To the unintentional and untrained eye, the natural history of towns such as Richmond is not readily apparent. Along with the monotonous landscapes of cornfields, factories and interstates, a profoundly rich and subtle natural beauty does exist in this region if one knows where to look.

The Earliest History

The story of Richmond’s natural history begins on the bottom of a warm, shallow sea about 450 million years ago. Through tens of millennia, countless corals, clams, snails and other forms of marine invertebrate lived, died, and left their limey skeletons to be buried in shell debris and mud to become a substantial part the area’s limestone and mudstone bedrock. The name “Richmondian” is widely applied to rocks of this age throughout North America because so few places in the World have such diverse and well-preserved fossils of similar age. These rocks have never been buried deeply or distorted by earth movements, so despite their vast age their contained fossils have been little altered from their original shapes and composition. Exquisite ancient fossils tumble from the steep cliffs of the Whitewater Gorge, Richmond’s most spectacular geological feature. Rather than its fossil treasures, however, it was the Gorge’s beauty and potential water power for early industry and commerce that attracted Wayne County’s early nineteenth century pioneers to its banks.

Vast continental glaciers that covered much of North American from 1.6 million years ago until about 16 thousand years ago waxed and waned several times across Wayne County, planing the landscape as they advanced and cutting broad, deep melt water drainage valleys, later to be filled nearly to their brims with glacial debris as they melted. Fresh, mineral-rich material swept in from the north by moving ice is the foundation of the productive and prized farmland in Wayne and surrounding counties, and deposits of sand and gravel from melting glacial ice hold abundant groundwater. A variety of local governmental and non-governmental organizations strive to merge protection of the area’s outstanding geological resources with development initiatives.

The Forests and Wildlife

From the time of glacial retreat until the arrival of European settlers in the early 1800s, this land was dominated by a great deciduous hardwood forest unlike any imaginable today, stretching unbroken from the Ohio to the evergreen forests of the north, and to the vast prairies of the west. Wayne County was part of a particularly magnificent beech and sugar maple forest that covered over half of the state. These forests had extremely low diversity, with occasional tulip, white ash, red oak, walnut and cherry trees also able to survive and prosper.

Rich, forested upland slopes common in this area also support some of the finest displays of spring wildflowers found anywhere, including yellow and white trout lily, bloodroot, Dutchman’s breeches, sharp-lobed hepatica, celanandise poppy, cut-leaved toothwort and wild geranium. In contrast to these areas, however, flood plains such as the
Whitewater Valley contained high-diversity forests, populated by many of the aforementioned species along with sycamore, hackberry and willow trees.

These majestic, pristine forests were home to varied wildlife. Thousands of bison trekked across Indiana every year, on their way from Illinois to northern Kentucky in search of mineral and salt deposits. The ivory-billed woodpecker flourished in the heaviest timber, and flocks of passenger pigeons were so dense during migration that their presence obscured the sun for hours. Scores of elk, panther, black bear, beaver, timber wolf, mountain lion and bald eagle all once roamed this land, as recently as 100 years ago.

The arrival of European settlers in the early 1800s, however, led to drastic changes in the environment of Indiana and Wayne County. With pioneers clearing trees for the establishment of agriculture, using the hardwood for everything from cooking and warmth in the winter to cradles, cabins and coffins, Indiana’s great wilderness of approximately 2.2 billion trees began its gradual transformation into the state we know today.

With this loss of habitat, much of Indiana’s wildlife disappeared as well. Bison left the state by 1830, and the other large mammals were all but non-existent by the 1850s. The passenger pigeon that once blocked out the sun has long been globally extinct, and the ivory-bill woodpecker now only lives on the island of Cuba.

Transformation

The transformation of Indiana and Wayne County is certainly not a simply positive or negative development. While much wilderness and wildlife was lost, vibrant and striving communities that provide the backdrop for our current society were established. The abundant waterpower created by the meltwater of the Wisconsin glacier led to the construction of 250 mills in the county, and the sand and gravel deposits that accompanied those river valleys were used to build roads and sidewalks. Limestone from the ancient shallow sea was quarried for the construction of modern buildings. Most importantly, the deep glacial till provided rich soil to grow abundant crops and support an expanding population.

Additionally, many incredible species of plant and animal life continue to flourish in and around Wayne County. For example, this part of Indiana is located on major migration routes for many birds on their way to South American from New England and back. According to Bill Buskirk, Earlham professor of biology and ornithology specialist, the parks surrounding the Brookville Reservoir just south of Wayne County are “really exciting from early November to early April.” Many water bird species appear, and occasionally even a rare bird such as a bald eagle is spotted. Other notable places for birding include the Cope Environmental Center in Centerville, the Mary Gray Bird Sanctuary near Connersville south of Wayne County, and even the Earlham College backcampus. Bill Buskirk notes that, remarkably, “over 90 species of birds have been found within a two-hour period” from Richmond.

Evidence of the great old-growth forests and trees that once blanketed the region can also still be found even in Richmond, in both the Hayes Arboretum and in Glen Miller Park. In these parks and several others near Wayne County — such as the Hornbeam Nature Preserve in Whitewater State Park south of Richmond, Schrader-Weaver Woods in Fayette County, Zeigler Woods in Henry County, and Hueston Woods State Park north of Oxford, Ohio — there remain tracts of woods exactly as they would have been found 200 years ago. In addition to seeing magnificent trees in these locations, the wildflowers are also an incredible sight to see, especially at their height in early April.
The transformations of the local environment brought on by the development and growth of the local economy and community certainly have some negative aspects. Removal of trees exposed land to erosion, causing a loss of topsoil that resulted in decreased land productivity, increased river sedimentation and reduced water resource quality. Strip development in the last century has changed the rural appearance of the county. The loss of greenbelt areas and open spaces, sewage and solid waste disposal, access to water, and loss of prime agricultural land have all become increasingly worrisome concerns. The land has undoubtedly changed more in the past 200 years than in the previous several thousand.

Wayne County’s Natural Future

Wayne County residents have continuously responded to these developments with a principled concern for the intrinsic worth of the environment, and a pragmatic concern for the human population that is sustained by it. The Resource Inventory Council was created by the Wayne County Government to study and inform future decisions regarding the environmental impact of economic development, land use and building construction. Cope Environmental Center in Centerville is dedicated to promoting the sustainable use of our local natural resources through education, demonstration and research.

Two local land trusts have recently been formed in the county to conserve large tracts of forest and wetland near Centerville. Tom Ferrell, the associate director of Earlham’s Wilderness Program, is on the Board of Directors for the Whitewater Valley Land Trust, in addition to having his land covered by the Trust. The lands owned by Senior Associate Dean of Admissions Marie Nicholson, Professor of Biology John Iverson and Cope Environmental Center are all protected under the Redtail Conservancy, a land trust based out of Muncie. Marie’s husband, Rich Nicholson, is on Redtail’s Board of Directors. Earlham’s Joseph Moore Museum has exhibits and collections displaying the geology, flora and fauna of the region. The Society for the Preservation and Use of Resources (SPUR), a non-profit volunteer organization in Richmond, has done much to protect and improve local land, most notably spearheading the effort to save, restore and improve the Whitewater Gorge.

These are but a few examples of Wayne County residents working hard to understand and protect the natural heritage of this rich, natural environment.