



## Frog in the Bog: On the Trail with Dunes Learning Center

The Cowles Bog Trail is one of the most biologically diverse areas of Indiana Dunes National Park. It is named to honor University of Chicago botanist Henry Chandler Cowles who first documented ecological succession there in the 1890s. During a 4.5 mile guided hike, students examine intricate ecosystems including wetland, Eastern deciduous forest, oak savanna woodland, foredune, and open beach.



9:15 am

**HYPOTHESIS:** Before heading out, students make and record predictions about the ecosystems they will be visiting.



10:00 am

**ECOSYSTEM INVESTIGATION:** Students observe changes in the soil and puddles. They also measure and chart weather conditions, wind speeds, and temperatures.



10:45 am

**EXPLORATION:** Students observe and document plant and animal diversity.



12:00 pm

**DISCOVERY:** Students get their first glimpse of Lake Michigan and a better understanding of how one plant community gradually replaces another.



12:45 pm

**JUBILATION:** After a hearty trail lunch to restore their energy, students take off on a fast and furious run down a dune.



1:00 pm

**RECREATION:** Students enjoy a stretch of pristine beachfront before heading back on trail to finish collecting data.





**CELEBRATION:** After a long day on the trail, students proclaim, "If I try, I can achieve it!" as they share stories from the trail.



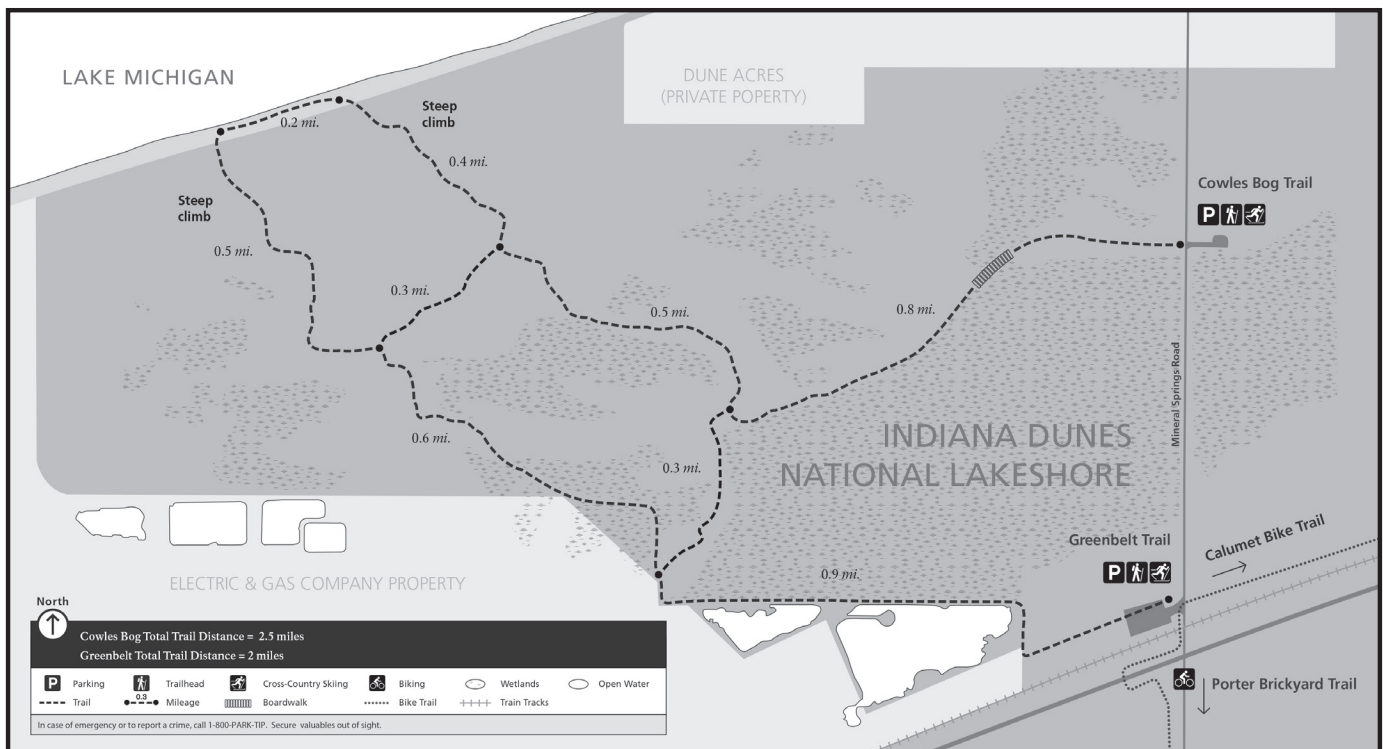
**REFLECTION:** Students analyze and graph ecosystem data to compare it with their hypotheses and draw new conclusions.



**CONNECTION:** The group wraps up their busy day with songs, skits, and s'mores at the campfire.



**The Cowles Bog Trail** highlights an area of such outstanding plant diversity, it was designated a National Natural Landmark in 1965. You can explore this unique series of ecosystems yourself! The trail is mostly sand and packed soil, with steep, rugged sand dune climbs near Lake Michigan. The full loop hike can take 2-3 hours.



Cowles Bog Trail

KIDS NEED NATURE



NATURE NEEDS KIDS