



# Jennings Environmental Education Center

Jennings Environmental Education Center



pennsylvania  
DEPARTMENT OF CONSERVATION  
AND NATURAL RESOURCES

## 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.

visitPAparks

2022



## JENNINGS ENVIRONMENTAL EDUCATION CENTER



Blazing star

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

Jennings' unique combination of woodland and prairie allows for a wide array of educational and research opportunities. The prairie is a large opening in the forest canopy that is home to distinctive plants and the endangered eastern 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

GPS DD: Lat. 41.00925 Long. -80.00359

The park is 12 miles north of Butler, on PA 528. The office is open from 8:00 AM to 4:00 PM, 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.

### Visitor Center

While at Jennings, take some time to explore the educational exhibits and Nature Shop. Exhibits are informative, interactive, and provide a closer look at what makes Jennings unique. The Nature Shop offers a variety of items, many of which are locally made.



Clearwing moth

## NATURAL RESOURCES

### Prairie Ecosystem

"Prairie" is a French word for meadow, which was used by early Europeans to describe the open, grassy areas they encountered. While Pennsylvania is associated with having vast forests at this time, it also featured a mosaic of forest openings. These openings occurred due to severe weather events, fire, and clearing by Indigenous peoples for hunting and agriculture. Today, we define prairies as distinct communities of plants and animals.

One particular flower abundant in the Jennings prairie is the blazing star. Normally associated with Midwestern prairies, 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. Late bloom times are 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 eastern massasauga rattlesnake. The Jennings prairie is one of the few places in the state where this



Eastern massasauga rattlesnake

snake is found. Due to loss of its wet meadow habitat, the massasauga rattlesnake is listed as endangered in Pennsylvania and federally threatened. 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 are 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. Trilliums, hepaticas, 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 trees. 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 now 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.

## LEARN, EXPERIENCE, CONNECT

Jennings Environmental Education Center offers a wide variety of programs year round. Gain a better understanding of the park's natural, cultural, and historical resources through guided outdoor recreation, hands-on activities, walks, and special events, such as maple sugaring in the spring. Celebrate the Bloom Festival in July, and volunteer workdays throughout the year.

### EDUCATIONAL AND SCHOOL PROGRAMS:

Pre-K through 12 experiences promote learning through an inquiry-based approach. During programs, students actively explore the unique environments at Jennings, including the prairie ecosystem, streams, wetlands, and abandoned mine drainage treatment systems. Students of all abilities and learning levels make inquiries and

discoveries, collect and analyze data, and learn to think critically about environmental problems and solutions. Programs must be arranged in advance by contacting the program coordinator at 724-794-6011.

Contact the park office or explore the online calendar of events, <https://events.dcnr.pa.gov>, for more information on programs and other learning experiences.

### POST-SECONDARY EDUCATION:

Programs and internship opportunities are available. Program topics range from wildlife ecology to chemistry to environmental interpretation. Students seeking internships in environmental education, resource management, park and recreation, biology, and other related fields should contact the park office.

### PROFESSIONAL DEVELOPMENT:

Workshops for educators are available for a variety of state, national, and locally-focused curricula. These development opportunities are designed to provide lessons and content that can be easily integrated into the classroom.



## NATURAL RESOURCE 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.

### 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. 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 wayside exhibits throughout the Jennings Abandoned Mine Drainage Treatment, Research, and Demonstration Area provide information about the formation and treatment of AMD.

### Controlled Burns



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 while rejuvenating native grasses and wildflowers.

### Expanding the Prairie

Modeled after naturally occurring disturbances, several acres of forest were thinned in 2020 to promote growth and create additional prairie habitat. Removing trees increases the amount of light on the forest floor and encourages the growth of seedlings, grasses, and flowers.

### 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 is necessary to prevent the American columbo's disappearance from Pennsylvania.

## THE FACES OF CHANGE

Thousands of 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.





RECREATIONAL OPPORTUNITIES

Spend the Day

**PICNICKING:** Two picnic areas provide tables and restrooms. A woodland picnic area is near the park office at the beginning of the Old Elm Trail. The Prairie Picnic Pavilion Area overlooks the relict prairie. The 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 [www.dcnr.pa.gov/StateParks](http://www.dcnr.pa.gov/StateParks) or call toll-free 888-PA-PARKS (888-727-2757), 7:00 AM to 5:00 PM, Monday to Saturday.

**HUNTING AND FIREARMS:** Just over 26 acres are open to hunting and the training of dogs during established seasons. Common game species are woodcock, squirrel, turkey, and deer.

Hunting woodchucks, also known as groundhogs, is prohibited. Dog training is

only permitted from the day following Labor Day through March 31 in designated hunting areas. The Department of Conservation and Natural Resources and the Pennsylvania Game Commission rules and regulations apply. Contact the park office for ADA accessible hunting information.

**Use extreme caution** with firearms at all times. Other visitors use the park during hunting seasons. Firearms and archery equipment used for hunting may be uncased and ready for use only in authorized hunting areas during hunting seasons. In areas not open to hunting or during non-hunting seasons, firearms and archery equipment shall be kept in the owner’s vehicle or enclosed trailer. Exceptions include: law enforcement officers and individuals with a valid *Pennsylvania License to Carry Firearms* are authorized to carry a firearm concealed on their person while they are within a state park.

Enjoy the Winter

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

**SNOWSHOEING:** All trails are suitable for snowshoeing, which is popular at Jennings. Snowshoes are available to borrow Monday through Saturday when there is adequate snow cover. Call ahead for snow conditions.



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 wooly mammoths and giant ground sloths. The constant 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 Indians, the largest nation of the Haudenosaunee (Iroquois Confederacy), controlled the area. Among the first people to develop innovative land management techniques, the Seneca used fire to open areas to plant crops, which may have helped sustain prairie openings.

The Venango Trail lies near PA 528, a major road dividing the park. One of many paths created by Indigenous people, the trail connected the areas that are now Pittsburgh and Franklin and was later traveled by historic figures like Tecumseh, George Washington, and Lafayette.

The 1800s brought an influx of European colonizers who forcibly removed native people, altered the landscape, and depleted the resources through lumbering, agriculture, and hunting. While exhausting the resources above the ground, succeeding generations began to look 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 how 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 park is named in honor of one of Pennsylvania’s most renowned botanists, Dr. Otto Emery Jennings. Dr. Jennings explored western Pennsylvania with the “energy of

a pioneer” and acquainted many with the botanical treasures he encountered.

Dr. Jennings first observed 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, park staff continue to teach others in this tradition.

**Foltz School**

This one-room, township school was built in the late 1880s, on the site of a former log school. After over 75 years of classes, the school closed in 1963. The building is currently being restored.

HIKING: 5 miles

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.

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. Stay on the mowed paths and be alert to 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-guided trail travels through the middle of the prairie. Follow the educational signs and discover how the prairie was formed and why it is unique.

**Deer Trail: 0.35 mile, easiest hiking**

Accessed via Blazing Star Trail, this short, flat, wide loop trail travels through an area where trees were removed to open the forest canopy, expanding the prairie and oak savannah ecosystem. This important resource management effort provides additional habitat for a variety of wildlife, including the endangered massasauga rattlesnake.

**Prairie Loop Trail: 0.28 mile, easiest hiking**

Accessed from Blazing Star Trail, this short loop is recommended for viewing wildflowers in the summer and fall and for cross-country skiing in the winter.

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. For a short distance, the trail follows Big Run, a small stream that flows through the park.

**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 park office.

**Hepatica 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 different types of habitat, including an area recently influenced by beavers. It can be accessed from Deer Trail or Massasauga Trail. Unique to this trail are several pits, believed to be excavated in the 19th century for ore-bearing clay, which was taken to local iron furnaces. In early spring, listen for wood frogs “quacking” in the numerous seasonal pools just off this trail.

**Old Elm Trail: 0.25 mile, easiest hiking**

Starting west of the park office and connecting to Black Cherry Trail, 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 park 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 an area open to hunting and can be an interesting extension to Black Cherry Trail. Large boulders and rocky terrain highlight this steep trail.

**Wetland Kiosk Trail: 0.04 mile, easiest hiking**

Accessed by following Woodwhisper Trail for 0.08 mile, this short, extension trail leads to an educational kiosk overlooking a passive wetland treatment site.

**Woodwhisper Trail: 0.16 mile, easiest hiking**

Popular with people with strollers, this flat loop travels through an upland, mixed hardwood forest. A short spur trail leads to an educational kiosk overlooking a passive wetland treatment site.

**North Country National Scenic Trail: 0.9 mile in the park, easiest hiking**

This National Scenic Trail passes through Jennings and utilizes several woodland trails, including Glacier Ridge, Ridge, and Black Cherry. This blue-blazed trail system links North Dakota to Vermont, traveling through eight states and over 4,700 miles. More information on the North Country National Scenic Trail is available at the center office. [www.nps.gov/noco](http://www.nps.gov/noco)

INFORMATION AND RESERVATIONS

**Jennings Environmental Education Center**

2951 Prospect Road  
Slippery Rock, PA 16057-5023  
724-794-6011  
[JenningsSP@pa.gov](mailto:JenningsSP@pa.gov)

An Equal Opportunity Employer  
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**Make online reservations at**  
[www.dcnr.pa.gov/StateParks](http://www.dcnr.pa.gov/StateParks) or call toll-free 888-PA-PARKS (888-727-2757), 7:00 AM to 5:00 PM, Monday to Saturday.

**Electric Vehicle Charging Station**

A two-plug, electric vehicle charging station is available for public use in the education center parking lot. Please move to another parking space once your vehicle has been charged.

**Nearby Attractions**

Information on nearby attractions is available from the Butler County Tourism and Convention Bureau. [www.visitbutlercounty.com](http://www.visitbutlercounty.com)

**Moraine State Park** adjoins Jennings and features Lake Arthur, a 3,225-acre lake that is a representation of a glacial lake that once covered most of the surrounding area. Moraine offers boating, hiking, biking, picnicking, swimming, and cabins for overnight visits. 724-368-8811

Located in Lawrence County near the intersection of US 19 and US 422, **McConnells Mill State Park** encompasses the spectacular 930-acre Slippery Rock Creek Gorge, a National Natural Landmark. 724-368-8811

The **Jacksville (Miller) Esker** is a serpentine shaped deposit of sand and gravel formed during the melting of a glacier. Also locally known as the West Liberty Hogback, it is the best remaining example of an esker in Pennsylvania. This Western Pennsylvania Conservancy property is along West Liberty Road, about five miles from Jennings. 412-288-2777

The 115-acre **Wolf Creek Narrows Natural Area** is known for its spectacular spring wildflowers. The natural area, managed by the Western Pennsylvania Conservancy, is located is two miles outside of the town of Slippery Rock where West Water Street crosses Wolf Creek. 412-288-2777

A historic inn and museum of rural life, the **Old Stone House** borders Jennings on the east side of PA 8. The house is operated by Slippery Rock University. 724-738-4964

**ARMCO Park** is located 2 miles north of Jennings on PA 173 and features a public pool, splash zone, playground, play fields, and picnic shelters. 724-287-4733

**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.

In an Emergency

Call 911 and contact a park employee. 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



Woodcock - Photograph by MT Carrick

