

Rural Routes II in Union County

The Linn Conservancy was founded in 1988 to honor the memory of Merrill W. Linn, a local attorney and outdoorsman who spent much of his life [exploring the woods, streams, fields, and sharing that experience and knowledge with others. In keeping with the tradition started by Merrill Linn, the Linn conservancy seeks to protect and preserve significant ecological sites in the Union County and Upper Northumberland County region for present and future generations.

This brochure, our second, is designed to lead the motorist along scenic roadways to points of natural beauty and interests in the Union County area. The route, approximately 70 mi. (112 km) long, and the location of these sites are identified on the back of this pamphlet. We hope that your understanding and appreciation of our county are enhanced by this publication. Join us in our efforts to protect and preserve our priceless natural heritage.

Land and Land Use

Union County lies near the geographic center of Pennsylvania in what is known as a Valley and Ridge Physiographic Province. With elevations to 2,100 ft. or 640 m (on Jones Mountain, for example) our county's impressive southwest to northeast trending ridges are a local manifestation of the 1,500 mi. (2,400 km) Appalachian Mountain chain.

Of our 204,000 acres (319 sq. mi.) more than 50% is forestland dominated by species of oak. Much of that acreage is state-owned and managed on a multiple-use basis to provide recreational opportunities, long term product yields, and protection of water quality and wildlife habitat. Another 30% (60,000 acres) of our county's land is devoted to agriculture. More than half of this acreage is classified as prime farmland by the United States Department of Agriculture, Produce, grain (mostly corn and soybean), livestock and dairy farming together represent a 46 million dollar business within the county, making farming our number one industry. However, loss of some of our prime farmland to commercial and urban uses is a continuing trend. As high quality agricultural land is limited, it is vital that growth be planned with consideration for this irreplaceable resource.

Waterways

Lying within the Susquehanna river basin, Union County contains an abundance of waterways. The West Branch Susquehanna, which Indians called Otzinachson, forms the eastern boundary of our county. Encompassing a watershed of nearly 4.5 million acres, the average discharge of the river at Lewisburg is 81,000 gallons (11,000 cu. ft) of water per second.

Within the county, four main watersheds form tributaries of the West Branch Susquehanna. Paralleling each other as they flow eastward are the four creeks: White Deer Hole, White Deer, Buffalo, and Penns. The north branch of Buffalo Creek provides 450,000 gallons of water per day to Mifflinburg residents, while the West Branch Susquehanna, White Deer Creek and Spruce Run (a tributary of Buffalo Creek) together supply 2.8 million gallons daily for residential, commercial, and industrial use to Lewisburg and other parts of eastern Union County. Penns, Buffalo, and White Deer creeks are popular fishing streams, and sections of Penns and Buffalo offer opportunities for canoeing.

Climate

Union County has a humid continental climate type with prevailing westerly winds. Typically then, weather patterns affecting our area originate within the interior of North America. The table below indicates some climatological data for our area.

Factor	Average	Record
Precipitation	39 in. (100 cm) (inc. moisture from snowfall)	7.45 in./24 hr. (19 cm)
Snowfall	35 in. (89 cm)	24 in./24 hr. (61 cm)
Thunderstorms	35 (days per year)	
Temp: High	July: 74°F (23° C)	102°F (39°C)
Low	Jan: 29°F (-2°C)	-15°F(-26°C)
Windspeed	7.8 mph (12km/hr.)	
% Possible Sun	60% (summer)	

	35% (winter)
Rel. Humidity	60% (midafternoon)
Growing Season	160 days

Wetlands

Wetlands are largely semi-aquatic ecosystems which are flooded during at least part of the year. They may occur along the shallow water areas of rivers and streams, lake edges, and in other areas where the water table remains high all year. Marsh, swamp, and bog are often used interchangeably to refer to these areas, although each term does indeed describe a different type of wetland habitat. Emergent wetlands (marshes) are characterized by cattails, rushes, sedges, and other herbaceous (non-woody) vegetation. Forested wetlands (swamps) are dominated by trees including species of birch, oak, maple, and black gum while woody shrubs up to 20 feet tall are typical of bogs.

Wetlands preservation has become a priority for a number of reasons. Wetlands provide essential habitats for a variety of plants and animals, some identified as endangered species. As natural filters, wetlands improve water quality by removing and retaining nutrients, sediments, and chemical wastes. Like a sponge, they absorb water; this has the effect of allowing recharge of groundwater stores, minimizing damage from storms and floods, and decreasing soil erosion.

Most of Pennsylvania's estimated 500,000 acres of wetlands are of the forested type (swamps) and are located in the Poconos and in the northwestern part of the state. Between 1956 and the late 1980's, Pennsylvania experienced a loss of approximately 1,210 acres of inland vegetated wetlands yearly. Marshlands were the most affected with a 38% loss primarily due to the construction of ponds. Other factors contributing to the reduction include conversion to cropland, urbanization, channelization, and mining.

Considering the benefits previously cited as well as recreational opportunities provided by wetlands and their inherent aesthetic values, it is imperative that we endeavor to protect and preserve these natural treasures.

Site 1: Dale's Ridge Trail

Dale's Ridge Trail rises steeply, 160 ft. (48 m) above Buffalo Creek in east central Buffalo Valley. Crossing the northern part of the ridge, the trail has a variety of scenic views, geological features, wildflowers, and birds. Habitats include the creek floodplain with majestic sycamores, a pond, fields in various stages of ecological succession, and a mature hardwood forest.

Groups of fifteen or more must contact the Conservancy at 524-8666 before using the trail. The trail is open every day until dusk. It is closed during the antlered and antlerless deer hunting seasons.

Note: The Dale's Ridge Trail is on land protected in perpetuity by a conservation easement held by the Linn Conservancy.

Directions: Access to the trail is from the parking area along Strawbridge Rd. on the south side of Buffalo Creek. Specific information concerning the 2 mi. loop trail is available there.

Site 2: Mohn Mill Area

Located in the Bald Eagle State Forest in northwestern Union County, the Mohn Mill Pond area is a hardwood forest consisting mostly of red oak, red maple, and hemlock. Beneath the canopy is an abundance of mountain laurel and witch hazel. Scattered throughout the area are many scenic vernal pools ringed by sphagnum moss and cinnamon ferns. The pools are small, shallow depressions filled with water throughout most of the year. They are especially beautiful in May, June, and July when the vegetation is green and lush.

Recently identified as pingo scars, these pools are thought to have formed in depressions created by the melting of large subsurface mounds of Pleistocene ice (called pingos) at the close of the last ice age about 10,000 years ago. The pingos formed in a periglacial permafrost zone south of the main areas of glacial ice.

The walk is easy with no steep grades or difficult stream crossings.

Note: This trail was constructed and is maintained by members and friends of the Linn Conservancy.

Directions: From the main loop turn left onto White Deer Pike (becomes Sugar Valley Narrows Rd.) and travel about 15 mi. paralleling White Deer Creek. After crossing Rte. 80, turn right onto Zimmerman Rd. (the first right turn). Follow it for 3 mi. and then turn right onto Mohn Mill Rd. Go 1 mi. to where orange blazes

mark the Mid-State Trail. Walk to the right (east on the MST) 1/2 mi. past the first trailhead to the second head of the Merrill Linn Trail, a 1 mi. "blue blaze" loop.

Alternately, take Rte. 80 west from Rte. 15 to the Mile Run exit (#29). Turn left at the end of the exit ramp and then right at the first stop sign onto Sugar Valley narrows Rd. Cross Rte. 80 and turn right onto Zimmerman Rd. (the first right) and follow directions given from the main loop in the preceding paragraph.

White Deer Pike, Sugar Valley Narrows Rd., Zimmerman Rd., and Mohn Mill Rd. are mountain roads, which may be unsuitable for some vehicles and/or may be closed to traffic at certain times of the year.

Site 3: State Game Lands #252 (Allenwood)

Comprised of over 3,000 acres on the Union/Lycoming county border, these game lands provide habitat primarily for small game species, waterfowl, and deer. Numerous ponds provide opportunities for fishing, rest stops for migratory geese and ducks, and homes for fur-bearers, such as mink and muskrat. Some of the larger ponds are suitable for canoeing, while a network of roads and trails provides access for hikers, cross-country skiers, horseback riders, and mountain bikers. The area is especially popular with birders who come to view the succession of species that utilize its diverse habitats throughout the year.

Note: Appropriate safety precautions should be taken when visiting the game lands during the hunting season.

Directions: Turning left from the main loop, travel north .7 mi. on Rte. 44 to the entrance to the game lands. The entrance is on the right. It is a poorly marked, rough, gravel road that leads to a parking area.

Site 4: Shikellamy State Park Overlook

At Shikellamy State Park Overlook sheer, nearly vertical walls of sedimentary rock rising to 360 ft. (110 m) above the Susquehanna River provide a panoramic vista of parts of Union and Northumberland counties. Eight hundred feet (244 m) above sea level, the river bluff is a major rock outcropping comprised mainly of sandstones and conglomerates formed by the deposition and compaction of sediments 340 million years ago.

Named in honor of an Iroquois Indian leader, the site has picnic tables and two miles of hiking trails through open fields and forests of oak, maple, beech, and hemlock. The site commands a spectacular view of the confluence of the West Branch Susquehanna and the Susquehanna rivers. The view encompasses only a small part of the 13 million acre drainage basin of the Susquehanna. Approximately twice the size of Maryland, this watershed is the second largest in the eastern United States. Having the highest average flow of any eastern river, it contributes more than 50% of all the freshwater flowing into the Chesapeake Bay. Consequently, the health of the bay (100 mi. or 160 km to the south) is dependent upon the proper stewardship of the land and waterways in central Pennsylvania.

The park is closed from dusk to dawn and all day during poor weather conditions in winter.

Directions: From the main loop travel an additional 1.8 mi. on County Line Rd. past Mulls Hollow Rd. Clearly marked, the park entrance is on the left.

Site 5: Shamokin Mountain Trail (Winfield)

Formerly agricultural land, this part of Shamokin Mountain is now in meadows and shrub thickets providing cover for prairie warblers, bluebirds, turkeys, and deer. Red-tailed hawks often perch on the steel towers of a PPL powerline. The view to the north from the powerline frames the Buffalo Valley against Nittany Mountain while the south view offers picturesque vistas of Dry Valley and ridges as far south as Big Mountain near Dornsife and Trevorton. The meadows are bordered by second growth forests of mixed hardwoods and hemlocks. Listen for the pileated or red-bellied woodpeckers that frequent these woods. Walkers and cross-country skiers will find this a pleasant area to visit.

Note: Appropriate safety precautions should be taken when visiting the game lands during the hunting seasons.

Directions: From Rte. 304, travel 1.4 mi. north on Stein Lane. Before the clearing for the powerline, turn right into private drive. Proceed approximately .25 mi. to a trailhead information sign on left. Please park so as not to obstruct the driveway.

Site 6: Montandon Wetlands

According to the Pennsylvania Natural Diversity Inventory (prepared by the The Nature Conservancy), one of the state's more significant natural areas is Montandon Wetlands. The area contains marshes, swamps, bogs, and vernal pools nestled among low sand dunes. Remnants of glacial times, the sand dunes and the extensive gravel deposits underlying much of the upland area are situated on an ancient, braided course of the Susquehanna. Unique soil and water conditions present today provide excellent habitats for a diverse community of plant and animal species.

Notable among the plant species in the wetlands are the river bulrush (*Scirpus fluviatilis*) and the bull sedge (*Carex bullata*). Rare in Pennsylvania, the population of river bulrush in the marsh area has been identified as the largest and healthiest of its kind in the state. Growing to a height of 5 ft. (1.5 m), this bulrush is the tallest in the eastern United States. The bull sedge population found here is one of only two remaining in the state. Cranberries, blueberries, sumac, and cattails add to the diversity of vegetation which provides habitats for a variety of animal populations.

Naturalists have long known the area for its population of spadefoot toads. Preferring the loose, sandy ground into which they can easily burrow, spadefoots are able to exist for months buried in the soil. There they await the first heavy, warm, spring rain which triggers their emergence and the beginning of their reproductive process. Additionally, the wetlands provide critical refuge for birds such as great blue herons, red-shouldered hawks, marsh wrens, and Virginia rails. They also serve as an important stop for migratory waterfowl, and for Monarch butterflies bound for wintering grounds in central Mexico and southern Florida.

Like all wetlands, the Montandon Wetlands are a fragile and vulnerable complex of very special habitats and species. It is an area that richly deserves protection and preservation so that it can continue to function as an intact wetland ecosystem.

Note: This area is privately owned with no public access except by special permission. Contact the Linn Conservancy (524-8666) to learn of any scheduled educational walks on land, some of which the Conservancy owns. A video cassette on Montandon Marsh will be available in 2000.

(Back Page)

In the 1990's, Union County experienced a 1% annual growth rate in its population. Today more than 40,000 people reside here. This trend continues at the expense of forests, wetlands, waterways,

farmlands, and wildlife - those very aspects that provide the quality of life we so much enjoy. In light of this, the Merrill W. Linn Land and Waterways Conservancy is dedicated to the task of protecting and preserving our natural heritage for generations to come. Please join us in our efforts to do so.

Membership in the Conservancy is based on the calendar year and is \$25 for individuals and \$50 for a family. Other categories include Contributor (\$100), Sponsor (\$250), Steward (\$500), Patron (\$1,000), and Benefactor (\$5,000). The Conservancy is a non-profit 501(c)(3) organization. Donations to it are tax deductible as allowed by law. For further information or to join write to:

The Merrill W. Linn Land and Waterways Conservancy
 P.O. Box 501
 Lewisburg, PA 17837
 conserve@ptd.net
 (570) 524-8666
 (570) 524-8743

Main Driving Loop

Direction	Road	Mileage
Starting Point (see map)	Rte.15 North	0.5
Left onto	Rte.192	1.7
Right onto	Strawbridge Rd.	2.0

*Access to Dale's Ridge Trail at 1.5 mi. (Site 1)

Left onto	SR#1002 (Col. John Kelly Rd.)	0.2
Right onto	SR#1003 (Fort Titzell's Rd.)	4.9
Left onto	SR#1003 (Dyer Rd.)	1.3
Left at intersection	SR#1003	0.7

with Furnace Rd. (Dyer Rd.)

*Left onto	SR#1010 (White Deer Pike) To visit Mohn Mill Area (Site 2) see text	
Right onto	SR#1010 (White Deer Pike)	3.4
Left onto	Rte.15 North	2.5
Left onto (Before Rte.44 light)	SR#1012 (Devitt Camp Rd.)	2.2
Left onto	South Creek Rd.	1.7
Right onto	Masser Rd. (Becomes McCarty Rd.)	1.0
*Left onto	Rte.44 To entrance of State Gamelands (Site 3)	0.7
Right onto	Rte.44	2.7
Right onto	Rte.15 South	2.6
Left onto	SR#1010 (White Deer Pike)	0.1
Right onto	SR#1011 (Old Rte.15)	2.6
Left onto	Cemetery Rd.	0.2
Right onto	SR#1009 (River Rd.)	1.3
Right onto	Rte.642 (Becomes SR#1004)	2.6
Left onto	SR#1005 (White Deer Church Rd.)	4.0

becomes Churches Rd.
then Hospital Drive.)

Cross Rte.15 to stay on	SR#1005 (River Rd.)	0.8
In Lewisburg stay on	St. Anthony St.	0.4
Veer right at stop onto	Buffalo Rd.	0.2
Left onto	Rte.15 South	0.5
Veer right just beyond intersection of Rte.15 and Rte.45 onto	Stein Lane	1.3
Right onto	Pheasant Ridge Rd.	4.0
Left at T onto	SR#2003	4.0
Left in New Berlin onto	Rte.304 East	3.1
Veer right onto	SR#2002 (County Line Rd.)	4.4
Right onto	Park Rd.	0.2
Left onto	SR#2002 (County Line Rd.)	0.4
Cross Rte.15 to stay on	SR#2002 (County Line Rd.)	0.6
Left onto	Mulls Hollow Rd.	1.5
*Stay on	SR#2002 for entrance to Shikellamy State Park (Site 4)	1.8
Left onto	Seven Kitchens Rd.	0.5
Right onto	Rte.15 North	0.3

Left onto	Rte.304 West	0.2
Veer right to stay on	Rte.304	3.4
Right onto	Stein Lane	5.2

*Access to Shamokin Mt. Trail at 1.4 mi. (Site 5)

**Directions to natural sites.*

(Picture of Map)

1. Dale's Ridge Trail
- 2.Mohn Mill Area (Merrill Linn Trail)
- 3.State Game Lands (Allenwood)
- 4.Shikellamy State Park
- 5.Shamokin Mountain Trail
- 6.Montandon Wetlands (not on route)