

JOE 2019 Information Packet for **Moderate 4.5-mile Ridgeline Trail Hike at PEEC**

<b>Day:</b> Friday	<b>Start Time:</b> 8:30 am	<b>End Time:</b> 2:30 pm
<b>Co-Leader:</b> Peter Small	<b>Co-Leader:</b> Jonathan Tamir	<b>Limit:</b> 15 people
<b>Transportation:</b> Van C	<b>Driver:</b> Peter Small	<b>Radios:</b> 2 / <b>First Aid Kit:</b> 1
<b>Fees:</b> none	<b>Travel Distance:</b> 15 Miles one way	<b>Travel Time:</b> 25 Min one way

## Moderate 4.5-Mile Ridgeline Trail Hike at Pocono Environmental Education Center

The Ridgeline Trail is a well-marked and well maintained 4.5 mile/3 hour (without stops) moderate hike with less than 250 Ft elevation gain. For the first half-mile and the last mile of the trail, the Ridgeline Trail runs concurrently with the Scenic Gorge Trail.

You pass through the oak-chestnut forest and then climb up and over ridges of sedimentary rock, descend from a steep ridge – with the help of a rope – to the gorge below, where you visit the ruins of a cabin and its abandoned earthen dam. Follow around forested wetlands, and dive deep into a mature Hemlock forest following Spackman’s Creek. Even though the terrain is hilly, much of the area was farmed, and rock walls and a stone chimney can be seen along the trail. Before you leave the forest, you come to a 15-foot waterfall on Alicia Creek (AKA Sparkman’s Creek) and then hike alongside the stream back to your starting point.

- 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
- [Pics of Ridgeline Trail at PEEC](#) / [YouTube Video of Trials at PEEC](#)

### Leaders Notes:

1. The Delaware Water Gap of the National Park Service: <http://www.nps.gov/dewa>. For emergencies call Park Dispatch at (570) 426-2435, or (800) 543-4295. Or 911
2. You will be on at PEEC with other hikes (Tumbling Waters and Scenic Gorge). Suggest swapping contact info the leaders of the other hike.
3. The Ridge hike is scheduled to be three hours. The Scenic George hike is a smaller loop of the Ridge Trail. The Ridge Trail breaks off the smaller loop to go further out then connects back up later. So, you can refer to the Ridge Trail hike leader and maybe meetup where the two trails join back up to end your hikes together.
4. Expect to spend time down at the waterfall — a good place for a snack break.
5. There is a long descent uphill from the waterfall back to the office. Pace yourself.
6. Bring plenty of water.
7. Majority of the trail is covered. Keep a hat on to keep the ticks/bugs off.
8. During rainy seasons this trail can be muddy in sections, so waterproof footwear is recommended
9. The trail starts behind Cabin #1 and ends behind Cabin #20

### Logistics

- 8:30 am – Depart from Camp
- 8:30 am – 9:00 am Travel from Cedar Lake Camp to Pocono Environmental Education Center
- 9:00 am – 9:15 am Bathroom, Gear Check, Leaders Circle Talk
- 9:15 am – Noon Hike Ridgeline Trail
- Noon – 12:30 pm Bathroom, people round up
- 12:30 pm - 1:00 pm Travel form PEEC to Camp

## PEEC's Educational Goals

### PEEC's Environmental Study Goals

- A. To develop in people an awareness of the concern about the environment 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 help individuals and social groups acquire a strong feeling of concern for the environment and the motivation for actively participating in its protection and improvement.
- B. **Knowledge:** To help individuals and social groups acquire a basic understanding of the total environment, its associated problems, and humanity's critically responsible presence and role in it.
- C. **Attitude:** To help individuals and social groups acquire social values and the ability to make sound choices while developing sensitivity to the environment.
- D. **Skills:** To help individuals and social groups acquire the *skills* for solving environmental problems.
- E. **Evaluation:** To help individuals and social groups evaluate environmental measures and education programs in terms of ecological, political, economic, social, and educational factors.
- F. **Participation:** To help individuals and social groups move toward taking the necessary action to resolve environmental problems.

### PEEC's Environmental Education (EE) Guidelines

- A. EE is total education in a total environment- natural and man-made, ecological, technological, social, cultural, and aesthetic.
- B. EE *is* a continuous life-long process both formally in school and non-formally out of school.
- C. EE is interdisciplinary.
- D. EE emphasizes people's direct involvement to prevent and solve problems.
- E. EE examines issues from a global perspective while accommodating for regional differences.
- F. EE focuses on current and future environmental situations.
- G. EE examines *all* development and growth from an ecological perspective.
- H. EE promotes local, national, and international cooperation to help solve environmental problems.

**Length:** 4.5 miles, loop

**Difficulty:** Moderate

**Blaze:** Yellow

**Elevation Change:** 220 feet

For the first half-mile and the last mile of the trail, the Ridgeline Trail runs concurrently with the [Scenic Gorge Trail](#). The trail wanders through expansive oak-hickory forests, shady hemlock ravines and around numerous seasonal wetlands. Even though the terrain is hilly, much of the area was farmed, and rock walls and a stone chimney can be seen along the trail. The trail ends behind Cabin #20. Return to the trailhead via the main campus.

**Other Information:** restrooms are in the main building; trail guides are available for a nominal fee at the main building; [more information about Pocono Environmental Educational Center](#)

[Pics of the trail](#) / [Alternate write up of the trail](#):

## **Ridgeline TRAIL GUIDE**

### **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 begins its initial ascent through the mixed pine forest, many trees are covered in poison ivy. Note 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 in that they are coniferous (cone-bearing) but not evergreen. Late in autumn, the tree's needle-like leaves turn a bright yellow before dropping. The tamarack trees you see here are European tamaracks (*Larix decidua*) that were planted for various timber usages. The American larch (*Larix laricina*) is a northern species and finds its home in Pennsylvania at high elevations in boggy environments. The tree is easily identified in winter by the abundant small round seed cones that persist on the branches. The seeds are a favorite food for the ruffed grouse (*Bonasa umbellus*) which is 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 coined 'turkey mounds' as you will often find wild turkeys (*Meleagris gallopavo*) feeding in the lush grass atop these mounds. These open fields in the middle of the forest create edge habitat that benefits both predator and prey. Rodents, eastern cottontail rabbits, wild turkey, and white-tailed deer come to 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 eye-washes. The small yellow flowers have strap-like petals and begin blooming in the winter. The woody seed capsule takes one year to mature and produces 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 major forest type found in the Appalachians 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*). It should not be hard to locate various nuts and their coverings beneath your feet.

"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. At this location, the understory is largely shadbush, also 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 bare of trees. Most of the Pocono region's forests were leveled for timber and cleared for agriculture between the 1800s and early 1900s. Perhaps 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 were then 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 once again. 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 during the Devonian era roughly 360 million years ago 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 layers of rock were uplifted during the Alleghenian orogeny – mountain-building event – that occurred 290 million years ago during the Permian Period when Africa collided with North America. Water, wind, and ice have been eroding the land ever since, carving ravines and exposing ridges. These ridges provide den sites for gray fox (*Urocyon cinereoargenteus*), porcupine (*Erethizon dorsatum*), and even black bear (*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 and listen for 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. You can see the large plank-like section that exploded from the tree as the electrical current exited the trunk and made its way to the ground.

## **9. VERNAL POOLS**

In shallow depressions throughout the forest, temporary wetlands are created each year following the winter snowmelt and early spring rains. These pools are called vernal pools as they 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 crusafer*), and gray tree frogs (*Hyla versicolor*). Because the pools rarely hold water all year, there is an absence of fish that would normally predate the amphibians’ eggs and young in a larger pond. Sphagnum mosses are common here as well as a thick cover of highbush blueberry (*Vaccinium corymbosum*). 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 its way 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 eventually, the Atlantic Ocean.

## **10. HEMLOCK WOOLLY ADELGID**

It took just over three years (2002-2005) for this large old hemlock tree to turn from an apparently healthy tree into what you see today. The culprit? It’s 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 ever since. The tiny plant hopper-like insect sucks sap from the trees’ needles, which cause them to die and drop. Thus a tree’s health deteriorates and maybe standing dead in just a few years. An Asian species of ladybug, (*Sasajiscymnus tsugae*) 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 small home or camp. A little farther down the trail, you’ll 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 rhizophyllum*) grows on damp moss-covered rocks and prefers limestone but will accept many other kinds of rocks. 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 up a new plant! As this new plant gets older, its leaves will also arch, and their tips will root again, creating another new plant! So in just a few generations walking fern can spread a considerable distance in any direction. See if you can trace this fern’s amazing growth. Please do not touch. This is the only area in which this fern is known to grow at PEEC.

## **13. WHITE-TAILED DEER**

In Pennsylvania, white-tailed deer (*Odocoileus virginianus*) have over-populated 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 the 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 completely natural, the forest may have little chance to regenerate itself if there is over-browsing. Many creatures may suffer from over-browsing, like ground-nesting and shrub-nesting songbirds, due to lack of cover. If you’re in a deciduous forest and there isn’t any new tree growth, chances are 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, and so very few plants are found growing here. Their shallow roots spread wide holding the soil in place on steep slopes. Hemlock forests create a cool microclimate as they provide shade and trap moisture keeping these mountain streams running cool even in the summer. Snow does not accumulate as deeply under hemlock trees and provides easy travel for mammals throughout the winter months. 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 to be used 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 important in the process of decomposition of this wood. Wood is a very complex material. By feeding on the wood and changing its structure, decomposers help to break the wood down into simpler, smaller materials so that important 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 own growth. One day this tree will become part of the soil, and microorganisms in the soil will continue to feed on the 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 not far from the stream's origins, so it hasn't 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 caddisfly larvae. Look for two large 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 for 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 cold 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.*

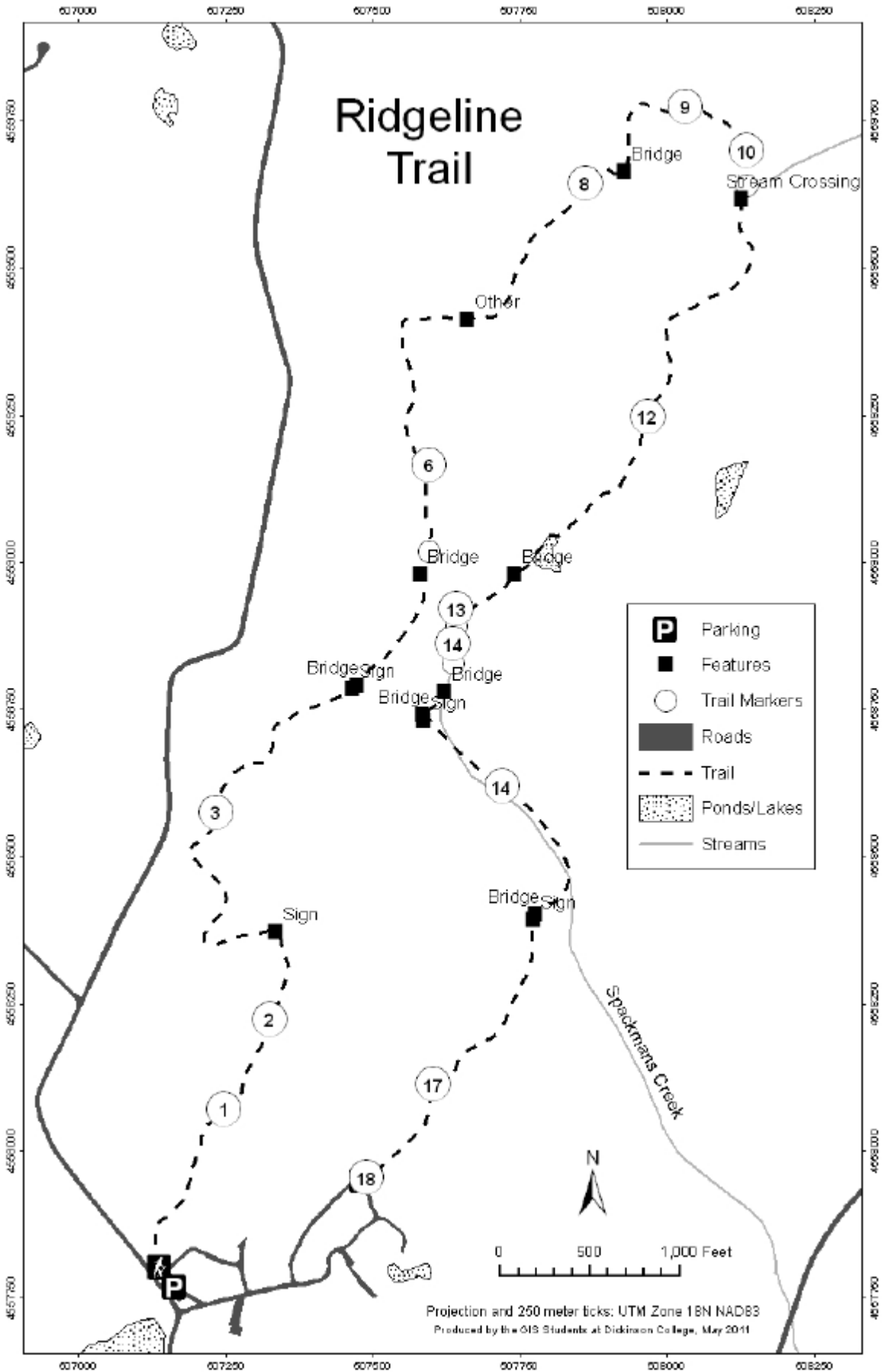
#### **18. LICHENS**

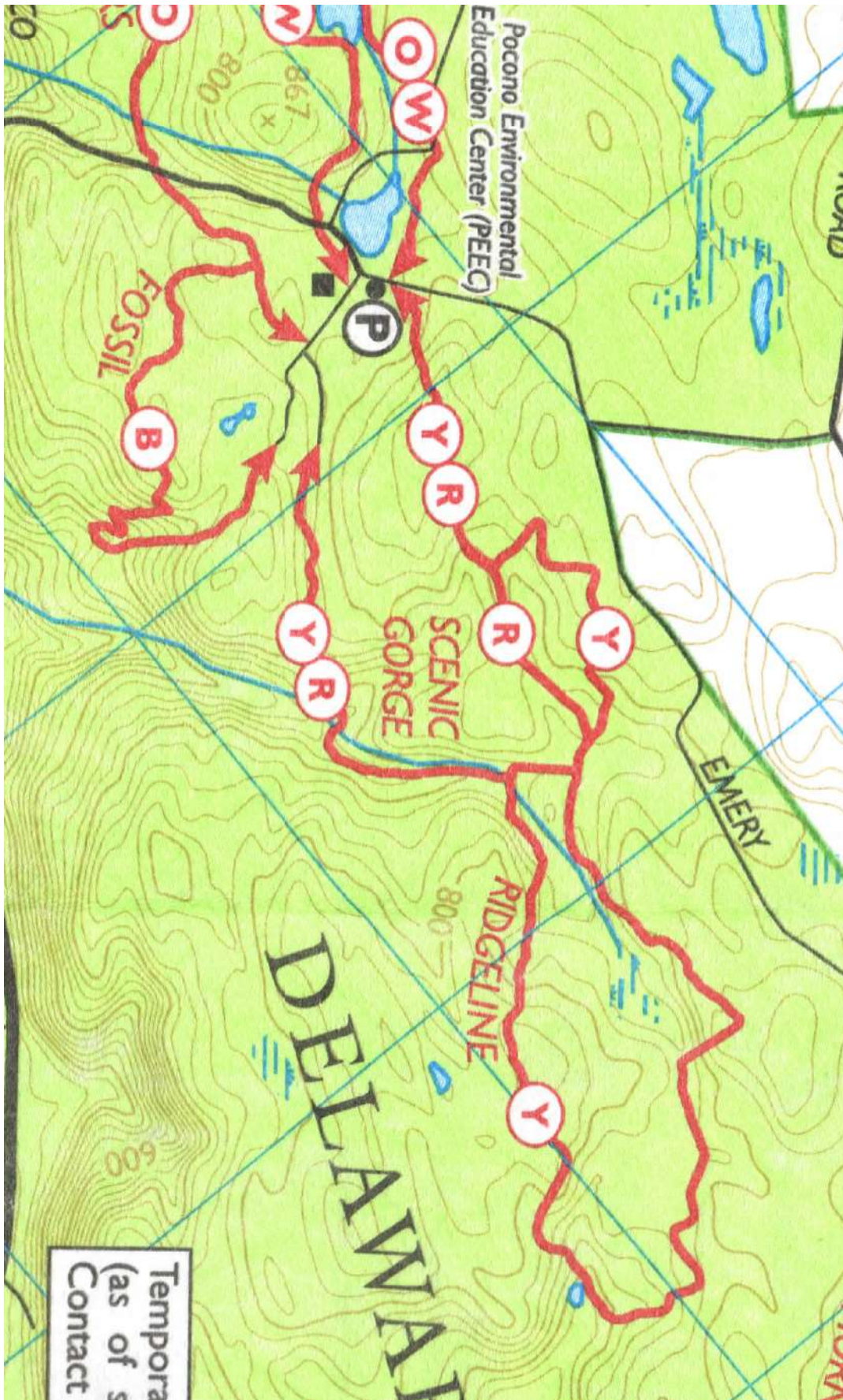
*If it's lichen, you'll like it too! If you see it growing, breathe deep. It indicates clean air-quality! Look around you. It looks like somebody took green and grey paint and splattered it over all the tree trunks. Lichen is a dual-organism, composed of both a fungus and green algae or cyanobacteria (blue-green algae). The two exist together in a mutually beneficial relationship called symbiosis. The fungus can't photosynthesize and produce its food as plants do, so they 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 times of drought. Lichen comes in many forms. See how many types you can find where you live.*

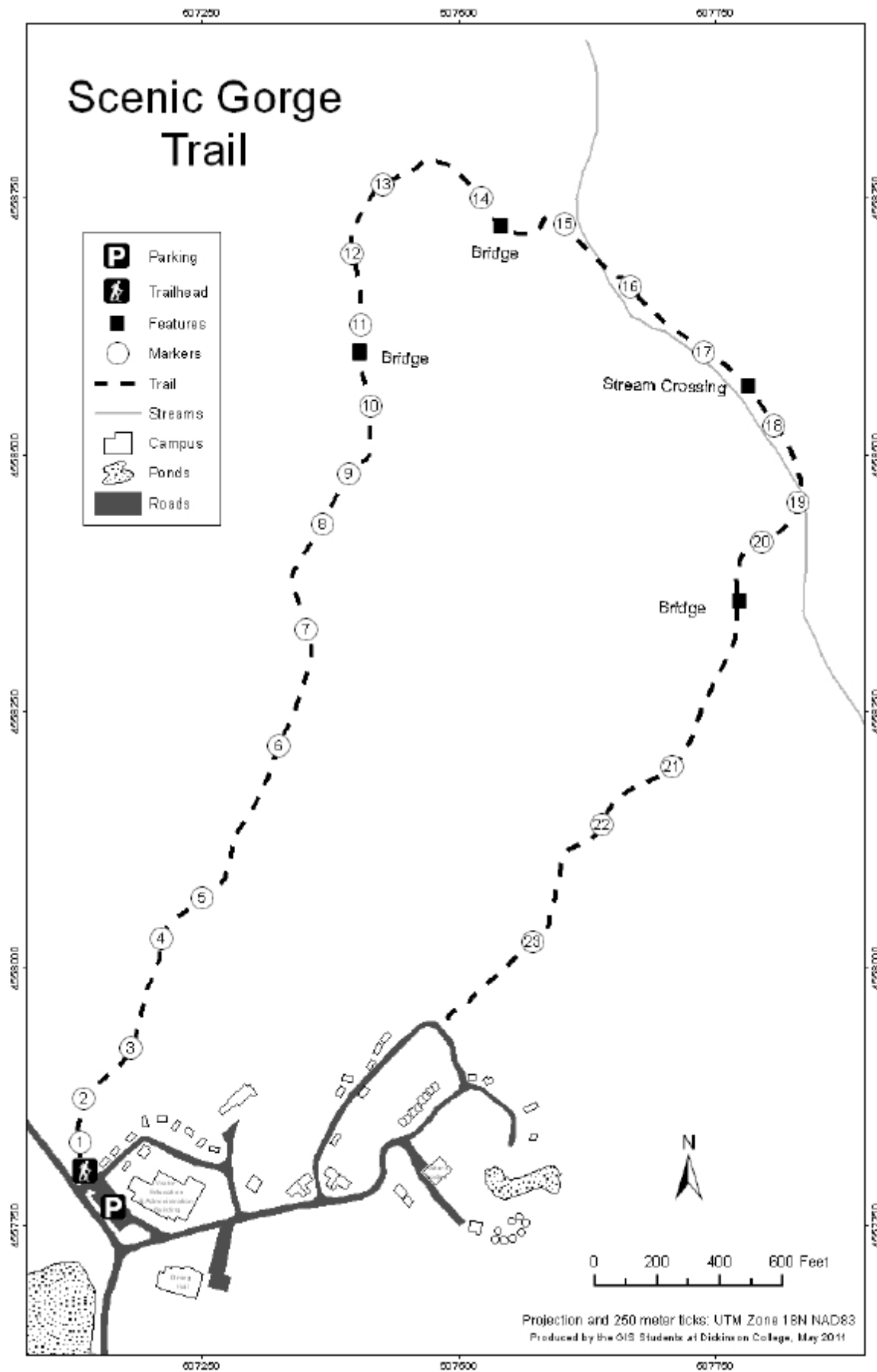
*This concludes the Ridgeline Trail. We hope you've enjoyed the landscape you've just explored and understood a little more about the components that comprise a forest. From the amphibians breeding in vernal pools to the plight of the hemlock forests, all things are interconnected and sustained by a very delicate balance. This sensitive system is easily harmed by outside influences like acid rain, and by internal influences like the spread of non-native/invasive plant species. 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.*

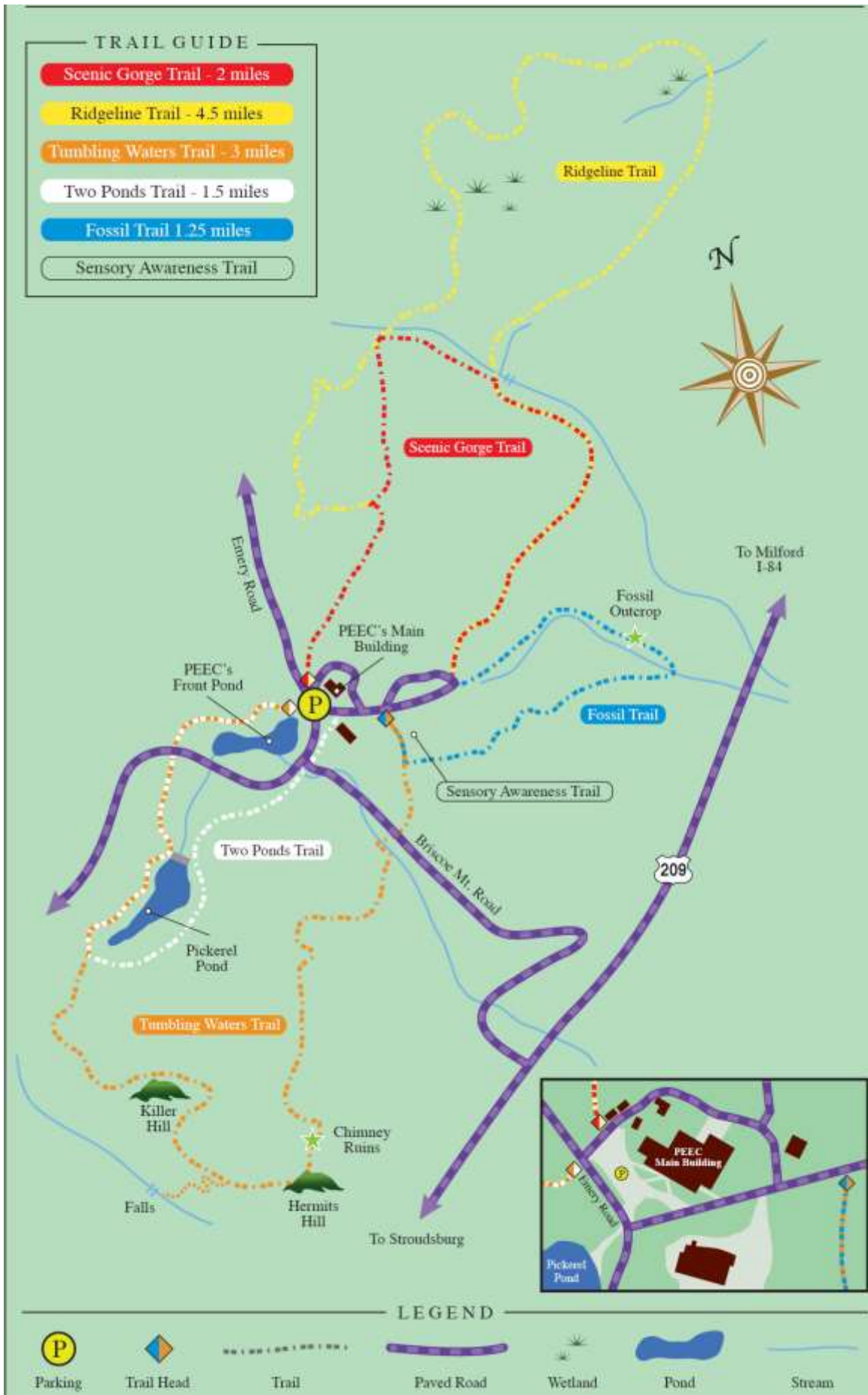
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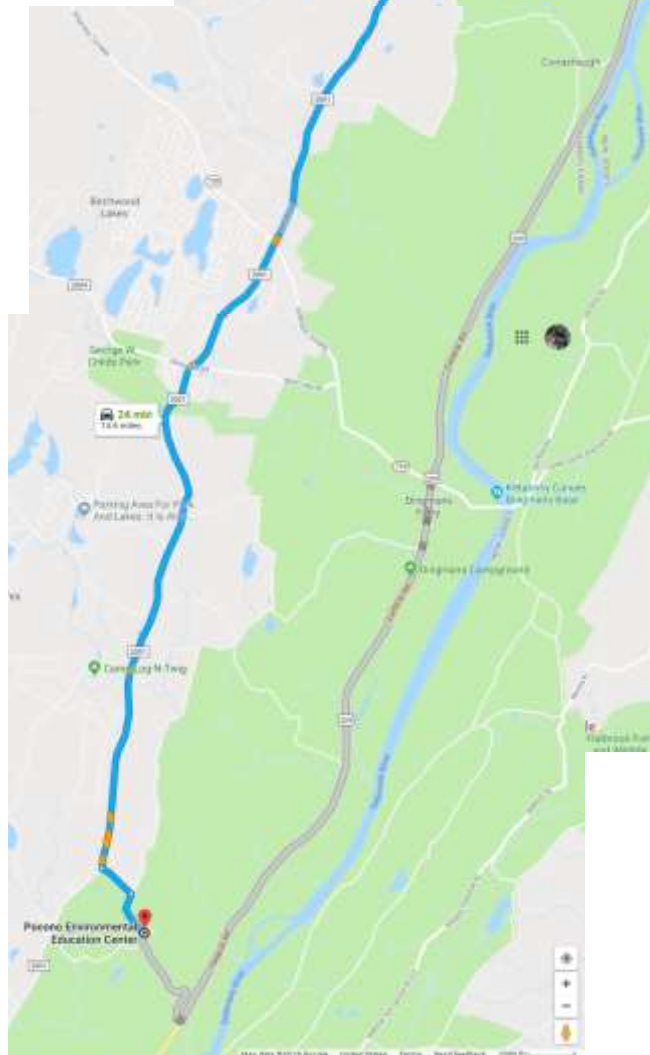
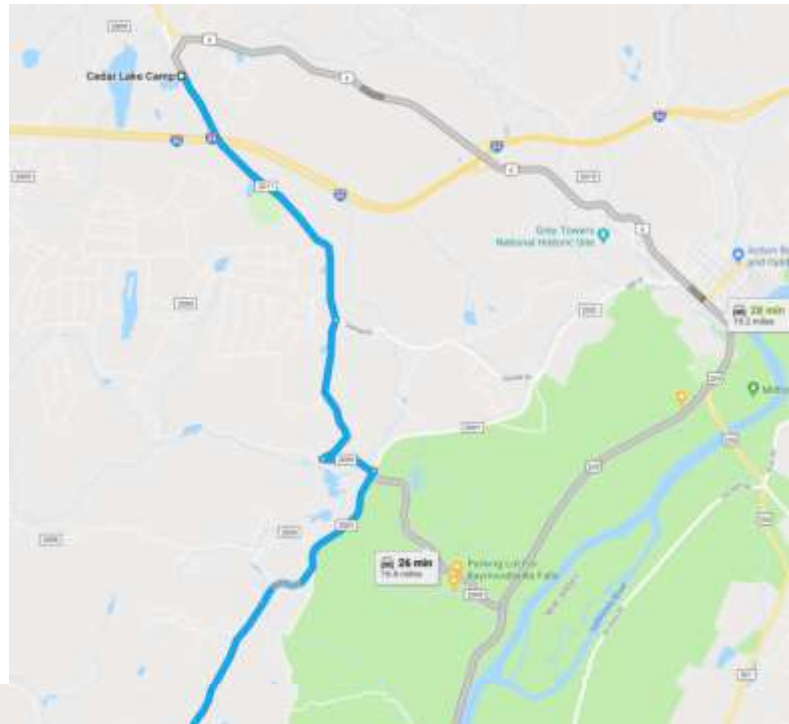






### Driving directions from Cedar Lake Camp to PEEC

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've 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've 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've gone a little too far
- 26MIN 14.6MI



## Emergency Phone Numbers:

Pocono Environmental Education Center 570-828-2319

The Delaware Water Gap of the National Park Service: <http://www.nps.gov/dewa>

For emergencies call Park Dispatch at (570) 426-2435, or (800) 543-4295.

## Emergency centers in the area:

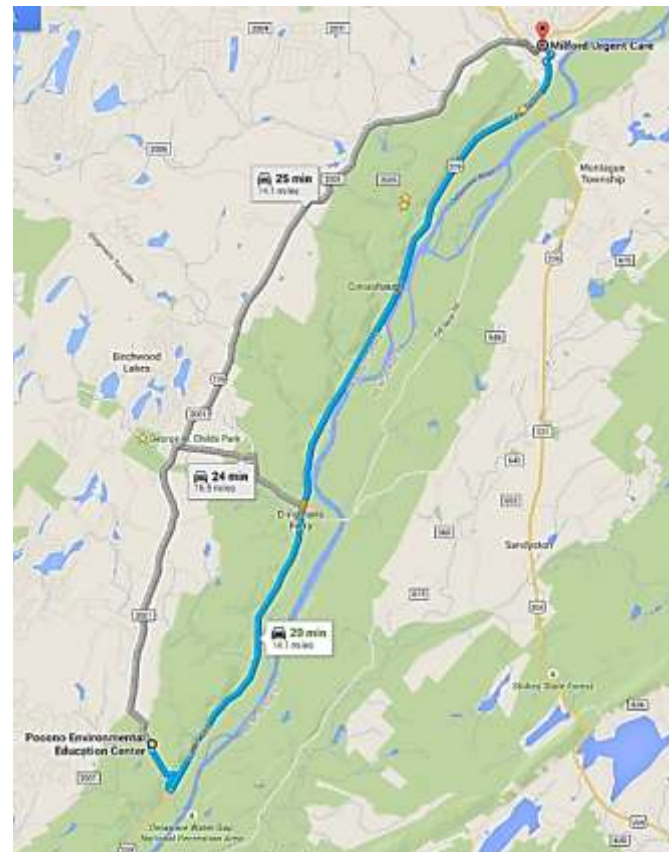
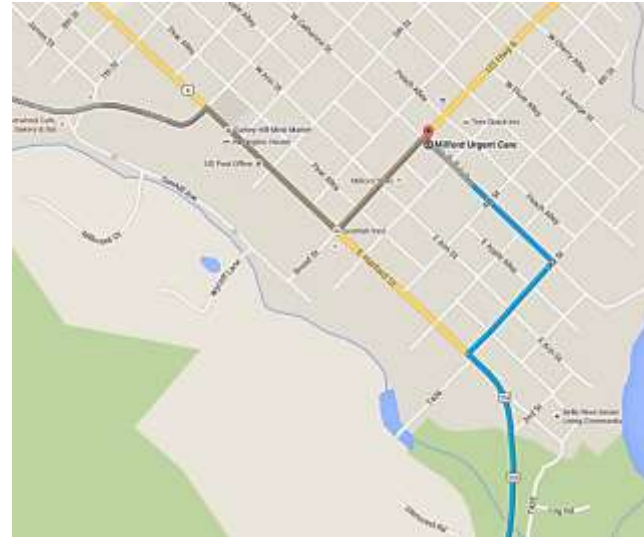
### Milford Urgent Care

111 E Catharine St # 130, Milford, PA 18337 (non-life threatening)

Driving directions from PEEC to Milford Urgent Care

21MIN 14.1MI

1. Start out going south on Emery Rd toward Brisco Mountain Rd.
  - a. Then 0.06 miles 0.06 total miles
2. Emery Rd becomes Brisco Mountain Rd.
  - a. Then 0.84 miles 0.90 total miles
3. Turn left onto US Highway 209/US-209 N. Continue to follow US-209 N.
  - a. Then 13.05 miles 13.95 total miles
4. Turn right onto Broad St/US-6 E/US-209 N.
  - a. Broad St is just past Blackberry Aly
  - b. Pike County Public Library is on the corner
  - c. If you are on W Harford St and reach Gooseberry Aly, you've gone a little too far
  - d. Then 0.15 miles 14.09 total miles
5. Turn right onto E Catherine St.
  - a. E Catherine St is just past Apple Aly
  - b. If you reach W Peach Aly, you've gone a little too far
  - c. Then 0.05 miles 14.14 total miles
6. Milford Urgent Care, 111 E Catherine St, Milford, PA, is on the right.
  - a. If you reach 4th St, you've gone a little too far



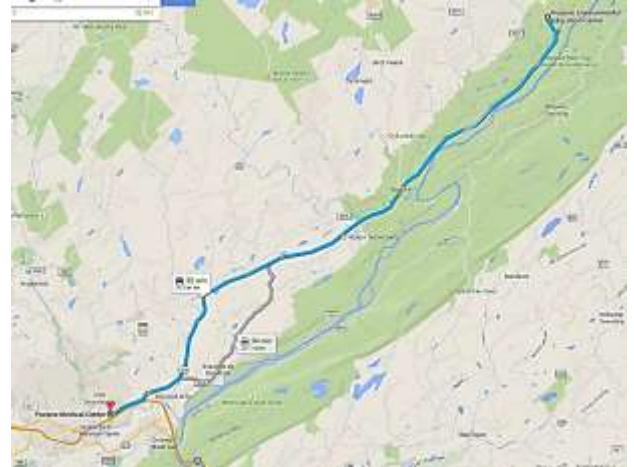
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The nearest level III trauma center for an urgent situation is the **Lehigh Valley Hospital - Pocono Medical Center**

206 E Brown St, East Stroudsburg, PA 18301

(570) 421-4000 General Switchboard

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



Driving Directions from PEEC to

Lehigh Valley Hospital - Pocono Medical Center

32MIN 20.4MI

1. Start out going south on Emery Rd toward Brisco Mountain Rd.
  - a. Then 0.06 miles 0.06 total miles
2. Emery Rd becomes Brisco Mountain Rd.
  - a. Then 0.84 miles 0.90 total miles
3. Turn right onto US Highway 209/US-209 S. Continue to follow US-209 S.
  - a. Then 14.89 miles 15.79 total miles
4. Enter next roundabout and take the 2nd exit onto Seven Bridge Rd/US-209 S.
  - a. Then 3.14 miles 18.93 total miles
5. Merge onto I-80 W/US-209 S toward Stroudsburg.
  - a. Then 1.13 miles 20.06 total miles
6. Take EXIT 308 toward East Stroudsburg.
  - a. Then 0.20 miles 20.26 total miles
7. Merge onto Prospect St.
  - a. Then 0.09 miles 20.35 total miles
8. Turn right onto E Brown St.
  - a. E Brown St is just past Orchard St
  - b. If you reach Center St, you've gone about 0.1 miles too far
  - c. Then 0.10 miles 20.45 total miles
9. Lehigh Valley Hospital - Pocono Medical Center, 206 E Brown St, East Stroudsburg, PA, is on the left.
  - a. If you reach Smith St, you've gone about 0.3 miles too far

