects with ASP 3 for the Quaker Area) or exit 19 (connects with ASP 2 for the Red House Area). Follow the signs to the contact stations at either park entrance and proceed into the park. The Summit Area of the park can also be reached via ASP 1 from exit 21 (Salamanca) off I-86. Follow the signs into the park.

From Bradford, PA, take SR 4009 to the contact station at the south end of the park and proceed either on ASP 2, which heads north toward the Red House Area, or ASP 3, which heads west toward the Quaker Area.

Allegheny Reservoir.
Photo by Barbara Kubiak.

Allegheny Reservoir

New York perimeter owned by Seneca Nation of Indians, Allegany Reservation
Pennsylvania perimeter, Allegheny National Forest

What
Man-made lake surrounded by Seneca Nation of Indian lands, extensive forests and wilderness areas

Where
From I-86 bridge between Exits 17 and 18 in southwest Cattaraugus County, NY, south to the Kinzua Dam, off of Route 59 in eastern Warren County, PA

USGS Quadrangle(s):
Steamburg, Red House, Cornplanter Bridge, Cornplanter Run

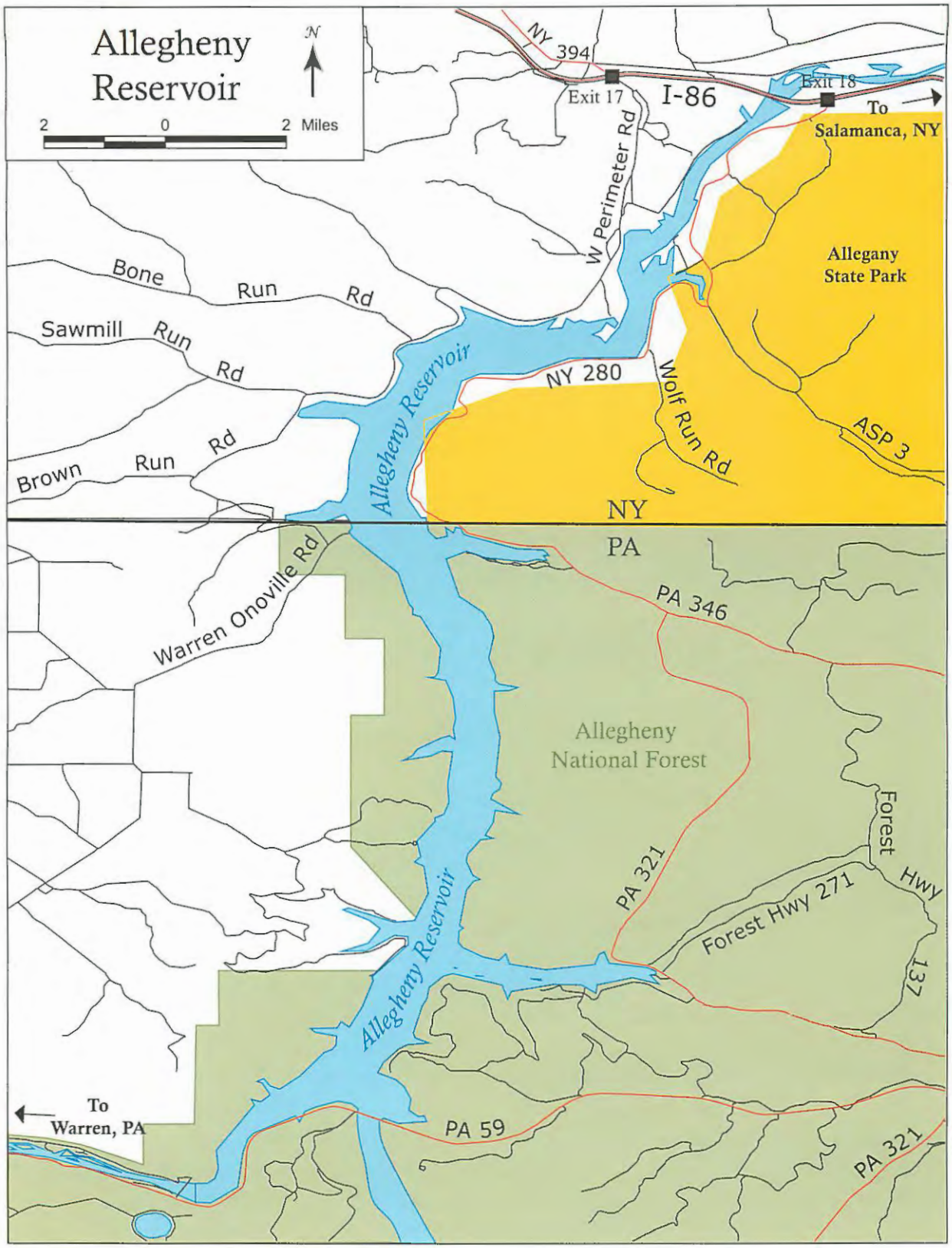
Why
Birding, wildlife observation

The Allegheny Reservoir is a 12,000 acre, 22-mile long impoundment of the Allegheny River, created by the Kinzua Dam primarily for flood control. It straddles the border of New York and Pennsylvania. The reservoir is surrounded on the New York side by the Allegany Reservation of the Seneca Nation of Indians. Allegany State Park is near the reservoir to the east, and 5,000 acres of New York State forest cover the highlands to the west. In Pennsylvania, the reservoir is surrounded by Allegheny National Forest land.

Natural History Interest

The Allegheny Reservoir lies in a deep valley cut by warer erosion into the Allegheny Plateau, which, in pre-glacial times, flowed northward toward Steamburg from a drainage divide called the Kinzua Pass, where the Kinzua Dam is now located. During that time the Allegheny River followed its present-day course until it reached the Steamburg area, where it continued flowing northwest to the basin presently occupied by Lake Erie. This "Erian River" then flowed northeast toward the Atlantic via the St. Lawrence valley.

The glacial advances changed all that. The course of the Allegheny River was blocked by ice at the Steamburg area and began to flow southward at


Allegheny Reservoir
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Bone Run Rd
Sawmill Run Rd
Brown Run Rd
Allegheny Reservoir
NY 280
Wolf Run Rd
ASP 3
NY
PA
Warren Onoville Rd
PA 346
Allegheny National Forest
Forest Hwy 137
PA 321
Forest Hwy 271
Allegheny Reservoir
To Warren, PA
PA 59
PA 321

Photo by Ryan Butryn.

that point. The maximum advance of the ice sheet is shown by a vast end moraine that was first mapped in Kent, Ohio, and is thus called the Kent terminal moraine. This moraine crosses through the Steamburg area, forming a drainage divide that has helped to ensure that the Allegheny continues to flow southward.

The valley presently occupied by the Allegheny Reservoir filled with meltwater from the glacier. The lake thus formed, Lake Carll, eventually eroded through the Kinzua Pass, that ancient drainage divide, and gushed through to create the present day course of the Allegheny River.

Today, the Allegheny Reservoir and the surrounding country is a haven for wildlife. The road on the east side of the reservoir has a number of turn-offs and observation points for bird watching. To take this route, get off I-86 at Exit 18 and go south on Roure 280. 2.5 miles down this road there is an Osprey nest atop a telephone pole on the right side of the road. It is best to stay in your car as you view this nest when it becomes active starting in early April. At 6.1 miles there is a wide shoulder that allows for safe parking and a good opportunity to scan the reservoir for Bald Eagles. From April to September, Osprey can also be seen in the area. Common Raven may be seen here all year. Migrating shorebirds may be viewed here when extensive mudflats are exposed in September. White-winged Scoter and Surf Scoter have been seen here irregularly during November. Golden Eagles were seen in this area during the winter of 1999–2000.

Along the west side of the reservoir there is a good opportunity to see an active Bald Eagle nest. To get there, get off I-86 at Exit 17. At the end of the exit ramp go south onto NY 394 for 2.4 miles and pull off at the end of the guard rail on the right. 400 feet from the road, toward the reservoir, there is a white pine that has a Bald Eagle nest near the top. The birds begin nesting in late February and generally have young by the first week of April. The birds are best viewed with a spotting scope. The nest is on Seneca Nation land. Do not attempt to leave the road to get closer to the nest. Also, be careful,

Photo by Ryan Butryn.

as the shoulder on the viewing side of the road is not very wide, and traffic can be fast.

Further down NY 394, turn right at Bone Run Road and park in order to view an Osprey nest platform maintained by the New York State DEC. Osprey usually begin nesting here in early April.

Other Notes

The Allegheny Reservoir is an outstanding natural asset. Kinzua Dam, since its completion in 1964, has without a doubt been an economic asset as well, in tourism and electric power, in addition to its primary purpose of flood control. But its construction was bighly controversial, a clash between cultures and between local inhabitants and regional and national interests. The dam inundated land inhabited by the Seneca Nation of Indians guaranteed to them by treaty, as well as the communities of Corydon, Onoville, Quaker Bridge, and Kinzua. It also forced the relocation of burial grounds, including the grave of the beloved Seneca Chief Cornplanter. Where the Allegheny Reservoir is surrounded by the Seneca Nation, respect their sovereignty when you visit.

How to Get There

To reach points along the west side of the reservoir from I-86 take Exit 17 and go south on NY 394. Access the east side of the reservoir by taking Exit 18 off I-86, going south on NY Route 280. The southern part of the reservoir, where Kinzua Dam is located, is along PA 59, which branches off US 6 just east of Warren, Pennsylvania.

Wooded bog area near Black Pond. Photo by Marlene Mudge.

Allenberg Bog

Buffalo Audubon Society, with a small section owned by WNY Land Conservancy

What
Forest and wetlands, including two bogs

Where
Northern Napoli and southern New Albion Townships, Cattaraugus County, NY, accessed by Farm Market Road

USGS Quadrangle(s):
Cattaraugus, New Albion, Randolph

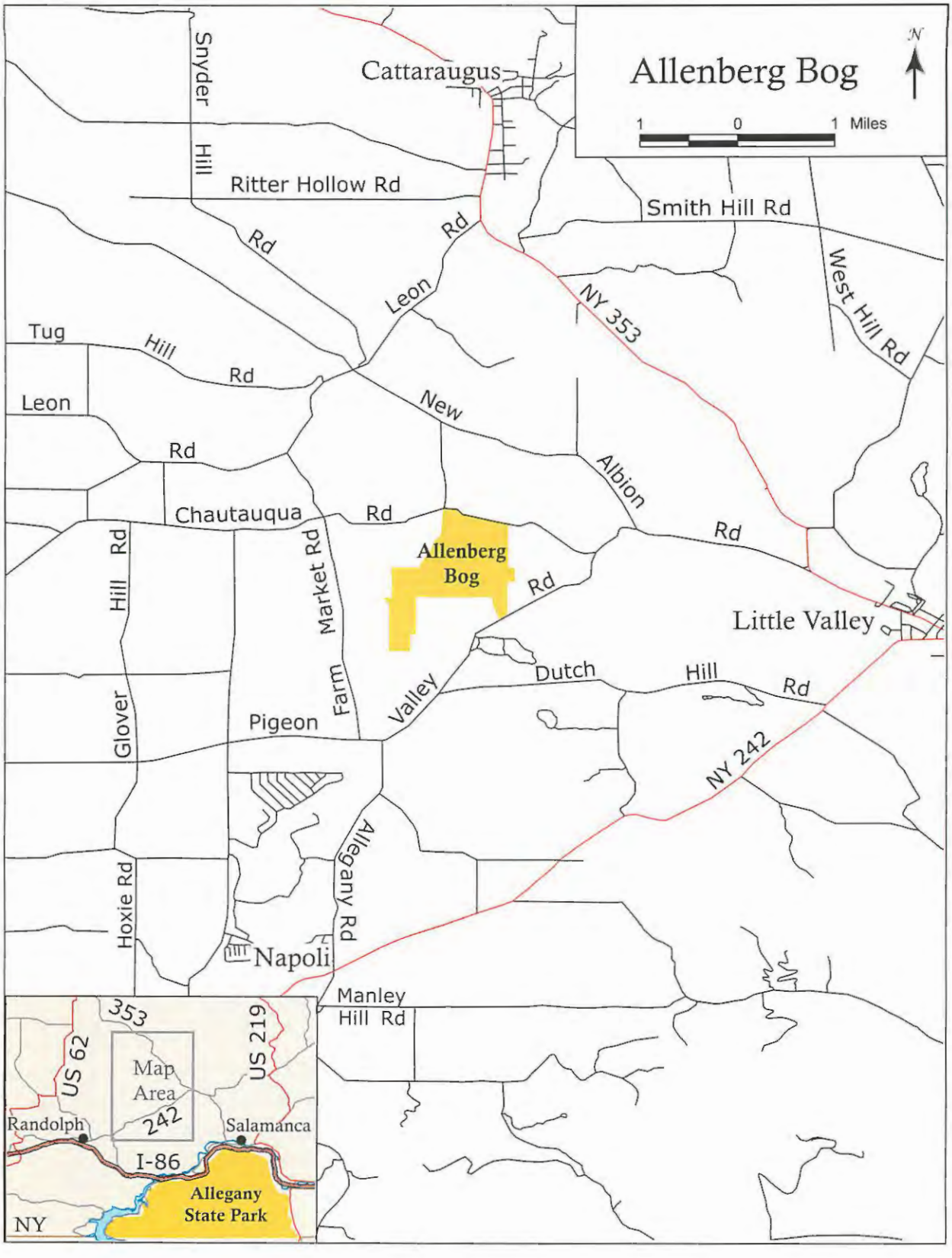
Why
Botanizing, birding, geology and hydrology studies

The area known as Allenberg Bog consists of some 400 acres of forests and wetlands, including two glacial kettle ponds with bogs. There are walking trails through part of the property that direct visitors to the main destinations, the bogs themselves.

Natural History Interest

Allenberg Bog is one of the most fascinating ecological sites in the region. The property's two bogs, one known as Congdon or Black Pond and the other, Allenberg Bog, are a few miles within the limit of the Wisconsin glacier's furthest advance in the line of glacial debris known as the Kent terminal moraine. The bogs are kettles, depressions formed as ice became stranded and partially buried when the glacier melted back approximately 15,000 years ago. The site lies in a valley within the Allegheny watershed close to the hydrological divide that separates the Great Lakes and the Ohio River basins.

The area has long been recognized by naturalists as a special place to study. Its 400 acre extent, owing to land acquisitions by the Buffalo Audubon Society beginning in 1957, has allowed the property to remain undisturbed for many years. Its geographic position has resulted in an unusual diversity of plant species of western, northern, coastal plain, and Appalachian distri-


Allenberg Bog
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1 0 1 Miles
Cattaraugus
Snyder Hill
Ritter Hollow Rd
Smith Hill Rd
West Hill Rd
NY 353
Leon Rd
Tug Hill Rd
New Albion Rd
Chautauqua Rd
Allenberg Bog
Little Valley
Hill Rd
Market Rd
Farm Valley Rd
Dutch Hill Rd
Glover
Pigeon
NY 242
Hoxie Rd
Allegany Rd
Napoli
Manley Hill Rd
353
US 62
US 219
Map Area
242
Randolph
Salamanca
I-86
Allegany State Park
NY

bution. Its elevation, at 1720 feet above sea level, is higher than most other glacial lakes with bogs in the region. The consequent coolness of the habitat has allowed many plants to thrive that are more typical of the arctic tundra.

Dr. Stephen W. Eaton, professor emeritus at St. Bonaventure University, has explored the bog with biology classes since 1950. In 1963 he published a paper along with Sister Mary Salesia Schick that added much to the list of plant species present in this interesting complex of forests and peatlands, which includes a small alkaline meadow in addition to the bogs. The list includes 28 species of liverworts and 58 species of mosses, including 10 of the genus *Sphagnum*. Vascular plant species number more than 300, including 19 species of ferns and 38 species of sedges. Fern species include Grape Fern, Rattlesnake Fern, Crested Wood-fern, and Silvery Spleenwort.

Plants in the Congdon Pond vicinity include Bladderwort, Round-leaved Sundew, Black Spruce, White Pine, Tamarack, Bog Rosemary, Labrador Tea, Leatherleaf, Black Huckleberry, Blue Flag Iris, Wild Calla Lily, Water-mat, and Creeping Snow Berry.

Allenberg Bog supports Cotton-grass, White Beak-rush, Large-fruited Cranberry, Rose Pogonia, Buckbean, and Northern Fly-honeysuckle. Pitcher-plant is common in both bog areas.

One of the best times to visit Allenberg Bog is in mid-July when the Great Rhododendron are in bloom. Several acres of the massive shrubs, some reaching heights of twenty feet or more, guard the approach to the bog meadow and put on a great show at that time of year.

The kames and hills that surround the bogs are covered with birch-beech-maple-hemlock forest that in places becomes more diverse with White Ash, Black Cherry, American Basswood, Cucumber Magnolia and other species. The understory consists of Hobblebush, Common Wood Sorrel, Goldthread, Wintergreen, Clintonia, May-apple, and Indian Cucumber-root.

Birds that may be sighted during the nesting season on the property include Wood Duck, Green Heron, Great Blue Heron, Pileated Woodpecker, Yellow-bellied Sapsucker, Wood Thrush, Hermit Thrush, Blackburnian Warbler, Northern Waterthrush, Black-throated Blue Warbler, Black-throated Green Warbler, Ovenbird, Common Yellowthroat, American Redstart, Magnolia Warbler, Red-eyed Vireo, White-eyed Vireo, Blue-headed Vireo, Indigo Bunting, Scarlet Tanager, Swamp Sparrow, Brown Creeper, and Bobolink.

Fungi, insects, and woodpeckers aid the decay of a standing dead tree at Allenberg Bog. Photo by Marlene Mudge.

Beaver work is often found in these wetlands, and the animals themselves are occasionally seen. Other animals, from insects to amphibians to mammals, should be watched for, especially those that are suited to the unique cool peatland habitat found here.

Other Notes

This property is open to the public, but the owners strongly recommend a guide when hiking into this property. The entrance area on Farm Market Road is not well marked. While much of the trail is clearly marked, some areas can be confusing, and even those experienced with the property can occasionally get "twisted". Wear a good insect repellent, suitable footwear (old sneakers are best),

Cinnamon Ferns at Black Pond. Photo by Marlene Mudge.

and a carry a map and compass.

The bog areas do not have boardwalks. This means that you will get wet, at least to the knees, depending on the time of year and where you step. The bog habitat is very sensitive, and foot traffic should be kept to a minimum. In short, bogs are extremely interesting places to explore, and a visit should definitely include at least one experienced naturalist to help interpret the unique characteristics of the bog and to ensure that the highest degree of care is exercised by all in protecting the habitat from disturbance.

For information on field trips to Allenberg Bog contact the Buffalo Audubon Society, c/o Beaver Meadow Audubon Center, 1610 Welch Rd., N. Java, NY 14113–3228; Tel: 716–457–3228; Web Site: www.buffaloaudubon.org.

How to Get There

Allenberg Bog is located northwest of Salamanca, NY; northeast of Randolph, NY; and just west of Little Valley, NY.

From the southeast: From NY 417 in Salamanca (I-86 exit 20), take NY 353 north 9.2 miles to New Albion Rd, just north of Little Valley. Turn left onto New Albion Rd and proceed 1.7 miles to Pigeon Valley Rd. Turn left onto Pigeon Valley Rd and proceed 3.5 miles to Farm Market Rd. Turn right onto Farm Market Rd. The right of way to the bog is on the right side of the road. However, it is very hard to recognize. It is strongly recommended that you have a guide take you into the property.

From the southwest: From exit 16 off I-86, take NY 394 east through Randolph and East Randolph. Approximately 6.5 miles from exit 16, turn left off NY 394 onto NY 242 and proceed approximately 3.3 miles to Allegany Rd in Napoli. Turn left onto Allegany Rd and proceed to its end. At its end, turn left onto Pigeon Valley Rd and then immediately look for the next right. The next right is approximately 0.2 mile from where you turned onto Pigeon Valley Rd. Go right onto Farm Market Rd and continue to the bog. The right of way to the bog is on the right side of the road. However, it is very hard to recognize. It is strongly recommended that you have a guide take you into the property.

Wildlife viewing blind at Deerfield Nature Center. Photo by Patricia Spicer.

Deerfield Nature Center

Career and Technical Education Center at Ellicottville

What
Forest, wetlands, ponds, streams

Where
On Route 242 northeast of Ellicottville, NY

USGS Quadrangle(s):
Ellicottville, Ashford

Why
Wildlife observation, birding, environmental education tours

Deerfield Nature Center is an environmental education facility with 84 acres of forest, field, and wetland and about 3.5 miles of trails.

Natural History Interest

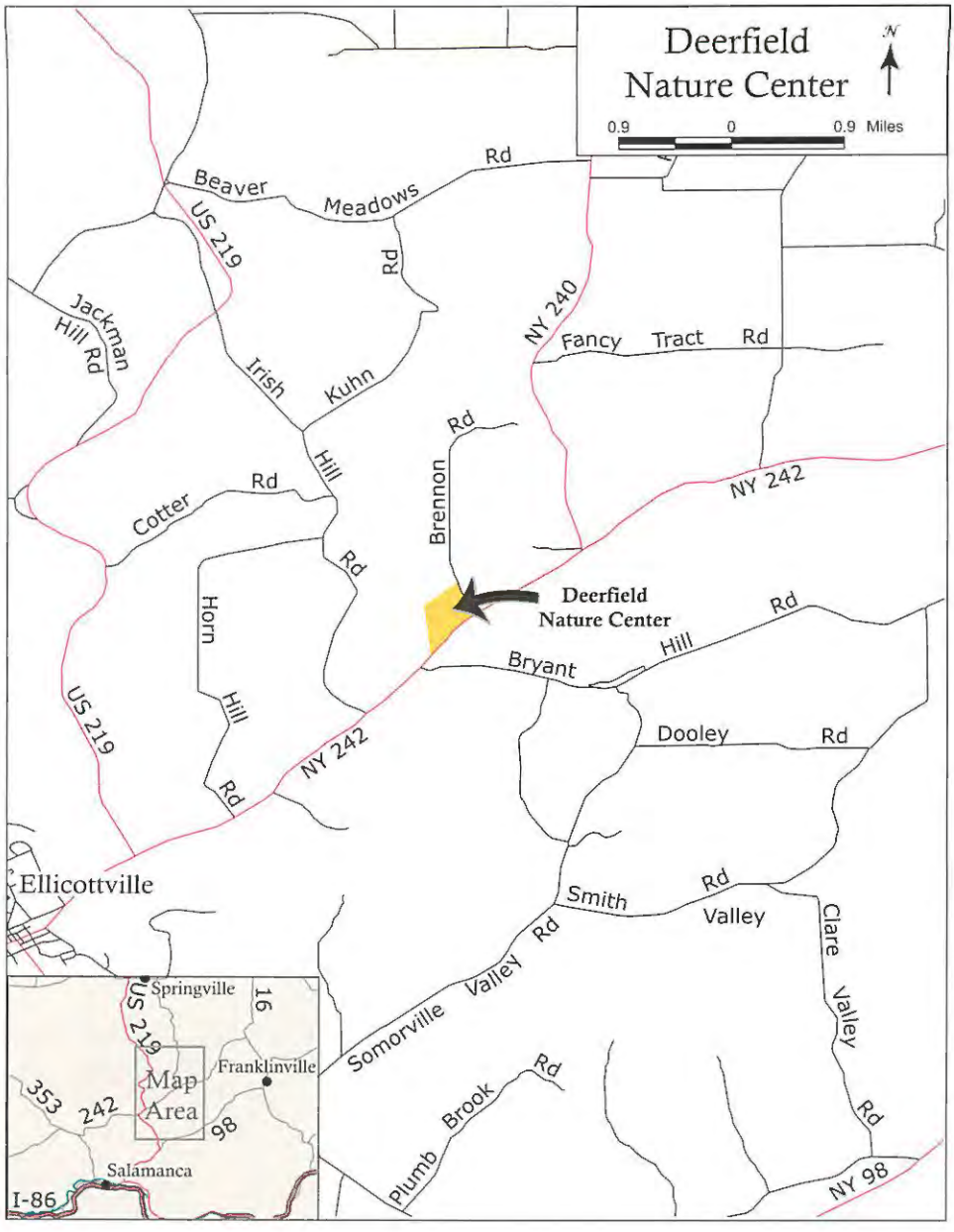
Deerfield Nature Center occupies the glacially buried valley of McMurray Creek, a tributary of Great Valley Creek. Great Valley Creek flows through Ellicottville on its way to its confluence with the Allegheny River in Salamanca.

Part of the property consists of Northern Hardwood Forest, including a Sugar Maple stand tapped each spring to produce syrup. Other areas display the range of secondary succession from field to climax forest and provide a good object lesson in forest ecology.

Birds common to the tract are Great Blue Heron, Belted Kingfisher, and woodpeckers including Pileated. Lucky visitors may spot a Bald Eagle or Osprey. Coyote, deer, and Cottontail are plentiful, and Beaver may be sighted as well.

Other Notes

The Center is maintained primarily for the hands-on education of area high school students at the Career and Technical Education Center at



Ellicottville. Students are responsible for trail design, construction and maintenance. Current projects include restoration of a fire tower and greenhouse, building a boardwalk, updating of trail maps, and publishing a natural history brochure.

The center and property are open to the public on weekdays only from 8:30 a.m. to 3:30 p.m. Visitors must stop at the main office at the Education Center to obtain passes. An A-framed lodge has indoor classrooms with bird and mammal mounted specimens. There is a handicapped-accessible boardwalk, restrooms, and wildlife observation blind. There are six Adirondack-style shelters along the trails for picnicking. Please be careful on the upper trails where portions of wooden bridges are being repaired.

Guided tours may be scheduled for $2 per person by calling the Center at 716–699–2382.

How To Get There

Deerfield Nature Center is located on NY 242 just northeast of Ellicottville, NY.

From the intersection of NY 242 and the section of NY 219 leading into Ellicottville from the south, follow NY 242 north approximately 5.0 miles to the nature center on the left. Obtain passes at the Education Center. The nature center is located in the woods behind the Education Center.

Sandstone conglomerate and rhododendron at Jake's Rocks. Photo by Barbara Kubiak.

Jake's Rocks Overlook

U.S. Forest Service

What
Large conglomerate outcrops on a high forested ridge

Where
Above the Allegheny Reservoir in Mead Township, Warren County, PA

USGS Quadrangle(s):
Cornplanter Bridge

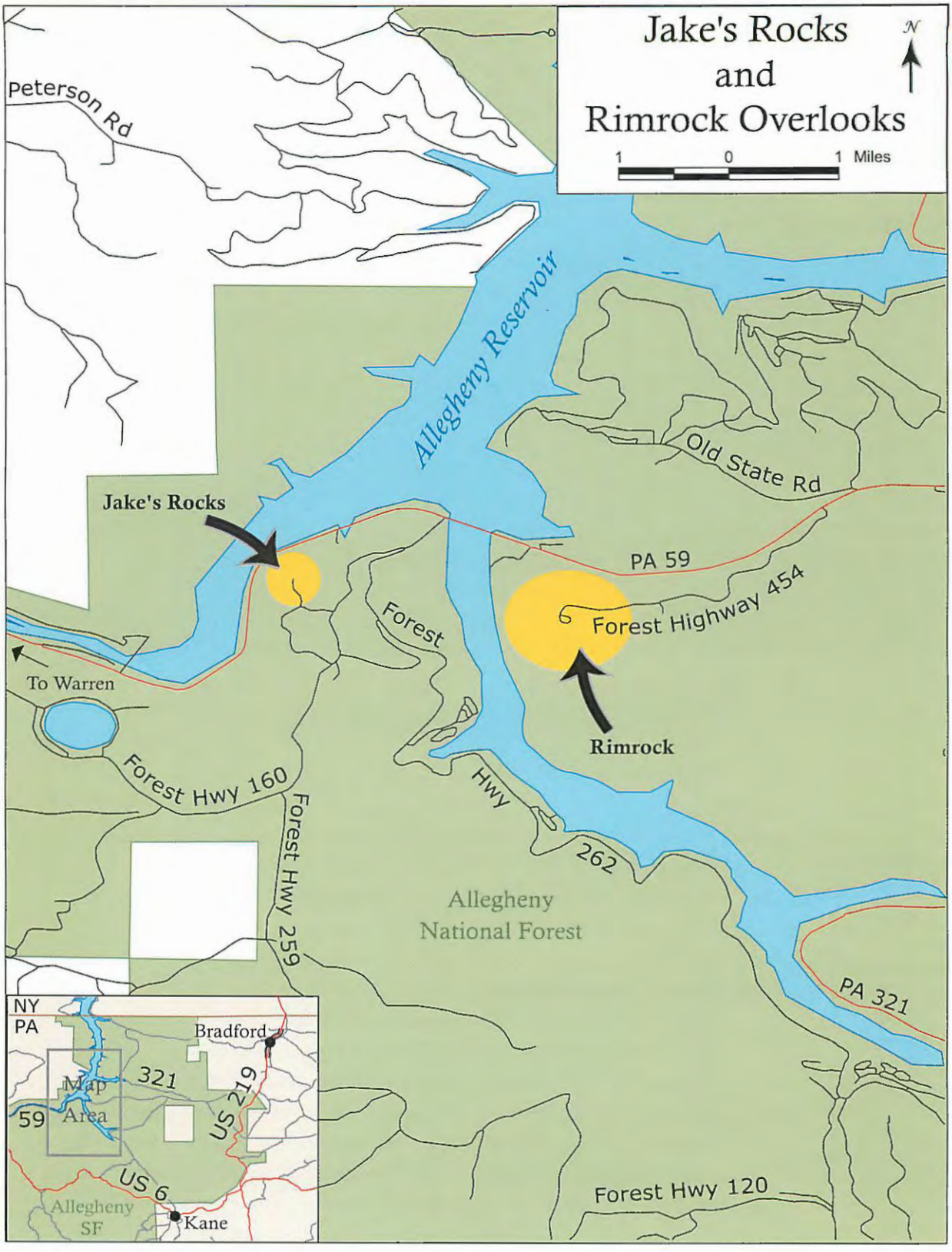
Why
Bird watching, botanizing, geology

Jake's Rocks Overlook is a huge expanse of conglomerate bedrock exposed high above the Allegheny Reservoir, within view of the Kinzua Dam. Numerous trails weave through the property, and there are overlooks along the access road so the view can be experienced by car as well.

Natural History Interest

The overlook at Jake's Rocks encompasses the big bend in the Allegheny River valley just above the Kinzua Dam. From this 2,000 foot elevation the visitor can envision what the landscape might have been like some 20,000 years ago when Kinzua Pass spanned the valley where Kinzua Dam now stands. Kinzua Pass separated the watersheds of two streams, one flowing northward into the "Erian River" now occupied by Lake Erie, the other flowing southward toward the Ohio Valley. The Wisconsin glacier impeded the flow of this north-trending watershed, creating an impoundment that eventually breached the Kinzua Pass and eroded it down to create the present course of the Allegheny River.

The rock city here is very impressive, with its high rock face and massive boulders strewn down the slope. White Oak, Chestnut Oak, and Northern Red Oak are abundant in this dry ridge Oak-Hickory forest. American


Jake's Rocks
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Forest Hwy 120

Chestnut is present, but as an understory species, dying back as it succumbs to the blight. Sassafras is common throughout the woods here, both in the understory and as trees of significant size. Mountain Laurel is common in the understory as is Striped Maple. Serviceberry, too, is widespread, providing an early crop of berries for birds and other wildlife.

The forest floor has a diverse array of plants tolerant of dry, sandy, acidic soils. They include blueberries, Partridgeberry, Moccasin-flower, Wintergreen, Bracken Fern, trillium, and Canada Mayflower.

Birds noted here during the nesting season include American Goldfinch, Cedar Waxwing, Red-eyed Vireo, Blue-headed Vireo, Black-throated Green Warbler, and Yellow-bellied Sapsucker. Other species to look for, including those that prefer the mature oak forest found both at Jake's Rocks and Rimrock, are Pileated Woodpecker, Red-headed Woodpecker, Downy Woodpecker, Whip-poor-will, Yellow-billed Cuckoo, Tufted Titmouse, White-breasted Nuthatch, Blue-gray Gnatcatcher, Least Flycatcher, Canada Warbler, Cerulean Warbler, Ovenbird, Worm-eating Warbler, Black-and-white Warbler, Blackburnian Warbler, Hooded Warbler, Wood Thrush, and Hermit Thrush.

Moccasin-flower is among the interesting and beautiful herbaceous plants at Jake's Rocks. Photo by Barbara Kubiak.

Other Notes

Jake's Rocks Overlook has a parking area, picnic tables, and restroom facilities. For information about Jake's Rocks or other Allegheny National Forest sites contact the Sheffield Ranger District Office of the U.S. Forest Service, US 6, Sheffield, PA 16347; Tel: 814–968–3232.

How to Get There

Jake's Rocks Overlook is located at the southern end of the Allegheny Reservoir just below PA 59.

From US 6 heading east out of Warren, PA, go east (left) onto PA 59. Proceed on PA 59 approximately 10 miles to Forest Hwy 262. It is a few miles past Kinzua Dam. Turn right onto Forest Hwy 262 and continue approximately 1.5 miles to Forest Hwy 160. Turn right onto Forest Hwy 160 and look on your right for the access road to Jake's Rocks. It is a little over a mile after the turn onro Forest Hwy 160. Follow the access road and signs to Jake's Rocks.

Shafts of morning light illuminate the ridge top forest at Pfeiffer Nature Center. Photo by Barbara Kubiak.

Pfeiffer Nature Center

What
Forests, including old growth tract, and meadows on a high ridge

Where
On Lillibridge Road in the Town of Portville, north of the Village of Portville in the southeastern corner of Cattaraugus County, NY

USGS Quadrangle(s):
Portville

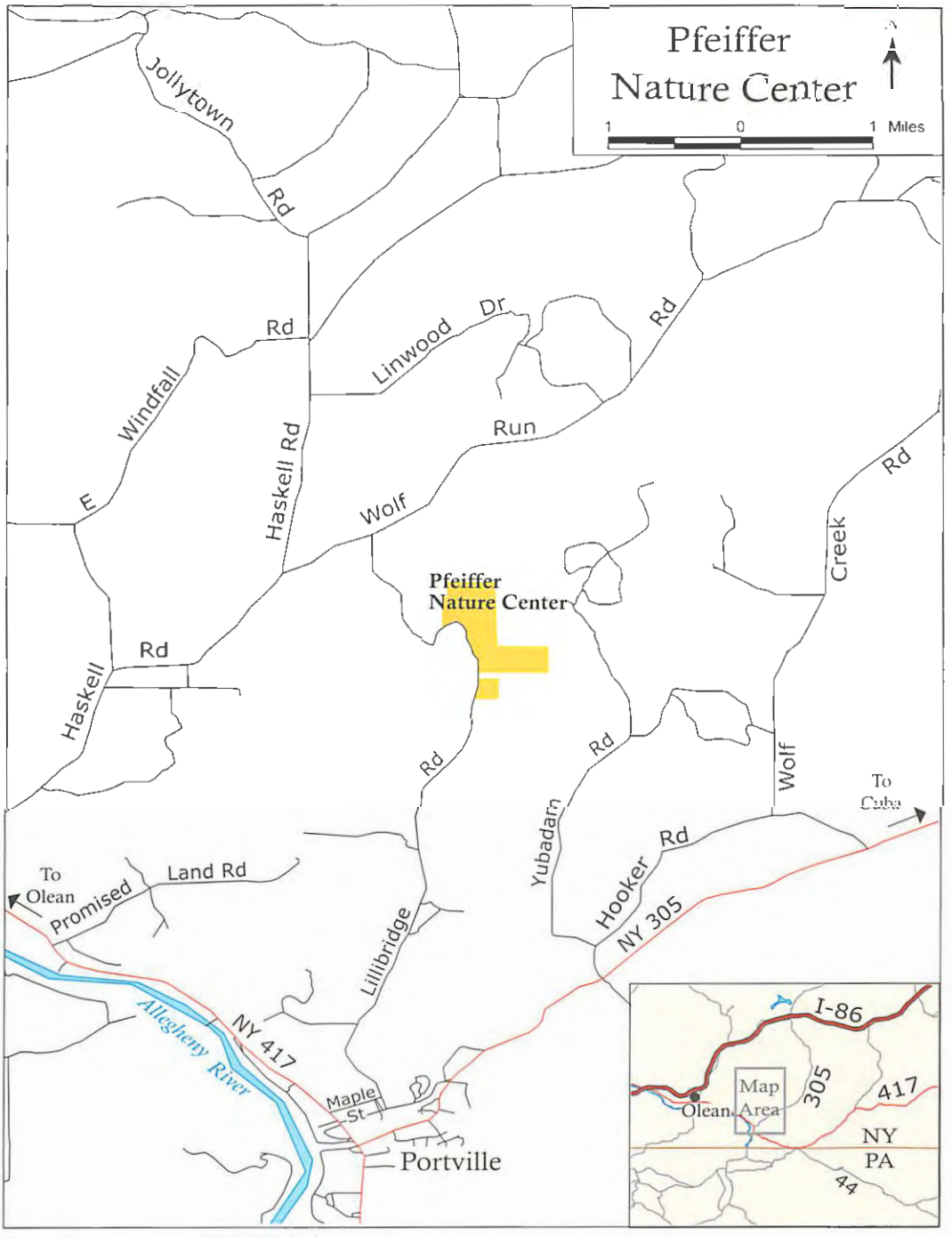
Why
Birding, forest ecology studies, wildlife observation

Pfeiffer Nature Center is a 188 acre, mostly forested site along Lillibridge Road in the Town of Portville, NY. A remarkable 60 year-old cabin built of American Chestnut logs serves as the center's headquarters. Six miles of trails offer foot access to a variety of habitats for nature study.

Natural History Interest

Pfeiffer Nature Center's property ranges in elevation from 1,900 to 2,300 feet above sea level along a steep valley wall that faces west. The view is spectacular. On a clear day the high ridges of Allegany State Park are visible 20 miles to the west. It is hard to believe that this high perch once occupied the shoreline of a shallow sea, but shale containing fossil brachiopods, crinoids, and bryozoans found on the property, as well as beach and delta sandstones on the higher ridge, attest to the sea-edge habitat that existed here some 350 million years ago. An Ice-age glacier filled the adjacent valley with ice just up to the level of the property, as evidenced by the presence of glacial erratics only well below the top of the ridge, with residual (unglaciated) soils above that point. The exact age of this so-called Olean moraine is not known but is thought to have been formed some 40,000 years ago.

Today, several ecotypes are represented on the property, the most impressive being a grove of old growth Eastern Hemlock, Eastern White Pine,



American Beech, and Northern Red Oak. The trees are huge. The old growth area totals about 85 acres. Large White Oak and Chestnut Oak trees are also present. The Northern Hardwood Forest also has many Striped Maples in the understory, indicative of the cool, moist, upper elevation here. A cabin, built from salvaged American Chestnut logs around 1940, recalls the days of the early 20th century when chestnuts stood among the oaks, maples, and hickories as one of the great trees of the eastern forest. In 1904 a blight (an infection caused by the fungus *Endothia parasitica*) was introduced to the American forest from Asia.

The blight quickly attacked the American Chestnut and by the middle of the century the trees were virtually all destroyed. Today there is one mature American Chestnut tree on the property, 13.5 inches in diameter, and, at this point, showing no signs of succumbing to the blight.

Butterflies that inhabit the wooded and meadow areas include Pearl Crescent, Mourning Cloak, Great Spangled Fritillary, Aphrodite Fritillary, Eyed Brown, Orange Sulfur, Monarch, Spring Azure, American Copper, Cloudless Sulfur, Common Wood Nymph, and Common Checkered Skipper.

Vernal pools, streams, and forest provide habitat for salamanders, including Red Efts, Red-backed Salamanders, Northern Slimy Salamanders, and Wehrle's Salamanders.

Pfeiffer Nature Center's checklist of birds currently totals 109 species, of which 55 are probable or confirmed breeders at the Center. Nest boxes there have been occupied by Black-capped Chickadees, Eastern Bluebirds, Tree Swallows and House Wrens. Other breeding birds that may be observed include Wild Turkey, Hairy Woodpecker, Eastern Phoebe, and Scarlet Tanager.

Other Notes

The Pfeiffer Nature Center's mission is to preserve the integrity of its old growth forest, provide an area for scientific research, develop community-based nature study programs, and promote natural resource stewardship. A number of research projects are ongoing at the Center, including intensive studies tracking seasonal movements of Black-capped Chickadees and Dark-eyed Juncos. The Center is also planning a research project to study the effects of timber management on the ecosystem of the Northern Hardwood Forest on a portion of the property.

How to Get There

The Pfeiffer Nature Center is located just north of Portville, NY on Lillibridge Rd.

From the east: From exit 28 (Cuba) off I-86, take NY 305 south approximately 15.0 miles into Portville. At the light, turn right onto NY 417 (Main St). Go past the next light, go one more block and turn right onto Maple St. At the end of Maple Street, turn left on Lillibridge Road. The Center is located approximately 4.0 miles up Lillibridge Road.

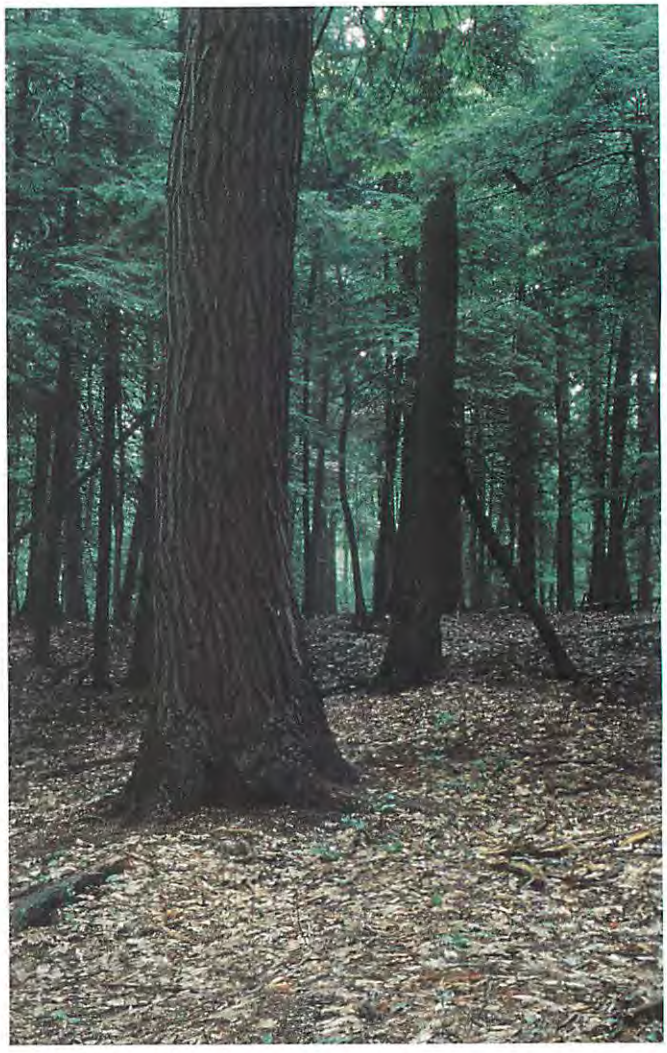


Photo by Barbara Kubiak.

From the west: From exit 26 (Olean) off I-86, take NY 16 south into downtown Olean, NY and proceed to NY 417 (State St). Turn left onto NY 417 (State St) and proceed approximately 6.0 miles to Maple St in Portville. Maple St is just past the town park. Turn left onto Maple St and proceed to its end. At the end of Maple St, turn left on Lillibridge Road. The Center is located approximately 4.0 miles up Lillibridge Road. The last half mile is a dirt road. The sign is on the right.

Massive outcrop of conglomerate bedrock at Rimrock Overlook. Photo by Mark Baldwin.

Rimrock Overlook

U.S. Forest Service

What
Huge sandstone-conglomerate outcrop on a high forested ridge

Where
Above the Allegheny Reservoir, near the mouth of Kinzua Creek in Mead Township, Warren County, PA

USGS Quadrangle(s):
Cornplanter Bridge

Why
Geology studies, botanizing, birdwatching

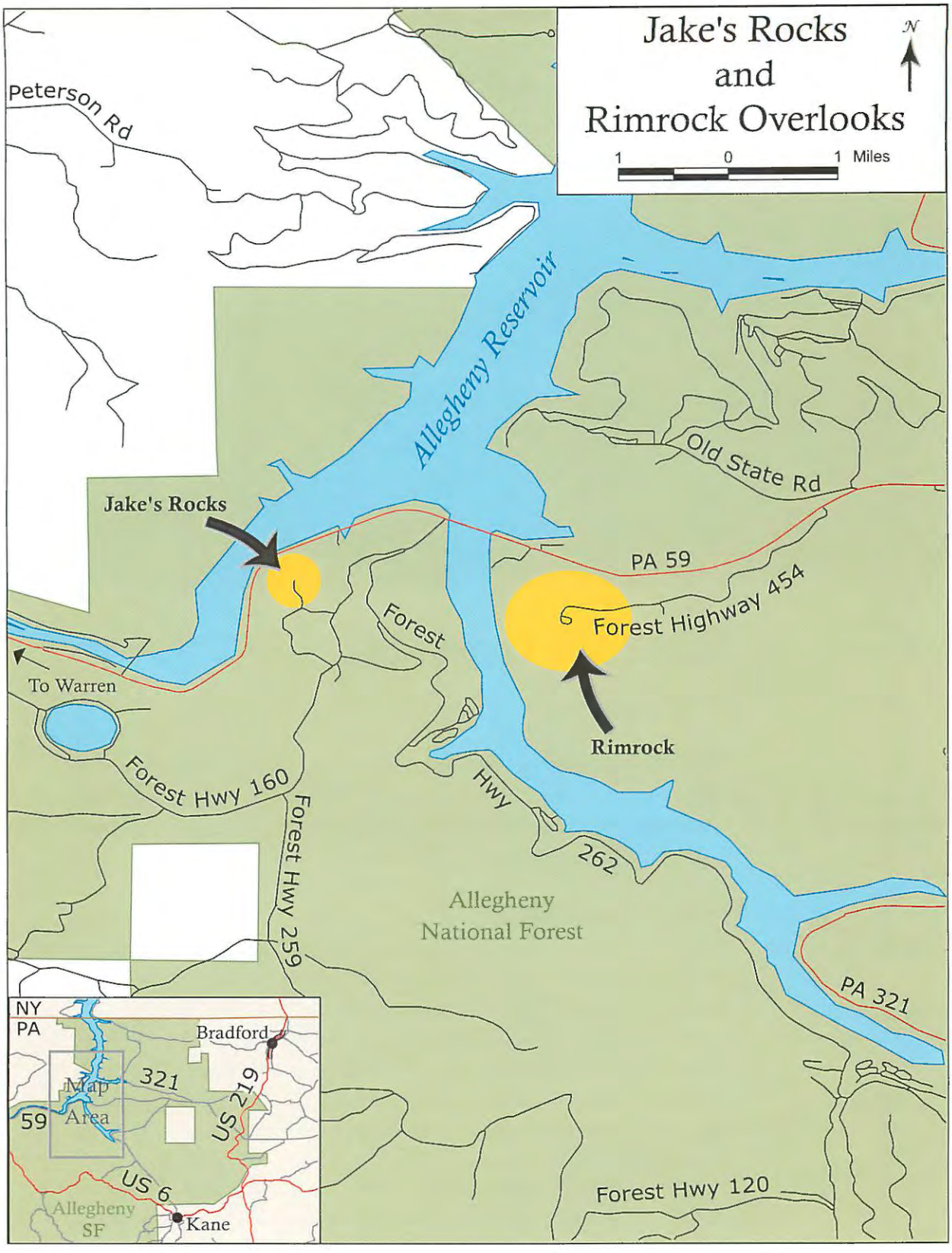
Rimrock is one of the most spectacular overlooks in the region, featuring a huge rock city bedrock formation. The property is laced with trails and well-worn passages among the rocks. The overlook area is protected with railings along the designated walkways.

Natural History Interest

If you approach Rimrock Overlook from the Wolf Run-Kinzua Beach area along PA Route 59, notice the roadcut with its layers of shale (thinner, more easily eroded) and siltstone (thicker, jutting out and more resistant). The road continues to take you higher as you go briefly into McKean County and turn onto the 2.6 mile access road, backtracking toward Kinzua Bay. By the time you reach the overlook you are 700 feet above the reservoir. Along the access road you will notice the capstone conglomerate bedrock on which the overlook rests.

The view from Rimrock is breathtaking. Kinzua Bay, formed when the Kinzua Dam flooded the mouth of Kinzua Creek at the Allegheny River, dominates the landscape directly below. Deep valleys and ridges that top 2,000 feer in elevation stretch out to the edge of the flat horizon of the Allegheny Plateau.

The rocks are composed of sandstone-conglomerate, formed from the deposition of river-washed sand and quartz pebbles along the edge of the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Old State Rd
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To Warren
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Hwy 262
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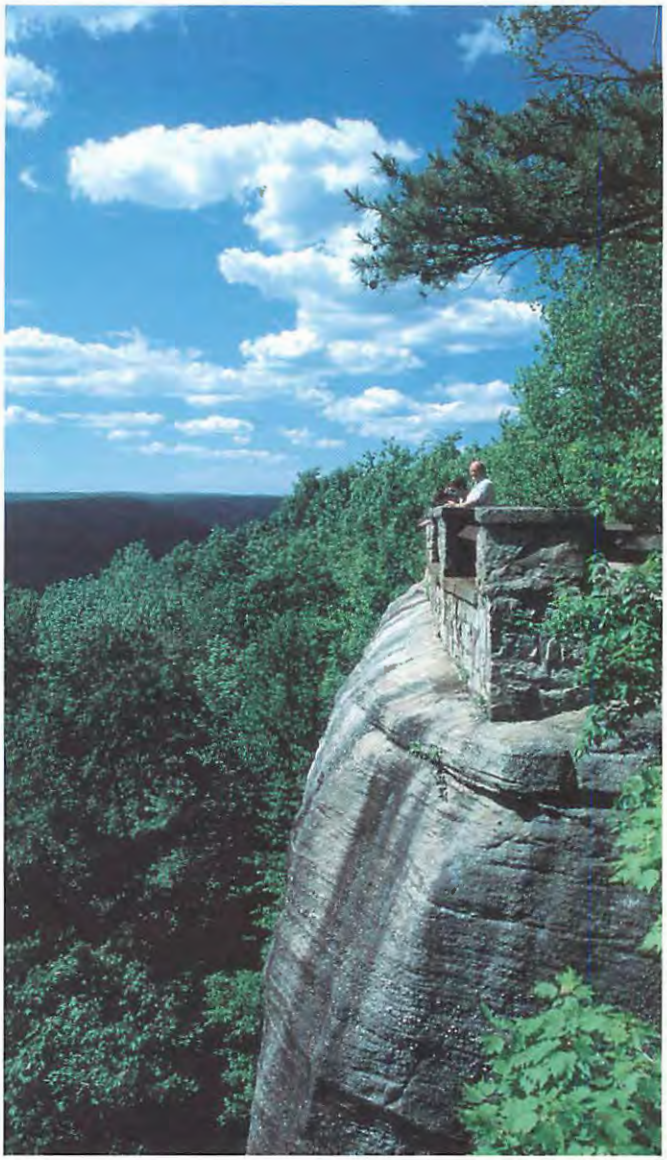
ancient sea, the waves of which washed over this place 350 million years ago. A high vertical rock face juts out beneath the overlook. The rock is cracked and fissured with narrow passageways, out of which pour cold air for a pleasing sensation on a warm day. Pieces of bedrock have broken off the caprock formation and crept or tumbled down the slope to create a fantastic jumble.

The ecotype here is Oak-Hickory Forest. White Oak, Northern Red Oak, and Chestnut Oak are abundant. Yellow Birch and Sourgum, also known as Yellow Gum or Upland Tupelo, commonly mix in. Bigtooth Aspen grow on the sunny, rocky edge at the top of the overlook. The understory has great expanses of Mountain Laurel, making a visit here during their mid- to late-June blossoming time a special treat. Other members of the heath family (*Ericaceae*) in the understory include hucklebetry and Wintergreen. Trailing Arbutus is also present here on the forest floor at the base of the cliff, but the overlook may not open for the season until after it has flowered. Triangle Grape Fern grows among rotting logs below the base of the cliff.

From the overlook the visitor has the unusual experience of looking out over the top of a mature forest. You may have the treat of looking down at a flock of Cedar Waxwings or some other birds that frequent the top layers of the canopy.

Bird watching from the overlook may yield raptors such as Bald Eagle or Osprey hunting in the valley below or soaring Common Raven. Birds observed here during the breeding season include Yellow-bellied Sapsucker, Hermit Thrush, Red-eyed Vireo, Blue-headed Vireo, Cedar Waxwing, Dark-eyed Junco, American Redstart, Black-throated Green Warbler, and Scarlet Tanager.



Rock face at Rimrock with the Allegheny Plateau stretching to the horizon. Photo by Barbara Kubiak.

Other Notes

The Rimrock Overlook bas a large parking area, picnic tables, and restroom facilities. For information about Rimrock or other Allegheny National Forest sites contact the Sheffield Ranger District Office of rhe U.S. Forest Service, US 6, Sheffield, PA 16347; Tel: 814–968–3232.

How to Get There

Rimrock Overlook is located at the southern end of the Allegheny Reservoir just below PA 59.

From US 6 heading east out of Warren, PA, turn east (left) onto PA 59. Proceed on PA 59 approximately 13 miles to Forest Hwy 454. This road is approximately 2.2 miles past the Cornplanter Bridge over Kinzua Creek. Turn right onto Forest Hwy 454 and follow it to Rimrock Overlook at its end.

Huge blocks of sandstone conglomerate tower among trees at Little Rock City. Photo by Ryan Butryn.

Rock City State Forest

New York State Department of Environmental Conservation

What
Hardwood forests and a large "rock city" conglomerate outcrop

Where
Towns of Great Valley and Little Valley, Cattaraugus County, NY, north of Salamanca and south of Ellicottville

USGS Quadrangle(s):
Ellicottville, Salamanca

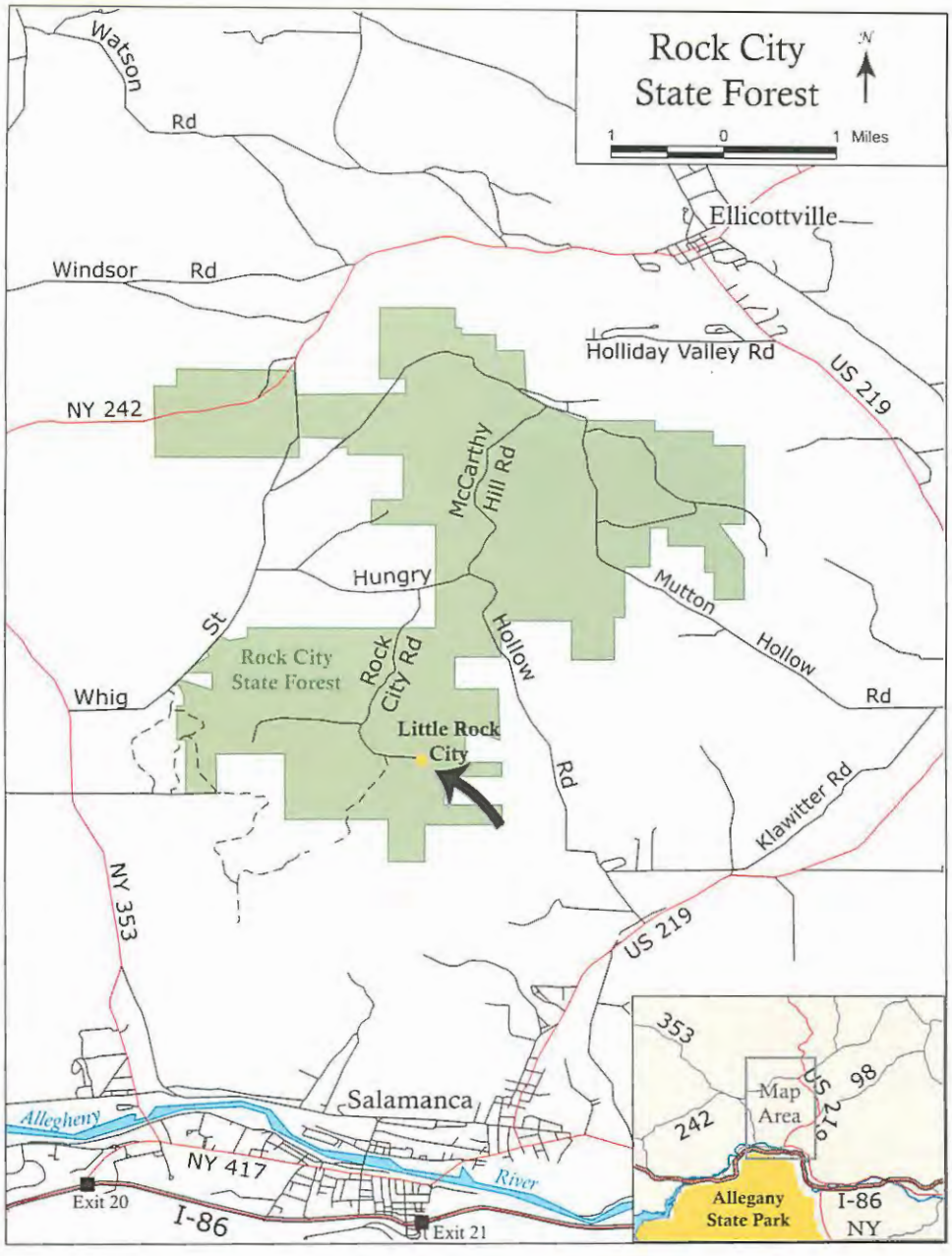
Why
Geology, botanizing, bird watching

Rock City State Forest comprises 6,015 acres of forest land north of the City of Salamanca in Cattaraugus County, NY. To the north the site borders the Holimont and Holiday Valley Ski Areas, south of Ellicottville.

Natural History Interest

Stands of pine and spruce, which need direct sunlight to thrive, were planted in farm fields here during the 1930's. They have since been managed by a series of thinnings to encourage the growth of native hardwood seedlings and a final harvest to allow the hardwoods to grow to maturity. Stands of hardwood forest at Rock City include Black Cherry, Yellow Birch, Sugar Maple, White Ash, Northern Red Oak, and White Oak. Most of the very large oak, ash and cherry trees are less than 100 years old. These fast-growing trees are harvested for high-quality wood for furniture.

As you enter Rock City State Forest, either from Little Valley to the west or Great Valley to the east, you go from a glacial sediment-filled valley up onto a ridge that was above the reach of the glacier. Soils here are termed "residual," meaning that they are composed of "parent" material derived from the underlying bedrock, rather than from glacially deposited material. Therefore these ridge-top soils are millions of years old, as opposed to the newer 15,000 year-old soils in the surrounding valleys. Much of the forest lies at elevations exceeding 2,000 feet, providing a cool, moist habitat for



Striped Maple or Moosewood, an unusual forest tree in our region.

The wooded highlands here are inhabited by a variety of vireos and warblers including Blue-headed and Red-eyed Vireo, Black-throated Blue Warbler, Black-throated Green Warbler, Ovenbird, American Redstart, Hooded Warbler, and Blackburnian Warbler. Ruffed Grouse, Hermit Thrush, Veery, Rose-breasted Grosbeak, Brown Creeper, and Winter Wren are among other birds that breed here. Raptors include Red-tailed Hawk, Red-shouldered Hawk, Northern Goshawk, and Sharp-shinned Hawk. Common Raven have been seen as well.

The highlight of a trip to Rock City State Forest is Little Rock City, a natural outcrop of conglomerate rock in the unglaciated plateau. House-sized blocks of conglomerate jut out from the edge of the plateau and lie scattered down-slope amid the trees. It is a treat to explore the area during the summer as the alleys and passageways between rocks are cool and shady. Rocks are covered with a host of lower plants including mosses, lichens, and ferns, including Common Polypody in abundance. On the forest floor around the rocks are colonies of Stiff Clubmoss.

A narrow "alley" invites exploration at Little Rock City. Photo by Victor Anderson.

The early spring visitor may find blossoming Trailing Arbutus. Clintonia is very common and forms a dense groundcover in many places. Common Wood-sorrel, with its pink and white candy-striped blossoms, is also abundant. Blossoming Round-leaved Orchis welcomes the observant visitor in July, around the same time that ghostly white Indian Pipes are poking through the duff. Hobblebush, so called because of how it would trip up a horse walking through it, grows in low thickets among rocks scattered over the forest floor.

Other Notes

The area was the site of many projects carried out by the Civilian Conservation Corps (CCC). CCC Camp Seneca operated in the area from 1935 to 1941. Corpsmen constructed roads, trails, and fire lanes, and planted hundreds of thousands of trees, including experimental plantations of walnut, Black Cherry, Tuliptree, oak, pine, and Norway Spruce. The stone-lined walkways to the barracks are still visible and a few have been restored. Norway Spruce seedlings planted along the walkways are over 60 years old now. Today Camp Seneca is an attractive recreational site with picnic tables and a hiking trail through hardwood forests and spruce and pine plantations. A pavilion with four tables, additional tables, and other improvements have been made. A loop hiking trail that starts and ends at Camp Seneca, and a trail also connects Camp Seneca and Little Rock City.

At Little Rock City there is a nature trail that loops through some of the more impressive rocks. There is a turn around and parking area, along with four single table picnic/camping sites with concrete slabs, and pavilion-type covets. There is currently a satellite-type outhouse.

Several hiking and bike trails access the forest, which in turn intersect public and forest roads. In addition to the DEC-maintained trails, a portion of the Finger Lakes Trail/North Country Scenic Trail passes through the site.

How To Get There

Rock City State Forest is located north of Salamanca, NY; southwest of Ellicottville, NY; and southeast of Little Valley, NY.

From exit 20 (Salamanca) off I-86, go east on NY 417 (Main St.) in Salamanca to NY 353. Turn left onto NY 353 and proceed approximately 4.1 miles to Whig St. Turn right onto Whig St and proceed approximately 2.3 miles to Hungry Hollow Rd. Turn right onto Hungry Hollow Rd and continue approximately 1.5 miles to Rock City Rd. Turn right onto Rock City Rd and take it to its end, where Little Rock City is located. Other roads, such as McCarthy Hill Rd and Mutton Hollow Rd also provide access to the forest.

Wetland at Zaepfel Nature Sanctuary.
Photo by Ryan Butryn.

James A. Zaepfel Nature Sanctuary and Research Center

Cattaraugus Local Development Corporation

What
Forests and wetlands

Where
Between the Villages of Randolph and Little Valley in Napoli Township, Cattaraugus County, NY

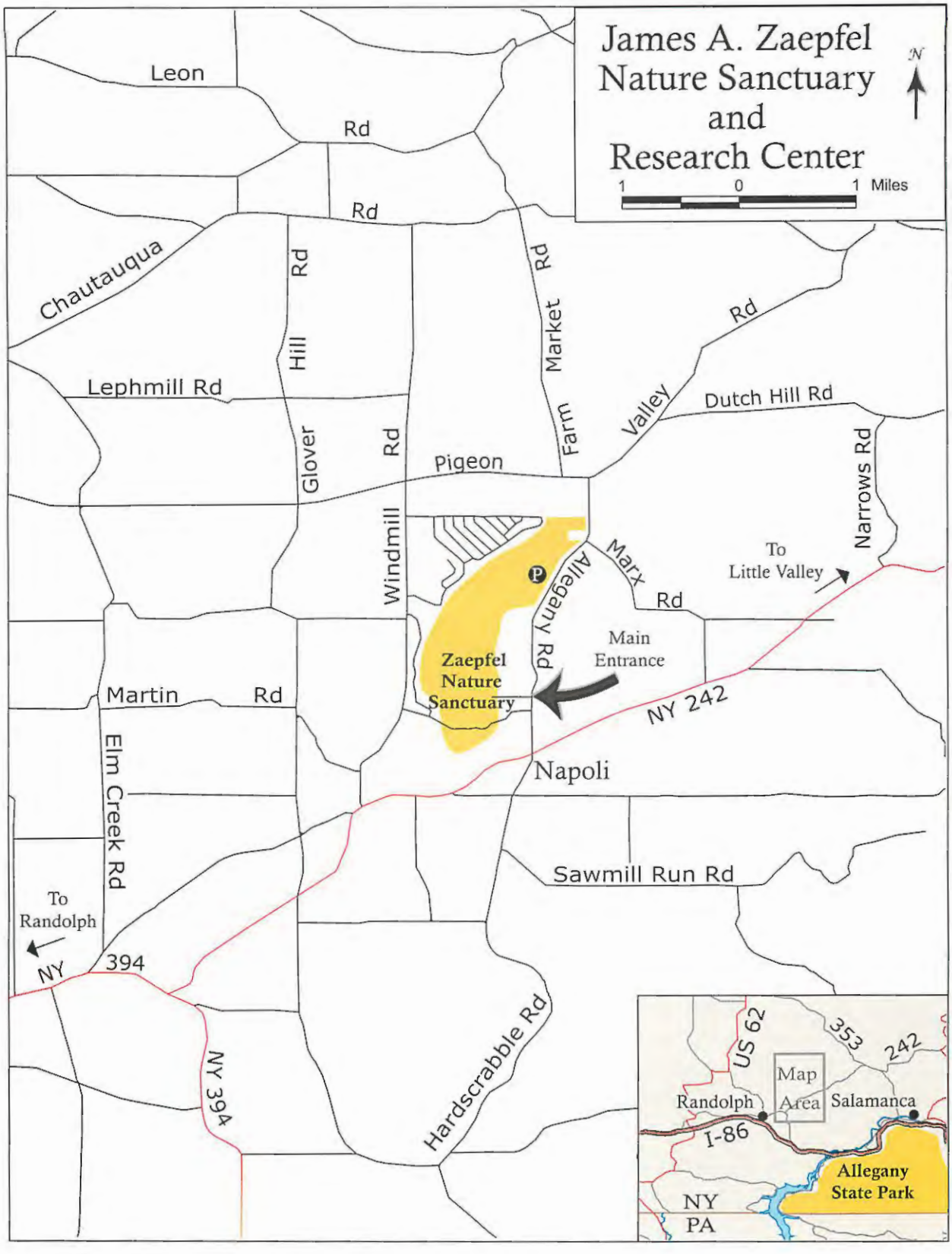
USGS Quadrangle(s):
Randolph

Why
Birding and wildlife watching; scientific research

Zaepfel Nature Sanctuary consists of 500 acres, including 342 acres of wetland, near the Village of Napoli, NY. The Zaepfel Sanctuary is located a few miles to the south of Allenberg Bog, a large parcel of undisturbed wetland owned by the Buffalo Audubon Society. Together they comprise one of the wildest and most ecologically significant places in the region.

Natural History Interest

The wetland that constitutes most of the Zaepfel Nature Sanctuary had its beginning as the ice of the Wisconsin glacier melted off the hills and valleys of what is now southwestern Cattaraugus County approximately 15,000 years ago. The furthest extent of the Wisconsin Glacier at this point was only a few miles south of this wetland, marked by the mass of glacial debris known as the Kent terminal moraine. It was this dam of debris that was in part responsible for turning the ancestral Allegheny River's course from northwest to southwest, the direction it flows today. After the glacier receded for the last time, a lake occupied the site which underwent succession into the wetland that can be observed here today. Wetlands support a greater abundance and diversity of living things than any other terrestrial habitat, and the emergent marshes, shrub wetlands and beaver ponds at Zaepfel Nature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Dutch Hill Rd
Narrows Rd
Pigeon
Windmill
Allegany Rd
Marx Rd
To Little Valley
Main Entrance
Zaepfel Nature Sanctuary
Martin Rd
NY 242
Napoli
Elm Creek Rd
Sawmill Run Rd
To Randolph
NY 394
NY 394
Hardscrabble Rd
US 62
353
242
Map Area
Randolph
Salamanca
I-86
Allegany State Park
NY
PA

Photo by Ryan Butryn.

Sanctuary are no exception. The site is the subject of an extensive survey of its ecology conducted by biologist Richard White.

More than 100 species of birds have been documented in the wetland and upland habitats so far, including Northern Harrier, Red-shouldered Hawk, Osprey and Bald Eagle. A breeding bird study, part of the national Monitoring Avian Productivity and Survivability (MAPS) program, is being conducted in a Northern Arrowwood shrub community on the property. Some of the birds that have been caught, banded, and released as part of this study include Alder Flycatcher, American Redstart, Common Yellowthroat, Nashville Warbler, and Gray Catbird. Beaver, Mink, Muskrat, Eastern Coyote, White-tailed Deer, and Black Bear are among the mammals that inhabit the property. River Otter tracks have also been seen.

The wetland is also remarkable for what it lacks: purple loosestrife and phragmites, both of which are native European plants that have become invasive weeds in wetlands in many parts of the United States.

Other Notes

The Zaepfel Nature Sanctuary was a gift of James A. Zaepfel to the Cattaraugus Local Development Corporation, which is purchasing a permanent easement on the property through the Wetland Reserve Program. This will prevent the property from ever being developed.

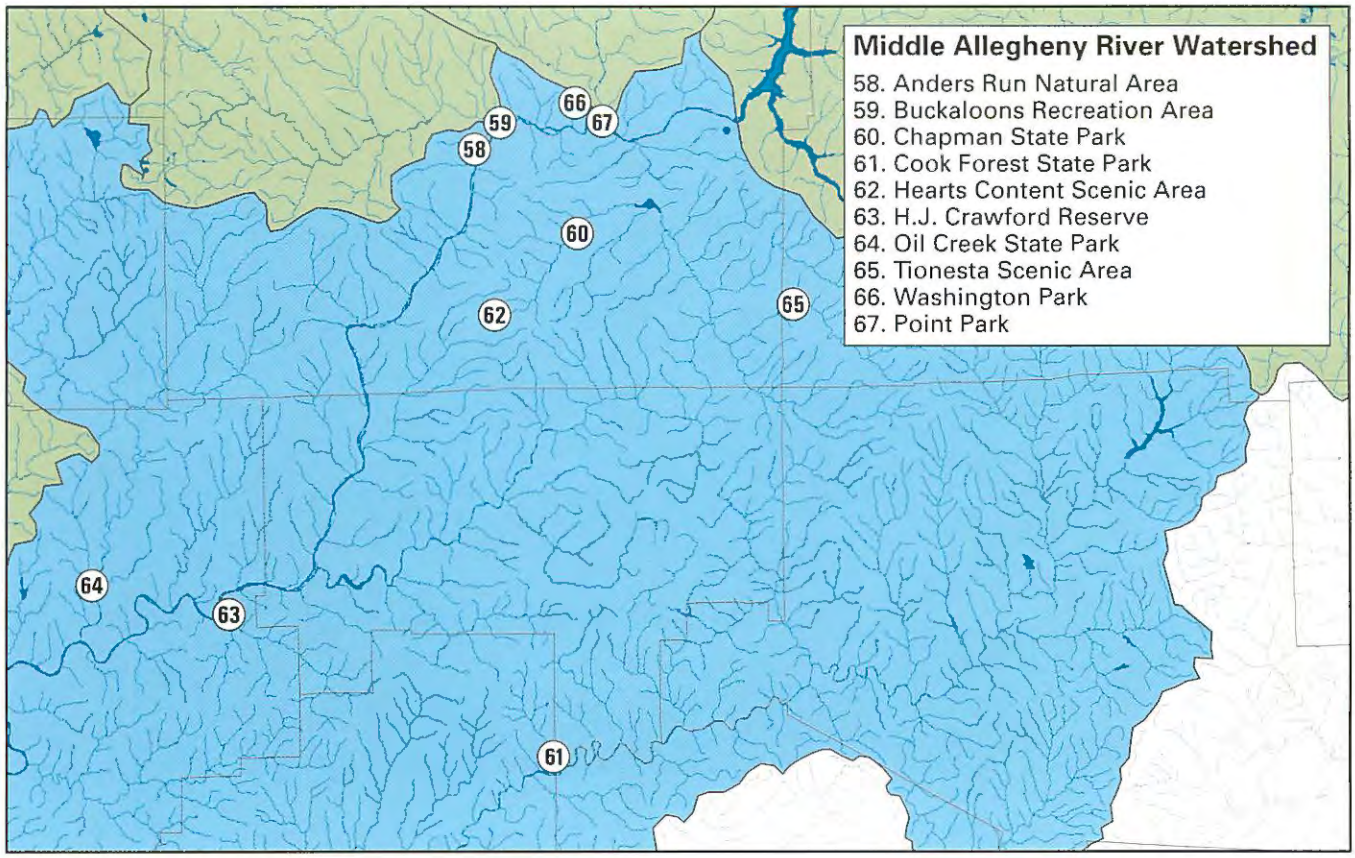
Plans for the site include construction of a welcome center; an indigenous grass restoration project; a nest box program for Purple Martins, Wood Ducks, Eastern Screech Owls, American Kestrels, and Great Crested Flycatchers; a breeding program for Pere David deer, an endangered species indigenous to Asia; a turtle breeding pond; a wetland sewage treatment demonstration project; rental cabins; and a group camping area.

For information about the sanctuary contact CLDC at P.O. Box 1, Cattaraugus, NY 14719; Tel: 716–257–3237.

How To Get There

The James A. Zaepfel Nature Sanctuary is located northeast of Randolph and northwest of Salamanca, NY.

From exit 16 (Randolph) off I-86, take NY 394 east through Randolph and East Randolph. Approximately 6.5 miles from exit 16, turn left off NY 394 onto NY 242 and proceed approximately 3.3 miles to Allegany Rd in Napoli. Turn left onto Allegany Rd and proceed approximately 0.5 mile to a small grassy parking lot on the left side of the road just past the bridge. There is no sign to draw your attention to this parking area. More definite ways for the public to access this property are in the works.



Middle Allegheny River Watershed

From one of the overlooks perched high on the plateau, the middle Allegheny River in summer appears as a blue ribbon hemmed on either side with green. Its tight course at the foot of steep valley walls contrasts sharply with the creeks that crazily meander over the buried valleys to the north.

People have valued the river for travel and subsistence for thousands of years. Indians built villages at Buckaloons at the mouth of the Brokenstraw and at Kanaougan at the mouth of the Conewango in present-day Warren, Pennsylvania. The French and English, both with an eye to controlling the North American fur trade, viewed this valley as pivotal to the acquisition of economic and political power. The British victory in the French and Indian War set the stage for conflict with American settlers. The only Revolutionary War skirmish in the region took place at Thompson's Island, a few miles south of Buckaloons.

Since its banks were settled by land-grant pioneers in the late 1700's, the valley of the Allegheny has been regarded as a source of livelihood and income. For more than 200 years the surrounding valleys have supplied timber, from white pine for ship's masts to black cherry for fine furniture. The river and its tributaries suffered and recovered from the boom and bust of the oil industry's early days.

Today this great watershed remains the focal point of controversy concerning the balance between human economic interests and the integrity of a vast, complex, and changing ecosystem.

Footbridge over Anders Run.
Photo by Ryan Butryn.

Anders Run Natural Area

Commonwealth of Pennsylvania

What
Old growth white pine and hemlock forest in a hollow along a tributary of the Allegheny River

Where
Brokenstraw Township, Warren County, PA, off US Route 62, southeast of Youngsville, PA

USGS Quadrangle(s):
Youngsville

Why
Old growth forest, wildflowers

Anders Run Natural Area consists of 96 acres along Anders Run, a tributary of the Allegheny River, about one mile south of Old Route 6 at Irvine. The property contains some of the finest old-growth white pine and hemlock forest left in Pennsylvania.

Natural History Interest

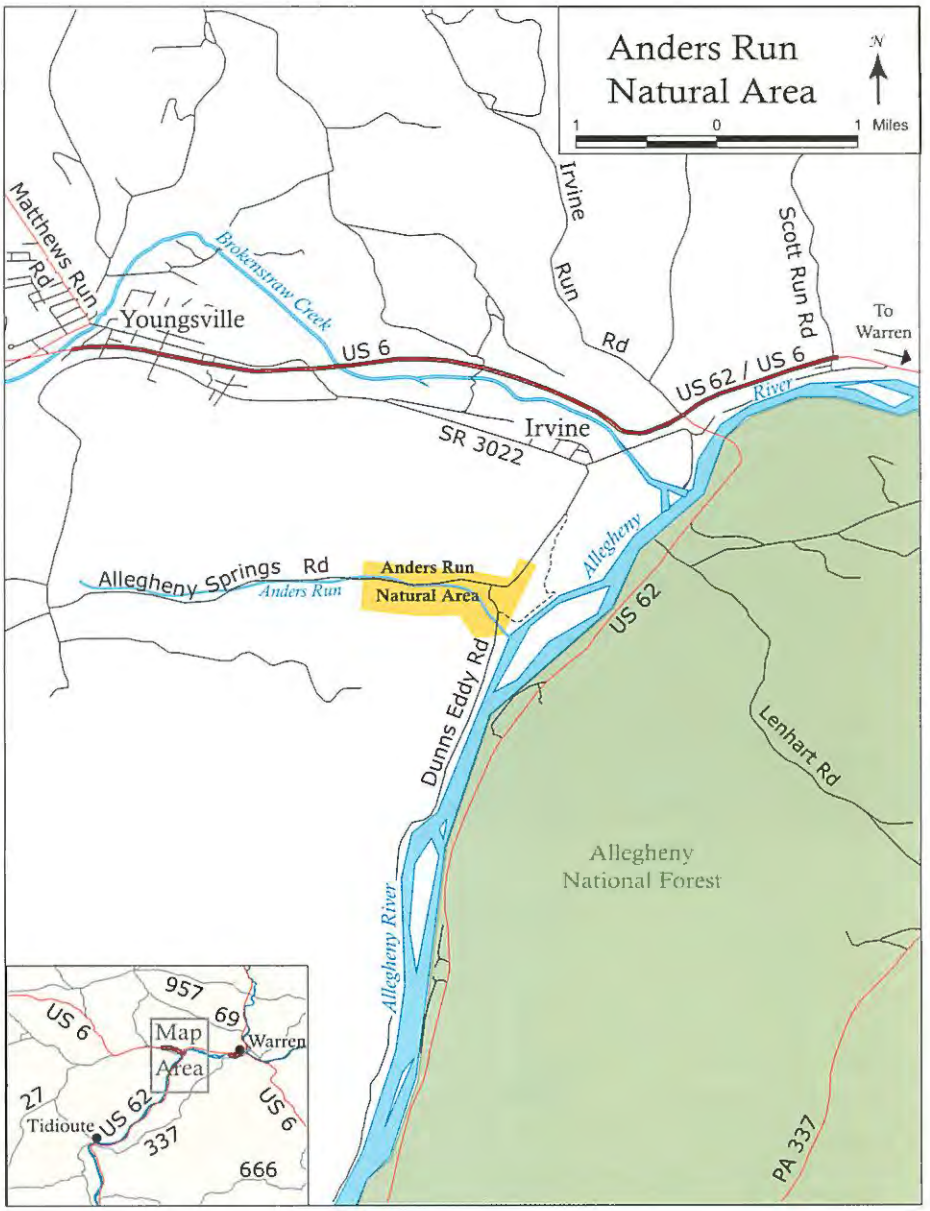
A "run" is a regional term meaning a small stream or tributary, usually in a deep, steep-walled valley. What makes this run special is the stand of very large, vigorous trees that inhabits the valley, Eastern White Pine and Eastern Hemlock with great, buttressed roots and thick, corky bark, soaring straight to a height of perhaps 75 feet before the first branch. The visitor who is familiar with the old growth preserves at Hearts Content and Tionesta Scenic Areas could easily imagine these trees to be the same age, as old as 400–500 years. But history tells a different story about this tract.

All of the accessible woodlands along the Allegheny River, including Anders Run, were logged by the early 19th century. In contrast to other second-growth timber, however, the forest that regenerated at Anders Run was spared the axe by its owner, Revolutionary War General Irvine, and was left to grow into the mature old growth forest that can be seen here today. The big trees are up to four feet in diameter and 130 feet in height. Foresters have counted up to 220 growth rings on trees that have blown down on the tract.

Many wildflowers can be found, such as trillium, Clintonia, Partridgeberry, Dewdrop, May-apple, Barren Strawberry, White Baneberry, Canada Mayflower, Wild Oats, Foamflower, and Indian Pipes. Ferns also abound, especially Christmas Fern, Spinulose Wood Fern, and New York Fern. Maidenhair Fern is present as well.

Other Notes

Roads border and bisect the property, making it easy to get to. There are three parking areas. Many large white pine trees are visible along the Allegheny Springs Road. The property is also traversed by a network of trails, totaling 1.75 miles, through groves of large trees, interesting geological features and along the stream. There are no restroom facilities at the site. Guided tours are available from 8 a.m. to 4 p.m. by contacting the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry, 323 N. State St., North Warren, PA, 16365; Tel: 814–723–0262.



How to Get There

Anders Run Natural Area is located between Warren and Youngsville, PA, near the intersection of US 6 and US 62. At this intersection, marked for Buckaloons Recreation Area, take the first right onto SR 3022. Go approx. 1.0 mile, passing Buckaloons and the North East Forest Experiment Station, to Dunns Eddy Rd (T422). Turn left here and proceed approximately 0.5 mile to Anders Run. Parking is available on the right side of Dunns Eddy Rd and along Allegheny Springs Rd (T435).

A mile-long trail leads visitors through the rich floodplain forest at Buckaloons. Photo by Emily Porter.

Buckaloons Recreation Area

U.S. Forest Service

What
Riverine forests and open areas along the confluence of Brokenstraw Creek and the Allegheny River

Where
In the southeast corner of Brokenstraw Township in Warren County, Pennsylvania, near the intersection of U.S. Routes 6 and 62

USGS Quadrangle(s):
Youngsville

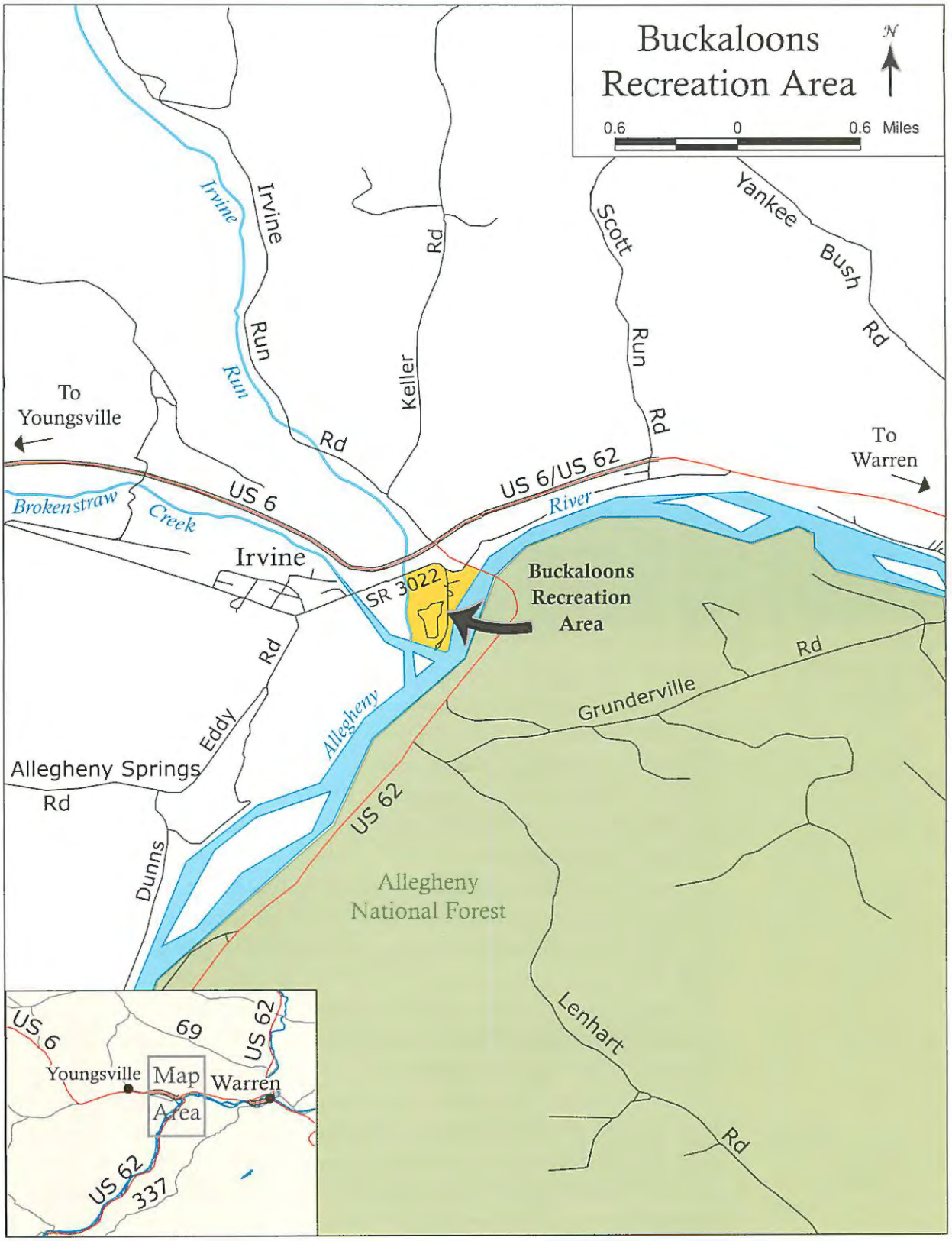
Why
Birding, botanizing

Buckaloons Recreation Area is a popular picnicking, camping, and fishing site, with boat access to the Allegheny River. A trail along the perimeter of the tract allows access to the river shoreline and to wetlands with tributary streams.

Natural History Interest

Buckaloons provides an outstanding and accessible example of Northern Riverine (river bottomland or floodplain) Forest. Tall, stately Eastern Sycamore trees are abundant and are joined by other very large specimens of trees near where Brokenstraw Creek adds its flow to the Allegheny River. They include Northern Red Oak, Black Cherry, Shagbark Hickory, American Basswood, and White Ash. Virginia Creeper and Poison Ivy grow in lush vines among the trees. Hawthorn and Blue Beech are present in the understory. The forest floor has many wildflowers and ferns of interest, such as Ostrich Fern, Virginia Waterleaf, Jack-in-the-Pulpit, and Great Solomon's Seal.

Black-capped Chickadees and White-breasted Nuthatches are common foragers in winter at Buckaloons, and they have become so used to human presence that they will commonly come to the hand to feed. A walk during


Buckaloons Recreation Area
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Irvine Run
Irvine Run Rd
Keller Rd
Scott Run Rd
Yankee Bush Rd
To Youngsville
To Warren
US 6
US 6/US 62
Brokenstraw Creek
Allegheny River
Irvine
SR 3022
Buckaloons Recreation Area
Eddy Rd
Allegheny Springs Rd
Dunns
Grunderville Rd
US 62
Allegheny National Forest
Lenhart Rd
US 6
69
US 62
Youngsville
Map Area
Warren
US 62
337

Late evening on the Brokenstraw at Buckaloons. Photo by Emily Porter.

breeding season may produce Cedar Waxwings, Northern Cardinal, American Redstart, Eastern Phoebe, Common Grackle, Red-winged Blackbird, Indigo Bunting, American Goldfinch, Baltimore Oriole, Red-eyed Vireo, and Belted Kingfisher.

Beaver activity is in evidence along the shoreline where gnawed stumps and large trees are in the process of being toppled.

Buckaloons is an access point for canoeing the Allegheny River Island Wilderness, which lies in the stretch of the River between Buckaloons and Tionesta. The Wilderness consists of seven islands that were formed from river-carried sand, mud and clay that were originally deposited by the glacier, and still inhabited by some intact Northern Riverine forest including Eastern Sycamore, Silver Maple, and willow. Some of the river bottomland forests on these islands are old-growth, with many trees 3–4 feet in diameter.

Other Notes

For information on Buckaloons and the Allegheny River Island Wilderness contact the Sheffield Ranger District Office of the U.S. Forest Service, US 6, Sheffield, PA 16347; Tel: 814–968–3232.

How To Get There

Buckaloons Recreation Area is located near the intersection of US 6 and US 62 between Warren and Youngsville, PA. From US 6 take the Buckaloons exit, then take the first right onto SR 3022. This turn is marked for the Buckaloons Recreation Area. After turning onto SR 3022, take the first left into the Buckaloons Recreation Area.

West Branch of Tionesta Creek, above Chapman Dam. Photo by Patricia Spicer.

Chapman State Park

Pennsylvania Department of Conservation and Natural Resources

What
Forests, fields, wetlands, stream, reservoir

Where
Pleasant Township, Warren County, PA

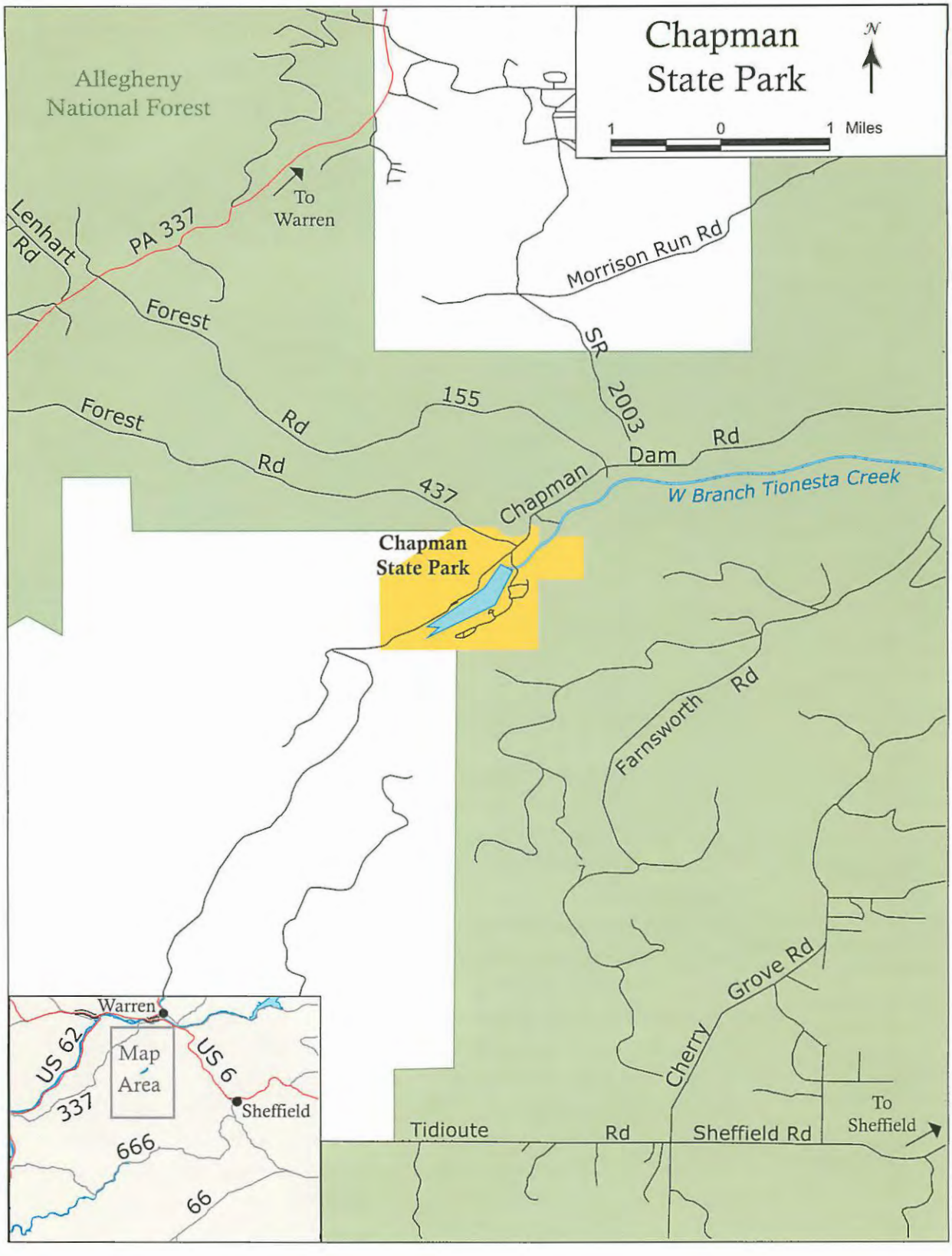
USGS Quadrangle(s):
Warren, Cherry Grove

Why
Birding, wildlife study

Chapman State Park consists of 805 acres located in Warren County, PA, near Clarendon off U.S. Route 6. It is adjacent to the Allegheny National Forest and State Game Lands No. 29. It includes a 68-acre lake on the West Branch of Tionesta Creek. Several hiking and cross country ski trails provide access for birding and wildlife study.

Natural History Interest

Chapman State Park lies in the scenic valley of the West Branch of Tionesta Creek. In contrast to the broad, U-shaped valleys 25 miles to the north, which are filled with ground-up rock deposited by the Wisconsin glacier, the valley here is V-shaped, with the Creek and a small reservoir filling the valley floor. The earliest records of an impoundment of the West Branch of Tionesta Creek at this site date back to approximately 1849 when it was known as Bucher Mill Log Pond. The present dam was constructed shortly after the first land for the park was purchased in 1949. The reservoir provides habitat for a variety of fish including Brook Trout, Brown Trout, Largemouth Bass, Bluegill, and Yellow Perch. Within the park and the surrounding National Forest and State Game Land streams provide good trout fishing.


Chapman
State Park
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W Branch Tionesta Creek
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Sheffield
Warren
US 62
Map
Area
US 6
337
Sheffield
666
66

The forested uplands and wetlands of the park are habitat for a variety of birds. Breeding birds include Blackburnian, Yellow, Black-throated Green, and Chestnut-sided Warblers, Common Yellowthroat, and Scarlet Tanager. Tree Swallows and Eastern Bluebirds utilize a nest box trail in the park. It is not uncommon to view Osprey fishing over the reservoir.

Mammals commonly sighted in the park include White-tailed Deer and Black Bear.

Other Notes

Chapman State Park has services for both day-use and overnight visitors. A park office is staffed to answer questions. The park has ample parking, picnic pavilions, play areas, food concessions, beach, boat rental, boat launch, ski and sledding hill with a warming hut, organized group tent camping area and family camping area. For more information contact PA DCNR, Chapman State Park, R.R. 2, Box 1610, Clarendon, PA 16313–9607; Tel: 814–723–0250; E-mail: Chapman.sp@al.dcnr.state.pa.us. For more general Pennsylvania state park information call 800–63–PARKS or visit www.dcnr.state.pa.us.

How To Get There

Chapman State Park is located just south of Warren, PA between US 6 and US 62.

From Warren, take US 6 east to Clarendon. At Clarendon take the Chapman Dam Rd to the right. Follow this road approximately 5.0 miles to the park entrance.

Swinging bridge over the West Branch. Photo by Patricia Spicer.

The Forest Cathedral embodies the awe-inspiring ancient forest of the Northeast. Photo by Anthony Cook.

Cook Forest State Park

Pennsylvania Department of Conservation and Natural Resources

What
Old growth forests, wetlands, streams, rock city along the Clarion River, a tributary of the Allegheny River

Where
Forest, Jefferson,Clarion Counties, Pennsylvania

USGS Quadrangle(s):
Tylersbug, Cooksburg, Lucinda, Marienville West

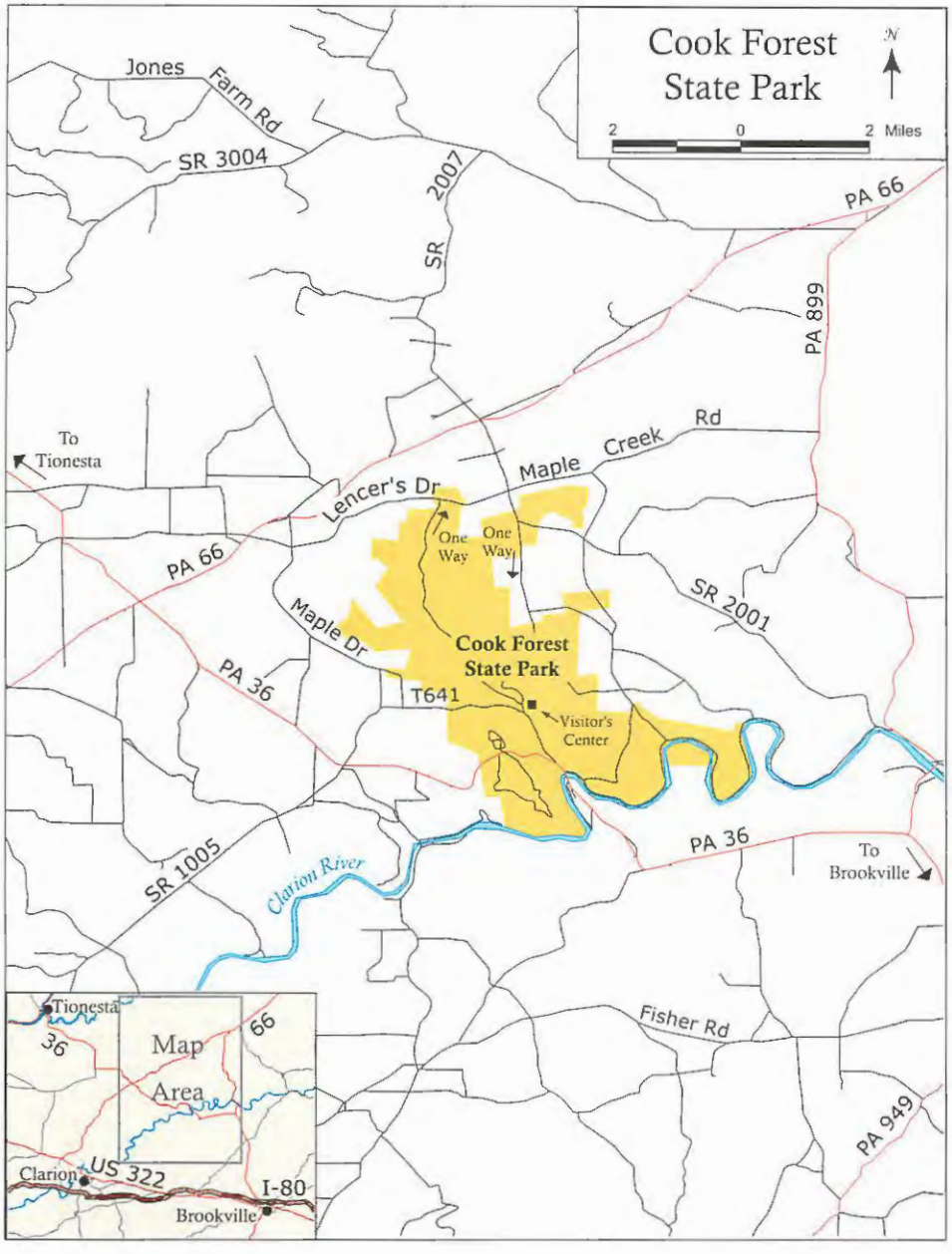
Why
Birding, wildlife watching, geology study

Cook Forest State Park encompasses over 7,000 acres, bordered on the southeast by the Clarion River, a popular site for flat water canoeing. The park is best known for its tracts of virgin Eastern White Pine and Eastern Hemlock trees, a stand of which has been designated a National Natural Landmark by the National Park Service.

Natural History Interest

Cook Forest State Park occupies a land of steep-sided valleys and ridges that typify the unglaciated Allegheny Plateau. Water has been the primary agent of erosion here, carving deep valleys out of coarse sandstone, siltstone and shale that formed from sea-floor sediments laid down 325 million years ago. At Seneca Point, sandstone conglomerate beds have fractured into massive blocks to form an outstanding rock city, with a spectacular view of the Clarion River valley below and the plateau ridges beyond. Visitors can climb an old 70-foot fire tower for an even better view.

It is believed that some of the existing virgin timber in the park began growth following a severe drought and forest fire in 1644. The Forest Cathedral is the most accessible and popular of three areas of old growth forest in the park. It is located behind the Log Cabin Inn Visitor's Center along Longfellow Trail. The stand of 350 year old Eastern White Pine and Eastern Hemlock provides perhaps the best place in the region to experience these



titans, some of which are nearly 200 feet tall and 4 feet in diameter.

Other old growth stands are the Swamp Area, in the extreme northeastern section of the park, around which the Baker Trail runs. The Seneca Area lies on the hillside northwest of the Clarion River and southeast of the Fire Tower Road. Trails leading through this area include Deer Park, Mohawk and Seneca. Along with white pine and hemlock, there are some large Pitch Pine nearly 300 years old. Damage from a July 11, 1976, tornado can also be seen here.

The park's forest contains the Pennsylvania state champion Eastern White Pine, the tallest documented white pine in the Northeastern United States and Canada, the state champion Eastern Hemlock, and the state co-champion Northern Red Oak.

The old growth forest ecosystem thrives on the standing dead snags and down timber on the forest floor. The process of decomposition carried out by weathering and the action of fungi, lichens, invertebrate animals and other micro-organisms, replenishes the nutrients of the soil upon which the ecosystem depends. Here soil is even created above the forest floor, as organic material accumulates on pine and hemlock branches and is acted upon by lichens and mosses that inhabit them.

The understory of some of these deep conifer forests contains beautiful stands of Mountain Laurel and Grear Rhododendron. Mountain Laurel usually blossoms during June, and Great Rhododendron during July. Seneca Point has an outstanding stand of rhododendron which forms dense thickets among the tremendous blocks of conglomerate.

A checklist of the birds of Cook Forest and Clear Creek State Parks is available. It was prepared from a list of sightings made by members of the Audubon Society of Western Pennsylvania. The list currently numbers 188 species. Occasional species include Common Loon, Long-tailed Duck, Osprey, Merlin, Stilt Sandpiper, Caspian Tern, Barn Owl, Red-bellied Woodpecker, Carolina Chickadee, Boreal Chickadee, and Northern Shrike. Rarities that have been observed include Little Blue Heron, Golden Eagle, Orange-

crowned Warbler, Yellow-throated Warbler, Hoary Redpoll, Lark Sparrow, and Henslow's Sparrow.

Other Notes

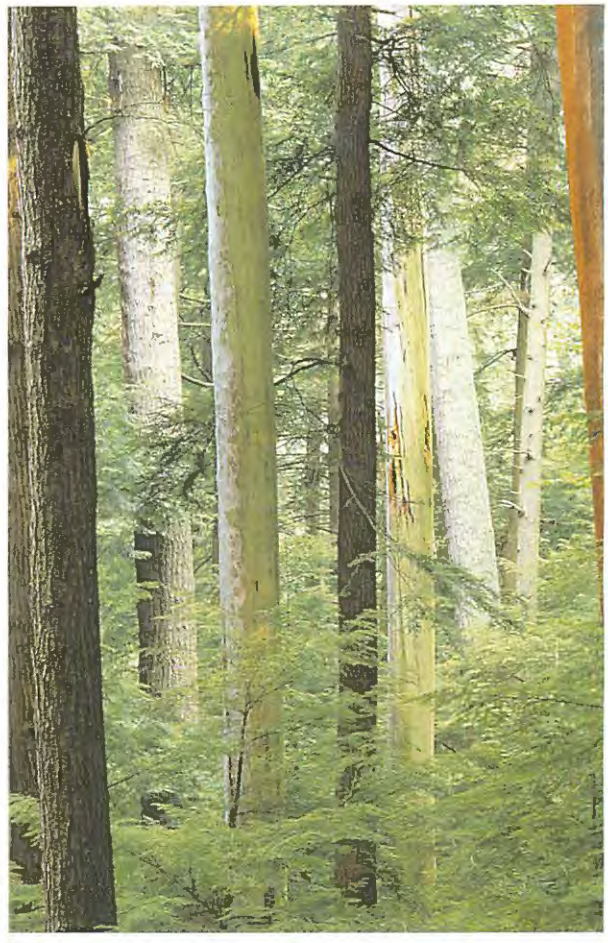
John Cook was the first permanent white settler, arriving in 1826. He and his descendants engaged in a series of successful commercial ventures that centered on the timber industry. In the 1920's the Cook Forest Association was formed, with the endorsement of conservation pioneer Governor Gifford Pinchot, in order to save the few remaining areas of surviving virgin timber. In 1927, with the help of the association, Cook Forest State Park became the first Pennsylvania State Park acquired to preserve a natural landmark when 6,055 acres were purchased from A. Cook Sons Company.

Today Cook Forest has a variety of programs and facilities for campers and day-visitors. A number of programs for school groups are also available. They include environmental education programs that focus on animal traces, energy flow, exploring plant communities, animal adaptations, and others, as well as tours and hikes that investigate Cook Forest's history and ecology.

A one-mile self-guiding nature trail near the sawmill provides information about the history of the Civilian Conservation Corps in Cook Forest. The park is laced with hiking and bicycle trails. The stretch of the Clarion River here is a National Wild and Scenic River, making it a popular destination for canoeists. Picnic areas with pavilion rentals are available. A historical center on the grounds orients the visitor to the rich human and natural history of the park. The park has a campground with 226 sites, along with rustic cabins and organized group campgrounds. For information or tour requests contact Cook Forest State Park, P.O. Box 120, Cooksburg, PA 16217; Tel: 814–744–8407; E-mail: cookforest@dcnr.stare.pa.us.

How to Get There

Cook Forest State Park is located northeast of Clarion and northwest of Brookville, PA. It is west of PA 899, southeast of PA 66, and mostly north of PA 36. PA 36 goes through the southern end of the park.



Nature's cycle of death and renewal in the climax forest. Photo by Anthony Cook.

From the northeast: Take PA 66 to PA 899 and then follow PA 899 south approximately 11.5 miles to its end at PA 36. Once here, take PA 36 north approximately 6.1 miles along the Clarion river to the park.

From the northwest: Take PA 36 directly to the park. By taking PA 36 south, you will enter the park approximately 6.6 miles beyond the PA 66 intersection.

From the southwest: Take PA 66 to PA 36. Once at PA 36, continue south approximately 6.6 miles to the park.

From the southeast: Take PA 36 north directly to the park. The park entrance is is on your right approximately 17 miles from I-80 exit 13 in Brookville.

Much of the forest floor at Hearts Content is carpeted with ferns. Photo by Jim Berry.

Hearts Content Scenic Area

U.S. Forest Service

What
Old growth, remnant timber stand with 300 – 400 year old white pine, hemlock and beech trees.

Where
Halfway between Warren and Tidioute on SR 2002, 3.6 miles east of SR 3005 in Watson Township, PA

USGS Quadrangle(s):
Cobham, Cherry Grove

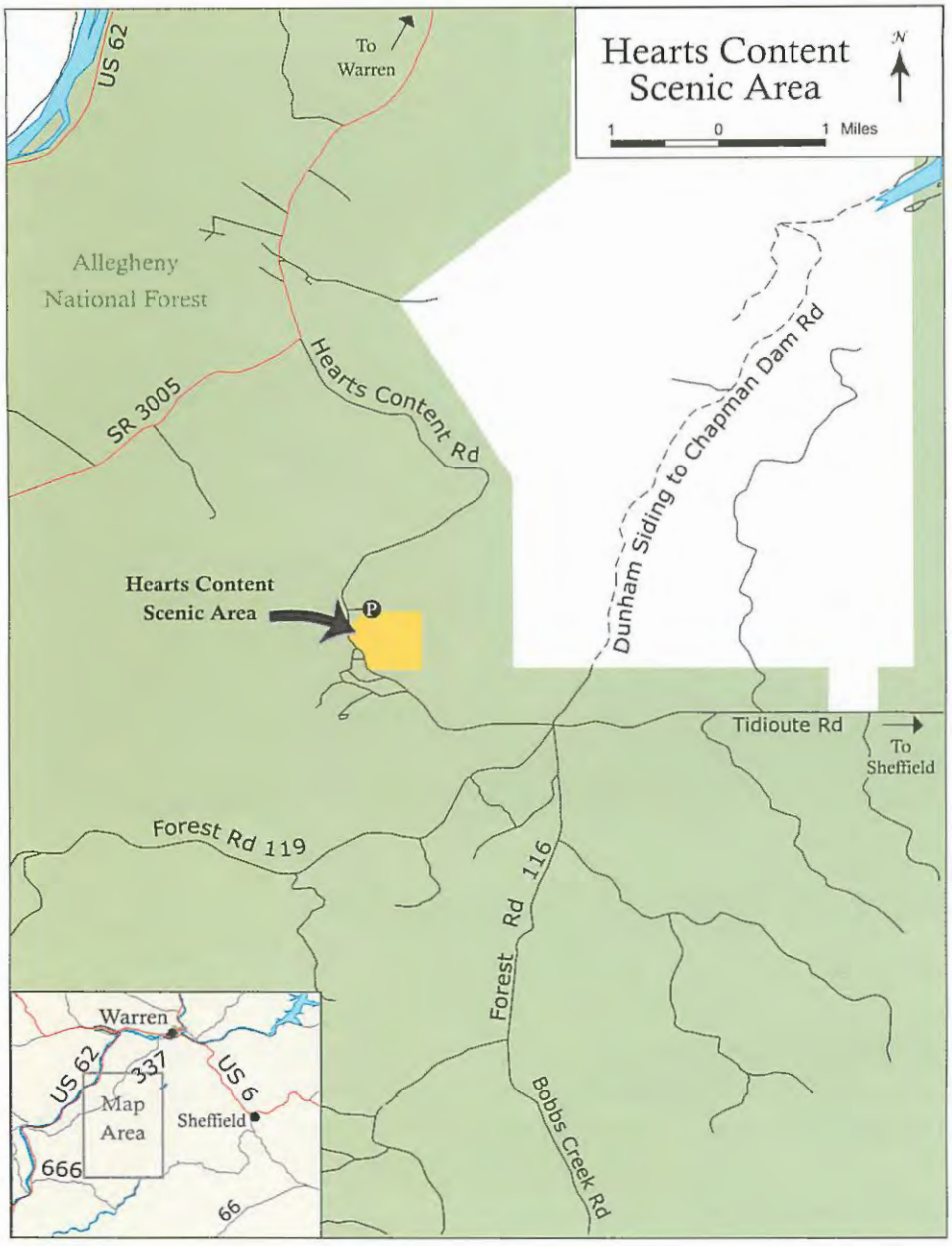
Why
Old growth forest succession, birding, spring wildflower study, and fall colors.

The 121-acre Hearts Content tract is one of the last remaining stands of virgin timber in Pennsylvania, with white pines over 160 feet high. One tree is believed to be over 500 years old.

Natural History Interest

Experiencing Hearts Content gives the visitor a feel for the magnitude of the adjacent half-million acres of Allegheny National Forest and the importance of conserving the immense forest resources of the United States.

The aging stand of American Beech, Eastern White Pine and Eastern Hemlock are older than the founding of the United States. Many of the trees are over 150 feet tall. Nothing in nature remains the same though. Even this well protected forest tract is undergoing major changes due to beech bark scale disease (see explanation in Tionesta Scenic Area description), over browsing of understory trees by White-tailed Deer, and the effects of lightning and wind. Look and listen for these birds: Common Raven, Black-throated Blue Warblers, Blue-headed Vireos and White-breasted Nuthatches. Also watch for these mammals or their signs: White-tailed Deer, Black Bear, Eastern Chipmunk and Eastern Gray Squirrel.



Hearts Content Scenic Interpretive Trail takes you about one mile through the old growth timber stand. Facilities include hiking and cross-country ski trails, family and group camping sites (no reservations), picnicking, water, and toilets. All day-use facilities are universally accessible for people with disabilities.

Civilian Conservation Corps (CCC) workers constructed the campground, picnic area, and pavilion in 1936. An exhibit of a hand-hewn log is adjacent to the picnic area.

Hickory Creek Wilderness is adjacent to the campground. This 8,663 acre area is replete with solitude, serenity and wildlife; no motorized equipment of any kind is permitted. An 11 mile loop hiking trail weaves its way through the rolling terrain, climbing in and out of the valleys.

How To Get There

From the north: Going South into Warren, follow US 62 to Hickory Street. The Hickory Street Bridge takes you across the Allegheny River. Once across the river, take your first right onto St. Claire St. Travel a few blocks then turn left onto Main Ave and take it until it ends at Pleasant Dr. Turn right on Pleasant Dr, also known as PA 3005. Drive for 10.5 miles then turn left on PA 2002 known as Hearts Content Rd. Travel for 3.6 miles to the Hearts Content Scenic Area on the left.

Other Notes

In 1922 the Wheeler and Dusenbury Lumber Company, a pioneer concern, sold about two-thirds of its last timberlands to the United States and gifted an additional twenty acres of virgin white pine, hemlock and hardwoods "as a memorial to three generations of the families connected with the company." In 1929 the U.S. Forest Service augmented the gift with the purchase of an additional 100 acres of virgin timber from the company. The purchases and the gift are part of the 513,000 acres comprising the Allegheny National Forest.

Summer sun breaks through pools and riffles on Porcupine Run. Photo by Mark Baldwin.

H.J. Crawford Reserve

Chagrin Land Limited Partnership
Conservation easement held by Western Pennsylvania Conservancy

What
Forested valleys along banks of Allegheny River, including watershed of tributary Hemlock Creek

Where
President and northern Pinegrove Townships, between Tionesta and Oil City in eastern Venango County, PA

USGS Quadrangle(s):
Mostly in President, overlapping Tionesta

Why
Forest and stream studies

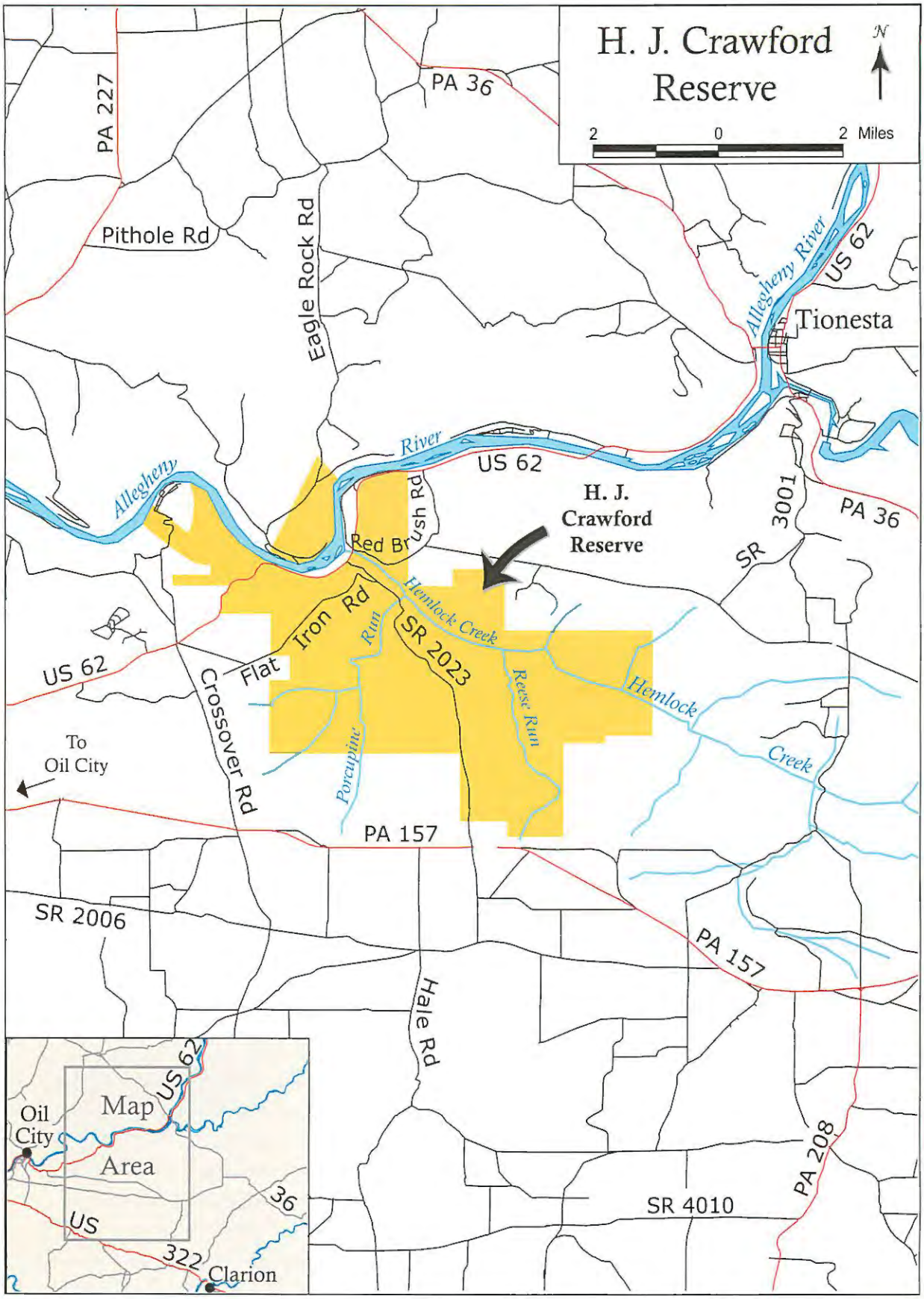
The H.J. Crawford Reserve is an 11,000 acre tract of forested streams, especially noted for quality streams that support populations of wild trout, including Rainbow Trout.

Natural History Interest

H.J. Crawford Reserve protects the watershed of Hemlock Creek which feeds the Allegheny River from the south several miles downstream from Tionesta Creek. The property includes more than four miles of frontage along the Allegheny River, part of the Federal Wild and Scenic Rivers System.

Hemlock Creek and three streams in its watershed, Porcupine Run, Norway Run, and Reese Run, are all quality trout waters, despite a history of oil production and some strip mining on its headwaters.

Porcupine and Reese Runs have self-sustaining populations of Rainbow Trout as well as Brown Trout and Brook Trout. The rainbows apparently are descended from spring spawning Rainbow Trout that were stocked here decades ago. The streams remain cold, rarely above 65°F, and have a relatively high pH, slightly alkaline to neutral, which provide a favorable habitat for Rainbow Trout. Food is plentiful, with populations of sculpins, dace, Creek Chubs, and White Suckers, as well as crayfish and many aquatic


H. J. Crawford Reserve
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PA 227
PA 36
Pithole Rd
Eagle Rock Rd
Allegheny River
US 62
Tionesta
Allegheny River
US 62
Red Brush Rd
H. J. Crawford Reserve
SR 3001
PA 36
Iron Rd
Hemlock Creek
Run
SR 2023
Flat
US 62
Crossover Rd
Reese Run
Hemlock
Creek
Porcupine
To Oil City
PA 157
SR 2006
PA 157
Hale Rd
SR 4010
PA 208
Map Area
Oil City
US 62
36
US 322
Clarion

A Great Spangled Fritillary probes a blossoming Bull Thistle at H.J. Crawford Reserve. Photo by Mark Baldwin.

insects. Mayflies, stoneflies and caddis flies are abundant, with over 90 species of the latter present in the drainage.

While the landowners are harvesting timber on the uplands, the visitor to the reserve, whether carrying a fishing pole or not, will find plenty of interesting natural history down along the creeks. The banks are mostly shaded with Eastern Hemlock and Yellow Birch. Massive sandstone boulders line dark, shaded pools and thick sheets of siltstone pile to form small waterfalls. A variety of damselflies, dragonflies and butterflies inhabit sunny spots filled with sedges and wildflowers. Birds noted in summer include Nashville Warbler, Magnolia Warbler, Common Yellowthroat, Black-throated Green Warbler, Ovenbird, Veery, Gray Catbird, Ruby-throated Hummingbird, Tufted Titmouse, and Eastern Phoebe.

Other Notes

The Hemlock Creek watershed lands were formerly part of the President Oil Company. The Western Pennsylvania Conservancy purchased the property in 1993, then sold it in 1998 to Chagrin Land Limited Partnership. WPC holds a conservation easement on the property, which ensures public access for hiking, bird watching, fishing, and hunting during designated game seasons. The owners conduct timber harvests on the property according to Best Management Practices, as established by Penn State University's School of Forest Resources. For information contact Western Pennsylvania Conservancy at 209 Fourth Ave., Pittsburgh, PA 15222; Tel: 412–288–2777; Fax: 412–281–1792.

How To Get There

The H. J. Crawford Reserve is located along US 62 between Tionesta and Oil City, PA.

From Tionesta, take US 62 west approximately 7.5 miles to SR 2023. Turn left onto SR 2023 and proceed approximately 1.0 mile to the bridge crossing Porcupine Run. Just past this bridge there is a road that goes to the right. Parking is available along this road.

Oil Creek Gorge.
Photo by Ryan Butryn.

Oil Creek State Park

Pennsylvania Department of Conservation and Natural Resources

What
Wooded hills and hollows in the historic Oil Creek Gorge

Where
Between Oil City and Titusville, Crawford and Venango Counties, PA

USGS Quadrangle(s):
Oil City, Titusville South

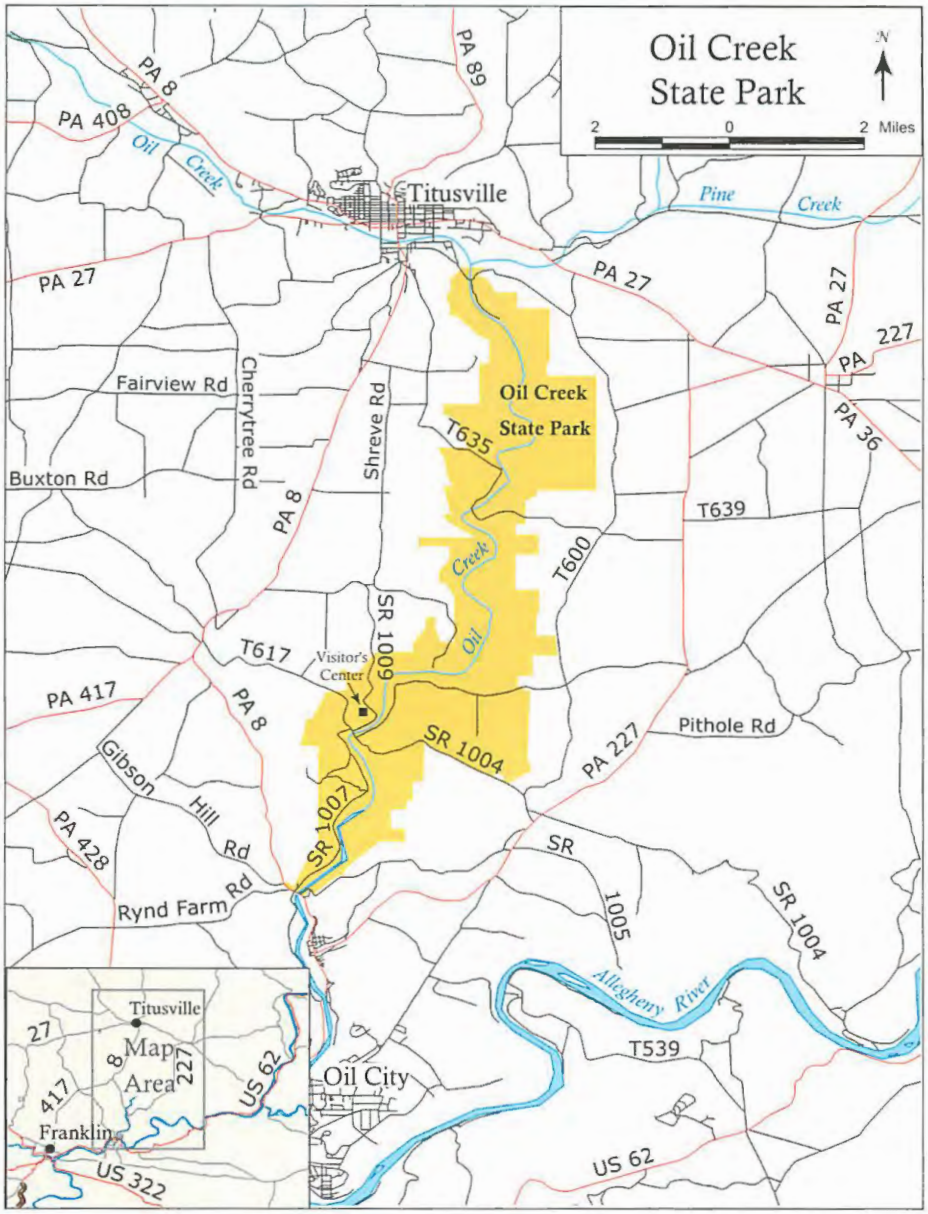
Why
Geology, birding, wildlife observation

Oil Creek State Park is a 7,096 acre park consisting of deep hollows, steep hills, wetlands, and a beautiful creek meandering through 13.5 miles of the scenic Oil Creek Gorge. This is the site of the beginning of the oil industry in the 1860's.

Natural History Interest

Oil Creek has cut a deep, steep-sided gorge here into the surrounding hills, exposing in some areas the sedimentary rock deposited from the late Devonian through early Pennsylvanian Periods, from 365 million to 325 million years ago. Some fossils are present in the Corry sandstone, particularly the outcrops at the Drake Well Museum. Late Devonian organisms that have left their traces here include brachiopods (lamp shells), gastropods (snails), bivalves (clams), crinoids (sea lilies), and a sponge named *Titusvillia drakei*. Three hundred feet above the creek level in the gorge is another sandstone layer called the Shenango formation which forms cliffs, overhangs, waterfalls and huge blocks scattered over slopes.

An Ice Age glacier covered part of the park about 250,000 years ago, leaving deposits of glacial debris, some of which formed kame terraces, or mounds of layered sand and gravel as meltwater streams flowed between the glacier and the valley wall of Oil Creek gorge. Oil Creek gorge itself formed during the Ice Age when a huge volume of water, blocked by the glacier,



breached a drainage divide near Titusville and eroded a deep gorge into its preexisting channel.

The main purpose of Oil Creek State Park is to tell the story of how the landscape changed when oil was commercially produced here during the 1860's. Actually, oil was known to exist here for many years before that time, but the oil industry began here on August 27, 1859, when "Colonel" Edwin Drake drilled a well which struck oil at a depth of 69.5 feet. The main oil reservoirs beneath Oil Creek are in Devonian-age sandstones in the Venango formation which lie between about 200 and 500 feet beneath the level of the creek. The oil does not occur in underground "pools," but in the tiny pores between grains of sand.

Following Drake's discovery people poured into the valley to drill for oil. Thousands of wells were drilled in the gorge and surrounding hills. Others arrived to cash in on the oil boom and established thriving towns and facilities to transport the enormous volume of oil being produced. Petroleum Centre became the hub of oil activity in the 1860's, as well as oil fields at Tarr Farm, Pioneer and Miller Farm. By 1875, the oil wells began to dry up, and the towns along Oil Creek began to die.

Today only subtle signs on the landscape suggest the turbulence of the oil boom of the 1860's. A few wells are still active in the park, extracting the last of the oil and gas from the bedrock beneath the valley.

Ferns and wildflowers are abundant along the park's

Black Bear are among the wildlife that inhabit the Oil Creek valley. Photo by Patricia Spicer.

trails. In spring look for White Wood Anemone, Spring Beauty, Red Trillium, Toothwort, Jack-in-the-pulpit, Wild Geranium, Canada Mayflower, May-apple, and violets. Fern species in the park include Christmas Fern, Spinulose Wood Fern, and Maidenhair Fern. Eastern Hemlock, Yellow Birch, American Beech and White Oak dominate the forest in some areas of the park, with Northern Red Oak, Pin Cherry, hickory, Black Cherry, and Red Maple along the ridgetops. A tornado that struck on May 31, 1985, uprooted large trees and created openings in the forest, which are still visible in some areas of the park.

Great Blue Heron and Belted Kingfisher are common sights along the creek. Mergansers and other waterfowl can often be seen in the creek itself. White-tailed Deer, Black Bear, Porcupine, River Otter, and Beaver are among the mammals that inhabit the park.

Other Notes

Oil Creek State Park is laced with many hiking, biking, and cross-country ski trails. Canoeing the creek is a good way to experience the gorge, and a passenger rail line runs through the valley. In the Petroleum Centre Historic Site area is the Wildcat Hollow Outdoor Classroom with trails that interpret geology, forestry, oil history, and wetlands. Two overnight camping areas with Adirondack-style shelters are available year-round for backpackers. For information contact the park's main office at RR 1, Box 207, Oil City, PA 16301; Tel: 814–676–5915; Fax: 814–677–5082; E-mail: oilcreek@dcnr.state.pa.us.

How to Get There

Oil Creek State Park is located between Oil City and Titusville, PA.

There are many roads leading into the park. To get to SR 1007, which leads to the visitor center, take PA 8 approximately 4.3 miles north from Oil City or take PA 8 approximately 11.2 miles south from Titusville. Take SR 1007 (which turns into SR 1009) once you reach it. The center is on the left side of SR 1009 just past T617 and SR 1004.

Towering hemlocks dwarf surrounding life-forms at Tionesta Scenic Area. Photo by Mark Baldwin.

Tionesta Scenic Area

U.S. Forest Service

What
Hemlock-beech climax forest preserve

Where
Allegheny National Forest, south of the village of Ludlow, Sheffield and Wetmore Townships bordering Warren and McKean Counties, PA

USGS Quadrangle(s):
Ludlow

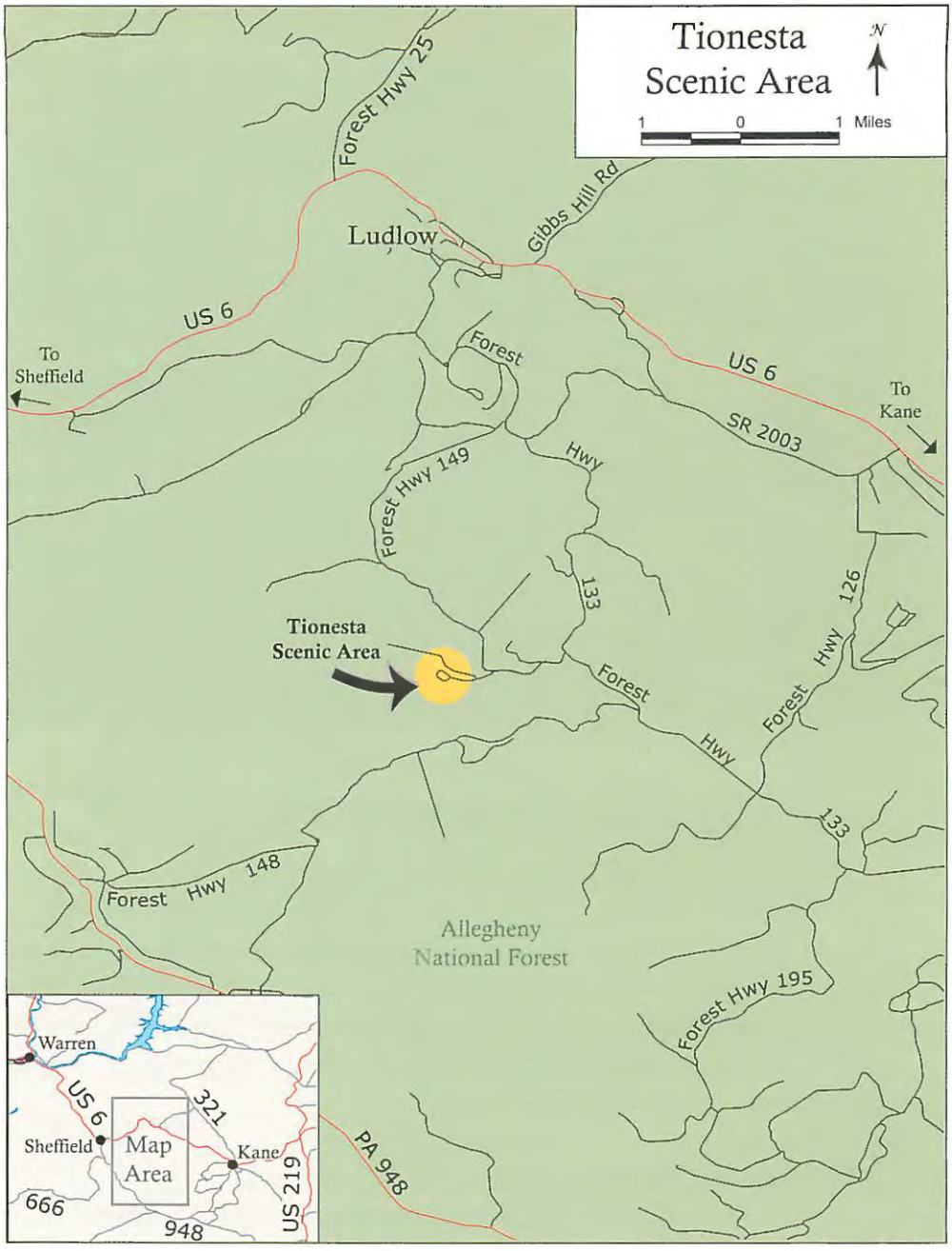
Why
Forest ecosystem studies

This 2,000 acre tract harbors much of the old growth forest in the region. The North Country Scenic Trail passes through it, and a one-mile interpretive loop brings the visitor close to many of the ancient trees, as well as forest regeneration following a 1985 tornado. The area was designated a National Natural Landmark in 1973.

Natural History Interest

Tionesta Scenic Area preserves one of our region's last remaining stands of "virgin timber," or old growth forest. Hearts Content, ANF's other old growth forest reserve, is 16 miles to the west. These places are object lessons in the cycle of life and death in a forest ecosystem, the complex interplay of natural and human interference, and change over time.

Enormous Eastern Hemlocks dominate the scene, their crowns jutting spire-like above the rest of the canopy when seen from a distance. Some of these trees are estimated to be more than 400 years old. Huge American Beech are also found here, with other trees, including Sugar Maple and Black Cherry, mixed in. Great windthrows, the remains of trees that have blown down, lie scattered on the forest floor in various stages of decay, their mantles of fungi, mosses, and ferns returning nutrients to the forest soil. But there is relatively little tree regeneration here, evidence of the effect that the prolific deer have had through much of the national forest. On the way in



to the scenic area, in fact, the visitor may note a woven fence deer exclosure surrounding an area where a timber cut has taken place, an attempt by foresters to allow tree seedlings to grow.

In May 1985 a tornado ripped through the forest and damaged or destroyed many of the trees here. In the area affected by the tornado the regeneration of the forest is occurring rapidly, even outpacing the deer's hunger for young trees.

Many of the old beech are succumbing to beech bark scale disease in which a fungus *(Nectria coccinia)* infects bark that has been attacked by a tiny scale insect. Insects carrying fungal spores pierce the bark with a needlelike mouthpart to feed on the sap, allowing the fungus an entryway for infection. Among the first signs of infection are white wool-like secretions that the insects produce when they are preparing to overwinter on the bark. The

Fungi, mosses, ferns, and flowering plants thrive on the nutrients released by a decaying log on the old-growth forest floor. Photo by Mark Baldwin.

growth of the fungus eventually creates pits and cracks in the bark, leaving the tree vulnerable to secondary fungal infections, carpenter ants, and foraging Pileated Woodpeckers. Beeches that are infected are often felled by windstorms, sheared off about midway between the crown and the ground. Beech sprout readily from their roots as a means to keep the tree alive when the main stem is damaged or sickened. One can see many such thickets of root sprouts around old dead or dying beech trees.

Other Notes

There are no restrooms or other facilities at the site. There is a picnic area where the approach road crosses the East Branch of the Tionesta Creek. The dirt road from Ludlow to the scenic area is well marked with signs. The area is remote, however, so a topographic map and compass are recommended for any foot travel.

How To Get There

The Tionesta Scenic Area is located just south of Ludlow, PA, and within the Allegheny National Forest.

Going east from Sheffield, PA on US 6, turn right at the sign for Tionesta Scenic Area in Ludlow. The turn is approximately 6 miles from the traffic light on US 6 in Sheffield. After crossing the railroad tracks note the sign that indicates that the scenic area is 6.6 miles from that point. Carefully follow the dirt road and the signs to the scenic area.

The Plateau's high ridges provide a backdrop for the Allegheny River in Warren. Photo by Andrew Caruso.

Washington Park / Point Park

Borough of Warren, Pennsylvania

What
Wooded upland and bottomland

Where
Warren, PA

USGS Quadrangle(s):
Warren

Why
Birding, view, plant studies

Washington Park features an upland forest with an outstanding view up and down the Allegheny River. Point Park is located on the floodplain at the confluence of the Conewango Creek and the Allegheny River.

Natural History Interest

These two public areas in the community of Warren provide a good overview of the natural history of one of the major natural "crossroads" of our region.

From its elevation 400 feet above the Allegheny River, Washington Park provides an excellent view, especially of the big bend and the confluence of the Conewango Creek around which Warren has been built. It is one of the places in our region where the plateau topography of the region is evident. Even though "flat" country is nowhere to be seen, the view levels off toward the horizon.

A whiff of petroleum may greet the visitor. Here and there is an oil well, no longer operational, bur attesting to the history of these wooded valleys as producers of oil and natural gas.

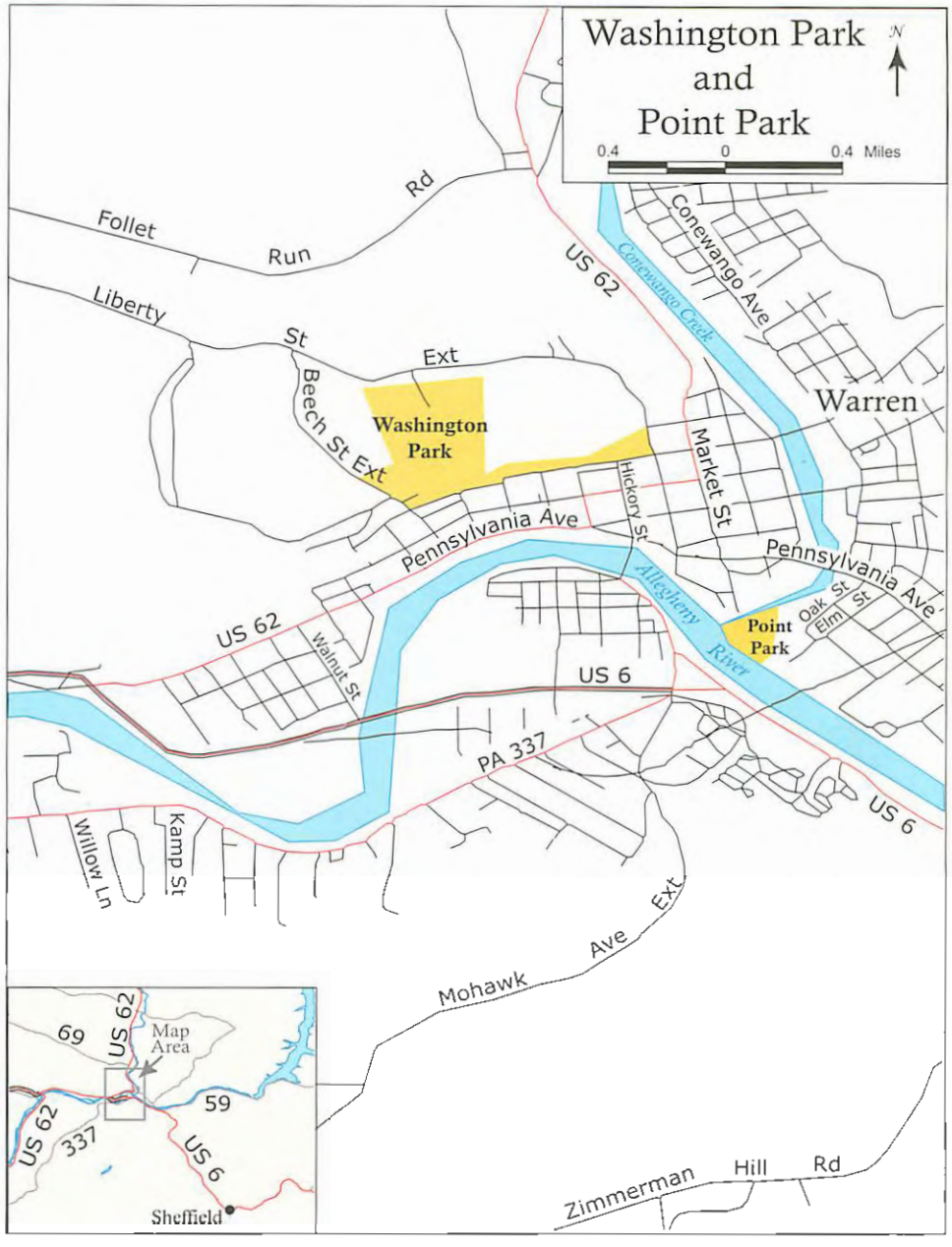
The forest type here on this high, south-facing slope is Oak-Hickory. Large Northern Red Oaks and White Oaks dominate. Much of the understory consists of blueberry. Witch-hazel is common, and there is the occasional American Chestnut, formerly a part of the canopy and now confined to the understory. Plants of the forest floor include False Solomon's Seal,

Clintonia, Canada Mayflower, May-apple, and Wintergreen.

Birds noted on the tract during the nesting season include Tufted Titmouse, Blue Jay, Indigo Bunting, Black-capped Chickadee, Wood Thrush, Veery, American Goldfinch, Magnolia Warbler, Blue-headed Vireo, and Red-eyed Vireo.

Juxraposed with Washington Park's ridge-top forest is the wooded floodplain located a few minutes away at Point Park. Silver Maples dominate the stream banks here, and there are several large Black Willows as well. The rich woods are filled with Green-headed Cone-flower which put on a terrific display with their bright yellow, sunflower-like blossoms in late summer. Both Spotted and Pale Touch-me-nots form thickets at the same time.

Swallows and Belted Kingfishers frequent the waters around the point. From fall through spring, the open water attracts a good variety of waterfowl. The lucky visitor may even spot a Bald Eagle in the vicinity.



Other Notes

Each park has a parking and picnic area. Although there are no restrooms available on the site, both places are close to conveniences in Warren, PA.

How To Get There

To get to Washington Park from Pennsylvania Ave in Warren, turn onto Liberty Sr and keep going where the road steeply ascends the ridge. The park is on rhe left, 1.2 miles from Pennsylvania Ave.

Point Park is located near Warren's municipal swimming pool. To get to Point Park from Pennsylvania Ave turn south onto Conewango Ave at the traffic light and follow the blue municipal swimming pool signs to the park area. The park is 0.4 mile from Pennsylvania Ave.

Minister Valley, Allegheny National Forest. Photo by David Hecei.

Trails and Waterways of the Chautauqua-Allegheny Region

Many of the places described in this book would be practically out of reach if not for their trails. In fact, one of the pleasures of visiting natural areas is the inviting feel of well maintained trails that take you to places of interest. Within individual nature preserves are loops and hundreds of miles of trails and waterways that connect them. In this section, you catch a glimpse of what the region offers for people who would like to walk, peddle, or paddle as they explore nature.

Remember, safety first! Carry water with you and dress appropriately for the weather. Take a map and compass, and avoid traveling alone. If you do, let others know where you are going and when you expect to return. When you pack things into the sites, pack them out. Leave no trace. Be considerate of all living things everywhere you go.

North Country National Scenic Trail

This is by far the longest trail in the region. In fact, once completed, it will be the longest continuous footpath in the United States, stretching 3,200 miles from Crown Point, NY to Sakakawea, ND. Approximately 86 miles of it runs through the Allegheny National Forest, the historic lands of the Iroquois, the

Minister Valley, Allegheny National Forest. Photo by David Hecei.

Allegheny Plateau and some of the world's finest stands of Black Cherry and oak. Connecting the Baker Trail in Pennsylvania and the Finger Lakes Trail in New York's Allegany State Park, this section of the North Country Trail offers numerous opportunities for short walks, day hikes and backpacking experiences.

The trail connects Hearts Content and Tionesta Scenic Areas, but it's a 22 mile hike one way. An easy access to the trail is the Willow Bay Recrearion Area on the Allegheny Reservoir. Willow Bay has parking for eight cars and is just west of where the trail crosses PA 346.

For information contact the Allegheny National Forest, 222 Liberty St., Warren PA 16365. Telephone 814–723–5150 or e-mail anf@penn.com. You may also get maps and information on the web at www.allegheny-online.com/mapnorthcountry.html or www.gorp.com/gorp/resource/us_trail/pa_north.htm

Chautauqua County Eastside and Westside Overland Trails

These two county trails are on a general north/south axis on the west and east side of Chautauqua Lake. Each runs through substantial tracts of state forestland interspersed with private property. Some road walking to skirt private property is necessary. The trails offer excellent hiking opportunities in the spring, summer, and fall, and cross country skiing during the snow months. Maps for both trails are available from the County Parks Department and from several outdoor and local stores.

The Earl Cardot Eastside Overland Trail

The Eastside Trail's northern end begins in the Canadaway Creek State Wildlife Management Area and heads south for 19 miles through the Boutwell Hill State Forest and the Harris Hill State Forest.

You can access the northern end of the trail by taking Cty 72 west off of NY 60 in Cassadaga. Cty 72 takes you to the Canadaway Area where the trail crosses the road and a small parking area is located. On the southern end, take Cty 50 out of Gerry and turn onto 28 Creek Rd where you will find the trail in the Harris Hill State Forest.

The Fred J. Cusimano Westside Overland Trail

The Trail's northern end is in the Chautauqua Gorge State Forest at the end of Hannum Rd. It then heads south for 24 miles through the Mt. Pleasant, Whalen Memorial, North Harmony, Panama, and Brokenstraw State Forests with some private land in between.

You can access the trail at the south end by taking NY 474 west out of Panama, NY 2.4 miles to Townline Rd. Turn south on Townline for another 2.4 miles to Brownell Rd, which intersects on the right. Continue on Townline for another 0.5 mile to a bridge over Brokenstraw Creek; then another 0.1 mile to a dirt road on the left (east); turn onto this for 0.1 mile to the trailhead.

Chautauqua Rails to Trails

Chautauqua County has a vibrant and growing rails to trails program. In fact, the long-term vision is to tie in existing trails and planned ones with the West and Eastside Overland trails to create a seamless trail circling Chautauqua Lake.

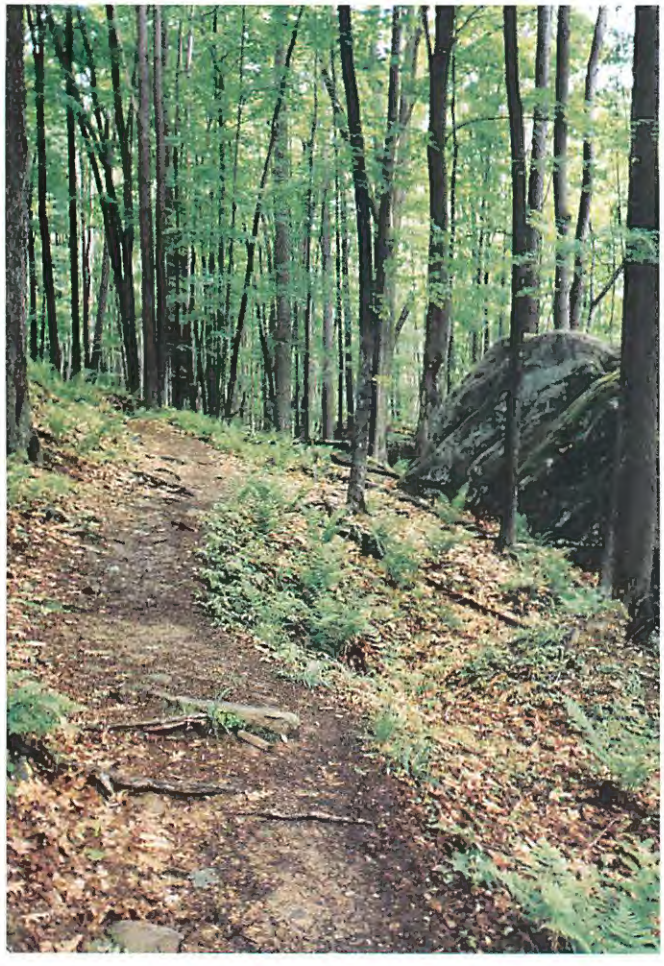
Please remember that these trails do pass through lands on old railroad right-of-ways. Stay on the trails and respect adjacent landowners' rights. Carry in and carry out. Leave no trash.

These trails provide public access through scenic woodlands, wetlands, and meadows offering opportunities to observe wildlife, trees and plants. They are excellent outdoor classrooms.

There are seven trails in the system, some in the early stages of development. The two oldest and longest trails, the Ralph C. Sheldon Jr. Nature Trail and Alison Wells Ney Trail, are noted below. You can find Chautauqua Rails to Trails information and brochures at their office on NY 394 in Mayville at the old train depot on Chautauqua Lake or on their website www.cecomm.com/railstotrails. Call 716–269–3666 or 800–242–4569 for information.

Ralph C. Sheldon Jr. Nature Trail

This 5.5 mile trail runs from Titus Rd. approximately 2 miles from the center of Sherman, NY northward to Summerdale Road. Parking is available on Titus Rd. From the center of Sherman take NY 430 north approx. 2 miles to Titus Rd, turn left for 1/4 mile where the trail starts on the right. This trail offers fine beaver ponds and wetlands on both sides of the trail. It has been nominated for designation as an Audubon Important Bird Area with over 175 species observed on the trail.



Minister Valley, Allegheny National Forest.
Photo by David Hecei.

Alison Wells Ney Trail

This 5-mile trail begins at Thayer Rd., south of Brocton, NY in northern Chautauqua County and runs south to Prospect Rd. The trail gently climbs the Lake Erie Escarpment offering views of Lake Erie. There is parking available on Thayer Rd and at Prospect Station.

To enter the trail at Prospect Station, take the Plank Rd (Cty 308) out of Westfield, NY heading southeast. Take the 2nd left on Felton Rd then the first right on Fish Rd which turns into Barnes Rd. At the bottom of a hill you will see the Ney Trail parking area close to Prospect Station Rd.

Cattaraugus Rails to Trails

Rails to Trails is also taking hold in Cattaraugus County, NY where a 12.4 mile trail should be complete in late 2002 or early 2003. A trailhead is currently being built in Little Valley, NY. For more information, contact the Cattaraugus Local Development Corp., 716–257–3237.

Allegany State Park

Although the park is one of the locations highlighted in this Atlas, we mention it here again, as it is a hikers paradise. The park contains 135 miles of marked trails complimented by almost twice as many miles of unmarked routes. There are 18 specially designated and marked walking trails covering approximately 53 miles of some of the finest territory in the region. In addition, there are 27 miles of cross-country skiing trails and 55 miles of trails that are also open to horses and snowmobiles. You can enter the park at either the Quaker Area or the Red House Area. Both are off I-86 in Cattaraugus County between Randolph and Salamanca, NY.

Allegheny National Forest

Covering over 800 square miles in four northwestern Pennsylvania counties, the Forest lies on the Allegheny Plateau and abuts Allegany State Park in New York State. Over 209 miles of hiking trails (including the North Country Trail) exist in the Forest. A number of other trails are multiple use and some are designated all-terrain vehicle trails. There are also 14 miles of interpretive trails primarily near the scenic and historical areas.

You can request information through the Forest Headquarters in Warren, PA 814–723–5150 or the Ranger Stations in Bradford and Marienville. Information is also available at stores and tourist locations throughout the area.

Allegheny River Valley Trail

This is a 5.6-mile multi-use recreational trail (no motorized vehicles) that follows the Allegheny River for approximately 3 miles. The trail passes through the Town of Allegany, the City of Olean, and St. Bonaventure University on a paved, well-maintained surface. You'll enjoy birding, wildflowers, the river and passing by a railroad yard. For more information e-mail: tourism@olean-ny.com.

To reach the trail, exit I-86 at exit 24 (St. Bonaventure). Go left after exiting and proceed to the first traffic light. Turn right at the light and continue straight until you

Minister Valley, Allegheny National Forest. Photo by David Hecei.

reach the railroad tracks. Immediately after the tracks, turn left and watch for the St. Bonaventure sign. Parking is near the University track. Additional parking is available at Gargoyle Park and at the corner of Henley and 19th Streets in Olean.

Water Trails

By foot is not the only way to enjoy the solitude of the region's natural areas. Water is plentiful throughout the region with many opportunities to explore by canoe or kayak. In Allegany State Park there are two lakes and a number of streams. Three rivers within the Allegheny National Forest, the Allegheny, Clarion and Tionesta, offer excellent tripping on over 110 miles of water.

Lake Erie and numerous other lakes and streams offer many additional opportunities to travel by water. An excellent example is the Marden E. Cobb Waterway Trail designated by the Chautauqua County Parks Department. The waterway is actually two routes on the Cassadaga and the Conewango Creeks, both of which are tributaries of the Allegheny River. They are rich in history as early settlers and native Americans used these creeks to travel through the area. This is a flat-water paddle. Chautauqua County provides and maintains several access areas and lean-to shelters. County-maintained access points on the 28 mile Cassadaga waterway can be found near South Stockton, Red Bird, Gerry, Ross Mills and Levant. On the 25-mile Conewango waterway, maintained access points are on Cty 42 near Clarks Cornets and near Frewsburg on US 62.

Appendices

Regional Environmental Education Organizations

The following is a list of organizations and agencies that can assist you to become better acquainted with the natural history of our region. Some of them, where noted, are responsible for the stewardship of places described in this book. All of them have conservation or nature education as part of their mission. Contact them to find out how they can help you learn more, and how you can participate in making our natural world even better.

Alleghenies Watershed Network
64 South 14th Street
Pittsburgh, PA 15203
Tel: 412-481-9400
Fax: 412-481-9401
Web: www.alleghenywatershed.org

Education about the Allegheny watershed and networking among watershed projects in western Pennsylvania; its Allegheny Watershed Atlas Internet Site is found at www.watershedatlas.org.

Allegheny Institute of Natural History
University of Pittsburgh-Bradford
300 Campus Drive/Fisher Hall 203 C
Bradford, PA 16701
Tel: 814-362-7562
Fax: 814-362-5088
E-mail: ainh+@pitt.edu
Web: www.upb.pitt.edu/ainh

Ongoing study of flora and fauna of Allegheny Mountains and Appalachian Plateau; and classes on natural history for various audiences.

Allegheny National Forest
222 Liberty Street
Warren, PA 16365
Tel: 814-723-5150
E-mail: anf/r9_allegheny@fs.fed.us
Web: www.fs.fed.us/r9/allegheny

Jake's Rocks and Rimrock Overlooks, Buckaloon's Recreation Area, Allegheny Islands Wilderness, Hearts Content and Tionesta Scenic Areas, as well as recreational and learning opportunities throughout the National Forest.

Buffalo Audubon Society
1610 Welch Road
North Java, NY 14113
Tel: 716-457-3228
Fax: 716-457-1378
E-mail: buffaloaudubon@buffaloaudubon.org
Web: www.buffaloaudubon.org

Allenberg Bog, Rushing Stream Preserves; conservation and environmental education programs offered at its Beaver Meadow Audubon Center, plus field trips and community education programs throughout western New York.

Career and Technical Education Center at Ellicottville
5550 Route 242 East
Ellicottville, NY 14731-0690
Tel: 716-699-2382
Fax: 716-699-2095

Deerfield Nature Center, an outdoor learning laboratory for 11th and 12th grade students from local school districts.

Cattaraugus Local Development Corporation
P.O. Box 1
Cattaraugus, NY 14719
Tel: 716-257-3237
E-mail: cldc@nycountry.com

James A. Zaepfel Nature Sanctuary and developments regarding rails to trails in Cattaraugus County.

Cattaraugus County Bird Club
Timothy Baird, President
242 East State Street
Salamanca, NY 14779
Tel: 716-945-2539

Regular meetings and activities for birders in the Cattaraugus County area.

Chautauqua County Soil and Water Conservation District
David J. Wilson, District Field Manager

Frank W. Bratt Agricultural Center
3542 Turner Road
Jamestown, NY 14701
Tel: 716-769-7917
E-mail: chaut-co@soilwater.org

Local SWCD programs of soil, water, and related natural resource conservation for residents, landowners, teachers, and others. Programs include water quality mangement, stream stabilization, seedling sales, pond services, and conservation education.

Chautauqua Rails to Trails
Jim Fincher, Trail Manager
P.O. Box 151
Mayville, NY 14757-0151
Tel: 716-269-3666
E-mail: crtt@cecomet.net
Web: www.cecomm.com/railstotrails

Sheldon, Ney, and other trails, and efforts to preserve abandoned rail corridors for conversion to safe off-road trails for recreational use and environmental study.

Chautauqua Watershed Conservancy
John Jablonski, Executive Director
413 North Main Street
Jamestown, NY 14701
Tel: 716-664-2166
Fax: 716-483-3524
E-mail: chautwsh@netsync.net
Web: www.chautauquawatershed.org

Cassadaga Creek, Chautauqua Lake Outlet, Dobbins Woods, Elm Flats, and Prendergast Creek Preserves, and efforts to preserve and enhance the water quality, scenic beauty and ecological health of the lakes, streams and watersheds of the Chautauqua region.

Conewango Creek Watershed Association
Contact: Matt Burlingame, Water Specialist
Warren County Conservation District
609 Rouse Avenue, Suite 203
Youngsville, PA 16371
Tel: 814-563-3117
E-mail: wccd@pennswoods.net
Web: www.pennswoods.net/~wccd

Research and outreach initiatives to promote understanding and stewardship of the Conewango Creek watershed.

Cornell Cooperative Extension, Chautauqua County
Wayne R. Grossman, Association Director
Frank W. Bratt Agricultural Center
3542 Turner Road
Jamestown, NY 14701-9608
Tel: 716-664-9502
Fax: 716-664-6327
E-mail: wrg3@cornell.edu

Conservation programs and services.

The Findley Lake Nature Center
Contact: Daniel Christman
P.O. Box 634
Findley Lake, NY 14736
Tel: 716-769-7917
E-mail: dmc41@juno.com

The center's developing facility at the Mina-Findley Lake Community Center, 2883 North Road, Findley Lake, NY.

French Creek Project
Box 172
Allegheny College
Meadville, PA 16335
Tel: 814-332-2946
Fax: 814-333-8149
E-mail: frenchcrik@aol.com
Web: frenchcreek.allegheny.edu

Projects to preserve habitat, maintain biological diversity, and protect threatened and endangered species of French Creek; and public education and outreach about the value of the creek.

Hamburg Natural History Society
P.O. Box 772
Hamburg, NY 14075
Tel: 716-627-4560
Web: penndixie.org

Efforts to promote the study of the sciences with an emphasis on the development of a regional fossil collecting site to encourage public appreciation and understanding of local paleontology. Current public programs focus on fossils and astronomy at the Penn Dixie Site Paleontological and Outdoor Education Center in Hamburg, NY.

Jamestown Audubon Society
Ruth Lundin, President
Jennifer Schlick, Program Director of Education
1600 Riverside Road
Jamestown, NY 14701
Tel: 716-569-2345
Fax: 716-569-2765
E-mail: jaudubon@netsync.net
Web: www.jasny.org

Jamestown Audubon Nature Center and Bentley Sanctuary, and environmental education for people of all ages. Jamestown Audubon offers programs on nature education and environmental stewardship to schools and regularly scheduled activities for the public throughout the year.

Lake Erie Bird Club
Contact Dick Miga
38 Elm Street
Fredonia, NY 14063-1937
Tel: 716-672-7363
E-mail: dmiga@netsync.net

Activities and education to area residents interested in the study and enjoyment of birds; Birding Hotline available at 716-595-8250, to report sightings and to hear a daily report.

Martz Astronomical Association
120 East Third Street
Jamestown, NY 14701
Tel: 716-483-0343
Web: http://members.aol.com/bemusabord

Meetings of astronomy enthusiasts and public programs that focus on astronomy at the Martz Observatory in Frewsburg and elsewhere.

Nature Sanctuary Society of Western New York
Buffalo Museum of Science
1020 Humboldt Parkway
Buffalo, NY 14211-1293

Society-owned nature preserves and natural history field trip opportunities.

New York State Department of Environmental Conservation
215 South Work Street
Falconer, NY 14733
Tel: 716-665-6111
Fax: 716-665-6124
Web: www.dec.state.ny.us

New York State Forests and Wildlife Management Areas.

New York State Office of Parks, Recreation, and Historic Preservation
Grace Christy, Park Naturalist
Allegany State Park
2373 ASP Route 1
Salamanca, NY 14779-9756
Tel: 716-354-9101

Allegany, Long Point and Lake Erie State Parks; Allegany State Park Historical Society; programs and activities for the public and school groups about park natural history.

Pennsylvania Department of Conservation and Natural Resources
Cornplanter District Office
323 North State Street
North Warren, PA 16365
Tel: 814-723-0262
E-mail: fd14@state.pa.us

Anders Run Natural Area, Chapman, Cook Forest and Oil Creek State Parks, and other sites and programs for nature and conservation education in the district.

Pennsylvania Game Commission
P.O. Box 31
Franklin, PA 16323
Tel: 814-432-3187

Akeley Swamp, Tamarack Swamp and other Pennsylvania State Game Lands. Land managers occasionally conduct public tours of sites.

Pfeiffer Nature Center
Richard H. White, Executive Director
Box 802 Lillibridge Road
Portville, NY 14770
Tel: 716-373-1742
E-mail: pnc@netsync.net
Web: www.pfeiffernaturecenter.org

Pfeiffer Nature Center's old-growth forest tract, scientific research projects, nature study programs for school students and adults, and natural resource stewardship.

Ripley Hawk Watch
Contact Dick Miga
38 Elm Street
Fredonia, NY 14063-1937
Tel: 716-672-7363
E-mail: dmiga@netsync.net

Participating in an annual program to observe, count, and identify the thousands of raptors that fly along the south shore of Lake Erie during their spring migration. Observation stations located at 6 sites in the Ripley, NY area, from the Lake Erie shore to 2 miles inland.

The Rock Environmental Center
P.O. Box 41
Gooseneck Road
Delevan, NY 14042
Tel: 716-699-2481

Environmental education programs for the public and school groups, and regularly scheduled nature education events.

Roger Tory Peterson Institute
311 Curtis St.
Jamestown, NY 14701
Tel: 716-665-2473
Toll free: 800-758-6841
E-mail: rtpi@rtpi.org
Web: www.rtpi.org

The life of Roger Tory Peterson; nature education exhibits and programs for the public, teachers, and school groups; regular meetings of RTPI's Ornithological Club; and a developing Entomological Club.

SUNY College at Fredonia
Faculty Student Association
Betty Berkshire
P.O. Box 286
Fredonia, NY 14063
Tel: 716-673-3417
Web: www.fredonia.edu/fsa

The College Lodge and its opportunities for environmental education activities for the public and school groups.

The Nature Conservancy
Central/Western New York Chapter
339 East Avenue, Suite 300
Rochester, NY 14604-2615
Tel: 716-546-8030
Fax: 716-546-7825
Web: www.nature.org/states/newyork/centralwest/

French Creek Preserve; and efforts to protect environmentally sensitive lands in Western and Central New York.

Warren County Conservation District
609 Rouse Avenue, Suite 203
Youngsville, PA 16371
Tel: 814-563-3117
E-mail: wccd@pennswoods.net
Web: www.pennswoods.net/-wccd

Hatch Run Conservation Demonstration Area and programs to promote conservation in Warren County, Pennsylvania.

Western New York Land Conservancy
21 South Grove St., Suite 120
East Aurora, NY 14052
Tel: 716-687-1225
Fax: 716-687-1837
E-mail: wnylc@wnylc.org
Web: www.wnylc.org

Hillside Acres Preserve and land protection and conservation activities in western New York.

Western Pennsylvania Conservancy
209 Fourth Avenue
Pittsburgh, PA 15222-2075
Tel: 412-288-2777
Fax: 412-281-1792
Web: www.paconserve.org

H.J. Crawford Reserve, Lowville Wetland, and Wattsburg Fens; activities to conserve the region's places of exceptional ecological, recreational, and scenic value and to connect people with the natural world through experience, education, and responsible stewardship.

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Species List

Acadian Flycatcher (*Empidonax virescens*)
Alder Flycatcher (*Empidonax alnorum*)
American Avocet (*Recurvirostra americana*)
American Basswood (*Tilia americana*)
American Beech (*Fagus grandifolia*)
American Bittern (*Botaurus lentiginosus*)
American Chestnut (*Castanea dentate*)
American Copper (*Lycaena phlaeas*)
American Elm (*Ulmus americana*)
American Goldfinch (*Carduelis tristis*)
American Hornbeam (*Carpinus caroliniana*)
American Kestrel (*Falco sparverius*)
American Oystercatcher (*Haematopus palliatus*)
American Redstart (*Setophaga ruticilla*)
American Robin (*Turdus migratorius*)
American Sycamore (*Platanus occidentalis*)
American Toad (*Bufo americanus*)
American White Pelican (*Pelecanus erythrorhynchos*)
American Wigeon (*Anas americana*)
American Woodcock (*Philohela minor*)
Aphrodite Fritillary (*Speyeria aphrodite*)
Arethusa (*Arethus bulbosa*)
Ash-throated Flycatcher (*Myriarchus cinerascens*)
Autumn Willow (*Salix serissema*)
Baird's Sandpiper (*Calidris bairdii*)
Bald Eagle (*Haliaeetus leucocephalus*)
Baltimore Oriole (*Icterus galbula*)
Banded Darter (*Etheostoma zonale*)
Bank Swallow (*Riparia riparia*)
Barn Swallow (*Hirundo rustica*)
Barred Owl (*Strix varia*)
Barren Strawberry (*Waldsteinia fragarioides*)
Basket Willow (*Salix purpurea*)
Bay-breasted Warbler (*Dendroica castanea*)
Beaver (*Castor canadensis*)
Belted Kingfisher (*Megaceryle alcyon*)
Black Bear (*Ursus americanus*)
Black Cherry (*Prunus serotina*)
Black Huckleberry (*Gaylussacia baccata*)
Black Redhorse (*Moxostoma duquesnei*)
Black Spruce (*Picea mariana*)
Black Tern (*Chlidonias niger*)
Black Willow (*Salix nigra*)
Black-and-white Warbler (*Mniotilta varia*)
Black-billed Cuckoo (*Coccyzus erythropthalmus*)
Blackburnian Warbler (*Dendroica fusca*)
Black-capped Chickadee (*Parus atricapillus*)
Black-crowned Night Heron (*Nycticorax nycticorax*)
Black-headed Gull (*Larus ridibundus*)
Black-legged Kittiwake (*Rissa tridactyla*)
Black-throated Blue Warbler (*Dendroica caerulescens*)
Black-throated Green Warbler (*Dendroica virens*)
Bladderwort (*Utricularia geminiscapa*)
Blue Beech (*see American Hornbeam*)
Blue Cohosh (*Caulophyllum thalictroides*)
Blue Flag Iris (*Iris versicolor*)
Blue Jay (*Cyanocitta cristata*)
Bluebreast Darter (*Etheostoma camurum*)
Blue-eyed Grass (*Sisyrinchium sp.*)
Bluegill (*Lepomis macrochirus*)
Blue-gray Gnatcatcher (*Polioptila caerulea*)
Blue-headed Vireo (*Vireo solitarius*)
Blue-winged Teal (*Anas discors*)
Blue-winged Warbler (*Vermivora pinus*)
Bog Rosemary (*Andromeda glaucophylla*)
Bonaparte's Gull (*Larus philadelphia*)
Boneset (*Eupatorium perfoliatum*)
Boreal Chickadee (*Parus hudsonicus*)
Bottlebrush Sedge (*Carex lurida*)
Box Elder (*Acer negundo*)
Bracken Fern (*Pteridium aquilinum*)
Brant (*Branta bernicla*)
Broad-leaved Arrowhead (*Sagittaria latifolia*)
Broad-winged Hawk (*Buteo platypterus*)
Brook Trout (*Salvelinus fontinalis*)
Brown Bullhead (*Ameiurus nebulosus*)
Brown Creeper (*Certhia familiaris*)
Brown Thrasher (*Toxostoma rufum*)
Brown Trout (*Salmo trutta*)
Buckbean (*Menyanthes trifoliata*)
Bufflehead (*Bucephala albeola*)
Bugle (*Ajuga reptans*)
Bullfrog (*Rana catesbeiana*)
Bullhead-lily (*Nuphar variegatum*)
Burning Bush (*Euonymus atropurpureus*)
Butternut (*Juglans cinerea*)
Buttonbush (*Cephalanthus occidentalis*)
Canada Goose (*Branta canadensis*)
Canada Mayflower (*Maianthemum canadense*)
Canada Warbler (*Wilsonia canadensis*)
Canadian Burnet (*Sanguisorba canadensis*)
Canvasback (*Aythya valisineria*)
Cape May Warbler (*Dendroica tigrina*)
Cardinal Flower (*Lobelia cardinalis*)
Carex crinita
Carex intumescens
Carex scoparia
Carex vulpinoidea
Carolina Chickadee (*Parus carolinensis*)
Carolina Wren (*Thryothorus ludovicianus*)
Caspian Tern (*Sterna caspia*)
Cedar Waxwing (*Bombycilla cedrorum*)
Cerulean Warbler (*Dendroica cerulea*)
Chestnut Oak (*Quercus prinus*)
Chestnut-sided Warbler (*Dendroica pensylvanica*)
Chipping Sparrow (*Spizella passerina*)
Christmas Fern (*Polystichum acrostichoides*)
Cinnamon Fern (*Osmunda cinnamomea*)
Cliff Swallow (*Petrochelidon pyrrhonota*)
Clintonia (*Clintonia borealis*)
Closed Gentian (*Gentiana andrewsii*)
Cloudless Sulfur (*Phoebis sennae*)
Clubshell (*Pleurobema clava*)
Columbine (*Aquilegia canadensis*)

Common Tern (*Sterna hirundo*)
Common Checkered Skipper (*Pyrgus communis*)
Common Eider (*Somateria mollissima*)
Common Garter Snake (*Thamnophis sirtalis sirtalis*)
Common Goldeneye (*Bucephala clangula*)
Common Grackle (*Quiscalus quiscula*)
Common Highbush Blueberry (*Vaccinium corymbosum*)
Common Loon (*Gavia immer*)
Common Merganser (*Mergus merganser*)
Common Moorhen (*Gallinula chloropus*)
Common Polypody (*Polypodium vulgare*)
Common Raven (*Corvus corax*)
Common Redpoll (*Carduelis flammea*)
Common Wood Nymph (*Cercyonis pegala*)
Common Wood-sorrel (*Oxalis montana*)
Common Yellowthroat (*Geothlypis trichas*)
Cooper's Hawk (*Accipiter cooperii*)
Cotton Grass (*Eriophorum* sp.)
Creek Chub (*Semotilus atromaculatus*)
Creeping Snow Berry (*Gaultheria hispidula*)
Crested Wood-fern (*Dryopteris cristata*)
Cucumber Magnolia (*Magnolia acuminata*)
Cut-leaved Toothwort (*Dentaria laciniata*)
Cut-leaved Water-horehound (*Lycopus americanus*)
Dark-eyed Junco (*Junco hyemalis*)
Dewberry (*Rubus hispidus*)
Double-crested Cormorant (*Phalacrocorax auritus*)
Downy Willow-herb (*Epilobium strictum*)
Downy Woodpecker (*Picoides pubescens*)
Dutchman's Breeches (*Dicentra cucullaria*)
Dwarf Ginseng (*Panax trifolius*)
Eared Grebe (*Podiceps nigricollis*)
Eastern Bluebird (*Sialia sialis*)
Eastern Chipmunk (*Tamias striatus*)
Eastern Cottontail (*Sylvilagus floridanus*)
Eastern Coyote (*Canis latrans*)
Eastern Fox Squirrel (*Sciurus niger*)
Eastern Garter Snake (*Thamnophis sirtalis sirtalis*)
Eastern Gray Squirrel (*Sciurus carolinensis*)
Eastern Hemlock (*Tsuga canadensis*)
Eastern Hornbeam (*Ostrya virginiana*)
Eastern Kingbird (*Tyrannus tyrannus*)
Eastern Phoebe (*Sayornis phoebe*)
Eastern Sand Darter (*Etheostoma pellucidum*)
Eastern Screech Owl (*Otus asio*)
Eastern Sycamore (*Platanus occidentalis*)
Eastern Towhee (*Pipilo erythrophthalmus*)
Eastern White Pine (*Pinus strobus*)
Eastern Wood-pewee (*Contopus virens*)
Endothia parasitica
European Larch (*Larix decidua*)
Eurasian Wigeon (*Anas penelope*)
Evening Grosbeak (*Hesperiphona vespertina*)
Eyed Brown (*Satyrodes eurydice*)
False Hellebore (*Veratrum viride*)
False Solomon's Seal (*Smilacina racemosa*)
Field Sparrow (*Spizella pusilla*)
Fisher (*Martes pennanti*)
Foamflower (*Tiarella cordifolia*)
Forster's Tern (*Sterna forsteri*)
Fox Sparrow (*Passerella iliaca*)
Fragrant Water-lily (*Nymphaea odorata*)
Franklin's Gull (*Larus pipixcan*)
Gadwall (*Anas strepera*)
Garlic Mustard (*Alliaria officinalis*)
Ginkgo (*Ginkgo biloba*)
Glaucous Gull (*Larus hyperboreus*)
Golden Eagle (*Aquila chrysaetos*)
Golden-crowned Kinglet (*Regulus satrapa*)
Golden-fruited Sedge (*Carex aurea*)
Goldthread (*Coptis groenlandica*)
Grape Fern (*Botrychium* sp.)
Grass Pink (*Calopogon pulchellus*)
Gray Catbird (*Dumetella carolinensis*)
Gray Fox (*Urocyon cinereoargenteus*)
Great Blue Heron (*Ardea herodeas*)
Great Crested Flycatcher (*Myriarchus crinitus*)
Great Egret (*Casmerodius albus*)
Great Horned Owl (*Bubo virginianus*)
Great Rhododendron (*Rhododendron maximum*)
Great Solomon's Seal (*Polygonatum canaliculatum*)
Great Spangled Fritillary (*Speyeria cybele*)
Greater Scaup (*Aythya marila*)
Greater White-fronted Goose (*Anser albifrons*)
Greater Yellowlegs (*Tringa melanoleuca*)
Green Ash (*Fraxinus pennsylvanica*)
Green Darner (*Anax junius*)
Green Frog (*Rana clamitans melanota*)
Green Heron (*Butorides striatus*)
Greenbrier (*Smilax rotundifolia*)
Green-headed Coneflower (*Rudbeckia laciniata*)
Greenside Darter (*Etheostoma blennioides*)
Harlequin Duck (*Histrionicus histrionicus*)
Hawthorn (*Crataegus* sp.)
Hayscented Fern (*Dennstaedtia punctilobula*)
Hermit Thrush (*Catharus guttatus*)
Hoary Redpoll (*Carduelis hornemanni*)
Hobblebush Viburnum (*Viburnum alnifolium*)
Hooded Ladies'Tresses (*Spiranthes romanzoffiana*)
Hooded Merganser (*Lophodytes cucullatus*)
Hooded Warbler (*Wilsonia citrina*)
Hop Hornbeam (see Eastern Hornbeam)
Horned Grebe (*Podiceps auritus*)
Horsechestnut (*Aesculus hippocastanatum*)
House Wren (*Troglodytes aedon*)
Hudsonian Godwit (*Limosa haemastica*)
Iceland Gull (*Larus glaucoides*)
Indian Cucumber-root (*Medeola virginiana*)
Indian-pipe (*Monotropa uniflora*)
Indigo Bunting (*Passerina cyanea*)
Interrupted Fern (*Osmunda Claytoniana*)
Jack-in-the-pulpit (*Arisaema triphyllum*)
Japanese Knotweed (*Polygonum cuspidatum*)
Kidney Shell (*Ptychobranchus fasciolaris*)
Kidneyleaf Buttercup (*Rununculus abortivus*)
Killdeer (*Chradrius vociferus*)
King Eider (*Somateria spectabilis*)
Labrador Tea (*Ledum groenlandicum*)
Lady Fern (*Athyrium Filix-femina*)
Lady Finger (*Elliptio dilatatus*)
Large-fruited Cranberry (*Vaccinium macrocarpon*)
Largemouth Bass (*Micropterus salmoides*)

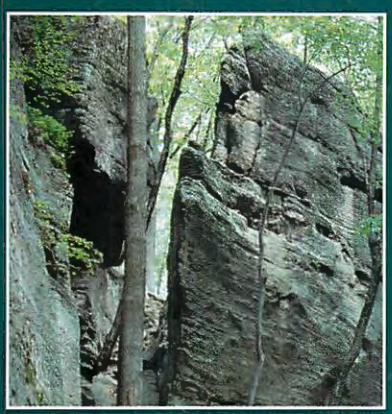
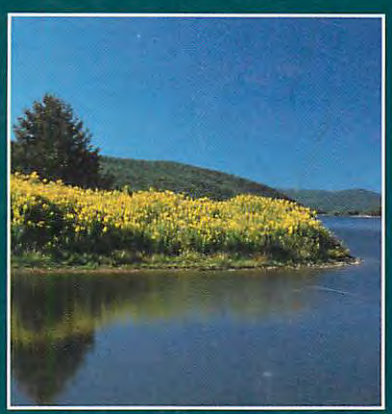
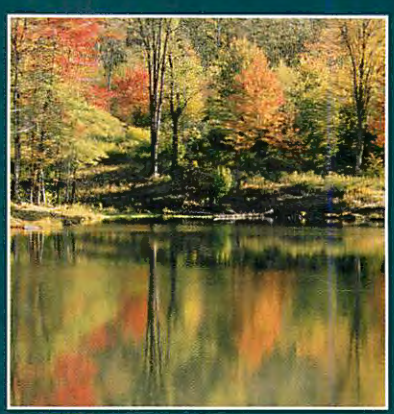
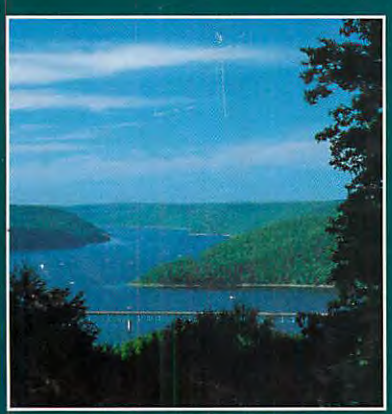
Large-toothed Aspen (*Populus grandidentata*)
Lark Sparrow (*Chondestes grammacus*)
Leafy Northern Green Orchis (*Platanthera hyperborea*)
Least Flycatcher (*Empidonax minimus*)
Leatherleaf (*Chamaedaphne calyculata*)
Lesser Bladderwort (*Utricularia minor*)
Lesser Scaup (*Aythya affinis*)
Lesser Yellowlegs (*Tringa flavipes*)
Little Blue Heron (*Florida caerulea*)
Little Brown Myotis (*Myotis evotis*)
Little Gull (*Larus minutus*)
Longhead Darter (*Percina macrocephala*)
Long-tailed Duck (*Clangula hyemalis*)
Lowbush Blueberry (*Vaccinium* sp.)
Lycopodia (*Lycopodium* sp.)
Magnolia Warbler (*Dendroica magnolia*)
Maidenhair Fern (*Adiantum pedatum*)
Mallard (*Anas platyrhynchos*)
Marbled Godwit (*Limosa fedoa*)
Marginal Woodfern (*Dryopteris marginalis*)
Marsh Blue Violet (*Viola cucullata*)
Marsh Cinquefoil (*Potentilla palustris*)
Marsh Marigold (*Caltha palustris*)
Marsh Wren (*Cistothorus palustris*)
May-apple (*Podophyllum peltatum*)
Meadow Vole (*Microtus pennsylvanicus*)
Merlin (*Falco columbarius*)
Midland Painted Turtle (*Chrysemys picta marginata*)
Mink (*Mustela vison*)
Miterwort (*Mitella diphylla*)
Moccasin-flower (*Cypripedium acaule*)
Monarch (*Danaus plexippus*)
Moosewood (see Striped Maple)
Mountain Brook Lamprey (*Ichthyomyzon greeleyi*)
Mountain Dusky Salamander (*Desmognathus ochrophaeus*)
Mountain Laurel (*Kalmia latifolia*)
Mountain Madtom (*Noturus eleutherus*)
Mourning Cloak (*Nymphalis antiopa*)
Mourning Warbler (*Oporornis philadelphia*)
Mud Sedge (*Carex limosa*)
Muskellunge (*Esox masquinongy*)
Muskrat (*Ondatra zibethica*)
Nashville Warbler (*Vermifora ruficapilla*)
Nectria coccinia
Nelson's Sharp-tailed Sparrow (*Ammospiza caudacuta*)
New York Fern (*Thelypteris noveboracensis*)
Northern Arrowwood (*Viburnum recognitum*)
Northern Bayberry (*Myrica pensylvanica*)
Northern Brown Snake (*Storeria dekayi dekayi*)
Northern Cardinal (*Cardinalis cardinalis*)
Northern Flicker (*Colaptes auratus*)
Northern Fly-honeysuckle (*Lonicera villosa*)
Northern Flying Squirrel (*Glaugomys sabrinus*)
Northern Gannet (*Morus bassanus*)
Northern Goshawk (*Accipiter gentilis*)
Northern Harrier (*Circus cyaneus*)
Northern Leopard Frog (*Rana pipiens*)
Northern Madtom (*Noturus stigmosus*)
Northern Mockingbird (*Mimus polyglottos*)
Northern Parula (*Parula americana*)
Northern Pike (*Esox lucius*)
Northern Pintail (*Anas acuta*)
Northern Red Oak (*Quercus rubra*)
Northern Red Salamander (*Pseudotriton ruber ruber*)
Northern Riffleshell (*Epioblasma torulosa*)
Northern Rough-winged Swallow (*Stelgidopteryx ruficollis*)
Northern Shoveler (*Anas clypeata*)
Northern Shrike (*Lanius excubitor*)
Northern Slimy Salamander (*Plethodon glutinosus*)
Northern Spring Salamander (*Gyrinophilus porphyriticus*)
Northern Two-lined Salamander (*Eurycea bislineata*)
Northern Water Snake (*Nerodia sipedon sipedon*)
Northern Waterthrush (*Seiurus noveboracensis*)
Northern White Violet (*Viola pallens*)
Norway Spruce (*Picea excelsa*)
Ohio Lamprey (*Ichthyomyzon bdellium*)
Opossum (*Didelphis marsupialis*)
Orange Sulfur (*Colias eurytheme*)
Orange-crowned Warbler (*Vermifora celata*)
Orchard Oriole (*Icterus spurious*)
Osprey (*Pandion haliaetus*)
Ostrich Fern (*Matteuccia Struthiopteris*)
Ovenbird (*Seiurus aurocapillus*)
Painted Trillium (*Trillium undulatum*)
Pale Touch-me-not (*Impatiens pallida*)
Pale Violet (*Viola striata*)
Partridgeberry (*Mitchella repens*)
Pearl Crescent (*Phyciodes tharos*)
Perfoliate Bellwort (*Uvularia perfoliata*)
Peregrine Falcon (*Falco peregrinus*)
Pickerel Frog (*Rana palustris*)
Pickerelweed (*Pontederia cordata*)
Pied-billed Grebe (*Podilymbus podiceps*)
Pileated Woodpecker (*Dryocopus pileatus*)
Pin Cherry (*Prunus pensylvanica*)
Pine Grosbeak (*Pinicola enucleator*)
Pitch Pine (*Pinus rigida*)
Pitcher-plant (*Sarracenia purpurea*)
Pocketbook (*Lampsilis ventricosa*)
Poison Ivy (*Toxicodendron radicans*)
Poison Sumac (*Toxicodendron vernix*)
Porcupine (*Erethizon dorsatum*)
Prairie Warbler (*Dendroica discolor*)
Prothonotary Warbler (*Protonotaria citrea*)
Purple Finch (*Carpodacus purpureus*)
Purple Loosestrife (*Lythrum salicaria*)
Purple Martin (*Progne subis*)
Purple Sandpiper (*Calidris maritima*)
Purple-fringed Orchis (*Habenaria fimbriata*)
Raccoon (*Procyon lotor*)
Rainbow Darter (*Etheostoma caeruleum*)
Rainbow Trout (*Oncorhynchus mykiss*)
Rattlesnake Fern (*Botrychium virginianum*)
Red Crossbill (*Loxia curvirostra*)
Red Currant (*Ribes triste*)
Red Eft (see Red-spotted Newt)
Red Fox (*Vulpes fulva*)
Red Knot (*Calidris canutus*)
Red Maple (*Acer rubrum*)
Red Phalarope (*Phalaropus fulicarius*)
Red Pine (*Pinus resinosa*)
Red Squirrel (*Tamiasciurus hudsonicus*)

Red Trillium (*Trillium erectum*)
Redback Salamander (*Plethodon cinereus*)
Red-bellied Woodpecker (*Melanerpes carolinus*)
Redbelly Snake (*Storeria occipitomaculata*)
Red-breasted Merganser (*Mergus serrator*)
Red-breasted Nuthatch (*Sitta canadensis*)
Red-eyed Vireo (*Vireo olivaceus*)
Redhead (*Aythya americana*)
Red-headed Woodpecker (*Melanerpes erythrocephalus*)
Red-necked Grebe (*Podiceps grisegena*)
Red-osier Dogwood (*Cornus stolonifera*)
Red-shouldered Hawk (*Buteo lineatus*)
Red-spotted Newt (*Notophthalmus viridescens viridescens*)
Red-tailed Hawk (*Buteo jamaicensis*)
Red-throated Loon (*Gavia stellata*)
Red-winged Blackbird (*Agelaius phoeniceus*)
River Otter (*Lutra canadensis*)
Robert's Geranium (*Geranium robertianum*)
Rose Pogonia (*Pogonia ophioglossoides*)
Rose-bay Rhododendron (see Great Rhododendron)
Rose-breasted Grosbeak (*Pheucticus ludovicianus*)
Round-leaved Orchis (*Habenaria orbiculata*)
Round-leaved Sundew (*Drosera rotundifolia*)
Round-leaved Yellow Violet (*Viola rotundifolia*)
Round-lobed Hepatica (*Hepatica americanum*)
Royal Fern (*Osmunda regalis*)
Ruby-throated Hummingbird (*Archilochus colubris*)
Ruddy Duck (*Oxyura jamaicensis*)
Ruffed Grouse (*Bonasa umbellus*)
Rufous-sided Towhee (see Eastern Towhee)
Running Pine (*Lycolodium complanatum*)
Sabine's Gull (*Xema sabini*)
Sandhill Crane (*Grus canadensis*)
Sassafras (*Sassafras albidum*)
Savannah Sparrow (*Passerculus sandwichensis*)
Scarlet Tanager (*Piranga olivacea*)
Sculpin (*Cottus* sp.)
Sedge Wren (*Cistothorus platensis*)
Sensitive Fern (*Onoclea sensibilis*)
Serviceberry (*Amelanchier* sp.)
Shagbark hickory (*Carya ovata*)
Sharp-lobed Hepatica (*Hepatica acutiloba*)
Sharp-shinned Hawk (*Accipiter striatus*)
Shining Clubmoss (*Lycopodium lucidulum*)
Short-billed Dowitcher (*Limnodromus griseus*)
Short-eared Owl (*Asio flammeus*)
Showy Lady's Slipper (*Cypripedium reginae*)
Silky Dogwood (*Cornus amomum*)
Silver Maple (*Acer saccharinum*)
Silvery Spleenwort (*Athyrium thelypteroides*)
Skunk Cabbage (*Symplocarpus foetidus*)
Slender Cotton-grass (*Eriophorum gracile*)
Slender Ladies' Tresses (*Spiranthes gracilis*)
Slender Spike-rush (*Eleocharis elliptica*)
Slippery Elm (*Ulmus rubra*)
Smooth Green Snake (*Opheodrys vernalis*)
Smooth Winterberry Holly (*Ilex laevigata*)
Smooth Yellow Violet (*Viola pensylvanica*)
Snapping Turtle (*Chelydra serpentina*)
Snowy Owl (*Nyctea scandiaca*)
Soft Rush (*Juncus effusus*)
Solomon's Seal (*Polygonatum biflorum*)
Song Sparrow (*Melospiza melodia*)
Sora (*Porzana carolina*)
Sourgum, Yellow Gum or Upland Tupelo (*Nyssa sylvatica*)
Southern Flying Squirrel (*Glaucomys volans*)
Spatterdock (*Nuphar advena*)
Speckled Alder (*Alnus rugosa*)
Sphagnum moss (*Sphagnum* sp.)
Spicebush (*Lindera benzoin*)
Spinulose Woodfern (*Dryopteris spinulosa*)
Spiny Softshell Turtle (*Apalone spinifera*)
Spotted Darter (*Etheostoma maculatum*)
Spotted Joe-pye Weed (*Eupatorium maculatum*)
Spotted Salamander (*Ambystoma maculatum*)
Spotted Sandpiper (*Actitis macularia*)
Spotted Touch-me-not (*Impatiens capensis*)
Spring Azure (*Celastrina argiolus lucia*)
Spring Beauty (*Claytonia virginica*)
Spring Peeper (*Pseudacris crucifer*)
Staghorn Sumac (*Rhus typhina*)
Star Flower (*Trientalis borealis*)
Stiff Clubmoss (*Lycopodium annotinum*)
Stilt Sandpiper (*Micropalama himantopus*)
Striped Maple (*Acer pensylvanicum*)
Striped Skunk (*Mephitis mephitis*)
Sugar Maple (*Acer saccharum*)
Summer Tanager (*Piranga rubra*)
Sunfish (*Lepomis* sp.)
Surf Scoter (*Melanitta perspicillata*)
Swamp Buttercup (*Ranunculus septentrionalis*)
Swamp Dogwood (see Silky Dogwood)
Swamp Milkweed (*Asclepias incarnata*)
Swamp Saxifrage (*Saxifraga pensylvanica*)
Swamp Smartweed (*Polygonum coccinium*)
Swamp Sparrow (*Melospiza georgiana*)
Swamp White Oak (*Quercus bicolor*)
Sweet White Violet (*Viola blanda*)
Sweetgum (*Liquidambar styraciflua*)
Tamarack (*Larix laricina*)
Tennessee Warbler (*Vermivora peregrina*)
Thin-leaved Cotton-grass (*Eriophorum viridicarinatu*)
Toothwort (*Dentaria diphylla*)
Trailing Arbutus (*Epigaea repens*)
Tree Clubmoss (*Lycopodium obscurum*)
Tree Swallow (*Iridoprocne bicolor*)
Triangle Grape Fern (*Botrychium lanceolatum*)
True Forget-me-not (*Myosotis scorpioides*)
Tufted Titmouse (*Parus bicolor*)
Tuliptree (*Liriodendron tulipifera*)
Tundra Swan (*Olor columbianus*)
Varying Hare (*Lepus americanus*)
Veery (*Catharus fuscescens*)
Violet Shell (see Lady Finger)
Virginia Cotton Grass (*Eriophorum virginicum*)
Virginia Creeper (*Parthenocissus quinquefolia*)
Virginia Rail (*Rallus limicola*)
Virginia Waterleaf (*Hydrophyllum virginianum*)
Walleye (*Stizostedion vitreum*)
Warbling Vireo (*Vireo gilvus*)
Water-mat (*Chrysoplenium americanum*)
Water-pennywort (*Hydrodactyle americana*)

Wehrle's Salamander (*Plethodon wehrlei*)
Whimbrel (*Numenius phaeopus*)
Whip-poor-will (*Caprimulgus vociferus*)
White Ash (*Fraxinus americana*)
White Beak-rush (*Rhynchospora alba*)
White Oak (*Quercus alba*)
White Sucker (*Catostomus commersoni*)
White Trillium (*Trillium grandiflorum*)
White Wood Anemone (*Anemone quinquefolia*)
White-breasted Nuthatch (*Sitta carolinensis*)
White-tailed Deer (*Odocoileus virginianus*)
White-winged Crossbill (*Loxia leucoptera*)
White-winged Scoter (*Melanitta deglandi*)
Wild Calla Lily (*Calla palustris*)
Wild Ginger (*Asarum canadense*)
Wild Leek (*Allium tricoccum*)
Wild Oats (*Uvularia sessilifolia*)
Wild Turkey (*Meleagris gallopavo*)
Willet (*Catoptrophorus semipalmatus*)
Winter Wren (*Troglodytes troglodytes*)
Wintergreen (*Gaultheria procumbens*)
Witch Hazel (*Hamamelis virginiana*)
Wolfclaw Lycopodium (*Lycopodium clavatum*)
Wood Duck (*Aix sponsa*)
Wood Frog (*Rana sylvatica*)
Wood Thrush (*Hylocichla mustelina*)
Woodchuck (*Marmota monax*)
Woodland Jack-in-the-pulpit (*Arisaema atrorubens*)
Wool Grass (*Scirpus cyperinus*)
Worm-eating Warbler (*Helmitheros vermivorus*)
Yellow Birch (*Betula alleghaniensis*)
Yellow Iris (*Iris pseudocorus*)
Yellow Perch (*Perca flavescens*)
Yellow Sedge (*Carex flava*)
Yellow Trout Lily (*Erythronium americanum*)
Yellow Warbler (*Dendroica petechia*)
Yellow-bellied Sapsucker (*Sphyrapicus varius*)
Yellow-billed Cuckoo (*Coccyzus americanus*)
Yellow-rumped Warbler (*Dendroica coronata*)
Yellow-throated Warbler (*Dendroica dominica*)

Roger Tory Peterson Institute of Natural History



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