Day: Friday	Start Time: 8:30 am	End Time: 2:30 pm
Co-Leader:	Co-Leader:	Limit: 15 people
Transportation:	Driver:	Bus Captain: n/a
Fees: \$18 Transportation Fee	Travel Distance: 15 Miles one way	Travel Time: 25 Min one way





Moderate 4.5-mile Ridgeline Trail and Upper Indian Ladders (falls) Hike at PEEC.

This moderate 4.5-mile trail with over 570 ft elevation gain of several ups and downs, marked with yellow blazes, features oak-hickory forests, ravines, and wetlands that lead into a mature hemlock forest along Spackman's Creek. The Ridgeline Trail coincides with the Scenic Gorge Trail for the first and last half miles. Remnants of rock walls indicate that this area was once farmland. You will climb ridges and descend steeply using a rope to reach the gorge while exploring the remains of a cabin and an abandoned dam. The path meanders through wetlands and leads to a 15-foot waterfall on Alicia Creek before returning alongside the stream to the start. Additionally, we will visit Upper Indian Ladders Falls, a 30-foot multi-tiered waterfall along Upper Hornbeck's Creek.

- Bring standard hiking gear: Hat, Walking Stick, Water, Food, Hiking Shoes
- Pack your lunch during breakfast.
- Distance from camp: 15 Miles /25 Min one-way
- Length: 4.5 miles, loopDifficulty: Moderate
- Blaze: Yellow
- Elevation Change: 220 feet with 570 feet gain overall with all the ups and downs.
- Cost: \$18 Transportation Fee
- YouTube1 YouTube2

Pocono Environmental Education Center

538 Emery Rd, Dingmans Ferry, PA 18328 https://www.peec.org / peec@peec.org 570-828-2319

Logistics

- 8:30 am Depart from Camp
- 8:30 am 9:00 am Travel from Camp Nah-Jee-Wah to Pocono Environmental Education Center
- 9:00 am 9:15 am Bathroom, Gear Check, Leaders Circle Talk
- 9:15 am 1:30 Hike Ridgeline Trail
- 1:30 2:00 pm Bathroom, people round up.

2:00 pm - 2:30 pm Travel from PEEC to Camp

Leaders' Notes:

- 1. Call Park Dispatch at (570) 426-2435 or (800) 543-4295 for emergencies, then 911. The Delaware Water Gap of the National Park Service is at http://www.nps.gov/dewa.
- 2. You will be on a bus with other hikes (Tumbling Waters and Scenic Gorge). Coordinate your timing and exchange phone numbers with the other hike leaders to minimize waiting time for the bus at the end of the hikes.
- 3. During the hike, contact the other trip leaders to see if either group's pace needs to be adjusted.
- 4. The Ridge hike is scheduled to be four hours. Allowing extra time to enjoy the waterfalls.
- 5. Expect to spend time at the Indian Ladders Waterfall a good place for a snack break.
- 6. For the first half-mile and the last mile of the trail, the Ridgeline Trail runs concurrently with the Scenic Gorge Trail. The Scenic George Trail is a smaller loop of the Ridge Trail.
- 7. Communicate with the Scenic Gorge Hike Leader and meet where the two trails rejoin to end your hikes together.
- 8. There is a long ascent uphill from the waterfall back to the office. Pace yourself.
- 9. Bring plenty of water.
- 10. Most of the trail is covered. Wear a hat to keep ticks and bugs off.
- 11. This trail can be muddy in sections during rainy seasons, so waterproof footwear is recommended.
- 12. The trail starts behind Cabin #1 and ends behind Cabin #20. Return to the trailhead via the main campus.
- 13. Restrooms are in the main building, where trail guides and more information about Pocono Environmental Educational Center are available for a nominal fee.
- 14. If transportation is via a School Bus, do not stop for Ice Cream in Milford on the way back unless you are willing to pay Mosaic for the extra bus fees (over \$300 previously) caused by the additional time/stop. Please stick to the transportation schedule as planned.

PEEC's Environmental Study Goals

- A. To develop awareness of environmental concerns through formal and non-formal education.
- B. To help people acquire the knowledge, skills, attitudes, motivation, and commitment to enhancing the quality of the environment.

PEEC's Environmental Education (EE) Objectives

- A. Awareness: To assist individuals and social groups in developing a strong concern for the environment and the motivation to protect and enhance it actively.
- B. Knowledge: To help individuals and social groups understand the environment, its associated challenges, and humanity's crucial role.
- C. Attitude: To enable individuals and social groups to adopt social values and develop the ability to make informed choices while fostering environmental sensitivity.
- D. Skills: To equip individuals and social groups with the skills necessary for addressing environmental issues.
- E. Evaluation: To guide individuals and social groups in assessing environmental measures and educational programs based on ecological, political, economic, social, and academic criteria.
- F. Participation: To encourage individuals and social groups to take necessary actions to address environmental challenges.

PEEC's Environmental Education (EE) Guidelines

- A. EE represents total education within a complete environment, natural and artificial, ecological, technological, social, cultural, and aesthetic.
- B. EE is a continuous, lifelong process, occurring both formally in school and informally outside of school.
- C. EE is interdisciplinary.
- D. EE emphasizes active involvement by individuals to prevent and resolve issues.
- E. EE examines issues from a global viewpoint while considering regional differences.
- F. EE focuses on environmental conditions now and in the future.
- G. EE looks at all development and growth from an ecological standpoint.
- H. EE promotes local, national, and international cooperation to address environmental challenges.

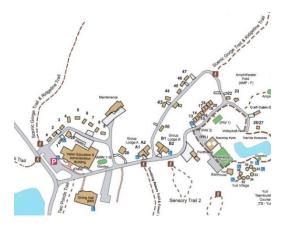
Ridgeline Trail Hiking Directions

Note: The trail is blazed yellow. It begins at Cabin 1 and ends on the lower campus. It runs along the Scenic Gorge Trail, blazed in red. Ridgeline Trails forms a figure eight. Scenic George stays in the lower part of figure eight, and the Ridgeline trail continues to the upper part of figure eight.

- Head from the main building to Cabin 1 to the trailhead for Ridgeline and Scenic Gorge Trails
- 2. Follow Yellow Markers for Ridgeline Trail. The elevated mounds you will pass are part of a series of septic mounds that hold wastewater from PEEC's campus.
- 3. You will come to a sign. Bear left to stay on Ridgeline Trail (Scenic Goerge is to the right), then right.
 - a. If time is an issue, follow the Red Scenic Goerge to cut ¼ miles. Both trails meet up again about ½ mile down the trail.
- 4. Come to a bridge where the red Scenic Goerge trail meets again briefly.
- 5. Stay left at the fork to stay on Ridgeline Trail. This is the start of the upper part of the figure eight.



- 6. Continue 7/10 miles to the next intersection and the top of the figure eight.
- 7. If time allows, bear left to take the green connector trail for 0.35 miles to see the upper section of Indian Ladders Falls.
- 8. Enjoy the falls and return on the same connector trail (0.35 miles) the way you came.
 - a. Note: there is a parking lot nearby for emergency takeout.
- 9. Turn left back onto Ridgeline Trial.
- 10. Follow the Ridgeline trial for 1.2 miles, where it will meet up with the Scenic George Trail, finishing the upper part of Figure eight. Along the way, you will cross the stream twice via bridges.
- 11. Both trails stay together for the hike for another 7/10 miles, finishing at the road within the PEEC campus.
- 12. Beer right on the road. It will end at a T between group lodges A and B.
- 13. Turn right at this intersection. Then, head back to the main building, where the bus will be waiting.
- 14. Bathrooms are in the main building.







Ridgeline TRAIL GUIDEby PEEC

1. WELCOME

Welcome to the Ridgeline Trail (formerly the Sunrise Trail) at the Pocono Environmental Education Center. Give yourself at least 3 hours to hike this looping 4.5-mile trail, which climbs up and over ridges of sedimentary rock (a rope assists your descent at one location), courses around forested wetlands, and dives deep into a mature Hemlock Forest following Spackman's Creek. The trail is blazed in yellow. It begins at Cabin 1 and ends on the lower campus. It runs along with the Scenic Gorge Trail, blazed in red. Be mindful as to where the trails split and converge. Please return only with fond memories and leave nature where it belongs. Look for the yellow-numbered signs along the trail for the corresponding text. Caution: As the trail ascends through the mixed pine forest, many trees are covered in poison ivy. Note that the hairy climbing vine is growing up the tree trunks. All parts of this plant in all seasons can cause an irritating rash if it encounters your skin.

2. TAMARACK TREES

Tamarack trees, also called larch, are unique because they are coniferous (cone-bearing) but not evergreen. The tree's needle-like leaves turn a bright yellow late in autumn before dropping. The trees are European tamaracks (Larix decidua) planted for various timber usages. The American larch (Larix laricina) is a northern species in Pennsylvania at high elevations in boggy environments. The tree is easily identified in winter by the abundant small round seed cones on the branches. The seeds are a favorite food for the ruffed grouse (Bonasa umbellus), the state bird of PA.

The elevated mounds you will pass are part of a series of septic mounds that hold wastewater from PEEC's campus. The mounds are called 'turkey mounds' as you often find wild turkeys (Meleagris gallopavo) feeding in the lush grass atop these mounds. These open fields in the middle of the forest create an edge habitat that benefits predator and prey. Rodents, eastern cottontail rabbits, wild turkeys, and white-tailed deer feed on seeds and vegetation, while hawks, owls, foxes, and coyotes come here to hunt.

3. WITCH HAZEL

In this low, moist spot in the terrain, witch hazel (Hamamelis virginiana) abounds. It is a small understory tree, growing in multi-stemmed clumps with leaning trunks. A medicinal tree, witch hazel astringent, is extracted from the tree and used in making skin lotions and eyewashes. The small yellow flowers have strap-like petals and begin blooming in the winter. The woody seed capsule takes one year to mature, producing an audible sound as it cracks open to eject two shiny black seeds. Look for these opened capsules attached to twig ends.

4. OAK-HICKORY FOREST

The forest around you is an example of the primary forest type found in the Appalachians, which is called the oak-hickory forest. It is comprised of valuable nut-producing canopy trees like chestnut oak (Quercus prinus), white oak (Quercus alba), red oak (Quercus rubra), black oak (Quercus velutina), pignut hickory (Carya glabra) and shagbark hickory (Carya ovata). Locating various nuts and their coverings beneath your feet should not be hard. "Bumper crops" of acorns are produced every 2-4 years. A single oak may carry 2000-7000 acorns during such a year. Black bears (Ursus americanus), white-tailed deer (Odocoileus virginianus), wild turkey (Meleagris gallopavo), southern flying squirrels (Glaucomys volans), chipmunks and blue jays (Cyanocitta cristata), consume these nuts en-masse to bulk up their fat reserves in the fall. The understory is shadbush at this location, called Serviceberry (Amelanchier sp.). This small tree produces showy white flowers in early spring and a sweet red edible berry in early summer. The smooth gray bark helps to identify this tree. Blueberry and huckleberry bushes (Vaccinium sp.) offer tasty fruits for wildlife throughout the shrub layer.

5. SUCCESSION

Picture the forest around you, bears of trees. Most of the Pocono region's forests were leveled for timber and cleared for agriculture between the 1800s and early 1900s. There were cattle grazing or vast fields of hay. The soil is very shallow and rocky here, so rocks had to be removed from the field and piled along the field like a stone fence. The fences eventually served well as property boundaries. When farming ceased, and these fields were no longer used, nature began the slow process of returning the land to a thriving forested state. This process is called succession.

6. SEDIMENTARY ROCK

The ridge that you see is a common feature in the local landscape. Most of the rock apparent in the exposed cliffs and ridgelines are sedimentary formations. This rock was formed 360 million years ago in the Devonian era as silt deposits settled on the bottom of a shallow sea. Under pressure and heat, the silt lithified – cemented together – over time, forming shale. Fossils of marine organisms are often easy to find in this rock. These rock layers were uplifted during the Alleghenian orogeny – mountain-building event – 290 million years ago during the Permian Period when Africa collided with North America. Water, wind, and ice have eroded the land ever since, carving ravines and exposing ridges. These ridges provide den sites for gray foxes (Urocyon cinereoargenteus), porcupines (Erethizon dorsatum), and even black bears (Ursus americanus).

7. WETLANDS

Wetlands are classified as "lands where saturation with water is the determining factor in soil development and the plants and animal communities that exist there" (USFS). Globally, wetlands are the most biologically productive ecosystems. These systems are very fragile and vulnerable to human disturbance. This lush wetland is blanketed with green mosses that function as a sponge for moisture. Various ferns and bountiful wildflowers protrude from hummocks in the spring and summer. The soil is deep and thick with decomposed organic material. It remains shady and cool even in the hottest weather. The canopy is provided by a unique blend of American elm (Ulmus americana) and yellow birch trees (Betula allaghaniensis), which thrive on organic soils. Look at and listen to a variety of birds through spring and summer.

8. WHITE PINE TREE

In front of you is a white pine tree (Pinus strobus) that was struck by lightning. Cloud-to-ground lightning occurs when the negatively charged electrons at the cloud base are attracted to the positively charged protons at the ground's surface (opposite charges attract). This creates a conductive path for electricity to travel. A tall tree creates a shorter, easier conductive path for the lightning to travel to the ground. When lightning strikes a tree, the sap instantly "boils," and gases expand, causing wood and bark to explode from the tree as the lightning current travels through it. The sizeable plank-like section exploded from the tree as the electrical current exited the trunk and reached the ground.

9. VERNAL POOLS

In shallow depressions throughout the forest, temporary wetlands are created yearly following the winter snowmelt and early spring rains. These are called vernal pools, which coincide with the vernal (spring) equinox. These pools provide essential breeding grounds for thousands of spotted salamanders (Ambystoma maculatum), wood frogs (Rana sylvatica), spring peepers (Pseudacris crucifer), and gray tree frogs (Hyla versicolor). Because the pools rarely hold water all year, there is an absence of fish that would predate the amphibians' eggs and young in a larger pond. Sphagnum mosses and a thick cover of highbush blueberry (Vaccinium corymbosum) are shared here. Black bears seek blueberry thickets for food and shade from the summer sun.

When the pools overflow, they contribute water to the local watershed. Water "spills" out and drains into Spackman's Creek (the stream you have and will cross again during the hike). The creek enlarges as more tributaries come together, and eventually, the creeks will enter the Delaware River, which flows into the Delaware Bay and the Atlantic Ocean.

10. HEMLOCK WOOLLY ADELGID

This sizeable old hemlock tree took just over three years (2002-2005) to turn from a healthy tree into what you see today. The culprit? It is called HWA: the hemlock woolly adelgid (Adelges tsugae). Originating in the hemlock forests of southeast Asia, this destructive insect entered North America via the Pacific Northwest in 1927. It was first found in the East in 1995 in North Carolina. It has been destroying the eastern hemlock (Tsuga canadensis) from Maine to Georgia. The tiny plant hopper-like insect sucks sap from the tree's needles, which causes them to die and drop. Thus, a tree's health deteriorates and may stand dead in just a few years. An Asian species of ladybug (Sasajiscymnus tsugae), a natural predator of HWA, has been released in many areas to help combat the rapid destruction of our state tree.

11. FARMED LAND

Much of this area was farmed during previous centuries. People who lived on this land, the same people whose hands may have helped pile the rock walls, have left their mark in many forms, giving us clues to their way of life. Here, we have a stone chimney constructed of rocks that would have been gathered locally. You can also trace the foundation of this tiny home or camp. A little farther down the trail, you will notice a wet depression where an earthen dam was constructed. This dam backed up the water flowing downslope from a seasonal pool and formed a pond that may have been 7 - 8 feet deep. These ponds were maintained for fire prevention.

12. WALKING FERN

This interesting evergreen fern is not commonly found in our area. Walking fern (Camptosorus rhizopyllum) grows on damp moss-covered rocks and prefers limestone but will accept many other kinds of stones. This fern can reproduce vegetatively in a series of short leaps spreading in all directions. The long, slender leaf tips of the parent plant arch to the ground, and the leaf tips root and send a new plant! As this new plant ages, its leaves will also arch, and its tips will root again, creating another new plant! So, in just a few generations, walking ferns can spread a considerable distance in any direction. See if you can trace this fern's fantastic growth. Please do not touch it. This is the only area where this fern is known to arow at PEEC.

13. WHITE-TAILED DEER

In Pennsylvania, white-tailed deer (Odocoileus virginianus) have overpopulated many regions due to the absence of natural predators and the increase of open areas and the forest-field edges where deer find abundant grass to graze. As a result, many forests have been over-browsed by deer. As herbivores, they eat succulent herbs on the forest floor and the leaves and new shoots of trees and shrubs during the growing season. In winter, they feed on twigs and buds. Although this is entirely natural, the forest may have little chance to regenerate itself if there is over-browsing. Due to lack of cover, ground-nesting and shrub-nesting songbirds may suffer from over-browsing. If you are in a deciduous forest with no new tree growth, chances there are too many deer in the area.

14. HEMLOCK FOREST

Stand and feel the magic of this forest! Here, trees stretch tall for the sunlight and shade the forest floor beneath. Fallen hemlock needles make the soil acidic, so few plants are growing here. Their shallow roots spread wide, holding the soil in place on steep slopes. Hemlock forests create a cool microclimate, providing shade and trapping moisture, keeping these mountain streams cool even in the summer. Snow does not accumulate as deeply under hemlock trees and offers easy travel for mammals throughout winter. Almost all old-growth hemlock stands were logged in this region between 1850 and 1920. Because the tree bark is high in tannic acid, the bark was stripped and shipped to local factories for use in the leather tanning process.

Remember the name of the bug attacking these trees? This forest is already in a state of decline. Try to imagine all these trees like the one at point #9. What would happen to the animals in this forest? The water? The soil?

15. POLYPORES

This fallen American beech (Fagus grandifolia) provides a good example of decomposition in the forest. Many factors, such as climate, woodpeckers, bacteria, fungi, and termites, are essential in this wood's decomposition process. Wood is a complex material. By feeding on the wood and changing its structure, decomposers help break it down into more straightforward, smaller materials so that essential elements like nitrogen can be released into the soil and atmosphere. Other living things will rely on the nutrients released into the soil for their growth. One day, this tree will become part of the soil, and microorganisms will continue to feed on organic matter. The tough woody fungi that you see are called polypores. They protrude like small shelves from dead wood and are often coined shelf or bracket fungi. Look for the tiny pores on their undersides, where the spores exit the fungi.

16. STREAM SPECIES

This stream has excellent water quality. Here in the hemlock forest, we are close to the stream's origins, so it has not had a chance to be exposed to contaminants. Because many species of macroinvertebrates and amphibians are sensitive to pollutants, their abundance indicates a healthy water system. You may wish to turn over rocks and see what lies beneath. Please return rocks to their original positions and return creatures to the water. Look for small cylindrical cases of pebbles 'glued' together. These are the homes of the caddisfly larvae. Look for two sizeable red salamander species, the northern red salamander (Pseudotriton ruber) and spring salamander (Gyrinophilus porphyriticus), hiding beneath flat rocks in the shallow water. The stream here is calm, but soon, it will turn into a series of waterfalls as it descends the plateau's edge en route to the Delaware River. Pennsylvania's state fish, the brook trout (Salvelinus fontinalis), lives in the deeper pools below the falls.

17. AMERICAN BEECH

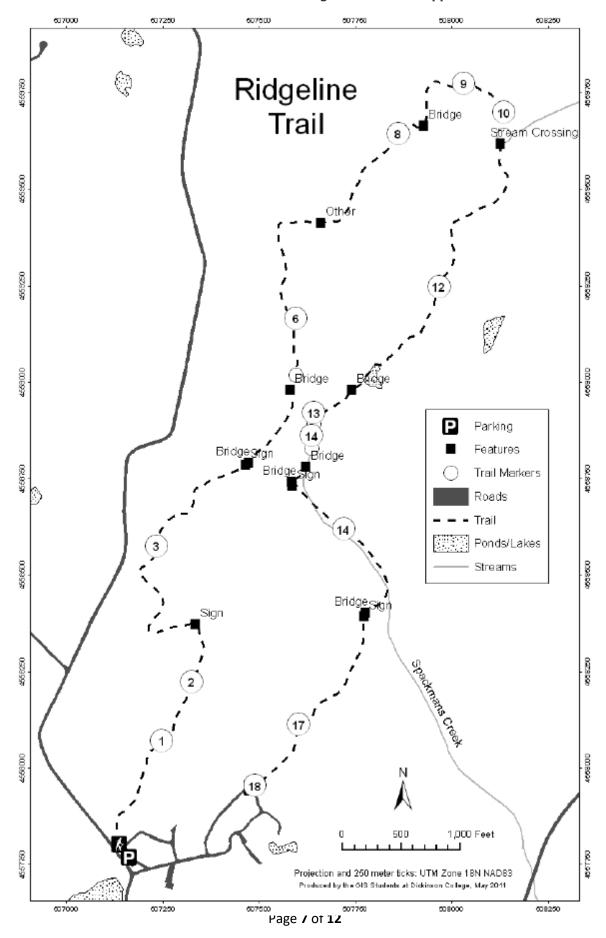
The American beech (Fagus grandifolia) is easy to identify because of its smooth gray bark. The buds are long and orange and may remind you of a miniature cigar. Beech trees hold on to their dead leaves all winter long. They hang dry and have a light golden-brown color. You can hear them rattle in the wind on chilly winter days. On large trees, look for distinctive claw marks of where black bears (Ursus americanus) have climbed them to feed on the delicious small beech nuts in early fall. Many beaches in our area have become infected with the beech-scale insect (Cryptococcus fagisuga), which carries a fungal disease (Nectria coccinea). Signs of the infection include cracking bark with black edges caused by cankers growing beneath.

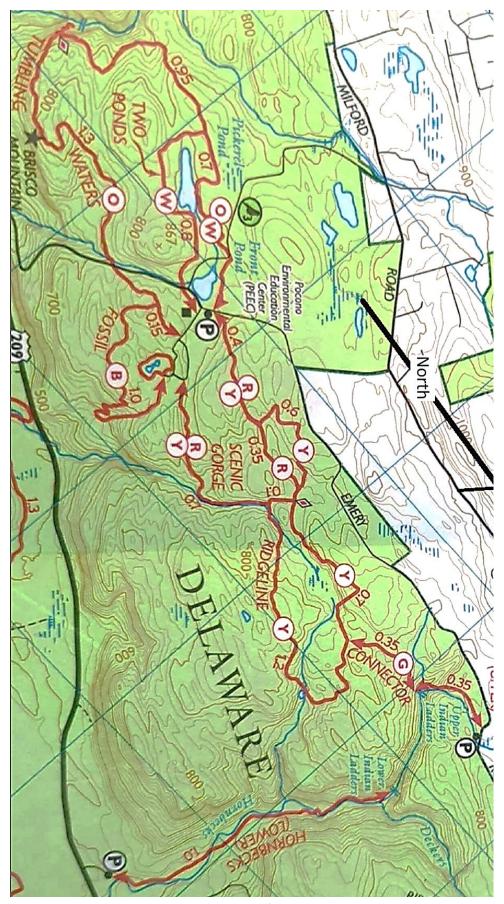
18. LICHENS

If it is lichen, you will like it too! If you see it growing, breathe deep. It indicates clean air quality! Look around you. Somebody splattered green and grey paint over all the tree trunks. Lichen is a dual-organism composed of a fungus and green algae or cyanobacteria (blue-green algae). The two exist together in a mutually beneficial relationship called <u>symbiosis</u>. The fungus cannot photosynthesize and produce food like plants, so it must absorb food from a host. The fungus secretes a mild acid to break down organic matter, even rocks and then absorbs the nutrients and minerals. As the algae photosynthesize, they create carbohydrates, which the fungi also obtain as food. The fungus provides a moist site for the algae to grow and protects it from drying out during drought. Lichen comes in many forms. See how many types you can find where you live.

This concludes with the Ridgeline Trail. We hope you have enjoyed the landscape you have explored and understand more about the components of a forest. From the amphibians breeding in vernal pools to the plight of the hemlock forests, all things are interconnected and sustained by a delicate balance. Outside influences like acid rain and internal influences like the spread of non-native/invasive plant species easily harm this sensitive system. We should all be aware of our role as stewards or caretakers of this beautiful land and do our part to protect it and ensure its survival.

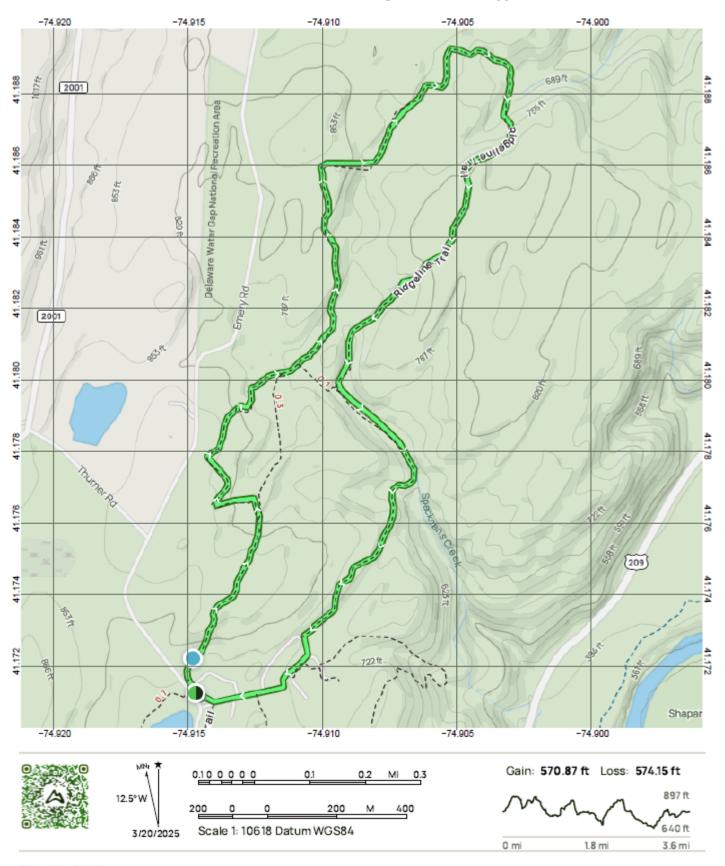
You can follow the campus road back to the Main Building and parking lot.





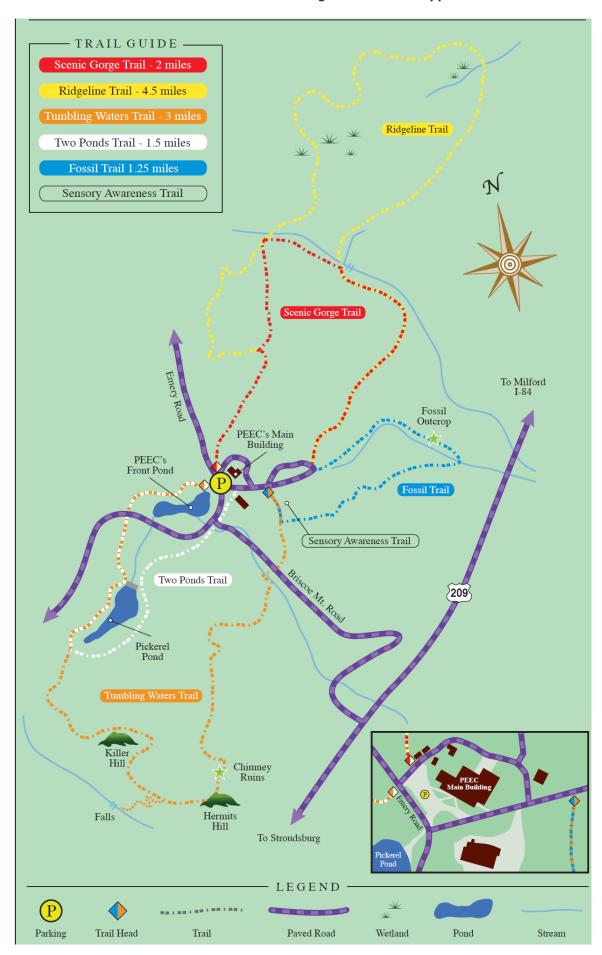
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2025 JOE 20 Information Packet for Moderate 4.5-mile Ridgeline Trail and Upper Indian Ladders Hike at PEEC



Ridgeline Trail Loop Dingmans Ferry, PA

AAIITrails

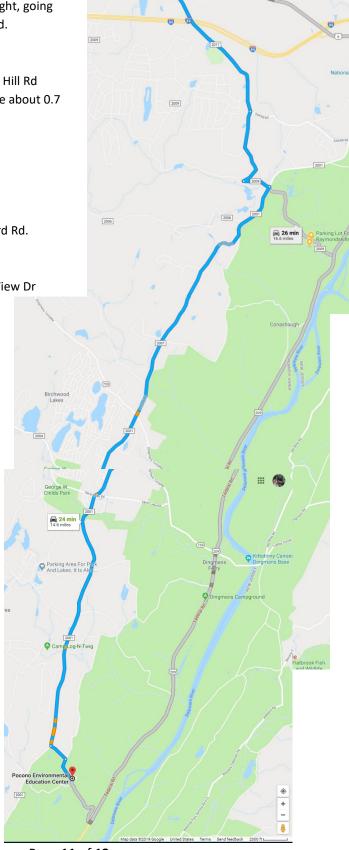


2009

Driving directions from Camp Nah-Jee-Wah to PEEC

- 1. Start heading out of the driveway and turn right, going southeast on Sawkill Rd toward Honeywell Rd.
 - a. Then 2.35 miles, 2.35 total miles
- 2. Turn right onto Kiesel Rd.
 - a. Kiesel Rd is 0.1 miles past Vanauken Hill Rd
 - b. If you reach Fisher Ln, you have gone about 0.7 miles too far.
 - c. Then 1.26 miles, 3.60 total miles
- 3. Turn left onto Raymondskill Rd.
 - a. Then 0.44 miles, 4.04 total miles
- 4. Turn right onto Route 2001/SR2001.
 - a. Then 1.83 miles, 5.88 total miles
 - b. Route 2001/SR2001 becomes Milford Rd.
 - c. Then 7.99 miles, 13.87 total miles
- 5. Turn left onto Thurner Rd.
 - a. Thurner Rd is 0.7 miles past Valley View Dr
 - b. If you reach Roosie Rd, you have gone about 0.2 miles too far.
 - c. Then 0.32 miles, 14.18 total miles
- 6. Turn right onto Emery Rd.
 - a. Then 0.40 miles, 14.58 total miles
- 7. Pocono Environmental Education Center, 538 EMERY RD.
 - a. If you reach Brisco Mountain Rd, you have gone too far.

26MIN 14.6MI



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Emergency Phone Numbers:

Pocono Environmental Education Center 570-828-2319 The Delaware Water Gap of the National Park Service: http://www.nps.gov/dewa

Call Park Dispatch at (570) 426-2435 or (800) 543-4295 for emergencies.

The nearest level III trauma center for an urgent situation is the **Lehigh Valley Hospital - Pocono Medical Center**

206 E Brown St, East Stroudsburg, PA 18301 (570) 421-4000 General Switchboard

Emergency Services (Mattioli Emergency Center) 570-476-3353





from Pocono Environmental Education Center, 5... to 206 E Brown St, East Stroudsburg, PA 18301

via Milford Rd and US-209 S Fastest route, the usual traffic

Pocono Environmental Education Center 538 Emery Rd, Dingmans Ferry, PA 18328

➤ Take Milford Rd to US-209 S 14 min (8.8 mi)

↑ Head west on Campus Dr toward Emery Rd

Turn right onto Emery Rd

← Turn left onto Thurner Rd

← Turn left onto Milford Rd

← Turn left onto Bushkill Falls Rd

19 min (12.5 mi)

Turn right onto US-209 S
Pass by Taco Bell (on the left in 5.6 mi)
8.0 mi

At the traffic circle, take the 2nd exit onto US-209
3.2 mi

Use the right lane to merge onto I-80
W/US-209 S via the ramp to Stroudsburg
1.1 mi

Take exit 308 toward East Stroudsburg
0.2 mi

Continue on Prospect St to your destination
2 min (0.3 mi)
Turn right onto Prospect St
0.1 mi
Turn right onto E Brown St
0.1 mi
Turn left
Destination will be on the left

206 E Brown St East Stroudsburg, PA 18301

exit 308 from I-80 W/US-209 S

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