



The Scotia Barrens

CONSERVATION PROJECT



As residents of central Pennsylvania, we enjoy the natural beauty of our surroundings every day. The mountains and valleys, forests and farmlands form an integral part of the quality of life here. Beyond their scenic beauty, they form a complex system of ecological features that keep our air clean and our water pure, provide a haven for wildlife, and make our region a desirable place to live.

While the ridges and mountains that frame our valley are the most noticeable of our natural treasures, an exceptional ecosystem exists right on the edge of State College—the Scotia Barrens. This is a rare habitat, one of the largest examples of a pitch pine-scrub oak barrens remaining in the Commonwealth. It has extraordinary value as a home for a wide variety of wildlife, a primary source of our groundwater supply, and a place to teach our children about the natural world.





Ecological Treasure

Because the surrounding ridges trap cool air, forming “frost pockets” of stunted vegetation, and because of sandy, well-drained soil, forest re-growth in the Barrens is slow, and a distinctive scrub-shrub habitat results. In addition, forest management for wildlife has perpetuated this scrubby habitat. Approximately half of the most common bird species found in the Barrens are dependent upon scrub-shrub habitat, and they come in great numbers to feed during the migration seasons and breed in the summer months. This bird diversity, combined with rare community types and expansive valley forests associated with the Barrens, has resulted in it being identified as a Biological Diversity Area by the *Centre County Natural Heritage Inventory*. It has also been listed as an Important Bird Area by Pennsylvania Audubon and is one of the first-designated Important Mammal Areas by the Pennsylvania Federation of Sportsmen’s Clubs, an affiliate of the National Wildlife Federation. Additionally, ClearWater Conservancy’s *Spring Creek Rivers Conservation Plan* has identified the Barrens as playing a critical role in the Spring Creek Watershed’s ecology. Wildlife experts agree that without the habitat provided by the Scotia Barrens, many species would disappear from our region.

The Barrens is host to several extremely rare species including the golden-winged warbler (*Vermivora chrysoptera*), Appalachian cottontail (*Sylvilagus obscurus*), barrens buckmoth (*Hemileuca maia*), and northeastern bulrush (*Scirpus ancistrochaetus*), and it supports a large diversity of migrating and breeding Neotropical migrant songbirds. Abundant vernal pools and large ponds are habitat for many species of pool-dependent amphibians and rare insects.



Source for Groundwater

The geology of the Scotia Barrens makes it the primary groundwater recharge area for Bellefonte's Big Spring, the second largest spring in Pennsylvania. The sandy soil in the Barrens allows water to percolate deep into the ground. Beneath the soil is dolomitic bedrock of the Gatesburg Formation that allows groundwater to flow and be stored. Within this bedrock, a zone of faulting, with fractures and conduits, conveys water from the Scotia Barrens to the Big Spring. Groundwater recharge from the 25 square miles of the Barrens helps supply 19 million gallons a day that flow from the Big Spring and serve as drinking water for residents of Bellefonte and surrounding communities.

A Mining Past

Aside from its exceptional natural components, the Scotia Barrens offers a link to the region's iron-mining history. As early as 1790, area settlers realized that the Barrens was a rich source of raw material for the iron furnaces that soon dotted the central Pennsylvania landscape. In 1881 Pittsburgh industrialist Andrew Carnegie bought 400 acres from Centre Furnace ironmaster Moses Thompson and named his new company town Scotia, after his homeland of Scotland. A bustling company town sprang up, along with large open-pit mines, ore-processing facilities, railroad service, and all the necessities of village life. Today the few remnants of the town of Scotia and its ore-mining past are preserved within the Barrens.



Scotia Iron Ore Washer, Scotia Ore Mines and Iron Works Collection. Reproduced with the permission of Historical Collections and Labor Archives, the Special Collections Library, The Pennsylvania State University Libraries. Any unauthorized duplication of this image without the permission of Penn State Special Collections Library will be subject to penalty.



Recreational and Educational Resource

Much of the Scotia Barrens is designated as State Game Lands 176, owned and managed by the Pennsylvania Game Commission, and is an important recreational resource for the residents of Centre County. Hunters can find a healthy population of white-tailed deer, black bear, wild turkey, and American woodcock in the Barrens. Other recreational uses include hiking, jogging, cross-country skiing, bird watching, and wildlife photography. Activities such as mountain biking and horseback riding are permitted, but only on designated trails. The Pennsylvania Game Commission operates the Scotia Shooting Range within the Barrens. Local schools and families take advantage of the educational opportunities offered by the area's wetlands, ponds, and unique forest types, environments that only can be studied locally in the Scotia Barrens.





The Need to Protect

The bulk of Scotia Barrens habitat already has been converted to residential development and agriculture. The Pennsylvania Game Commission currently protects a large section of remaining barrens habitat, but the persistence of this habitat in Pennsylvania is also dependent upon private landowners to care for and manage. As the State College area continues to grow, the rural areas surrounding State Game Lands 176 in Ferguson, Halfmoon, and Patton townships are experiencing extensive residential and commercial development pressure. As additional acres of barrens habitat are lost and become increasingly fragmented by development, the ecological integrity and unique biological and water resources of the Barrens are threatened.

Working Together

Maintaining the special character of the Scotia Barrens and its many benefits to our region is one of the ClearWater Conservancy's highest priorities. The Conservancy works with concerned and willing landowners to protect lands through wildlife habitat enhancement, conservation easements, land donations, and outright purchase. In addition, interested landowners can contact the ClearWater Conservancy for assistance with identifying areas of high ecological value on their property and advice on resources and tools available to protect those areas. By working closely with landowners, concerned citizens, and other stakeholders, we can help to ensure that this special area is preserved for future generations.



ClearWater Conservancy

The ClearWater Conservancy of Central Pennsylvania, Inc. is a Centre County-based land trust and natural resource conservation organization formed in 1980. Our mission is to promote conservation and restoration of natural resources in central Pennsylvania through land conservation, water resource protection, and environmental outreach to the community. We invite your participation in our efforts through membership, tax-deductible gifts, volunteering of your time and talents, or involvement in our many community activities.

Everyone working together to conserve natural beauty and the environment in the heart of Pennsylvania... it is a broad and inclusive vision, but one that ClearWater takes seriously as we develop the partnerships to protect our natural heritage.

ClearWater wishes to thank the staff and volunteers who submitted photos for this brochure; Andy Shiels, Western Pennsylvania Conservancy, Brad Ross, Doug Hearn, Larry Massey, Ben Derstine, Shaver's Creek Environmental Center, Katie Ombalski, and Bob Donaldson. Special thanks to Gary Alt (ruffed grouse), Joanne Itams (golden-winged warbler), Bob Moul (indigo bunting), and the Historical Collections and Labor Archives in the Special Collections Library at The Pennsylvania State University Libraries (Scotia iron ore washer).





CLEARWATER *conservancy*

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