

Pennsylvania State Parks Mission

The primary purpose of Pennsylvania state parks is to provide opportunities for enjoying healthful outdoor recreation and serve as outdoor classrooms for environmental education. In meeting these purposes, the conservation of the natural, scenic, aesthetic and historical values of parks should be given first consideration. Stewardship responsibilities should be carried out in a way that protects the natural outdoor experience for the enjoyment of current and future generations.

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JENNINGS ENVIRONMENTAL EDUCATION CENTER



Jennings Environmental Education Center is one of several state parks specifically dedicated to providing environmental education and interpretation to the community. A variety of programs that increase knowledge and awareness of the beauty and importance of our natural resources are available for children, teachers and the general public. By taking some time to explore Jennings through its trail network or community programs, visitors can enjoy the outdoors while learning the skills needed to be good stewards of Pennsylvania's outstanding natural resources.

Jennings provides a unique combination of prairie and forest, which offers a wide array of resource and education opportunities. One of the park's main features, the 20-acre prairie ecosystem, is home to distinctive prairie plants and the endangered massasauga rattlesnake. The most noteworthy and spectacular prairie flower is the blazing star. Jennings was the first reserve established in Pennsylvania to protect an individual plant species and remains the only public and protected prairie in the Commonwealth.

Directions

The center is 12 miles north of Butler, on PA 528. The office is open from 8 a.m. to 4 p.m. Monday through Friday, and some weekends. Call ahead for the weekend schedule. The grounds are open from sunrise to sunset, seven days a week, for hiking and other nature-related activities.



ENVIRONMENTAL EDUCATION AND INTERPRETATION

Jennings is committed to providing a diverse array of environmental education and interpretive programs. Programming is offered year-round to schools, civic groups, and the community. Each year over 167,000 visitors, 280 schools, 11 colleges and universities and a number of civic organizations are served by Jennings. Educational programs are age-specific and promote learning through discovery and a hands-on approach.

School Programs (Pre K to 12)

Curriculum and standards-based programs are available for all grade levels, Pre-K through 12. During programs, students actively explore the unique environments at Jennings, including the prairie ecosystem, streams, wetlands and abandoned mine treatment systems. Students make inquiries and discoveries, collect and analyze data, and learn to think critically about environmental problems and solutions. Students with physical, mental and emotional disabilities can also participate in programs adapted to meet their special needs. Programs must be arranged in

advance by contacting the program coordinator at 724-794-6011.

College

Jennings provides a number of programs for students with a wide range of backgrounds. Externship opportunities are available for students seeking degrees in environmental education, resource management, biology and other related fields.

Teacher Training

A variety of natural history and curricula workshops are available to teachers. These workshops are designed to provide information and ideas that can be easily integrated into the classroom.

Public Interpretive Programs

Community programs present various environmental topics in an informative and entertaining way through outdoor recreation, illustrated presentations, trail walks and public workshops. A schedule of community programs is available at the center office and online at www.visitPAparks.com.

Special Events

Jennings provides a variety of special programs, including maple sugaring, environmental scout days and three major volunteer events.



NATURAL RESOURCES

Prairie Ecosystem

"Prairie" is a French word for meadow, which was used by early explorers to describe any open, grassy area. The forests experienced by early explorers were extremely dark and immense, making open areas rare and valuable. Open areas provided an opportunity for pioneers to see the sun, rest and feed their animals. Today, we define prairies as distinct communities of plants and animals.

One particular flower that is abundant in the Jennings prairie is the magnificent blazing star. Normally associated with Midwestern prairies, its occurrence in Pennsylvania is unique because it is outside of its normal range. These bright purple flowers clustering on 4 - to 6-foot stalks create a spectacular show during peak bloom time in late July and early August. The late bloom time is common for prairie plants, which prefer the hot, dry weather of midsummer.

Wildflowers and grasses support a vast array of butterflies and moths, as well as other insects that serve as food for amphibians, birds and small mammals. The amphibians and small mammals, in



turn, are food for a special prairie resident, the massasauga rattlesnake (above). The Jennings prairie is one of the few places in the state where this snake is found. Due to the loss of its wet meadow habitat, the massasauga is endangered in Pennsylvania and is strictly protected. Like all rattlesnakes, the massasauga is venomous and may bite if surprised or threatened. Please stay on the trails for your own safety and the snake's protection.

The Jennings Woodlands

Over three-quarters of the park is covered by forest. These woodlands include stream valleys, upland forests, and wetlands, which provide diverse habitats for wildlife. Stories from the past can be revealed by closely examining these forest communities. The

stream valley along Big Run was once filled with majestic American elms. Sadly, most of these trees have succumbed to Dutch elm disease, a fungus introduced to North America in the 1930s.

Other common bottomland trees stand where the elms once grew. Yellow birch and basswood are among the trees that prefer the rich, moist soils and cooler temperatures found in Big Run valley. In spring, this valley is carpeted with delicate woodland wildflowers. Trillium, hepatica, spring beauties and other flowers race to bloom before the tree canopy closes and blocks sunlight from the forest floor.

A gentle climb out of the valley leads to the drier, hardwood forest consisting primarily of oak, maple, hickory and cherry. Early colonists realized the economic value of these hardwoods. By 1820, Butler County's timber was nearly gone. The size of the trees at Jennings today indicates the relatively young age of the forest.

Today, the forest is valued for more than economic reasons. By providing food, shelter and cover, the Jennings woodlands are home to an abundance of wildlife, where visitors can enjoy solitude and experience the natural environment.

NATURAL RESOURCES MANAGEMENT AND RESEARCH

Managing and protecting the natural resources of the park are two of Jennings' foremost goals. The prairie, surrounding woodlands, streams and wetlands have distinct management requirements. The uniqueness and diversity of these resources requires a holistic approach to management.

Prescribed Burn



A dramatic technique that benefits the prairie is the use of fire, which occurs naturally in many prairie ecosystems. At Jennings, a controlled burn is used to slow

the growth of woody plants and rejuvenate the native grasses and wildflowers.

American Columbo

The American columbo is an endangered plant species in Pennsylvania. Jennings has one of the few significant populations in the state. The life cycle of the columbo is unusual and not well understood. This mysterious plant blooms once in its lifetime and then dies. Continuing research by staff is necessary to prevent the American columbo's disappearance from Pennsylvania.

Past Problems, Future Solutions

Drainage from abandoned coal mines has a tremendous impact on Pennsylvania's water quality. Coal seams exposed to air and water produce sulfuric acid and an orange

precipitate known as yellow boy. This abandoned mine drainage (AMD) flows into streams, causing pollution so severe that plant and animal life may not survive.

At Jennings, mine drainage flows into Big Run from a nearby abandoned mine. In cooperation with other agencies and private organizations, Jennings has explored several innovative, passive technologies to combat this pollution.

These technologies were initially modeled after wetlands, which act as natural filtering systems. The passive systems now in place provide a unique site for continued research, experimental management and environmental education. Numerous interpretive exhibits throughout the Jennings Abandoned Mine Drainage Treatment, Research and Demonstration Area provide information about the formation and treatment of AMD.

THE FACES OF CHANGE

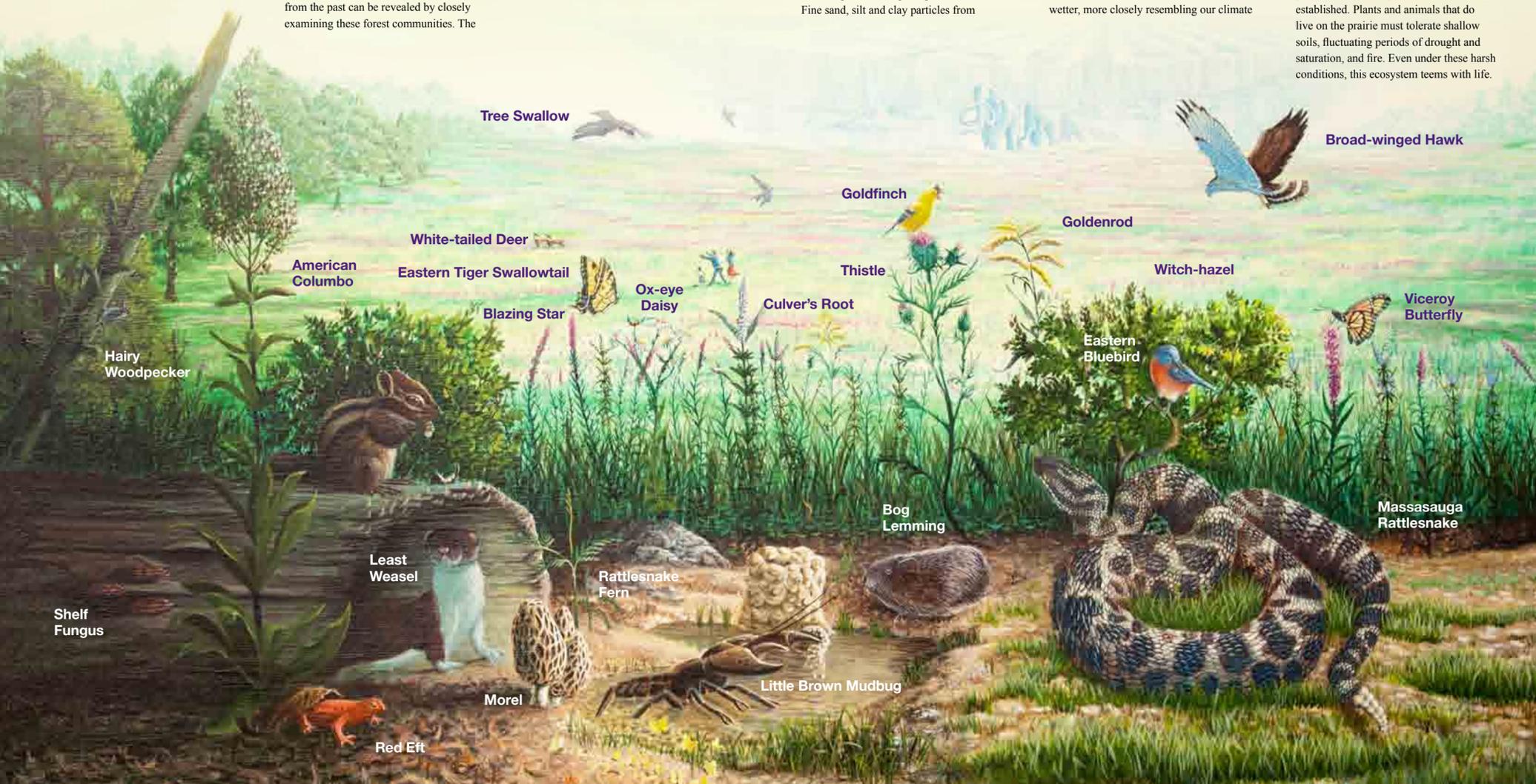
A million years ago, Jennings looked dramatically different than it does today. Glaciers, water and climate have all played a part in changing the face of the landscape.

Immense glaciers scoured the earth, removing soil and exposing bedrock. Fine sand, silt and clay particles from

glacial meltwater settled in prehistoric lakes, forming new soil. Changing climate conditions resulted in a warm, dry period, which allowed prairie plants to extend from the Midwest into Pennsylvania. Gradually the climate became cooler and wetter, more closely resembling our climate

today. Eventually, through succession, forests replaced all but a few prairie sites in Pennsylvania.

The Jennings prairie remains due to a thick layer of impermeable clay that prevents most tree species from becoming established. Plants and animals that do live on the prairie must tolerate shallow soils, fluctuating periods of drought and saturation, and fire. Even under these harsh conditions, this ecosystem teems with life.



Tree Swallow

Broad-winged Hawk

Goldfinch

Goldenrod

White-tailed Deer

American Columbo

Eastern Tiger Swallowtail

Thistle

Witch-hazel

Blazing Star

Ox-eye Daisy

Culver's Root

Viceroy Butterfly

Hairy Woodpecker

Eastern Bluebird

Massasauga Rattlesnake

Least Weasel

Rattlesnake Fern

Bog Lemming

Morel

Little Brown Mudbug

Red Eft

Sulphur Butterflies

RECREATIONAL OPPORTUNITIES

Spend the Day

PICNICKING: Two picnic areas provide tables and restrooms. The Woodland Picnic Area is behind the center office at the beginning of the Woodland Trails System. The Prairie Picnic Pavilion Area overlooks the relict prairie. Its pavilion seats 50 people and may be reserved up to 11 months in advance for a fee. If unreserved, the picnic pavilion is free on a first-come, first-served basis. Make online reservations at:

HIKING: 5 MILES OF TRAILS

Jennings offers many hiking opportunities that traverse varying terrain and diverse habitats. Visitors may walk through over 300 acres of forest and prairie. The trail system is designed as a series of loops, with trail signs at every intersection, making it possible to choose a variety of hiking experiences. Trails are designed for foot traffic only. Bicycles and motorized vehicles are prohibited. Pets are permitted, but must remain on a leash at all times. Some trails are appropriate for cross-country skiing. Tell us about your hike at: www.exploretrails.com.

Woodland Trails

BLACK CHERRY TRAIL: 0.5 mile, easiest hiking
This loop trail travels through both upland and bottomland and is good habitat for spring wildflowers, ferns and birds. The trail follows Big Run, a small stream that flows through the park for 0.12 mile.

DEER TRAIL: 0.35 mile, easiest hiking
Accessed by following Blazing Star Trail for 0.22 mile, this short, flat, wide loop trail travels through thick, brushy habitat. A demonstration scale deer enclosure has been erected along this trail.

GLACIER RIDGE TRAIL: 0.31 mile, easiest hiking
This trail is part of a 15-mile trail that links Jennings to Moraine State Park. It travels through some of the most scenic woodlands of Jennings. More information about this trail is available at the center office.

HEPATIC TRAIL: 0.26 mile, easiest hiking
Spring wildflowers, such as the fragile hepatica, can be seen along this connecting trail that links Oakwoods Trail to Glacier Ridge Trail.

MASSASAUGA TRAIL: 0.47 mile, easiest hiking
Starting in the prairie, this trail soon enters a mixed hardwood forest of predominately oak and hickory. The dry forest soon drops into the damp, scenic Big Run valley, providing an opportunity to observe barred owls, before rising again to meet Deer Trail.

OAKWOODS TRAIL: 1.2 miles, easiest hiking
This is the longest trail at Jennings and covers varying terrain and several

www.visitPAParks.com or call toll-free 888-PA-PARKS, 7 a.m. to 5 p.m., Monday to Saturday, for state park information and reservations.

Enjoy the Winter

CROSS-COUNTRY SKIING: All trails north of PA 528 (prairie side) are recommended for cross-country skiing.

SNOWSHOEING: Snowshoeing is popular at Jennings. Snowshoes are

available to borrow Monday through Saturday when there is adequate snow cover. Call ahead for snow conditions.



different types of habitat, including an area recently influenced by beaver. It can be accessed from Deer Trail or Massasauga Trail. Unique to this trail are several man-made pits. It is believed that the pits were excavated in the 19th century for ore bearing clay, which was taken to local iron furnaces.

OLD ELM TRAIL: 0.25 mile, easiest hiking
Starting west of the center office and looping back to it, this trail passes through an area of the park once dominated by large elm trees. Most succumbed to Dutch elm disease in the 1930s, leaving nothing but rotting logs behind.

OLD FIELD TRAIL: 0.18 mile, easiest hiking
A connecting trail which links Deer Trail to Oakwoods Trail, Old Field Trail passes through an area dominated by hawthorns and other small shrubs. This is evidence that the area was a farm field many years ago.

OLD MILL TRAIL: 0.14 mile, easiest hiking
Accessed by following Woodwhisper Trail for 0.04 mile, this trail connects the center office to Black Cherry Trail and passes by the remains of a 19th century sawmill.

RIDGE TRAIL: 0.68 mile, more difficult hiking
This rough, wooded trail passes through the only area open to hunting in the park and can be an interesting extension to Black Cherry Trail. Large boulders and rocky terrain highlight this steep trail.

WETLANDS KIOSK TRAIL: 0.04 mile, easiest hiking
Accessed by following Woodwhisper Trail for 0.08 mile, this short, extension trail leads to an interpretive kiosk overlooking a passive wetland treatment site.

WOODWHISPER TRAIL: 0.16 mile, easiest hiking

Popular with people with strollers, this paved, flat loop travels through an upland, mixed hardwood forest.

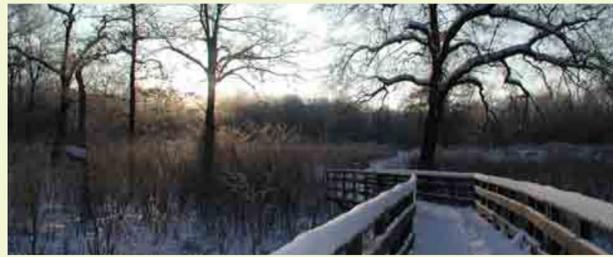
NORTH COUNTRY NATIONAL SCENIC TRAIL: This national scenic trail passes through Jennings and utilizes a number of the woodland trails, including Glacier Ridge, Ridge and Black Cherry. This blue-blazed trail system links North Dakota to New York, traveling through seven states for a distance of over 3,200 miles. More information on the North Country National Scenic Trail is available at the center office. www.nps.gov/noco

Prairie Trails

The eastern prairie is a rare ecosystem that is home to the endangered massasauga rattlesnake. Although this small and reclusive snake is very timid, it is venomous and visitors should be careful when walking through its home. Staying on the mowed paths and keeping alert can reduce the chances of an unexpected encounter.

BLAZING STAR TRAIL: 0.22 mile, easiest hiking
Named for the beautiful wildflower that turns the prairie purple in late July and early August, this self-guiding interpretive trail travels through the middle of the prairie. Follow the interpretive signs and discover how the prairie was formed and why it is unique.

PRAIRIE LOOP TRAIL: 0.28 mile, easiest hiking
The interpretive signs continue on this short loop that can be accessed from Blazing Star Trail. This trail is recommended for viewing wildflowers in the summer and fall and for cross-country skiing in the winter.



HISTORY

Legacy of the Land

The Paleo-Indian People were the first humans in the area. Arriving about 15,000 years ago, these nomadic hunters followed the retreating face of the glacier in search of woolly mammoths and giant ground sloths. The frantic pursuit of these giant animals is believed to have helped force the animals to extinction. Little is known of the early cultures that inhabited the area after the Paleo-Indian People.

By the end of the 16th century, the Seneca Nation of the Iroquois Confederation controlled the area. Dependent on agriculture, the Seneca used fire to open areas to plant crops, which may have helped sustain prairie openings.

Trade and travel were an important part of American Indian culture. The Venango Trail lies beneath PA 528, a major road dividing the park. The trail connected Pittsburgh to Franklin and was traveled by a number of historic figures like Tecumseh, George Washington and Lafayette.

The 1800s brought an influx of settlers

who altered the landscape and depleted the resources through lumbering, agriculture and hunting. Once the resources above the ground were exhausted, a new generation looked below the surface. Coal mining became a booming industry during this era. While mining provided a needed source of energy, techniques of that day left significant scars on the land.

At Jennings today, it is hard to see the scars from previous uses of the land. As educators, the Jennings staff strives to help people understand that we continue to be a product of our environment and need to make informed decisions concerning the immediate and long-term effects of our actions. The decisions we make today about how to use the land will leave our legacy for future generations.

Otto Emery Jennings

The center is named in honor of one of Pennsylvania's most renowned botanists, Dr. Otto Emery Jennings. It is said that Dr. Jennings explored western Pennsylvania with the "energy of a pioneer" and

acquainted many with the botanical treasures he encountered.

Dr. Jennings first discovered the prairie in 1905. Thanks to a generous donation from the Butler Garden Club, he initiated the purchase and protection of the area by the Western Pennsylvania Conservancy, a private conservation group. The Conservancy was instrumental in establishing environmental education at Jennings.

By teaching others to appreciate Pennsylvania's unique natural areas, Dr. Jennings helped to ensure that this and other special areas would be preserved for future generations. Almost a century later, we continue to teach others in this tradition.

Foltz School

This one room, township school was built in 1880, on the site of a former log school. After 83 years of classes, the school closed in 1963. Foltz school was one of the last five public, one room schools to close in Pennsylvania. The building is currently being restored.

FOR YOUR INFORMATION

Access for People with Disabilities

This symbol indicates facilities and activities that are Americans with Disabilities Act (ADA) accessible for people with disabilities. This publication

text is available in alternative formats. If you need an accommodation to participate in park activities due to a disability, please contact the park you plan to visit.

In an Emergency

Contact a park employee or dial 911. Directions to the nearest hospital are posted on bulletin boards and at the center office. **NEAREST HOSPITAL**
Butler Memorial Hospital
1 Hospital Way
Butler, PA 16001
724-283-6666



Information and Reservations

For More Information Contact
Jennings Environmental Education Center
2951 Prospect Road
Slippery Rock, PA 16057-5023
724-794-6011
email: jenningspp@pa.gov
GPS: Lat. 41.00925 Long. -80.00359
An Equal Opportunity Employer
www.visitPAParks.com

Information and Reservations
Make online reservations at www.visitPAParks.com or call toll-free 888-PA-PARKS (888-727-2757), 7 a.m. to 5 p.m., Monday to Saturday, for state park information and reservations.

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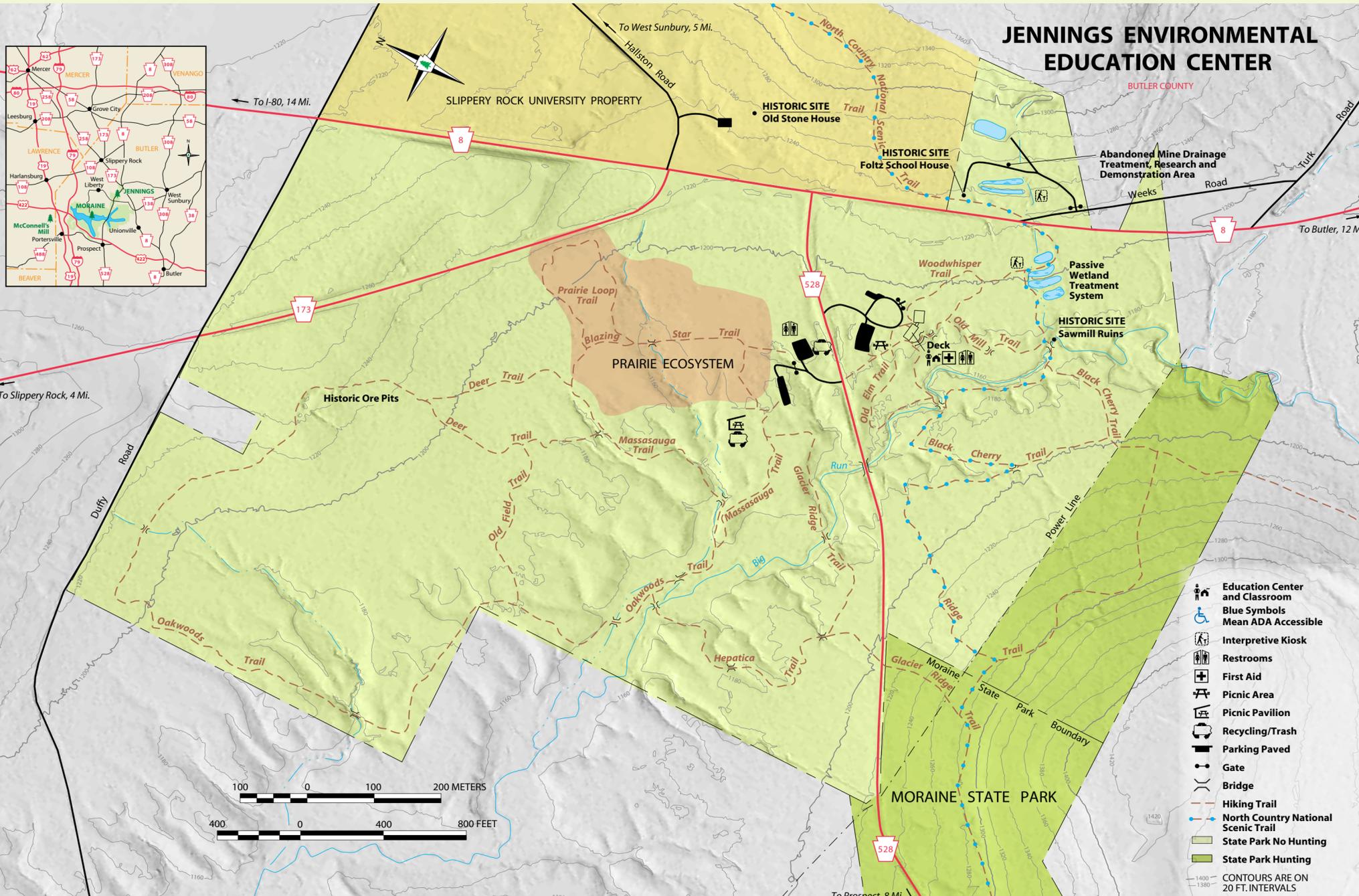
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JENNINGS ENVIRONMENTAL EDUCATION CENTER



- Education Center and Classroom
- Blue Symbols Mean ADA Accessible
- Interpretive Kiosk
- Restrooms
- First Aid
- Picnic Area
- Picnic Pavilion
- Recycling/Trash
- Parking Paved
- Gate
- Bridge
- Hiking Trail
- North Country National Scenic Trail
- State Park No Hunting
- State Park Hunting
- CONTOURS ARE ON 20 FT. INTERVALS